Educational Development for Online Teaching

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This thesis results entirely from my own work and has not been offered previously for any other degree or diploma.

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Abstract

This thesis discusses a case study that explores the impact on educators' teaching practices, particularly their assumptions and beliefs about teaching and self-efficacy, as a result of their participation in an educational development programme designed to prepare college educators to develop and teach online and hybrid courses. The philosophical worldview adopted in this study is closely aligned to the constructivist perspective. It draws upon the conceptions of teaching literature, Bandura's theory of self-efficacy (1977; 1986; 1997) and Mezirow's (1978) theory of transformational learning as a conceptual framework. The data were collected through an online survey of 34 participants, face-to-face interviews with 18 participants and documentary evidence review of 6 participants, and was analysed using Braun and Clarke's (2006) thematic analysis approach.

The findings suggest that the knowledge and experience that college educators acquire when participating in educational development for online teaching produce a positive increase in technological and pedagogical knowledge and understanding of accessibility for some educators. This new understanding, in turn, results in changes to both online and face-to-face teaching practices of educators. The results also indicate that for some educators, participation in an educational development programme for online teaching encouraged more student-centred teaching approaches and helped to dispel misconceptions about the lower quality and value of online learning. Participation in educational development for online teaching was also found to increase some educators' technical and pedagogical confidence, although a few participants experienced an initial decline in self-efficacy. Finally, the results reveal that educators perceived their participation in the educational development programme for online teaching to have a positive impact on the learning experience of their students.

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Chapter 1 Introduction

1.1 Introduction

As online learning in higher education has grown rapidly over the past decade, so too has the need for educational development to prepare educators to teach online. A growing body of literature suggests that when educators move from traditional to online classrooms, they require a transformational shift in their approach to teaching, and often need to re-examine their underlying assumptions about teaching and learning (Garrison, 2006; Kreber & Kanuka, 2006; McShane, 2006; Natriello, 2005; Scagnoli, Buki, & Johnson, 2009; Wiesenberg & Stacey, 2008). Unlike the traditional face-to-face classroom where educators are often at the centre of the instruction, the asynchronous online environment can be more learner-centred, allowing educators to share control of the learning process with students (Coppola, Hiltz & Rotter, 2002; Hixon et al., 2012; Natriello, 2005; Schrum & Hong, 2002). Educators making the transition to teaching online are challenged to shift their approach from one of disseminating information to one of facilitating a learning environment where students co-construct knowledge (Redmond, 2011; Vaughan, 2010). Taking on this new role of "guide on the side" rather than "sage on the stage" requires many educators to re-examine their approach to teaching and to implement teaching practices that may be new and uncomfortable to them (Anderson, et al., 2001; Berge, 2009; King, 1993; Major, 2010). Therefore, it is particularly important that educational development initiatives prepare educators for these challenges and support them as they reconstruct their teaching approaches and instructional practices during this transitional period.

When transitioning to online instruction, many experienced face-to-face educators find themselves as novices or beginners, which can challenge their confidence and self-efficacy (Major, 2010; Schunk, 2012). Research has shown that teacher self-efficacy strongly influences teaching behaviour and practice (Akbari et al., 2009; Ashton & Webb, 1986; Bümen, 2009; Gibson & Dembo, 1984; Tschannen-Moran, Woolfolk Hoy, & Hoy, 1998). Previous studies have found that teachers with high self-efficacy use a greater number of instructional methods and are more likely to use student-centred teaching strategies than teachers with low self-efficacy (Akinsola, 2009; Czerniak, 1990; Goddard, Hoy, & Hoy, 2004; Wheatley, 2005). In addition, educators with high efficacy tend to persist longer in the face of challenges (Ashton & Webb, 1986; Gibson & Dembo, 1984; Goddard, Hoy & Hoy, 2004) such as those

presented by the transition to the online environment; thus, building self-efficacy is also a key element of educational development for online teaching.

Despite the challenges in transitioning from face-to-face to online teaching, learning to teach online can be a catalyst for educators to reflect on and reinvent their current teaching practices (McQuiggan, 2012). Many educators, after gaining experience with online teaching, start to reconsider their traditional teaching approaches with a renewed orientation towards student-centred learning (Dennen, 2007). Online teaching experience can cause educators to re-evaluate their conceptions of teaching and their beliefs about how students learn (Baran & Correia, 2014). Thus, educational development programmes targeting online teaching have the potential to create a far-reaching and lasting impact on educators beyond the online environment (McQuiggan, 2012).

1.2 Statement of the Problem

While educational development for online teaching has become more commonplace within higher education institutions, little is known about the changes in teaching practice resulting from educators' preparation to teach online (Herman, 2012). Most of the literature to date has focused on the types and frequency of educational development programmes and on educator preferences for professional development (Allen & Seaman, 2013; Herman, 2012; Hinson & LaPrairie, 2005; Pagliari, Batts & McFadden, 2009). It is useful to examine the different types and extent of educational development programmes available, as well as to consider educator preferences; however, these studies provide limited insight into how educational development can support the transformational shifts needed in order for educators to be successful in the online environment. In addition, few studies have explored the impact of educational development for online teaching on conceptions of teaching and self-efficacy, and the limited research available is focused mainly on full-time or tenured educators in the American university sector. Furthermore, many of the investigations related to changes in conceptions of teaching and self-efficacy are reported with results obtained through the use of quantitative inventories and questionnaires (Leger & Fostaty Young, 2014). Thus, there is a pressing need for further qualitative and mixed methods research to better understand how educators' teaching practice, assumptions and beliefs, and self-efficacy are impacted by educational development for online teaching and to gain a better insight into the experiences of Canadian community college educators.

There is also a need for research focusing on educators within the community college sector in Canada, as this setting is not well represented in the literature. Given that colleges and universities are offering online courses at an accelerated rate, preparing educators to teach online is an important issue facing higher education, and the evaluation and improvement of educational development programmes is a necessary step in achieving the goal of quality online learning (Horvitz & Beach, 2011). Thus, in order to improve and advance educational development programmes for online teaching, it is important to have an understanding of the impact of educational development on teaching practice, assumptions and beliefs, and self-efficacy (Storandt, Dossin & Lacher, 2012).

1.3 Context of the Study

This study is set within the Canadian community college system which emerged in the 1960s as an alternative to university for learners seeking access to local, career-oriented programming (Skolnik, 2008). While the range of programmes varies among provincial college systems, community colleges in Canada typically offer vocational courses leading to certificates, diplomas, advanced diplomas and graduate certificates, as well as trades and apprenticeship training, adult upgrading and a variety of adult continuing education offerings. Some community colleges also offer selected baccalaureate degrees in academic and applied fields (Floyd, Skolnik, & Walker, 2005).

According to a recent report on online learning in Canada (Contact North, 2012) "there is a renewed interest in focused investment aimed at increasing the quality, reach and success rates for online learning". The same report estimates that there are between 875,000 and 950,000 registered online students in Canada (approximately 92,105 – 100,000 full-time students) at college and universities. Ontario boasts the largest concentration of post-secondary institutions in Canada, and has approximately 500,000 online course registrations which is over twice that of any other Canadian jurisdiction (Contact North, 2012). Ontario has twenty-four community colleges and approximately 23% of courses in the Ontario community college sector are offered online (Ministry of Training, Colleges and Universities, 2011). The OntarioLearn consortium of English colleges has been a powerful factor in expanding online offerings across the province, and in 2015-2016, they had over 71,250 online course registrations from across the province (OntarioLearn, 2016). In addition, the Ontario government is investing $42 million over three years to support the creation of the Centre of Excellence for Online Learning to support the growing demand for online

programmes and courses (Ministry of Advanced Education and Skills Development, 2014).

Durham College, the focus of this study, was founded in 1967 and has campuses in Oshawa and Whitby, Ontario. Durham offers more than 140 full-time, programmes through the Schools of Business, Information Technology (IT) and Management; Centre for Food; Continuing Education; Health and Community Services; Interdisciplinary Studies and Employment Services; Justice and Emergency Services; Media, Art and Design; Science and Engineering Technology; and Skilled Trades, Apprenticeship and Renewable Technology, and offers more than 1,500 courses through the School of Continuing Education. Durham College currently has more than 12,000 full-time post-secondary and apprenticeship students and thousands of students enrolled in part-time, continuing education and online studies. In addition, there are over 300 full-time educators, and almost 600 part-time educators who teach at Durham College. Durham College is a provincial leader in the development and delivery of online programs and courses. The college currently has approximately 250 online courses delivered in full-time programs across the college and through Continuing Education. In addition, a number of full-time programs offer hybrid courses to students which feature a combination of in-class and online delivery and assessment.

Educators within the community college system are usually hired for their discipline-specific knowledge, which is typically demonstrated by their work experience in the field and/or their credentials in the academic discipline. Many community college educators have had little preparation to be educators, as teaching expertise is not always a requirement for employment (Cohen & Brawer, 1996). Thus, few college educators are experts in pedagogical approaches, and even fewer are experts in pedagogy for online environments (Whitelaw, Sears, & Campbell, 2004). As a result, most community colleges devote resources toward educational development in areas such as adult learning, curriculum design and assessment, facilitation skills, programme development, and educational technology to help educators achieve the relevant knowledge and skills needed to enhance student learning. Consequently, educational development has become increasingly recognised as a key success factor for community colleges (Howard & Taber, 2010).

Realizing that teaching in the online environment involves different teaching and learning approaches than required in the classroom setting, many higher education institutions have begun to offer educational development programmes to prepare

educators for teaching online (Lane, 2013). Educational development programmes vary greatly, from single workshops to longer intensive programmes, and range in focus from technology to pedagogy (Herman, 2012). In an effort to support educational development for online teaching, the Centre for Academic and Faculty Enrichment at Durham College in Oshawa, Ontario, Canada developed an educational development programme, known as the Online/Hybrid Course Development Institute, to prepare educators to teach online successfully, as well as to help them design or modify a course for online or hybrid delivery. At Durham College "online" refers to courses where all of the instruction is delivered online (with the exception of proctored examinations in some courses), whereas "hybrid" refers to courses where a portion of the traditional face-to-face instruction is replaced by online learning.

The Online/Hybrid Course Development Institute began in 2011 and is designed to familiarise educators with best practices in online teaching. It employs an active learning approach in which participants engage in a hybrid learning environment while applying principles of course design and delivery to a course they are preparing to teach online or hybrid. The curriculum is focused on defining and creating student-centred learning experiences and examines effective design of content and activities, as well as implementation of successful assessment and facilitation techniques. The following are the learning outcomes of the Online/Hybrid Course Development Institute:

- Identify the similarities and differences between face-to-face and online course design and delivery.
- Describe a student-centred approach and how it applies to online learning.
- Discuss relevant learning theories and how they might be incorporated into online learning design.
- Develop online learning modules which utilise an interactive, student-centred approach for at least one online/hybrid course.
- Develop evaluation strategies that address the challenges and opportunities of online delivery.
- Develop familiarity with a variety of online tools and strategies by participating as a student in a hybrid course.
- Participate in a cohort model of development wherein educators share ideas and support each other's development.

The Institute is offered in both a compressed seven-week format (3 hours face-to-face per week and 3 hours online per week) in the spring semester and a fourteen-week

format (2 hours face-to-face per week and 1 hour online per week) during the fall and winter semesters. The face-to-face time during the first half of the Institute is spent discussing theory and showcasing best practices for online course design and delivery, and the online time is devoted to the practical application of the theory to the participants' own course development. The content of the Institute includes topics such as planning your online/hybrid course, online teacher competencies, active and student-centred learning strategies, assessment and evaluation strategies, academic integrity, creating a positive climate for learning, building community, supporting students, facilitating discussions, managing group work, accessibility and Universal Design for Learning, and copyright and fair use. During the second half of the Institute, the face-to-face time is devoted to peer sharing and review, and the participants have the opportunity to showcase their on-going course development and obtain feedback from each other.

At the time of this study, in the fall of 2014, there were a total of 91 educators who had participated in the Online/Hybrid Course Development Institute. The Institute was initially offered in the spring semester over seven weeks in May and June. There were 10 participants in the spring of 2011 and 8 in the spring of 2012. Due to increasing demand for the Institute, in 2013 it was decided that the Institute would also be offered in the fall and winter semester, over a fourteen-week period. In 2013, there were 8 participants in the winter, 10 in the fall, and 47 in the spring, and in 2014 there were 8 participants in the winter semester. In terms of subject area, a large majority of the participants have attended the Institute in order to develop courses related to Interdisciplinary Studies. The main reason for this is that Durham College has a strategic mandate to offer more general education courses in an online/hybrid format to allow more flexibility for students, so many of the participants in the Institute have been part of this initiative. There has typically been a good mix of both full-time and part-time educators who have participated in the Institute, which has resulted in a wide range of prior teaching experience. The following table provides a more detailed overview of the demographics of the Online/Hybrid Course Development Institute participants including their subject area, employment status and gender from spring 2011 to winter 2014. The educators who participated in the Online/Hybrid Course Development described in Table 1.1 below represent the population from which participants were recruited for this study.

Subject Area	Total Number of Participants
Business and IT Management	10
Continuing Education	1
Health and Community Services	10
Interdisciplinary Studies	52
Justice and Emergency Services	13
Media Art and Design	1
Science, Engineering and Technology	4
Employment Status	
Full-Time	51
Part-Time (includes partial load and sessional)	40
Gender	
Female	65
Male	29

Table 1.1 – Demographics of Institute participants

1.4 Purpose of the Study

As the number of higher education institutions offering online education continues to expand, so too does the demand for educational development to support online teaching. In order to successfully navigate the transition from traditional classroom-based teaching approaches to teaching online, educators need to reconsider their fundamental assumptions and beliefs about teaching (Garrison, 2006; Kreber & Kanuka, 2006; McShane, 2006; Natriello, 2005; Scagnoli, Buki, & Johnson, 2009). Without effective educational development, educators may be ill-prepared to adopt the student-centred pedagogical strategies necessary for effective online teaching (Reilly, Vandenhouten, Gallagher-Lepak & Ralston-Berg, 2012). Moreover, without effective preparation for teaching online, educators may lack the confidence needed to facilitate effective and meaningful student learning experiences online (Coppola, et al., 2002; McShane, 2004). While the current literature on educational development highlights the different types and extent of educational development programmes available, what is lacking is research dedicated to investigating the transformation of educators' teaching practices, assumptions and beliefs, and self-efficacy as a result of participating in educational development for online teaching (Henning, 2012).

The purpose of this study was to examine the impact of the Online/Hybrid Course Development Institute on college educators' teaching practice, and to determine if there was any change to their previously held assumptions and beliefs about teaching as a result of participating in the Institute. This study also aimed to understand how participation in the Online/Hybrid Course Development Institute impacted educators' confidence in their ability to teach (self-efficacy). This study used a descriptive case study approach to examine these areas of inquiry (Yin, 2009). At an institutional level, the results of this study are intended to help educational developers at Durham College evaluate the effectiveness of the Online/Hybrid Course Development Institute on transforming educators' approaches to teaching, self-efficacy, and ability to apply knowledge gained from the Institute into their teaching practice. These findings can be used to inform decisions about possible modifications to the design and facilitation of the Online/Hybrid Course Development Institute. In addition, the findings may be used to develop new professional development opportunities to support educators teaching online and could also help to inform policies and procedures related to the online environment. From a general scope, findings from this study can be used to develop recommendations for educational development for online teaching, and these insights may be transferable to other institutions seeking to revise, enhance or establish educational development offerings to help educators successfully transition to the online environment. The results of this study can also help to influence policy makers and inform policy development related to educational development for online teaching. In addition, what is learned from this study can help to close the current gap in research by exploring, in depth, the influence of educational development on the pedagogical transformation of educators as they move from face-to-face teaching to online teaching (Storandt, Dossin & Lacher, 2012).

1.5 Research Questions

This study set out to answer the following main and sub research questions:

Main Research Question

- How does participation in the Online/Hybrid Course Development Institute impact college educators' teaching practice?

Sub-Research Questions

- What changes, if any, do educators experience in their previously held assumptions and beliefs about teaching as a result of participating in the Online/Hybrid Course Development Institute?

- What changes, if any, do educators experience in their confidence in their ability to teach (self-efficacy) as a result of participating in the Online/Hybrid Course Development Institute?

1.6 Research Approach

The philosophical worldview adopted in this study was closely aligned to the constructivist worldview which proposes that meaning is constructed by humans as they engage with the world they are interpreting (Crotty, 1998). The participants in the study interpreted and constructed their own vision of reality through the discussion of their experiences in the Online/Hybrid Course Development Institute (Patton, 2002). In this study, meaning and reality were determined collectively through the face-to-face interviews, and knowledge acquisition was interactional and collaborative (Patton, 2002). This study was oriented towards exploration and discovery, and attempted to make sense of the situation without imposing pre-existing theories or expectations. A single descriptive case study approach was determined to be the most appropriate method for this study, as it allowed the researcher to capture the rich and detailed experiences of the educators in the Online/Hybrid Course Development Institute (Yin, 2009). A retrospective design was utilised because the research questions were focused on the impact of the Online/Hybrid Course Development Institute on college educators' teaching practice and a lapse of time was needed in order to measure changes to teaching practice. The data collection for this case study consisted of an online survey, in-depth interviews with educators, and an analysis of educator-provided documentary evidence.

1.7 Thesis Outline

Chapter 1 provides an introduction to the topic, a description of the context of the study and problem statement, a summary of the purpose of the study and the research questions, and discusses the research approach and significance of the study. Chapter 2 reviews the literature related to the study and lays the groundwork for the rationale of this study and the conceptual framework. Chapter 3 describes the research paradigm and design of this study, outlines the data collection procedures, and explains the methods used to analyse the data, and ensure the trustworthiness of the findings. Chapter 4 presents the online survey data, and discusses the findings of the thematic analysis of the interview data and the analysis of the documentary evidence. Chapter 5 presents a discussion of the findings related to the literature, considers the contribution of this research to the field, and examines the implications for theory,

policy and educational development practice. It also includes a discussion of the limitations, recommendations for future research, and conclusion.

Chapter 2 Literature Review

2.1 Introduction

The purpose of this study was to investigate changes in educators' teaching practice that arose as a result of participation in the Online/Hybrid Course Development Institute. In addition, the study aimed to examine the influence of the Institute on participants' previously held assumptions and beliefs about teaching, and self-efficacy. There are several areas of the literature that were explored to provide the foundation for this research. The review begins with a summary of educational development and discusses several systematic literature reviews focusing on the effects of educational development activities in higher education. It then provides a summary of the educational development literature that focuses specifically on online teaching. It continues by examining the research related to conceptions of teaching and the impact of educational development on educators' conceptions of teaching. It also highlights the literature associated with teacher self-efficacy and educational development. It concludes with a review of literature related to educational development, transformational learning and transfer of learning.

2.2 Defining Educational Development

Internationally, there are a variety of terms that are used to describe the activities related to educational development, including professional development, faculty development, instructional development, academic development, organisational development and professional learning (Randall, Heaslip & Morrison, 2013). In Canada, educational development has been widely accepted as an all-encompassing term that reflects the diverse breadth and scope of development practice. The term educational development is also used by the national association, the Educational Developers Caucus, and the international body, the International Consortium of Educational Development (Stockley & McDonald, 2008). Knight and Wilcox (1998) define educational development as the "systematic pursuit of the improvement of teaching in higher education" (p. 98). Felten, Kalish, Pingree, and Plank (2007) offer a definition of educational development as "the profession dedicated to helping colleges and universities function effectively as teaching and learning communities" (p. 93). Fraser, Gosling and Sorcinelli (2010) refer to educational development as "the field of professional and strategic development associated with university and college learning and teaching" (p. 49).

Fraser, Gosling and Sorcinelli (2010) describe three broad approaches to educational development: (1) Educational development focused on the individual staff member; (2) Educational development focused on the institution; and (3) Educational development focused on the sector. The focus of this study is educational development at the individual educator level. Bergquist and Phillips (1975) describe two models of educational development at the individual level: instructional development which focuses on the process of education and the design of courses, and personal development which includes programmes to promote individual personal growth. Boud and McDonald (1981) suggest three models of educational development: (1) Professional service – providing specialized services such as computer-assisted learning, instructional design, and diversifying assessment; (2) Counselling - supporting academics in their personal and professional development; (3) Collegial - focussing on collaboration with academics in joint projects to improve practice. The Online/Hybrid Course Development Institute aligns with Bergquist and Phillips's (1975) instructional development model and Boud and McDonald's (1981) professional service model.

More recently, Amundsen and Wilson (2012) proposed a conceptual framework for classifying educational development initiatives based on stated processes and intended outcomes. They identified six process and outcome clusters, as follows: (1) Skills cluster - focuses on the acquisition or enhancement of observable teaching skills and techniques; (2) Methods cluster - focuses on mastery of a particular teaching skill, such as problem-based learning; (3) Reflection cluster - focuses on change in individual teacher conceptions of teaching and learning; (4) Institutional cluster - focuses on coordinated institutional plans to support teaching improvement; (5) Disciplinary cluster - focuses on disciplinary understanding to develop pedagogical knowledge; and (6) Action research or inquiry cluster - focuses on individuals or groups of faculty investigating teaching and learning questions of interest to them. There is overlap among these categories and many of the educational development initiatives may fit within more than one cluster (Randall, Heaslip & Morrison, 2013). In the case of the Online/Hybrid Course Development Institute, the intended outcomes are consistent with the skills, methods, and reflection clusters.

2.3 The Growing Demand for Educational Development

Teaching quality is a topic of growing concern for government policymakers and planners, higher education administrators, faculty members, students and the

community at large (Jacob, Xiong & Ye, 2015). As accountability for the quality of teaching and learning has garnered increased attention, so too has recognition of the importance of educational development. Educational development plays a vital role in ensuring the quality of teaching and learning in higher education (Devlin, 2006). The prevalence of teaching and learning centres on campuses, dedicated courses or programmes for educators on teaching and learning, and the use of teaching portfolios and other forms of teaching evaluation all show an increase in the perceived importance of the quality of teaching in higher education (Evers et al., 2009; Schönwetter, Ellis, Taylor, & Koop, 2008).

The value of educational development is increased at the postsecondary level, as most educators have extensive training in their academic discipline and significant professional backgrounds, but little or no formal education, training, or experience related to teaching (Brancato, 2003; Cranton & King, 2003; Elliott, Rhoades, Jackson & Mandernach, 2015). In Canada, and in most developed nations, postsecondary educators are not required to have any formal teaching qualifications. In the absence of formal qualifications, many postsecondary educators tend to base their teaching approach on their own experience as students, and often teach the way that they were taught (Daley, 2003; Gallant, 2000). A study by Britnell et al. (2010) found that many educators in the postsecondary environment learn to teach through an informal process of trial and error. These experiences tend to reinforce teacher-centred approaches that do not inspire the high-quality learning experiences required by the current higher learning context (Pleschová et al., 2012).

Historically, the need for educational development has been more prevalent in the community college sector as colleges are typically represented as placing relatively more value on teaching compared to universities which also have a strong research mandate. In Canada, teaching is the primary activity of college educators as opposed to research which is the principal mandate of university educators (Gregory & Cusson, 2013). Miller (1997, p. 89) suggests that "If the primary expectation of community college faculty is that they will teach, it seems reasonable to expect that considerable institutional emphasis and resources will be directed toward developing faculty's instructional methodology skills." Community college educators in Canada are typically hired for their practical industry experience, and their backgrounds and experience tend to vary widely compared to their university counterparts (Fugate & Amey, 2000; Gregory & Cusson, 2013; Twombly & Townsend, 2008). As a result, educational development programmes are often seen as being especially necessary in

the community college setting to ensure high quality teaching and learning across the college sector.

As online instruction becomes more abundant at colleges and universities worldwide, so does the need for educational development programmes designed to prepare educators for this new teaching environment (Golightly, 2012). Many institutions have come to appreciate that teaching in the online environment involves different teaching and learning approaches from the classroom setting, and have begun to offer educational development programmes to prepare educators for teaching online (Herman, 2012; Hinson & LaPrairie, 2005). These educational development initiatives can help provide educators with the necessary online learning experience and pedagogical expertise to teach effectively in the online learning environment and can aid in the promotion of student-centred teaching methods (Rhode & Krishnamurthi, 2016).

2.4 Review of Educational Development

To date, there have been a number of systematic literature reviews focusing on the outcomes of educational development activities in higher education (Levinson-Rose & Menges, 1981; Prebble et al., 2004; Steinert et al., 2006; Stes, Min-Leliveld, Gijbels & Van Petegem, 2010; Weimer & Lenze, 1991; Wilson, 2012). Levinson-Rose and Menges (1981) conducted the first systematic review which examined 71 studies, mostly from American institutions, published between the mid-1960s and 1980s. The articles were grouped by the format of the educational development initiative (i.e. grants for faculty projects; workshops and seminars; feedback from student ratings; practice with feedback; and concept-based training) and categorised according to level of impact (i.e. self-reported change in teacher attitude; tested or observed change in teacher knowledge; observed change in teacher skill; self-reported change in student attitude; and tested or observed change in student learning). The results indicated positive effects for most interventions studied, when taking into account only those studies where high confidence could be placed in the results. The authors noted that although workshops and seminars were the most common instructional development intervention, they were also the least likely to "produce lasting changes in teaching behaviour or lasting impact on students" (Levinson-Rose & Menges, 1981, p. 419). The authors concluded by making recommendations for more rigorous research designs, more qualitative research, and better theoretical and conceptual grounding of educational development practice.

A decade later, Weimer and Lenze (1991) found a similar state of affairs in a review of the literature published in the 1980s, drawing again from mostly American sources. Their review focused on the effectiveness of five common instructional interventions: workshops, one-on-one instructional consultation, instructional grants for improving teaching, peer assistance programmes, and resource materials. Reported effects were categorized using the same categories used by Levinson-Rose and Menges (1981). In comparison with the earlier review, they found greater variation in the instructional methods and accounts of more lengthy workshops and seminars. They also found more targeting of specific populations within the university or college including new faculty and teaching assistants (TAs). They noted that instructional interventions with TAs were far more widespread and that many of the programmes and activities first offered to TAs were being extended to new faculty. They suggested that the attention focused on TAs and new faculty could stem from the fact that it was often easier and more effective to intervene early in a person's teaching career.

Overall, Weimer and Lenze (1991) felt their review provided inconclusive evidence of the positive effects of educational development and also called for more rigorous approaches to the research related to educational development (Parsons, Hill, Holland & Willis, 2013). Both of the Levinson-Rose and Menges (1981) and Weimer and Lenze (1991) reviews were based on articles from mostly American sources that were published more than 30 years ago when educational development was still in its infancy. Thus, these reviews offer important historical information but may not be representative of educational development initiatives today.

Prebble et al. (2004) conducted a review or more than 150 published studies between 1990 and 2004 from Australia, New Zealand, North America, the United Kingdom (UK), Singapore and Hong Kong. They grouped the research articles into five categories: short training courses; in-situ training; consulting, peer assessment and mentoring; student assessment of teaching; and intensive staff development. For each category, reported effects were examined using the same categories as Levinson-Rose and Menges (1981). Prebble et al. (2004) determined that educational development programmes contribute to educators' beliefs about teaching and their teaching practices, which indirectly influences student outcomes. Prebble et al.'s (2004) review was the first to include articles from a wide range of countries and the date of publication of the articles is more recent, which makes the findings more applicable to current educational development practices. Steinert et al. (2006) conducted a discipline-specific review that was based on 53 articles published from 1980 to 2002 which focused specifically on educational development in the medical sciences, the

majority of which were United States (US) based. The articles were coded by the format of the initiative (e.g., workshop, seminar), level of learning or assessment outcome (similar to the levels used by Levinson-Rose and Menges in 1981), and research design type. The review revealed a high satisfaction rate with faculty development programmes, and reported positive changes in attitudes and teaching behaviour, increased knowledge of educational principles, and gains in teaching skills. Given that this review was focused specifically on the medical sciences and the studies were mostly American, the generalisability of the findings is limited.

A more recent empirical review by Stes et al. (2010) examined 36 studies related to the impact of educational development which were predominately from American sources. They coded the literature by level of learning or assessment outcome, by format of the initiative, and by research design type. They also investigated the relationship of several individual variables (duration, format, target group) to impact levels. They found that thirty-one studies reported changes in teachers' behaviour and discovered that interventions that were extended over time had more behavioural outcomes than one-time events. Wilson (2012) conducted a meta-study of 73 research studies related to educational development in higher education conducted between 2000 and 2009. She noted that the relationship between educational development approaches used in higher education and effective teaching outcomes could not be answered given weaknesses with the approach to research in the field. She concluded that: "We in fact know very little about the connection between instructional development initiatives and improvements in university teaching" (Wilson, 2012, p. 138).

The systematic reviews show differences in the reported effects of educational development. Authors of these reviews were able to draw only tentative and weak conclusions about the effectiveness of educational development initiatives (Amundsen & Wilson, 2012). This reflects, in part, the breadth and scope of educational development approaches. The studies examined in the systematic literature reviews included educational development initiatives with varied outcomes and contexts, delivered through different formats, using diverse indicators or measures of performance, and numerous data collection methods and analysis procedures, making direct comparison of results problematic. The reviews reveal that well-designed studies are limited and highlighted the need for more research with improved research design on the impact of educational development. Several of the reviews also recommended an increase in qualitative or mixed method studies, greater theoretical grounding and clarity of goals, and the development of a framework for studies to

build upon each other to enable comparability of study results. Most of the systematic reviews (Levinson-Rose & Menges, 1981; Steinert et al., 2006; Stes et al., 2010; Weimer & Lenze, 1991) were based on articles from American sources, with some of the reviews dating back over thirty years. There are very few Canadian sources represented in the systematic reviews, and most of the reviews focused on face-to-face educational development initiatives.

2.5 Review of Educational Development for Online Teaching

Given the rise in online teaching and learning, it is not surprising that studies related to educational development for online teaching are increasingly being represented in the literature. In 2012, Herman investigated the types and frequency of educational development programmes for online instruction at 821 non-profit higher education institutions in the United States. He found that there were a large number of formats for providing educational development which differed by length of time, type of activity, training content, and number of individuals involved. The study reported that the average teaching and learning centre offered fifteen types of faculty development programmes, the most popular being course management systems (90.4%), online seminars (85.7%), consultation with instructional design experts (84.2%), workshops less than four hours in length (83.1%), peer review of a designed course (75.0%), multiple day workshops (63.8%), expert review of online courses (57.4%), and external options (44.0%). The study revealed that although some institutions are investing in educational development programmes to support online teaching, the support is not widespread and is still lacking in some areas.

In 2014, Meyer and Murrell conducted a national study of 39 American higher education institutions regarding their practices for educational development for online teaching from 2011-2012. This study found that over 90% of institutions were offering workshops, one-on-one training opportunities, short sessions, hands-on training, one-time training, and the creation of an online course. The most frequently offered training content was assessment of student learning (97%); followed by creating online community (91.1%); and training on the institution's LMS, student learning styles, and instructional design models (all at 84%).

Meyer (2013) conducted an extensive review of 68 articles and five books on educational development for online teaching. Similar to past systematic reviews that were mentioned in section 2.4 (i.e. Levinson-Rose & Menges, 1981; Prebble et al., 2004; Steinert et al., 2006; Stes, Min-Leliveld, Gijbels & Van Petegem, 2010;

Weimer & Lenze, 1991; Wilson, 2012) she concluded that the literature lacks rigorous research comparing the effects of different educational development models across different institutions. She also discovered that only 15% of the articles included a theoretical underpinning, and those that did made reference to adult learning or transformative learning theory. Meyer (2013) called for a need to base educational development on theory, to develop consistent models of educational development that can be replicated across institutions, and to disentangle treatments. As well, she noted a need for better evaluations that align with outcome measures, and the need to consider educator differences and costs when evaluating educational development programmes.

In addition to the types, frequency and models of educational development programmes, a number of studies have also provided recommendations for the design of educational development related to teaching online. Gallant (2000) suggests that educational development for online teaching be based on adult learning principles, be offered on an ongoing basis, include collegial sharing, and provide an opportunity for educators to experience the online environment from the viewpoint of a student. Gallant's emphasis on adult learning principles is consistent with Meyer's (2013) call for a more theoretical basis. Hinson and LaPrairie (2005) suggest that faculty should be provided with opportunities to actively apply their online skills within their own course context. This is consistent with Barker's (2003) recommendation that educators should be added to an online course as a student to get a better understanding of the online environment. Vaill and Testori (2012) suggest a three-tiered approach to educational development that includes initial orientation, peer mentoring, and ongoing support. Mishra and Koehler (2006) propose a model known as the TPACK framework, which suggests that educational development programmes related to technology integration, including those aimed at online teaching and learning, should include a focus on the interaction between technology, content, and pedagogy. The TPACK framework has led to a critique of techno-centric educational development approaches that focus on the attainment of technology skills separate from pedagogy and content (Baran, Chuang & Thompson, 2011).

The literature related to educational development for online teaching is still emerging and, similar to the systematic reviews discussed in section 2.4, much of the research to date has focused on the American context. Moreover, very few studies are placed in the context of any theoretical framework as was evidenced in Meyer's (2013) review. Research regarding the type and frequency of educational development for online teaching seems to be the most prevalent, with few studies focusing on the

outcomes of educational development for online teaching. Further longitudinal research would be useful to examine long-term effects of educational development for online teaching. The literature offers a picture of educational development programmes for online teaching, but there remains uncertainty about the most effective models. Furthermore, the literature does not communicate agreement on how to best assess the influence of different educational development programmes on educators' beliefs and practices.

2.6 Conceptions of Teaching

An important dimension to the mandate of quality teaching and learning is how educators conceive the nature and process of teaching and learning (David, 2014). A considerable amount of research has been conducted on conceptions of teaching within higher education. A number of terms are used to describe how educators conceptualise teaching including orientations, beliefs, attitudes, approaches, views, and intentions (Degago & Kaino, 2015; Kember, 1997). Conceptions, according to Pratt (1992) are:

> Specific meanings attached to phenomena which then mediate our response to situations involving those phenomena. We form conceptions of virtually every aspect of our perceived world, and in so doing, use those abstract representations to delimit something from, and relate it to, other aspects of our world. In effect, we view the world through the lenses of our conceptions, interpreting and acting in accordance with our understanding of the world. (p. 204)

With respect to teaching, conceptions can be considered the specific meanings and interpretations educators ascribe to teaching, which inform their teaching decisions, actions and behaviours (Degago & Kaino, 2015). Entwistle and Walker (2000) describe conceptions of teaching as being derived from knowledge, experience and associated feelings, over substantial periods of time. Other researchers have revealed that conceptions of teaching result from faculty's own personal experiences, both as students and teachers (Dall'Alba, 1991; Martin & Balla, 1991; Pratt, 1992; Prosser, Trigwell & Taylor, 1994; Samuelowicz & Bain, 1992). A number of studies have identified a continuum of teaching conceptions which range from strongly teacher-focused and content-oriented conceptions on the one end, to strongly student-focused and learning-oriented on the other (Calderhead, 1996; Kember, 1997; Light & Calkins, 2008; Samuelowicz & Bain, 1992; Trigwell & Prosser, 2004). Educators

with a teacher-centred conception consider teaching to be the transmission of knowledge to students, whereas educators with a student (or learner)-centred conception regard teaching as facilitating students' construction of knowledge (Calderhead, 1996; Kember, 1997; Light & Calkins, 2008; Trigwell & Prosser, 2004). The current trend in higher education is a shift toward more student-centred approaches to teaching which is supported by constructivist learning theories that emphasise the importance of active engagement of learners (Cross, 2009). The Online/Hybrid Course Development Institute was intended to develop participants' conceptions of teaching and learning and to help participants develop the practical teaching skills necessary to initiate more student-centred approaches to teaching.

Educators' conceptions of teaching have been shown to shape their choices and behaviours in the classroom, including their approaches to teaching and assessment. Educators who hold certain conceptions of teaching are more likely to adopt an approach to teaching consistent with those conceptions (Trigwell & Prosser, 1996). For example, Kember and Kwan (2000) discovered that educators who considered teaching to be a process of transmitting knowledge were more likely to use teacher-centred approaches to teaching, while those who perceived teaching to be a facilitative process tended to use learner-centred approaches. Coffey and Gibbs (2002) found that student-centred teachers use a wider range of teaching methods than teachers who adopt a teacher-centred approach to teaching. Research on conceptions of teaching has also revealed a relationship between educator approaches to teaching and student approaches to learning (Kember & Gow, 1994; Prosser & Trigwell, 1999; Sheppard & Gilbert, 1991). A study by Kember and Gow (1994) found that educators who employed student-centred approaches encouraged more meaningful learning among students. Trigwell and Prosser (1996) and Trigwell, Prosser and Waterhouse (1999) also found that students of educators who described teaching as the transmission of knowledge were more likely to adopt a surface approach to learning, whereas students of educators who adopted a student-centred approach were more likely to take a deep approach to learning.

Roberts (2003) found that conceptions of teaching using the Web ranged from seeing the online environment as a medium for students to retrieve information, to more sophisticated uses of the web to facilitate interactions among participants. González (2009) discovered similar results in his study, identifying three main conceptions of teaching using the web: (1) individual access to learning materials and information; (2) learning related communication (asynchronous and/or synchronous); and (3) networked learning which involves a process of knowledge creation and sharing of

information. In a later study, González (2010) proposed two related sets of teaching conceptions: (1) focused on the provision of information; and (2) focused on communication-collaboration-knowledge-building. Ellis, Steed and Applebee (2006) and Lameras, Levy, Paraskakis and Webber (2012) explored conceptions of teaching in blended learning environments and their findings were consistent with Roberts (2003) and González (2009, 2010) who saw a continuum of approaches from information focused to collaboration and knowledge creation. These studies suggest that consensus may be emerging with regard to conceptions of teaching in the online environment, with information focused conceptions being consistent with teacher-centred approaches and collaboration and knowledge creation conceptions being consistent with student-centred approaches that have been identified in past literature.

2.7 The Impact of Educational Development on Conceptions of Teaching

According to Kember and Kwan (2000), fundamental changes in the quality of teaching and learning are unlikely to occur without changes in educators' conceptions of teaching. Several studies have investigated the impact of educational development on educators' conceptions of teaching (Butcher & Stoncel, 2012; Cilliers & Herman, 2010; Gibbs & Coffey, 2004; Ginns, Kitay & Prosser, 2008; Hanbury, Prosser & Rickinson, 2008; Ho, Watkins & Kelly, 2001; Hubball, Collins & Pratt, 2005; Postareff, Lindblom-Ylänne & Nevgi, 2007; Stes, Coertjens & Van Petegem, 2010). Many of these studies have used the Approaches to Teaching Inventory (ATI) developed by Trigwell and Prosser (2004) to measure changes in conceptions and approaches to teaching. In one of the most comprehensive studies of its kind, Gibbs and Coffey (2004) studied the effectiveness of educational development programmes at 22 universities in 8 countries over a year-long period using the ATI and student ratings as measurement tools. They found that those who had participated in educational development programmes were more likely to adopt learner-centred teaching practices, their teaching skills and global teaching effectiveness scores improved, and their students were less likely to take a surface learning approach compared to a control group of educators who did not participate in any educational development. They discovered that educators who did not engage in educational development programmes actually reduced the extent to which they adopted a student-centred teaching focus, and actually became more reliant on teacher-centred practices. This study identified the importance of offering educational development to new educators in order to prevent a reliance on solely teacher-centred approaches.

Ho, Watkins and Kelly (2001) examined a 12-hour educational development programme at Hong Kong Polytechnic University by comparing conceptions of teaching at the end of the programme and again one year later using a revised ATI measurement. They discovered that those who participated in the educational development programme showed positive changes in their conceptions of teaching and demonstrated a significant improvement in their teaching practices as perceived by their students. In addition, a positive impact on their students' studying approaches was observed for half of the faculty who changed their teaching conceptions. This is particularly significant given the short length of the educational development programme. Postareff, Lindblom-Ylanne and Nevgi (2007) examined the relationship between the amount of educational development and the changes in teaching approaches of 200 educators who had completed educational development programmes of varying lengths, with the longest courses lasting over one year. They found that only by engaging with an educational development programme for approximately one year did educators increase their student-focused approaches to teaching scores as measured by the ATI. This study implied that approaches to teaching change slowly and that it can take at least one year for positive effects to emerge. Cilliers and Herman (2010) examined the level of impact of an educational development programme on educators' teaching practice over time. They found that changes to individual behaviour and organisational practice, and benefits to academics as well as perceived benefits to their students were reported up to seven years after participation in the educational development programme.

In 2007, Stes, Clement and Van Petegem (2007) researched the long-term impacts of a one-year development programme for educators and found that two years after the programme, educators continued to report both attitudinal and behavioural changes as a result of participating in the programme. In 2010, Stes, Coertjens and Van Petegem conducted a follow-up study to investigate more formally how educators' approaches to teaching changed as a result of participating in educational development programmes by including a control group and larger sample size. They compared 20 beginning university educators who completed a development programme with 20 educators who did not and found that both programme participants and control subjects increased their use of student-centred approaches, but the strongest results were evidenced among those involved in the educational development programme. They also suggested that only long-term programmes are likely to lead to significant changes, given that making changes to one's teaching approach is challenging and requires time.

A study by Hanbury, Rickinson and Prosser (2008) observed changes to teaching conceptions in over 30 UK universities using the ATI scale. They learned that educators who participated in educational development programmes perceived their approaches to teaching to be significantly more student-focused, and significantly less teacher-focused, after completing the programme. This offers further support for the effectiveness of educational development found in previous research. They also found that when educators adopt a student-focused teaching approach following participation in an educational development programme, their students adopt deep learning approaches to their studies. More recently, Butcher and Stoncel (2012) presented a case study of a post-graduate certificate in higher education for new teaching staff at the University of Northampton in the UK. Their analysis revealed that new educators adopted innovative approaches to teaching, planning and assessment, and observed a shift from teacher-centred to learner-centred approaches after participating in the certificate programme.

Condon et al. (2015) describe the results of the "Tracer Project" which was a mixed-methods study that was conducted over three years on two different campuses, Carleton College and Washington State University, tracing educational development effects into educator teaching and student learning outcomes. The data collection for the study combined educator perceptions about their teaching (self-report data) with direct observation of change either through analysis of assignments or student work, or through observations of teaching. Student learning was measured through structured analysis of student work. The study produced evidence that educators who participate in professional development alter classroom pedagogy in ways congruent with the development. They also found that educators who participated in several educational development initiatives showed measurably larger changes in their teaching than educators whose participation was minimal. They also discovered that those who are self-motivated to improve and those with a strong sense of self-efficacy are more likely to make changes. In addition, they were able to conclude through analysis of student work that participation in educational development by educators positively influences students' learning.

In general, the literature confirms that participation in educational development initiatives has the potential to impact educators' conceptions of teaching and that there has been evidence of a shift from teacher-focused to student-focused approaches in teaching and learning following participation in these programmes. The general consensus is that educational development programmes tend to yield positive changes in conceptions of teaching and in some cases can produce positive influences on

participants students' approaches to learning (Condon et al., 2015; Gibbs & Coffey, 2004; Hanbury, Rickinson & Prosser, 2008; Ho, Watkins & Kelly, 2001). Nevertheless, there are still gaps in the current literature including an overreliance on self-reported sources of information, lack of control groups, and need for greater longitudinal research (Eley, 2006; Gibbs, 2003; Kane, Sandretto & Heath, 2002). In addition, it is often difficult to determine which specific components of educational development programmes produce the greatest impact, due to the considerable differences in programme hours, duration, format and focus (Dawson et al., 2014).

2.8 The Impact of Educational Development for Online Teaching on Conceptions of Teaching

A few studies have explored the impact of educational development for online teaching on conceptions of teaching. A study conducted by Hinson and LaPrairie (2005) indicated that changes in teaching practices could be initiated through a programme of continuous educational development as opposed to a one-time workshop. They found that ongoing support given by knowledgeable support staff and peers was instrumental to changes in conceptions of teaching. Owens (2012) conducted a survey of 529 UK educators and found that educators with teaching credentials who had received educational development in the use of online learning environments were significantly more likely to utilise teaching practices that promote interactive practices in online learning environments.

Other studies have focused on whether the experience of participating in educational development for online teaching, and subsequently teaching an online course, leads towards instructional change in the face-to-face classroom. A study of 255 online teachers from 31 colleges in the State University of New York Learning Network who participated in an educational development programme for online teaching found that 85% of participants reported a positive effect on their classroom instruction (Shea, Pelz, Fredericksen & Pickett, 2001). It is important to note that self-reports are prone to many kinds of response bias, as research participants often want to respond in a way that makes them look as good as possible (Barczyk, Buckenmeyer, Feldman & Hixon, 2011; Crowne & Marlowe, 1964). Thus, the respondents in this study may have over-reported the positive effect of the educational development programme on their classroom practice.

McQuigan (2012) also explored the change in face-to-face teaching practices as a result of educational development for online teaching at Penn State. The participants

in this study reported changes to their assumptions and beliefs about teaching, and changes to their face-to-face teaching practices after participating in an educational development programme. Opportunities to communicate with more experienced online colleagues, view examples of online courses, and time to reflect were identified by the participants to be most effective in supporting their conceptual and practical changes. Buckenmeyer, Hixon, Barczyk and Feldman (2013) also examined an educational development initiative for online teaching and discovered that participants in the programme experienced a transfer of learning from online teaching to other teaching contexts and were able to apply what they learned in the programme to their teaching more broadly. Respondents in this study were able to apply the skills and knowledge acquired from the educational development programme to their other courses, and made specific changes to other courses as a result of participating in the programme.

Scagnoli, Buki and Johnson (2009) examined four experienced faculty members who had participated in educational development for teaching online and found that the online teaching experience had an influence on some face-to-face teaching practices, but that not all educators showed evidence of transfer of online practices to the classroom. Their findings suggest that transfer is more likely to occur when the instructor has a positive prior experience in the online environment, and when there is a connection between the content and context of the online and face-to-face courses that the instructor is teaching. Another study that examined a three-week online educational development programme at the University of Wisconsin-La Crosse indicated that the programme significantly changed participants' beliefs about some common conceptions (myths) of online education. After completing the educational development programme, educators were less likely to believe that: (1) students get less attention from their instructors in online courses than in face-to-face courses; (2) it is easier to cheat in an online course than in a face-to-face course; (3) online courses lack resources for students. In addition, instructors were more likely to believe that students will want to take online courses versus face-to-face courses. This study also found that participation in the educational development programme led to a significant increase in the implementation of sound pedagogical strategies in online courses, and some positive pedagogical strategies in face-to-face courses (Koepke & O'Brien, 2012). The results suggested that participation in the educational development programme resulted in increased comfort with technology, course design and course delivery, and lead to pedagogical changes to face-to-face courses, in terms of technology use and course design.

Although these studies seem to indicate the potential for changes to conceptions of teaching and face-to-face teaching practices as a result of participation in educational development for online teaching, it is unclear how much of the change can be attributed to the educational development and how much might be due to other factors such as the experience of teaching online, or the affordances of the online environment (Shea, Pelz, Fredericksen & Pickett, 2001). While educational development may be responsible for encouraging educators to rethink their conceptions of teaching and make changes in their classroom teaching, some of these changes may also be a result of the experience of designing and teaching an online class or a result of learning to use tools for online learning (McQuigan, 2007).

2.9 Teacher Self-Efficacy

The concept of teacher self-efficacy is based on Bandura's (1977) seminal work related to social cognitive theory and self-efficacy. Self-efficacy can be defined as "beliefs in one's capabilities to organize and execute the courses of action required to produce given attainments" (Bandura, 1997, p. 3). Bandura (1977; 1997) proposed four possible sources of self-efficacy: (1) mastery experience or actual experience; (2) vicarious experience; (3) verbal or social persuasion; and (4) physiological arousal or emotional state. Mastery experience is the most powerful source of self-efficacy as it involves experiences that are direct and personal (Bandura, 1997). Vicarious experiences provide individuals with an opportunity to observe the successes and failures of others and may thereby alter self-efficacy. The third source of self-efficacy comes from the verbal persuasions individuals receive from others. Finally, physiological and affective states, including stress, fatigue, anxiety and mood can also influence self-efficacy (Morris & Usher, 2011).

In the context of teaching, self-efficacy represents educators' confidence in their ability to facilitate the development of students' knowledge, abilities, and values (Bandura, 1977; Horvitz, Beach, Anderson & Xia, 2015; Prieto & Meyers, 1999; Tschannen-Moran, Hoy & Hoy, 1998). Teacher self-efficacy is defined as the "teacher's belief in his or her capability to organize and execute courses of action required to successfully accomplish a specific teacher task in a particular context" (Tschannen-Moran, Woolfolk Hoy, & Hoy, 1998, p. 233). Studies of teacher self-efficacy have modified Bandura's initial constructs of self-efficacy and identified two separate dimensions that contribute to teacher self-efficacy: (1) Personal teaching efficacy - a teacher's belief in his or her skills and abilities to positively impact student achievement; and (2) General teaching efficacy – teacher's belief that the

educational system can work for all students, regardless of outside influences (Burton, Bamberry & Harris-Boundy, 2005; Swackhamer, Koellner, Basile & Kimbrough, 2009).

Bandura's (1997) theory of self-efficacy suggests that efficacy is developed early in an educator's teaching career, thus the first years of teaching can be critical to the long-term development of teacher self-efficacy. According to Mulholland and Wallace (2001), one of the most powerful influences on the development of teacher efficacy is mastery experiences during the first years of teaching. Similarly, Morris and Usher (2011) found that successful instructional experiences, which involve a combination of mastery experiences and verbal persuasions, are important for developing self-efficacy especially within the first few years of teaching.

Self-efficacy is context specific, and teachers may exhibit different levels of efficacy depending on the course, group of students or institutional environment (Tschannen-Moran & Woolfolk Hoy, 2001). Gibson and Dembo's (1984) Teacher Efficacy Scale (TES) is predominately used within the field of education to measure teacher self-efficacy (Henson, Kogan & Vacha-Haase, 2001), although a variety of other instruments exist including the Ashton Vignettes (Ashton, Buhr & Crocker, 1984), the Science Teaching Efficacy Belief Instrument (Riggs & Enochs, 1990), the Ohio State Teacher Efficacy Scale (Tschannen-Moran & Hoy, 2001), the Responsibility for Student Achievement Scale (Guskey, 1981) and the Teacher Locus of Control Scale (Rose & Medway, 1981).

Different levels of teaching self-efficacy have been shown to affect teachers "thinking patterns, behaviour choices, level of commitment, and achievements" (Yang, Kao, & Huang, 2006, p.237). Research by Gibson and Dembo (1984) concluded that high levels of teacher self-efficacy could contribute to individual differences in teaching effectiveness. Teachers with a high sense of self-efficacy have also been shown to have higher levels of planning and organisation, display greater passion for teaching, and tend to be more willing to explore new teaching strategies and methods (Allinder, 1994; Ashton & Webb, 1986; Tschannen-Moran & Woolfolk Hoy, 2001; Woolfolk Hoy, 1990;). Teaching self-efficacy has also been consistently correlated with student achievement in the literature (Ashton, Buhr, & Crocker, 1984). Ashton and Webb (1986) found that high levels of teaching self-efficacy beliefs could lead to more supportive teaching and learning environments, and higher academic achievement. Henson, Kogan and Vacha-Hasse (2001) also found that teachers with high self-

efficacy persist longer with students who struggle, and promote greater achievement and motivation in their students.

Moreover, research has shown that teachers with high self-efficacy tend to utilise more student-centred teaching approaches in their classrooms and persist longer in the face of challenges (Goddard, Hoy, & Woolfolk Hoy, 2004; Wheatley, 2005). Czernaik (1990) also found that educators with high self-efficacy were more likely to use interactive teaching methods, while educators with low levels of self-efficacy used more teacher-directed methods. Woolfolk and Hoy (2000) indicate that self-efficacy beliefs are influenced to a greater extent during the early stages of a teacher's career and that self-efficacy can be increased by providing mentorship opportunities, early in novice teachers' careers.

In summary, the research indicates that teacher self-efficacy may positively impact teacher beliefs, attitudes, and conceptions of teaching as well as student achievement. There has been a call for more qualitative and mixed methods studies examining teacher self-efficacy as well as greater use of longitudinal data to help inform further research in this area (Tschannen-Moran et al., 1998; Wheatley, 2005). The transition from face-to-face teaching to the online environment requires that educators adopt a variety of new student-centred teaching strategies and methods. Given that educators with high self-efficacy tend to persist longer in the face of challenges, such as those encountered by the transition to online teaching, building self-efficacy has become a key outcome of many educational development initiatives.

2.10 The Impact of Educational Development on Teacher Self-Efficacy

Much of the research related to educational development and teacher self-efficacy has focused on pre-service teachers and on educators in the Kindergarten (K)-12 compulsory school sector, with research focused on higher education being quite limited. Postareff et al.'s (2007) study, which was mentioned previously, examined the impact of educational development on both approaches to teaching and self-efficacy beliefs. They found that longer training periods result in greater increases in teacher self-efficacy. Interestingly, they also discovered that shorter educational development courses could result in a negative effect on self-efficacy because they raise the educators' awareness of good teaching practices, which can make them more uncertain about themselves as teachers. They suggest that positive impacts on educators' self-efficacy beliefs are unlikely to occur outside of longer-term educational development programmes. Tschannen-Moran et al. (1998) also found

that trying new teaching strategies and methods can initially have a negative effect on a teacher's sense of efficacy. The results of a study of graduate teaching assistants at the university level by Prieto and Meyers (1999) revealed that participation in formal educational development had a positive, statistically significant effect on teaching assistants' sense of self-efficacy towards teaching compared to those who did not receive such development. Horvitz and Beach (2011) also found that participants in their study showed gains in self-efficacy both during and after the educational development programme. Overall, the literature related to educational development and teacher self-efficacy within the higher education environment is still quite limited, but studies seem to suggest that long-term educational development programmes can have positive impacts on teacher self-efficacy.

2.11 Transformational Learning

The theory of transformational learning (Mezirow, 1978) also helps to provide insight into the changes educators experience in their assumptions, beliefs and practices as a result of participating in educational development initiatives (Cranton, 2006; King, 2002; Meyer, 2013). "Transformational learning theory serves as a comprehensive way to understand the process whereby adult learners critically examine their beliefs, assumptions, and values in light of acquiring new knowledge and correspondingly shift their worldviews to incorporate new ideas, values and expectations" (King, 2002, p. 286). Learning is said to be transformative when learners' views of their world are altered through their learning, enabling them to achieve a different perspective than they had previously held (Cranton, 2006; Mezirow, 1997). Mezirow (1978) identified 10 precursor steps to transformative learning: (a) being faced with a disorienting dilemma, (b) self-examination or reflection, (c) recognition of some sort of dissonance that is shared with others, (d) exploring possible options, (e) critical assessment of assumptions, (f) trying on new roles, (g) planning a course of action, (h) acquiring knowledge and skills to implement new actions, (i) competence-building, and (j) integrating the newly gained perspective into one's life. For some educators, a disorienting dilemma experienced in practice might urge them to pursue educational development, whereas for others participation in an educational development programme itself may act as the disorienting dilemma that challenges their teaching and learning conceptions, encouraging them to critically reflect on their experience and practice (Cranton, 2006).

Merriam and Caffarella (1999) suggest that in order for transformative learning to occur, there needs to be time and space for the surfacing of assumptions and

expectations about learning and teaching, and for engagement in critical reflection, reflective discourse, and action. Cranton (2006) also describes critical reflection as a central process in transformative learning, and argues that if educators are to change their practice, educational development programmes need to provide educators with the opportunity to critically reflect on their existing assumptions, values, and perspectives. Mezirow (2003) defined reflective discourse as "dialogue involving the assessment of beliefs, feelings and values" (p. 59) and it appears that reflective discourse and dialogue with others plays a major role in transformative learning (Cranton, 2006). Educational development programmes that provide opportunities for educators to engage in discussions with colleagues can help promote reflective discourse which can challenge educators' existing assumptions and beliefs about teaching and learning. In addition, Mezirow (1991) argued that, "action is an integral and indispensable component of transformative learning" (p. 209). Thus, educational development programmes that include active learning techniques and provide opportunities for participants to act on their new learning can help to support transformative learning.

Given the definition and elements of transformative learning, it is not surprising that several research studies related to educational development are based on this theory. The literature review of educational development for online teaching by Meyer (2013), mentioned previously, found that of those articles that included mention of a theoretical framework, transformative learning theory was frequently cited. A study by King (2002) examined the experience of 175 educators who participated in an educational development programme regarding educational technology that was based on transformative learning theory. The results of the study revealed that transformative learning theory was effective in the design of the educational development programme and that the participants were able to participate in the critical reflection and development phases of transformative learning theory. Another study by King (2004) investigated the experiences of 58 educators enrolled in graduate education courses related to adult education. The findings indicated substantial perspective transformation for 36 of the participants and found that critical reflection was an important component of transformation for 62% of the educators. These findings suggest that critical reflection is an important component of educational development programmes as it provides participants with an opportunity to reflect on their existing assumptions and beliefs which can help to promote transformational learning.

Hubball, Collins, and Pratt (2005) also examined the use of critical reflection in an educational development programme for faculty at the University of British Columbia and found evidence of transformational learning for those who participated in the programme. McQuiggan (2012) investigated an educational development programme for online teaching that included activities designed to encourage critical reflection on teaching beliefs through reflective journal writing and critical discourse. She found that reflective writing and discourse about preparing to teach online helped educators become aware of previously held assumptions and beliefs about teaching and encouraged them to reconsider their notions of teaching and learning. She also discovered that additional time devoted to critical reflection increases movement toward transformative learning and changes in teaching practices.

Not all studies have shown positive correlations between educational development and transformative learning. For example, Whitelaw, Sears, and Campbell (2004) considered transformative learning within the context of an educational development programme related to technology-enhanced teaching and examined whether the programme facilitated transformation in educators' teaching philosophy and practice. Most of the participants in this study did not report significant or potentially transformative change in their beliefs and practice in terms of pedagogy and the use of instructional technology. Whitelaw et al.'s findings suggest that in order for transformational learning to occur educational development initiatives need to be contextually relevant and should provide opportunities for educators to act on their new knowledge, continuing further cycles of reflective practice. They also suggest that the use of pre- and post-inventory of both pedagogical style and attitudes toward instructional technologies, and pre- and post-observations of teaching would help improve the usefulness of self-report data.

Overall, it is evident that several studies related to educational development have adopted transformative learning as a theoretical framework, which assists our understanding of the changes educators experience in their conceptions of teaching as a result of educational development (King, 2002). This theory also aids in the understanding of how educators learn and transform their beliefs and instructional practices for teaching online through educational development.

2.12 Transfer of Learning

In order for educational development to be truly transformational, educators need to be able to apply the knowledge that they have learned through educational

development into their own teaching practice. Being able to apply knowledge learned in one situation to another one is the evidence that transfer of learning has occurred (Baldwin & Ford, 1988). Blume, Ford, Baldwin and Huang (2010) describe transfer as consisting of two dimensions: (1) Generalisation - the extent to which the knowledge, skills and beliefs acquired in a learning setting are applied in different settings, or situations from those trained; and (2) Maintenance - the extent to which changes that result from a learning experience persist over time. Learned behaviour must be generalised to the context of the person who participated in the learning experience and maintained over a period of time in the workplace in order to provide evidence that transfer has occurred (Baldwin & Ford, 1988). In the context of educational development, this means that in order for transfer of learning to happen, educators have to translate their acquired knowledge, skills, and conceptions into consistent changes in their teaching practice (De Rijdt, Stes, Van der Vleuten & Dochy, 2013).

De Rijdt et al. (2013) conducted a review of research to determine what influencing and moderating variables have an impact on transfer of learning and are important within the context of educational development in higher education. They concluded that motivation, needs analysis, learning goals, content relevance, practice and feedback, behavioural modelling, active learning, self-management strategies, strategic links, positive transfer climate, peer support, opportunity to perform, amount of experience, nature of the intervention, amount of time spent, and learning climate may be variables that affect the transfer of educational development learning. They also found moderating variables include time lag versus no time lag, self-measure versus other measure of transfer, use measure versus effectiveness measure of transfer, and open skill versus closed skill.

Ginns, Kitay and Prosser (2008) conducted a study of 15 university teaching staff that completed an educational development certificate related to teaching and learning. They examined the factors which participants reported stimulated or hindered transfer of learning back to the classroom. They identified supervisor and peer support as key elements that supported transfer of learning, and time constraints and workload pressures as obstacles to transfer. A study by Singh et al. (2014) investigated 324 teachers who had been through a three-day educational development workshop and found that the intention to transfer learning to practice is stronger if participants develop positive attitudes towards new concepts to be implemented, and also perceive that they are able to undertake actions to transfer. Their findings suggest that

educational development efforts should be directed toward shaping participants' attitudes and perceived control over new teaching skills.

The literature related to transfer of learning and educational development in higher education is still in its infancy and there remains great potential for further research in this area. De Rijdt et al. (2013) suggest that future research focuses on motivation to learn and motivation to transfer, include pre-test design or control group design, and include more long-term measures to a retention interval of 12 months. Given that educational development initiatives in higher education vary greatly in terms of outcomes, methods, length, etc., measuring the transfer of learning can be difficult. The development of more comprehensive outcome measures or the creation of an instrument to measure transfer of learning to teaching practice would be helpful to the field going forward.

2.13 Summary

This chapter explored several areas of the literature that provided the foundation for this study and identified some of the gaps which helped to shape the aims of this research. A definition of educational development was provided and the growing demand for educational development was discussed. An overview of several systematic literature reviews focusing on the effects of educational development activities in higher education revealed that the research to date has not been able to draw strong conclusions about the effectiveness of educational development initiatives (Amundsen & Wilson, 2012). The breadth and scope of educational development initiatives make the outcomes difficult to measure and there is a need for comprehensive and rigorous research related to the impact of educational development. The literature related to educational development for online teaching is growing, yet it has also been criticised for poor research design and there is consensus that greater research in this area is needed before conclusions can be drawn about the effectiveness of educational development for online teaching.

A considerable amount of research has been conducted on conceptions of teaching within higher education, with most studies confirming a continuum of teaching conceptions ranging from teacher-centred at one end to student-centred at the other. It has been shown that conceptions of teaching impact educators' teaching and assessment approaches and can impact whether students adopt surface or deep approaches to learning. Research related to conceptions of online teaching is still somewhat limited, but seems to align with the teacher-centred/student-centred

continuum already identified in the literature. The literature confirms that participation in educational development initiatives has the potential to impact educators' conceptions of teaching and to foster a shift toward more student-centred approaches to teaching and learning. This is also evident in the literature related to educational development for online teaching, which suggests a link between educational development for online teaching and face-to-face teaching practice. That said, the research in this area is also quite limited, so further research is needed to substantiate these claims.

The literature on teacher self-efficacy has developed over the last twenty years, and the research suggests that educators with a high sense of self-efficacy tend to be more effective, and adopt more student-centred approaches to teaching, that can positively impact student achievement. Much of the research related to educational development and teacher self-efficacy has focused on pre-service teachers and the K-12 sector, with minimal research focused on higher education. The current research related to self-efficacy and educational development seems to suggest that positive impacts on educators' self-efficacy beliefs are more likely as a result of longer-term educational development programmes.

Mezirow's (1978) theory of transformational learning also provides insight into the changes educators experience in their assumptions, beliefs and practices as a result of participating in educational development initiatives. A few studies have provided evidence that educational development initiatives have the potential to inspire transformational learning, especially those that incorporate critical reflection, reflective dialogue and opportunities for active learning. Research on the transfer of learning has also gained some traction within the field of educational development in higher education and the literature reveals that additional research in this area is needed.

Overall, it is evident from the literature that there are still gaps in our understanding of how educational development can support the transformational shifts needed in order for educators to be successful in the online environment (Henning, 2012). The present study helps to address the current gap in the literature by examining the impact of educational development for online teaching on educators within a Canadian community college environment and examines a diverse range of participants in terms of their employment status and prior teaching experience. This study also responds to calls from the literature for greater use of mixed methods approaches to research related to educational development and contributes to the

existing body of research literature by providing further empirical evidence of the impact of educational development for online teaching on teaching practice, assumptions and beliefs about teaching, and self-efficacy.

2.14 Conceptual Framework

This study drew upon the conceptions of teaching literature as a conceptual framework for understanding educators' approaches to teaching (Calderhead, 1996; Coffey & Gibbs, 2002; Dall'Alba, 1991; Kember, 1997; Kember & Gow, 1994; Kember & Kwan, 2000; Light & Calkins, 2008; Martin & Balla, 1991; Pratt, 1992; Prosser, Trigwell & Taylor, 1994; Samuelowicz & Bain, 1992; Sheppard & Gilbert, 1991; Trigwell & Prosser, 1996; Trigwell et al., 1999). It also relied on Bandura's Theory of Self-Efficacy (1977; 1986; 1997) to examine the impact of educational development on educators' self-efficacy perceptions. Mezirow's (1978) theory of transformational learning was also used to provide insight into the changes educators experience in their assumptions, beliefs and practices as a result of participating in educational development initiatives. In addition, literature related to transfer of learning (Baldwin & Ford, 1988; Blume et al., 2010; Ginns et al., Singh et al., 2014) was used as a lens to examine how educators are able to apply the knowledge that they have learned through educational development into their own teaching practice. The following diagram provides an overview of the conceptual framework for this study:

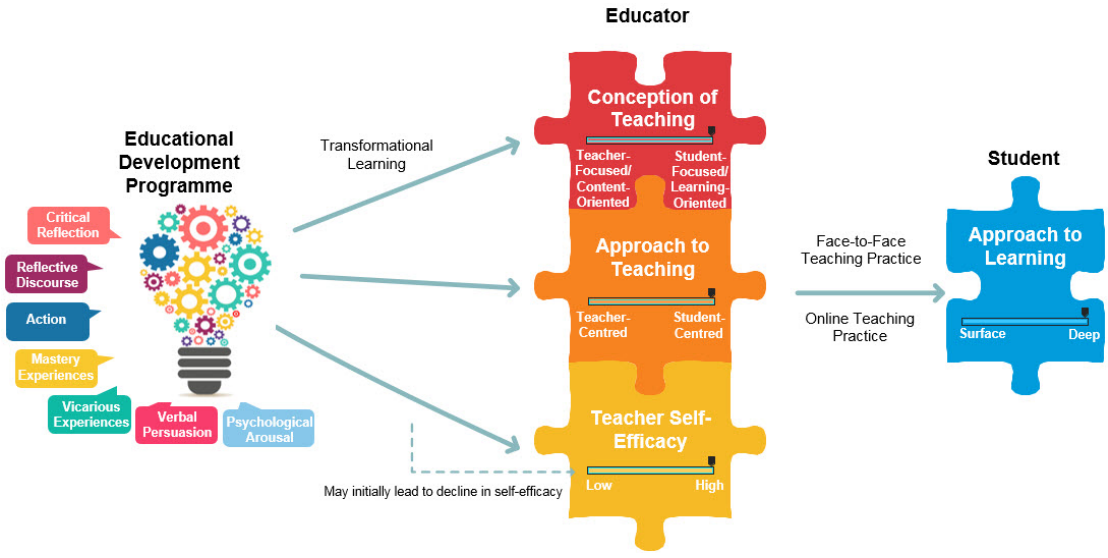


Figure 2.1 - Conceptual framework

The literature has identified a continuum of teaching conceptions which range from strongly teacher-focused and content-oriented conceptions on the one end, to strongly student-focused and learning-oriented on the other (Calderhead, 1996; Kember, 1997; Trigwell & Prosser, 2004). This continuum is illustrated in the conceptual framework by the first puzzle piece labelled Conception of Teaching under Educator which represents the attributes of the educator. Within the Conception of Teaching puzzle piece, you will see that there is a slider which represents the fact that an educator's conception of teaching can range from teacher-focused and content-oriented conceptions to strongly student-focused and learning-oriented. In the conceptual framework the slider is set to the student-focused/learning oriented side to indicate that participation in an educational development for online teaching can result in a shift to a more student-focused conception of teaching.

Educators' conceptions of teaching have been shown to affect the way they approach their teaching. Educators who conceive teaching as transmitting knowledge are more likely to adopt a teacher-centred approach to teaching, while those who view teaching as more of a facilitative process are found to use more student-centred approaches (Eley, 2006; Kember 1997; Kember & Kwan 2000; Postareff et al., 2007; Prosser, Trigwell & Taylor, 1994; Samuelowicz & Bain 1992;). Studies also suggest that a similar continuum of teaching conceptions and approaches to teaching are evident in the online environment (Ellis et al., 2006; González, 2009; Gonzalez, 2010; Lameras et al., 2012; Roberts, 2003). The relationship between conceptions of teaching and approach to teaching is demonstrated within the conceptual framework by the joining of the Conception of Teaching and the Approach to Teaching puzzle pieces. The Approach to Teaching puzzle piece also contains a slider to indicate that an educator's approach to teaching can range from teacher-centred to student-centred. In the conceptual framework the slider is set to the student-centred side to indicate that participation in an educational development for online teaching can result in a shift to a more student-centred approach to teaching.

The literature confirms that participation in educational development programmes has the potential to impact educators' conceptions of teaching and that there has been evidence of a shift from teacher-focused to student-focused approaches in teaching and learning following participation in educational development programmes (Butcher & Stoncel, 2012; Cilliers & Herman, 2010; Gibbs & Coffey, 2004; Ginns et al., 2008; Hanbury et al., 2008; Ho et al., 2001; Hubball et al., 2005; Postareff et al., 2007; Stes et al., 2010). For example, Gibbs and Coffey (2004) conducted a large-scale study on the effectiveness of university teachers' training involving 22

universities in 8 countries. They studied a training group of teachers and their students at the start of their training and one year later, and a control group of new teachers and their students that received no training. They reported that the training group became less Teacher Focused and more Student Focused by the end of the training. Cillers and Herman (2010) examined an educational development programme that was designed to help prepare academics for their teaching task at Stellenbosch University in South Africa, and discovered that the vast majority of participants indicated that they thought differently about their teaching after attending the programme. Ninety-two percent of the respondents thought more critically about how they taught and assessed students and sixty-three percent reported enhanced knowledge about how to reflect on their teaching. Similarly, Butcher and Stoncel (2012) explored the impact of a Postgraduate Certificate in Teaching in Higher Education on new lecturers at the University of Northampton in the UK. Participants in their study reported that they had changed their behaviours as a result of the Certificate and had become more student-centred and more willing to reflect on their teaching practice. Hanbury et al. (2008) also focussed on the UK context and looked at the impact of accredited educational development programmes at 32 UK higher education institutions. They found that participants perceived themselves to be significantly more student-focused in their teaching after attending the educational development programmes. Additional studies also reported similar results demonstrating a connection between participation in educational development and a shift from teacher-centred to student-centred approaches to teaching (Ginns et al., 2008; Ho et al., 2001; Hubball et al., 2005; Postareff et al., 2007; Stes et al., 2010).

Studies have also found that the experience of participating in educational development can lead towards change in both the face-to-face and online teaching practices (Barczyk et al., 2011; Buckenmeyer et al., 2013; Crowne & Marlowe, 1964; McQuigan, 2012; Owens, 2012; Shea et al., 2002). Being able to apply knowledge and skills learned in educational development programmes towards changes in teaching practice provides evidence that transfer of learning has occurred (Baldwin & Ford, 1988; Blume et al., 2010). The potential change in both face-to-face and online teaching practices is represented within the conceptual framework by the arrow from the Approach to Teaching puzzle piece labelled Face-to-Face Teaching Practice and Online Teaching Practice. This arrow indicates that a shift in approach to teaching towards a more student-centred approach can lead to potential changes in an educator's face-to-face and online teaching practice.

It has also been established that when student-centred approaches to teaching are adopted, students tend to present deeper approaches to learning and achieve better quality learning outcomes (Gibbs & Coffey, 2004; Hanbury et al., 2008; Ho et al., 2001; Trigwell & Prosser, 2004). Within the conceptual framework, there is a puzzle piece labelled Approach to Learning under Student which represents the attributes of the student. Within the Approach to Learning puzzle piece, you will see that there is a slider which represents the fact that a student's approach to learning can range from surface to deep. In the conceptual framework the slider is set to the deep side to indicate that when educators' use student-centred approaches to teaching, students tend to demonstrate deeper approaches to learning.

Past research indicates that teacher self-efficacy may also influence an educators' approach to teaching as well as student achievement (Gibson & Dembo, 1984; Yang et al., 2006). Educators with high self-efficacy tend to be more willing to explore new teaching strategies and methods, and employ more student-centred learning practices in their classrooms (Allinder, 1994; Ashton & Webb, 1986; Czernaik, 1990; Goddard et al., 2004; Tschannen-Moran et al., 1998; Tschannen-Moran & Woolfolk Hoy, 2001; Woolfolk Hoy, 1990; Wheatley, 2005). High levels of teaching self-efficacy beliefs have also been consistently correlated with higher student achievement and deeper approaches to student learning (Ashton et al., 1984; Ashton & Webb, 1986; Henson et al., 2001). Conversely, low levels of self-efficacy correlate with more teacher-centred approaches to teaching and poorer student achievement (Robina, 2008). The relationship between teacher self-efficacy and approach to teaching is demonstrated within the conceptual framework by the joining of the Approach to Teaching and Teacher Self-Efficacy puzzle pieces. The Teacher Self-Efficacy puzzle piece also contains a slider to indicate that teacher self-efficacy can range from low to high. In the conceptual framework the slider is set to the high side to indicate that participation in an educational development for online teaching can result higher self-efficacy.

Researchers have also found that participation in educational development programmes can lead to increases in educators' sense of self-efficacy (Horvitz & Beach, 2011; Postareff et al., 2007; Prieto & Meyers, 1999) with longer training periods resulting in greater increases. It has also been suggested that participation in educational development programmes can initially result in a negative effect on self-efficacy because they raise the educators' awareness of good teaching practices, which can make them more uncertain about themselves as teachers (Postareff et al., 2007; Tschannen-Moran et al., 1998). This potential decrease in self-efficacy is

represented within the conceptual framework by the dotted arrow from the educational development programme to the Teacher Self-Efficacy puzzle piece which indicated the possible decline in self-efficacy.

Bandura (1977; 1997) proposed four possible sources of self-efficacy: (1) mastery experiences; (2) vicarious experiences; (3) verbal persuasion; and (4) physiological arousal. These four possible sources of self-efficacy are included within the conceptual framework under the Educational Development Programme section as factors that contribute to the programme. Educational development programmes that provide hands-on opportunities for participants to try out tasks and experience successful completion have the most potential for raising self-efficacy beliefs. In addition, educational development programmes that encourage peer observation and allow participants to see the successes of others can contribute positively to self-efficacy. The inclusion of encouraging facilitator and peer feedback through verbal persuasion, along with a positive learning climate can also help to build self-efficacy among participants.

Moreover, previous studies have provided evidence that educational development programmes have the potential to inspire transformational learning, especially those that incorporate critical reflection, reflective dialogue and opportunities for active learning (Cranton, 2006; Hubball et al., 2005; King, 2002; King 2004; Meyer, 2013). These three aspects of transformational learning are also represented within the conceptual framework under the Educational Development Programme section as factors that contribute to the programme. Learning is said to be transformative when learners' views of their world are altered through their learning, enabling them to achieve a different perspective than they had previously held (Cranton, 2006; Mezirow, 1997). Participation in an educational development programme has the potential to encourage educators to critically examine their beliefs and assumptions about teaching and shift their approaches to teaching toward more student-centred teaching practices (King, 2002). The potential for transformational learning is indicated within the conceptual framework by the arrow labelled Transformational Learning which flows from the Educational Development Programme to the Conception of Teaching puzzle piece indicating that transformation learning as a result of participation in an educational development programme can cause a change in an educator's conception of teaching.

Chapter 3 Research Design

3.1 Introduction

The main goal of this thesis was to examine the impact of the Online/Hybrid Course Development Institute on college educators' teaching practice, and to determine if there was any change to their previously held assumptions and beliefs about teaching as a result of participating in the Institute. This study also aimed to understand how participation in the Online/Hybrid Course Development Institute impacted educators' confidence in their ability to teach (self-efficacy) and attempted to determine if there was a link between educational development for online teaching and educator perceptions of their ability to be successful teachers. This study addressed the following main and sub research questions:

Main Research Question

1. How does participation in the Online/Hybrid Course Development Institute impact college educators' teaching practice?

Sub-Research Questions

1. What changes, if any, do educators experience in their previously held assumptions and beliefs about teaching as a result of participating in the Online/Hybrid Course Development Institute?

2. What changes, if any, do educators experience in their confidence in their ability to teach (self-efficacy) as a result of participating in the Online/Hybrid Course Development Institute?

This chapter discusses the research design and the methods used to explore the participants' experience in the Online/Hybrid Course Development Institute. The chapter begins with a discussion of the philosophical worldview that frames the study and then goes on to discuss in detail the methodology and case study design approach that was adopted during the study. The participants are described, followed by a detailed explanation of the data collection and analysis techniques employed. The chapter continues with a discussion of the role of the researcher, the trustworthiness of the findings, the limitations and weaknesses, and an explanation of the ethical considerations applicable to the study.

3.2 The Researcher

As previously mentioned, the constructivist worldview emphasises the social construction of knowledge (Creswell, 2013). This approach recognises that researchers play an active role in the formation of knowledge, as their own interpretations of the data are a social construction (Guba & Lincoln, 1989). According to Guba and Lincoln (1989) "...it is impossible to separate the inquirer from the inquired into..." (p.88), and as such, the results of this research will be a subjective interpretation of the data that has been collected. Therefore, the constructivist researcher should acknowledge their experience and beliefs, as they can impact the formation and construction of the participants' knowledge (Audi, 2003). I have been an educational developer for the Centre for Academic and Faculty Enrichment (C.A.F.E) at Durham College for just over three years, and I am responsible for developing and conducting online and face-to-face workshops, and providing one-on-one consultation for the design and development of effective web-based, hybrid and online courses. I also co-developed and co-facilitate the Teaching Methods, Curriculum Design and Development, Assessment and Evaluation, Diversity in Teaching in Learning, and Professionalism and Scholarly Practice courses in our College Teaching Certificate programme. Prior to this, I worked for five years as a learning technologies specialist at the C.A.F.E where I provided consultation to educators on the use of variety of instructional technologies, including our Learning Management System (LMS) and I was also responsible for the research, implementation and evaluation of new learning technologies on campus.

I also have a broad range of experience developing and facilitating web-based, hybrid and online courses at the post-secondary level and have taught in the School of Interdisciplinary Studies and Employment Services and the School of Continuing Education at Durham College, and in the Faculty of Education at the University of Ontario Institute of Technology (UOIT). I also have a Master of Education in Distance education from Athabasca University. I recognise that my own background and experiences in educational development and online and hybrid teaching and learning shape the interpretations and findings of this study (Creswell, 2012 ; MacKenzie & Knipe, 2006).

At the heart of my role as an educational developer is a core value of enhancing teaching and learning, and ultimately the educational experiences of students (Wright, 2002). My approach to educational development is also closely connected to the "personal" or "counseling model" as outlined by Boud and McDonald (1981) as my

aim is to support fellow educators in both their personal and professional development. I have learned that there are multiple approaches to improving teaching and learning in higher education; however, at the core of my work is a commitment to student-centredness and active learning. Based on my own background and experience, I believe that educational development has the potential to positively impact educators, and for some educators it can lead to a shift from teacher-focused to student-focused approaches in teaching and learning and to greater self-efficacy (Postareff et al., 2007). I came to this research with an interest in exploring whether this was the case with the Online/Hybrid Course Development Institute.

I was responsible for developing the Online/Hybrid Course Development Institute in 2011 and I have been facilitating the Institute since its inception. The Institute is a voluntary professional development opportunity and there are no grades or professional rewards associated with participating in the Institute. My approach to facilitating the Institute models my core values and demonstrates both active learning and student-centredness. The Institute incorporates collaborative learning groups, creative problem-solving and case study activities, student presentations, and the use of digital technology to actively involve students in their own learning. I also work hard to foster a positive learning climate and I have been able to build good rapport with most of the Institute participants, which has allowed for a very comfortable and informal learning environment. It should be noted that although my title is educational developer, I am classified as a full-time faculty member, which means that I have the same employment status as the participants in the Institute, and I am viewed by most as a colleague or peer facilitator.

Given my role as the facilitator of the Online/Hybrid Course Development Institute, I brought an insider perspective to this research as someone with "lived familiarity with the group being researched" (Griffith, 1998, p. 362). As an insider, I was privileged in understanding my participants' professional activities and their roles and responsibilities, and my insider status also assisted with the ease of rapport during the interviews. However, given my insider status I found it difficult at times to elicit responses because the participants wanted to engage in personal conversation and discuss topics that were not necessarily related to the interview questions. I also found that sometimes participants did not provide specific details because of our shared common knowledge (DeLyser, 2001). Furthermore, I am aware that my role as an insider and facilitator of the Online/Hybrid Course Development Institute may have impacted the participants' interview responses. It is possible that given my

collegial relationship with the participants, they may not have been as forthcoming about negative experiences in the Online/Hybrid Course Development Institute for fear of offending me (Shah, 2004).

3.3 Paradigm of Inquiry/Research Stance

All research is guided by a paradigm of inquiry, a set of basic beliefs representing the researcher's worldview (Guba & Lincoln, 1994). Researchers bring their worldviews to the research project, and these inform the design and conduct of the study (Creswell, 2012). According to Creswell (2013) researchers should "make explicit the larger philosophical ideas they espouse" (p. 6) in order to help readers understand and assess why elements of a research design were selected. Worldviews can be seen as the general orientation about the world and the nature of the research that a researcher holds (Creswell, 2013), or the "basic set of beliefs that guide action" (Guba, 1990, p. 17). The worldview of the researcher provides a foundation for conceptualising the research design, a rationale for choosing qualitative, quantitative, or mixed methods approaches to answer the research questions, and helps to explain why a specific methodology was selected over other options (Babchuk & Badiee, 2010).

The philosophical worldview adopted in this study is closely aligned to the constructivist worldview. Constructivism asserts that meaning is constructed by human beings as they engage with the world they are interpreting (Crotty, 1998). Constructivists theorize that "knowledge is a process of actively interpreting and constructing individual knowledge representations" (Jonassen, 1991, p. 5). From a constructivist perspective, the objective of research is to "rely as much as possible on the participants' view of the situation being studied" (Creswell 2013, p. 9). In this worldview the researcher's objective is to interpret the meanings others have about the world, rather than starting with a theory. The creation of meaning results from discussions or interactions with other people, and the focus is on the specific contexts in which people live and work (Creswell, 2013).

I come to this study as an educational developer whose role is to help fellow college educators design and facilitate meaningful student learning experiences. I support educators in many aspects of teaching, from classroom, online, or hybrid delivery and effective uses of educational technologies, to best practices in teaching and learning. I strive to implement learner-centred and collaborative educational development approaches that promote a positive climate for learning (Newmaster et al., 2006;

Weimer, 2002). In exploring the different worldviews, I take the constructivist view that there are multiple realities which are socially constructed. I recognise that educators construct their own knowledge, which is influenced not only by their personal experience and background but also by their interactions with me as an educational developer, their peers, the institution, and the broader context within which they teach including the social, cultural, historical, ethnic, and political environment (Schram, 2003; Sorcinelli et al., 2006).

3.3.1 Ontology

Guba and Lincoln (1994) suggest that ontological assumptions are concerned with the question "What is the nature of reality?" From a constructivist perspective, reality is constructed through human relationships and is situated within a historical moment and social context (Creswell, 2013). The focus is on providing an interpretation of how people make sense of a situation at a particular point in time (Blaxter, Hughes & Tight 2006). Constructivists believe that reality is created by the mind, and that different contexts can create multiple social realities. In this view, reality is specific to an individual and their social context, although similarities may exist between individuals (Bisman & Highfield, 2013).

My ontological position is largely informed by constructivism as I believe that knowledge is influenced by interactions and socially constructed (Creswell, 2013). In this investigation of the impact of the Online/Hybrid Course Development Institute on college educators' teaching practice, I believe that there exist multiple constructed realities, rather than a single objective reality. The participants in the study interpreted and constructed their own vision of reality through the discussion of their experiences in the Online/Hybrid Course Development Institute (Patton, 2002). These realities are influenced and shaped by the participants' experiences and perceptions, the environment, and the interaction between the participants and me as the researcher (Ponterotto, 2005).

3.3.2 Epistemology

Epistemology is concerned with the question of "What is the nature of the relationship between the research participants and the researcher?" (Guba & Lincoln, 1994). The constructivist paradigm assumes that knowledge is socially constructed, and that findings emerge from the interaction between the participant and the researcher (Patton, 2002).

Following a constructivist viewpoint, I believe that knowledge is constructed through interactions between the researcher and participants and that together they create the findings or knowledge. In this study, meaning and reality were determined collectively through the face-to-face interviews, and knowledge acquisition was interactional and collaborative (Patton, 2002). The reciprocal relationship between the participants and me was central to examining the impact of the Online/Hybrid Course Development Institute on the participants' teaching practice (Ponterotto, 2005).

3.4 Methodology

Methodology is the "strategy or plan of action" which influences the choice of methods (Crotty, 1998, p. 7). Methodology is concerned with "how the inquirer, or researcher, should go about finding out knowledge" (Guba, 1990, p. 18). The methodology should emerge from the researcher's ontological and epistemological orientation (Ponterotto, 2005). Given that this research is based on a constructivist worldview, and the purpose of this study was to gain a greater understanding of how participants perceive the impact of the Online/Hybrid Couse Development on their teaching practice, a sequential mixed methods approach was deemed an appropriate design for this study. A mixed methods study intentionally combines quantitative and qualitative methods as components of the research design (Creswell, 2013). "Key to mixed methods research is careful connection of the qualitative and quantitative portions of the study" (Elgie et al., 2012).

According to Greene (2007), a mixed methods approach is useful for capturing the context of educational phenomenon and the social aspects of education. Thus, the use of a mixed methods approach is well-suited to understanding topics related to teaching and learning, and is appropriate for the educational environment of this study. This study employed a sequential mixed methods design where "one method is implemented first, and the results are used to help select the sample, develop the instrument, or inform the analysis for the other method" (Greene, Caracelli & Graham, 1989). For the purpose of this study, a quantitative methodology was employed through an online survey to gather demographic data in order to identify a purposive sample of potential interview participants and to inform the interviews and documentary analysis. A qualitative methodology was employed through the interviews and documentary analysis. In this study, priority was given to the qualitative aspect of the research (Creswell, Fetters & Ivankova, 2004) with emphasis

placed on the interview data as the research questions were focused on an "understanding of the social world through an examination of the interpretation of that world by its participants" (Bryman, 2004, p. 266).

The qualitative research method assumes that meaning is embedded in the participant's experience (Merriam, 1998). Therefore, a qualitative methodology is suitable when the focus of the research is on understanding the meaning individuals or groups ascribe to a social or human phenomenon, which was the main goal of this research study (Creswell, 2013). Qualitative research also involves researchers studying participants in their natural settings, which was a requirement of this study given the academic setting. Furthermore, qualitative research involves an inductive approach to inquiry that focuses on building abstractions, concepts, and theories rather than testing existing theory as is the case with quantitative research (Merriam, 1998). In line with a qualitative design (Patton, 2002), this study is oriented towards exploration and discovery, and will attempt to make sense of the situation without imposing pre-existing theories or expectations. Also following a qualitative approach, I acted as the primary instrument of data collection and data analysis in this research and directly interacted with the participants and looked for meaning in context (Merriam, 1988).

In determining the most appropriate research method for this study, several designs were considered. The first research method that was taken into consideration was action research, as it involves practitioners studying their own professional practice with the immediate goal of assessing, developing or improving their practice (Kemmis & McTaggart, 1988). The literature confirms that it can take some time before change can be evidenced following participation in an educational development initiative (Postareff et al., 2007). Due to these constraints, it was determined that action research was not a good fit for this particular study.

Phenomenology was also considered as a research design given that it explores the lived experiences of participants (Lasch et al., 2010). When using phenomenology, the participants in the study need to consist of individuals who have all experienced the phenomenon in question (Creswell, 2012). The focus of this study is on investigating whether participation in the Online/Hybrid Course Development Institute impacts teaching practice. To carry out a phenomenological approach, various educators who claim to have been impacted by the Institute would have to have been selected as the participants. It was felt that this would limit the findings of this study as the researcher was also interested in participants who may not have been

impacted by the Institute. As such, phenomenology was deemed an inappropriate method for this study.

The final research method that was considered was grounded theory which requires going beyond description in order to generate a theory "grounded" in the data from participants who have experienced the process (Creswell, 2012). Grounded theory was not chosen as a method for this study because prior research has already provided a theoretical base for the research, and theory development was not a goal of this research.

3.5 Case Study Design

A single descriptive case study approach was determined to be the most appropriate method for this study, as it allowed the researcher to capture the rich and detailed experiences of the educators in the Online/Hybrid Course Development Institute (Yin, 2009). According to Yin (2003) a case study design should be considered when: (1) the focus of the study is to answer "how" and "why" questions; (2) you cannot manipulate the behaviour of those involved in the study; (3) you want to cover contextual conditions because you believe they are relevant to the phenomenon under study. Given that this proposed study focused on "how" research questions, the researcher had no control over the participants' behaviour, and the research cannot be easily separated from the context, case study design was deemed to be suitable for this study (Baxter & Jack, 2008). In addition, a case study follows the constructivist tradition of research, recognising "the complexity and embeddedness of social truths" (Louis, Lawrence & Keith, 1994, p. 292) and as such, it is consistent with the worldview of this research.

Case studies have been widely recognised as an appropriate research method in education (Merriam, 1998; Stake, 1995; Yin, 2003). A case study is a specific, bounded example of a more general situation, described in sufficient detail and depth as to allow others to identify with the case (Cohen, Manion & Morrison, 2007). Case study research can take a number of forms; it can be exploratory, descriptive or explanatory and can be designed around a single case or multiple cases (Cohen et al., 2007). A single case study design allows a deep and narrow investigation of one particular instance, and a descriptive approach allows for an in-depth study of a phenomenon in its real-life context (Gall, Gall & Borg, 2007). According to Merriam (1998) the "single most defining characteristic of case study research lies in delimiting the object of study: the case" (p. 27). Defining the boundaries or

specifying the unit of analysis is the key decision point in case study designs (Yin, 2003). For the purpose of this study, the Online/Hybrid Course Development Institute was considered the case. A holistic approach through a single descriptive case study was chosen with the aim of conducting a detailed investigation into the impact of the Online/Hybrid Course Development Institute on college educators' teaching practices from 2011 to 2014 (Yin, 2003).

A retrospective design was utilised because the research questions were focused on the impact of the Online/Hybrid Course Development Institute on college educators' teaching practice. According to the literature it is possible for educators to experience a shift from teacher-focused to student-focused approaches in teaching and learning and self-efficacy following participation in educational development programmes, although changes can be slow and it can take some time before positive changes emerge (Postareff et al., 2007). Thus, it was felt that a retrospective approach would be most appropriate for measuring the impact of the Institute over time. In addition, in order to determine the impact of the Institute on educators' teaching self-efficacy, they have to have taught at least one online/hybrid course since participating in the Institute, which may not occur until several semesters after they have taken the Institute due to scheduling and workload issues. The Online/Hybrid Course Development Institute was not established with comprehensive evaluation in mind; thus, there was no existing pre-test data that could be utilised, which also argued for a retrospective approach. Another benefit of the retrospective design is that the researcher is the facilitator of the Online/Hybrid Course Development Institute, and examining the participants' experiences after that fact may reduce bias and lead to more honest responses from participants.

3.6 Study Participants

After receiving ethics approval, a list of all educators who participated in the Online/Hybrid Course Development Institute from spring 2011 to winter 2014 was generated which included 91 potential participants. When using a case study, Stake (1995) argues "the first criterion for selection should be to maximize what we can learn" (p. 4). This date range was consistent with the retrospective case study design, and it was hoped that this wide range would maximise the data that could be collected. An invitation was sent via email to this list of educators inviting them to participate in the research study in late September 2014. The invitation included a link to the online survey and implied consent was requested as participants were asked to click the link to the online survey if they wished to participate. A reminder

email was sent with a brief summary of the research study and link to the survey tool two weeks after the initial invitation was sent out. At the five-week mark, the survey was closed. A total of 34 educators completed the online survey and 28 indicated that they were willing to participate in a face-to-face interview.

A purposive sample was then used to select potential interview participants that met the following inclusion criteria: (1) had at least one year of experience teaching face-to-face at Durham College prior to taking the Online/Hybrid Course Development Institute in order to have accumulated some assumptions and beliefs about teaching in higher education; (2) were currently teaching at least one face-to-face course at Durham College; and (3) had taught at least one online/hybrid course since completing the Online/Hybrid Course Development Institute. The selection of participants was not intended to be representative of all educators; rather, they were chosen for the purpose of providing insights into the differences and similarities of educator experiences. Of the 28 participants who indicated in the online survey that they were willing to participate in a face-to-face interview, 21 met the inclusion criteria. Those individuals who met the inclusion criteria were contacted via email after the online survey closed. They were asked to reply to the email to confirm their continued interest in participating in a face-to-face interview and it was requested that they provide some days and times that they were available so that we could schedule a face-to-face interview at a time and location of their convenience. A total of 18 educators ended up replying to the email and participating in a face-to-face interview.

3.7 Data Collection Instruments

According to Yin (2003) the strength of the case study approach is in its ability to examine a "full variety of evidence – documents, artefacts, interviews, and observations" (p. 8). The data collection for this case study consisted of an online survey, in-depth interviews with educators, and an analysis of educator-provided documentary evidence. Data collection was completed during a five month period from September 2014 to January 2015.

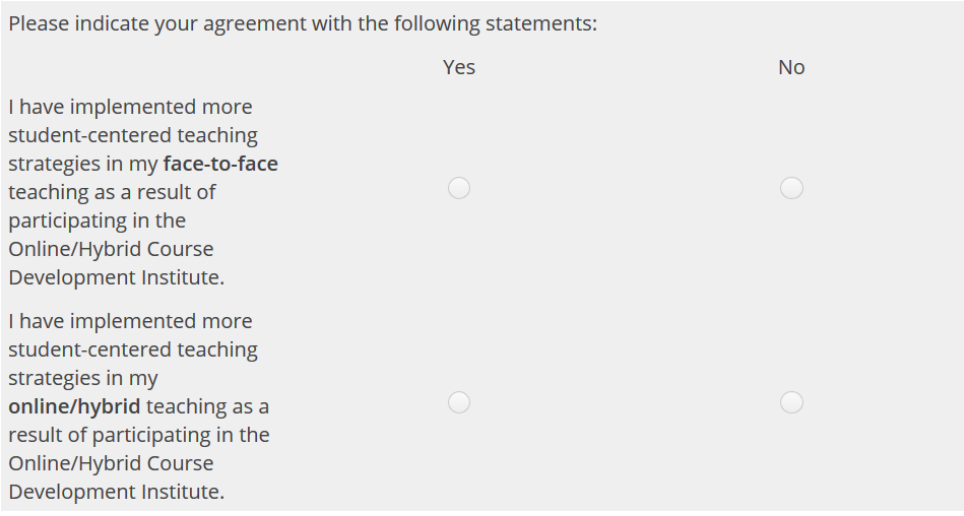
3.7.1 Online Survey

An online survey was developed to provide background for the data analysis and to gather demographic data in order to identify a purposive sample of potential interview participants. It also asked for initial thoughts on the research questions and helped form the foundation for the interviews. The online survey was created using

FluidSurvey, an online survey tool (www.fluidsurveys.com). This tool was chosen because the data are stored in Canada and it was guaranteed that any data collected was for the sole use of the person collecting the data, and would not be accessed or utilised by the website or other outside groups or sources. The survey included questions related to basic demographic information and asked respondents to indicate: age, gender, department and programme information, discipline, years of teaching experience, employment status, highest level of education completed and when they had participated in the Online/Hybrid Course Development Institute. It also included questions about face-to-face, hybrid and online teaching experience including the following:

- How many years had you taught face-to-face prior to completing the Online/Hybrid Course Development Institute?
- Did you have any experience teaching online before you completed the Online/Hybrid Course Development Institute? If Yes, how many years of experience did you have teaching online before completing the Online/Hybrid Course Development Institute?
- Have you taught at least one online/hybrid course since completing the Online/Hybrid Course Development Institute?

The survey also included several questions that focused on the impact of the Online/Hybrid Course Development Institute on educators face-to-face and online/hybrid teaching practice and self-efficacy (see Figure 3.1).



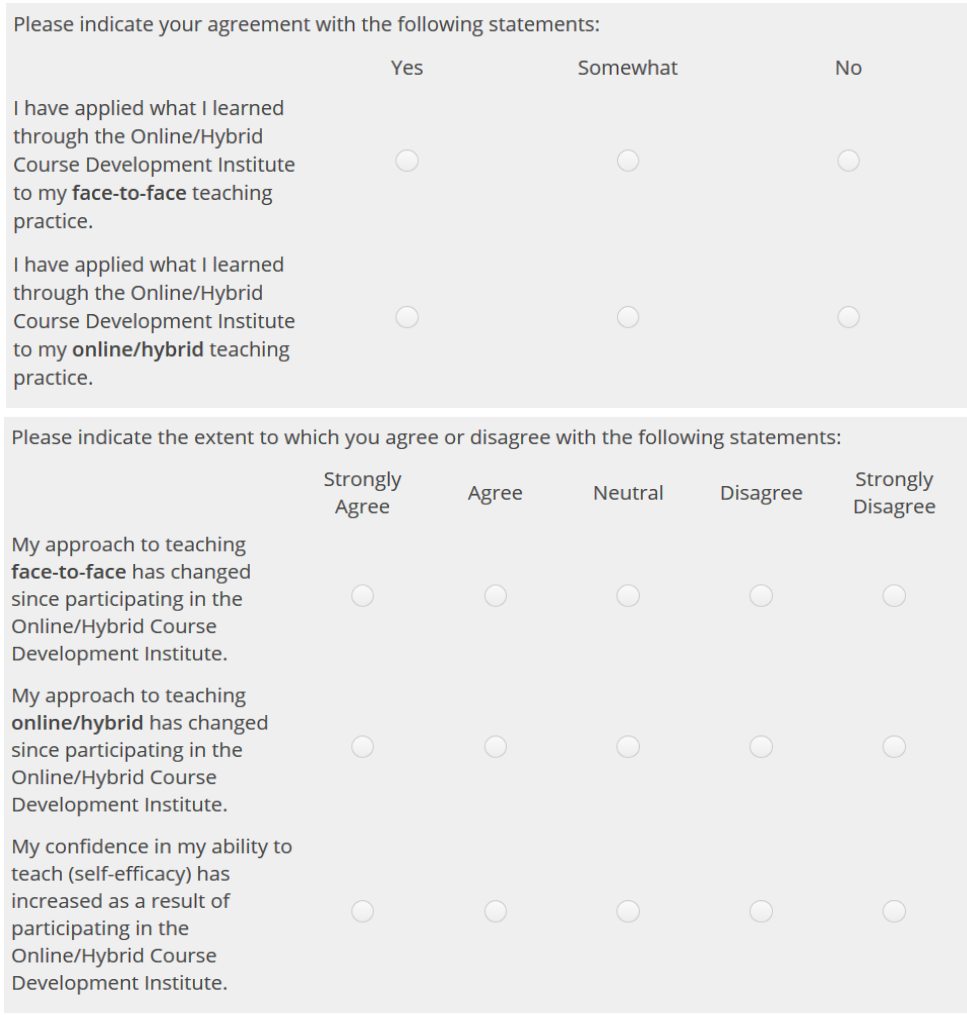


Figure 3.1 - Online survey questions

There was also a question that asked participants to indicate whether they would be willing to participate in a face-to-face interview, and an option to provide an email address in order to schedule the interview was provided.

3.7.2 Interviews

The goal of the interviews was to gain an understanding of how educators applied what they learned from the Institute into their teaching practice and how their approaches to teaching or self-efficacy changed as a result of participating in the Institute. The guiding questions were developed based upon my understanding of the educational literature and the study's primary research questions and guiding conceptual framework. In preparation for the interviews, I pilot-tested my protocol with three educational developer colleagues in order to detect any weaknesses or flaws in the interview design (Turner, 2010). Following the pilot, I modified some

questions and probes and created the final protocol that I used as a guide to provide an overall framework for the actual interviews.

The final interview protocol included the following questions:

1. Why did you enrol in the Online/Hybrid Course Development Institute?
    - What were your anticipated outcomes from completing the Institute?
    - How did the Institute meet your expectations?

2. What was the most important thing that you learned from the Online/Hybrid Course Development Institute?

3. How, if at all, have you applied what you learned through the Online/Hybrid Course Development Institute to your current teaching practice, either face-to-face or online?
    - If applicable, please provide two or three specific examples and include documentation or artefacts that can provide evidence of how you have applied your learning (i.e. course outlines, lesson plans, content, assignments, assessments, etc.)

4. How, if at all, has your approach to teaching or conception of teaching changed since participating in the Online/Hybrid Course Development Institute?
    - What was your approach to teaching before enrolling in the Online/Hybrid Course Development Institute? What is your approach to teaching since completing the Online/Hybrid Course Development Institute?
    - If applicable, please provide two or three specific examples and include documentation or artefacts that can provide evidence of any changes in teaching approach (i.e. course outlines, lesson plans, content, assignments, assessments, etc.)
    - If your teaching approach has not changed, please say so, and explain why.

5. How, if at all, has your participation in the Online/Hybrid Course Development Institute had a lasting impact on you? Have you made changes in your teaching activities, or in your activities more generally, that relate to your participation in Online/Hybrid Course Development Institute?
    - If applicable, please provide two or three specific examples and include documentation or artefacts that can provide evidence of lasting impact (i.e. course outlines, lesson plans, content, assignments, assessments, etc.)

6. What elements (content, format, teaching and learning strategies, etc.), if any, of the Online/Hybrid Course Development Institute had the greatest influence on you?

7. How do you feel the Online/Hybrid Course Development Institute affected your feelings of confidence (self-efficacy) in your online or face-to-face teaching ability?

8. How do you think your feelings of confidence in your online teaching ability (self-efficacy) have affected your capability to persist in online or face-to-face teaching?

9. How, if at all, has your participation in the Online/Hybrid Course Development Institute affected the students you teach?
    - If applicable, please provide two or three specific examples and include documentation or artefacts that can provide evidence of impact on students (i.e. course outlines, lesson plans, content, assignments, assessments, etc.)

10. Is there anything that you would like to add about your experience taking the Online/Hybrid Course Development Institute, and/or any impact Online/Hybrid Course Development Institute may have had on your professional practice?

A mutually agreed-upon meeting date, time, and location for each interview was arranged via email and participants were sent a copy of the interview consent form and protocol, and were asked to bring documentation or artefacts (i.e. course outlines, lesson plans, content, assignments, assessments, etc.) with them to the interview that represented changes to their teaching, provided they felt comfortable sharing this information. Of those 21 participants that met the inclusion criteria, 18 ended up replying to the email and arranging a face-to-face interview. The interviews took place between October 2014 and January 2015. The participants were given an option of selecting a location of convenience for the interview, and they all opted to meet in my office in the Centre for Academic and Faculty Enrichment (C.A.F.E).

The interviews ranged in length from 30 to 60 minutes. To prepare for the interviews, participants received a copy of the interview protocol and questions. The interviews were semi-structured, in that they addressed a common set of questions; however, the answers and the way the discussion progressed were dependent upon the interviewee (Roulston, 2010). Given that I was the facilitator of the Online/Hybrid Course

Development Institute, I had an established professional relationship with all of the participants, so it was natural for me to use a conversational style and using this approach I was able to probe other topics, ask additional questions, and clarify responses when necessary.

All of the interviews began with me thanking the educators for agreeing to participate. I explained that they were free to withdraw at any time and that all of their data would be removed from my research and destroyed if they decided not to continue. I also explained that I would be digitally recording the interview for transcription by a third-party and checked they had no objection with this. If they were happy to proceed they were asked to sign the interview consent form. In view of my collegial relationship with the participants, I was able to establish rapport and create a comfortable atmosphere for conversation. The digital recordings of the interviews were provided to a third-party transcriptionist who transcribed them verbatim (some off-topic conversations omitted). A copy of the transcript was forwarded to the participant to review and comment on. Once the transcripts had been agreed on, I created pseudonyms for each participant using a random name generator so that their data remained confidential.

3.7.3 Documentary Evidence

Interview participants were asked to provide documentary evidence (i.e. course outlines, content, assignments, and assessments) to illustrate specific changes that they have made as a result of participating in the Institute. Participants were provided with the interview questions in advance of the interviews so that they could prepare the documentary evidence to bring to the interview. It was hoped that the documentary evidence could be used to triangulate the data and validate the self-reported information gathered in the interviews. Unfortunately, only six of the participants supplied documentary evidence. One brought it with them to the interview, three provided it via email as a follow-up to the interview, and two provided it via email after review of their transcript.

Over the course of this study, I became aware that my role as the facilitator of the Online/Hybrid Course Development Institute and as an educational developer may have impacted the participants' willingness to share documentary evidence. Given the collegial and ongoing relationship that I have with the participants, I did not feel that it was appropriate to ask participants directly why they did not provide documentary evidence. However, I got the sense that although participants did not

mind talking about their teaching practice, they were less comfortable providing concrete evidence. While I cannot be sure, I wondered whether my role contributed to the reluctance of the participants to present documentary evidence and whether fear of judgement or critique might have been a factor in the participants' disinclination to share documentary artefacts.

3.8 Data Analysis Procedures

3.8.1 Online Survey

With the online survey data I did a preliminary analysis inside the FluidSurvey software for general frequencies, percentages and text responses. Frequencies and percentages were examined for each question related to demographics (i.e., age, gender, department and programme information, years of experience, employment status, and highest level of education completed) and face-to-face, hybrid and online teaching experience. For the Likert questions that focused on the impact of the Online/Hybrid Course Development Institute on educators face-to-face and online/hybrid teaching practice and self-efficacy, the scale ranged from 1 to 5, with 1=strongly disagree, 2=disagree, 3=neutral, 4=agree, 5=strongly agree. Each Likert scale question was also analysed in terms of frequency and percentage. This analysis was intended to provide initial insight into the impact of the Online/Hybrid Course Development Institute on teaching practice and to discover whether or not the findings indicated any perceived changes in teaching practice, previously held assumptions and beliefs about teaching and self-efficacy after participating in the Institute.

3.8.2 Interviews

The data analysis procedure for this study consisted of a thematic analysis of the interview transcripts based on Braun and Clarke's (2006) six-phase approach (Phase 1: familiarising yourself with your data; Phase 2: generating initial codes; Phase 3: searching for themes; Phase 4: reviewing themes; Phase 5: defining and naming themes; Phase 6: producing the report) to identify, analyse, and report the patterns/themes within data. Thematic analysis is a method for identifying and reporting patterns in order to interpret data (Braun & Clarke, 2006). Although Braun and Clarke (2006) present these as linear steps, they acknowledge that the process requires an iterative approach throughout the analysis. Braun and Clarke's (2006) approach was chosen because it allows for both inductive and deductive analysis, it

can be used to explore both explicit and implicit meanings of the data, and it can help to compare and contrast themes in order to view the whole picture (Alhojailan, 2012). Familiarisation with the data involved reading through the transcripts several times to get an overview of the whole data set and generating notes on any salient thoughts or emerging points. I then coded each transcript one at a time and used an inductive approach to build up the codes as each transcript was added. The codes were constantly refined as each transcript was addressed and the data were organised into meaningful groupings. Once a full set of codes was generated I organised and collated these into themes. A theme is described as "capturing something important about the data in relation to the research question and representing some type of patterned response or meaning within the data set" (Braun and Clarke, 2006, p. 82). Braun and Clarke suggest that deciding on themes "...is a question of prevalence, in terms both of space within each data item and of prevalence across the entire data set" (2006, p. 82).

After the initial coding process, I then entered the data into NVivo 10 qualitative research software for final analysis and theme identification. Themes were refined and collapsed to form a coherent pattern and thematic map. If needed, new themes were created and codes adjusted to fit with the new theme. Braun and Clarke recommend that "data within themes should cohere together meaningfully, while there should be clear and identifiable distinctions between themes" (2006, p. 91). I generated clear definitions and names for each theme and produced a final report by selecting and analysing compelling extract examples and relating them back to the research question and literature (Braun and Clarke, 2006).

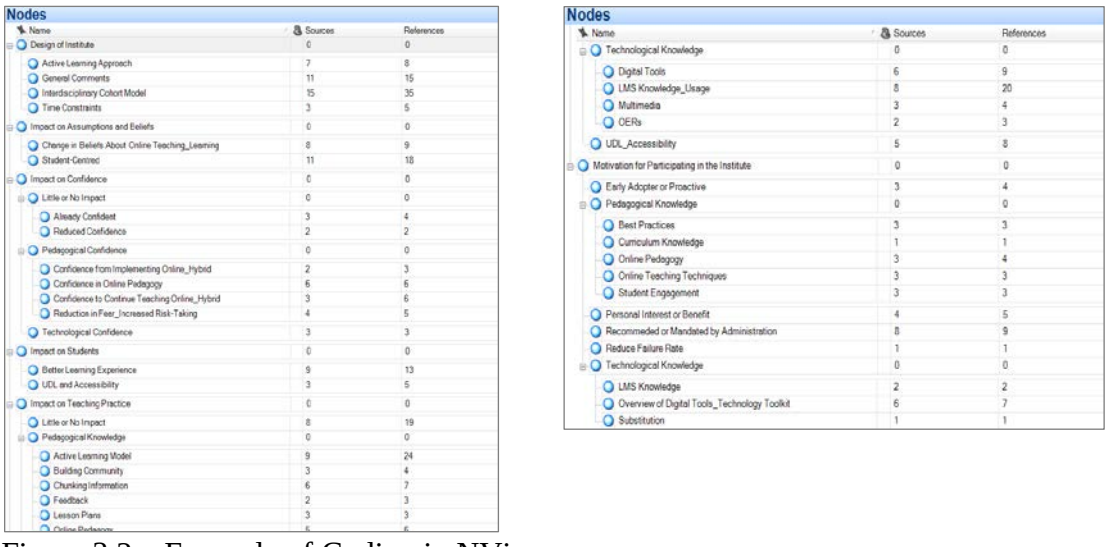


Figure 3.2 – Example of Coding in NVivo

3.8.3 Documentary Evidence

Noaks and Wincup (2004) explain that documentary evidence can be a valuable resource in qualitative studies and, accordingly, it has an important part to play in the triangulation of methods used in a study. As mentioned previously, the documentary evidence was provided on a voluntary basis, and was entirely dependent upon the participants' willingness to share their documents. Although limited documentary evidence was provided, the documents that were submitted were used to supplement and give illustrative examples of the findings obtained from the interview data analysis. I read and examined each piece of documentary evidence, and coded them following the same process as the interview data, looking for examples which were consistent with themes identified in the interview data analysis.

3.9 Pilot

Three educational developer colleagues, two from my department and one recently retired expert, were asked to pilot the online survey and provide comments on the interview protocol's content and the clarity of the questions. All three educational developers had experience with online/hybrid teaching and were all college educators themselves so were knowledgeable about the study's topic and participant characteristics. Also, it was expected that due to their familiarity with the research topic and audiences they would feel comfortable providing critical feedback about the questions and approach. They were requested to complete the online survey and review the interview questions, and afterwards discuss and provide feedback. The feedback provided was used to refine the online survey questions and revise the interview protocol, and resulted in the re-wording of several interview questions along with the inclusion of some helpful probing questions.

3.10 Trustworthiness

Lincoln and Guba (1985) proposed four criteria for establishing trustworthiness: (1) Credibility; (2) Transferability; (3) Dependability; and (4) Confirmability.

3.10.1 Credibility

Credibility refers to the confidence one can have in the truth of the findings (Lincoln & Guba, 1985). To increase the level of credibility in this study, I employed a member-checking strategy and sent each participant a transcript approval request

email which included a copy of their interview transcript. I asked each of the participants to review the transcript to ensure that their thoughts and opinions were accurately conveyed and asked that they sign and return a transcript release form to verify their approval of the transcript. Participants were also encouraged to provide additional comments, feedback or documentary evidence to support their transcript. All of the participants completed the transcript release form and sent it back to me via interoffice mail or email. Several of the participants added to the transcript, as well as provided corrections and edits. All changes requested or made by the participants were accepted and used for data analysis.

This study also involved triangulation, which is "a validity procedure where researchers look for convergence among multiple and different sources of information to form themes or categories in a study" (Creswell & Miller, 2000, p.126). In this study, data triangulations had been accomplished through collecting the data by using multiple methods, including online survey data, interview responses, and documentary evidence.

3.10.2 Transferability

Transferability involves demonstrating that findings have applicability in other contexts (Lincoln & Guba, 1985). Transferability can be enhanced by describing the research context in detail, so other researchers wishing to transfer the results to different settings or contexts can make judgments about the findings' transferability. In this study, I intended to enhance transferability by providing a detailed description of the context and findings that surrounded participants' experiences in the Online/Hybrid Course Development Institute (Lincoln & Guba, 1985). It was hoped that by providing detailed information about the research context, readers should be able to determine whether or not transferability to another situation exists.

3.10.3 Confirmability

Confirmability is "the degree of neutrality, or the extent to which the findings of the study are shaped by the respondents and not researcher bias, motivation, or interest" (Lincoln & Guba, 1985, p. 299). In order to ensure confirmability, the findings should be reflective of the participants' perspectives as evidenced in the data, rather than reflecting the researcher's individual perceptions or bias. I aimed to enhance confirmability in this study by explicitly stating my assumptions about online/hybrid teaching and learning, and educational development so that the reader would

understand any bias and/or assumptions that might impact the inquiry (Merriam, 1998).

3.10.4 Dependability

Dependability refers to the extent to which a study would yield the same results if it were replicated (Lincoln & Guba, 1985). Miles and Huberman (1994) describe dependability as whether or not the study has been done with reasonable care. In order to achieve dependability in this study, I discussed in detail how data were collected and analysed, and documented all of the decisions that were made throughout the research.

3.11 Ethical Considerations

This study relied on data collected from human subjects and was conducted in accordance with the standards set out by the Ethics Review Boards of both Lancaster University and Durham College, which reviewed and approved ethics documents pertaining to the study. Ethical issues identified for this study were associated with consent, and with the confidentiality of personal identifying information collected via the surveys and interviews. For their protection, participants were informed of the nature of the study and asked to provide implied consent for the online survey and to complete a written consent form for the interview. Data collection commenced only after participants had read and signed the consent forms. Participants were also provided with the opportunity to review the full transcript of their interview and make any changes they felt were needed before the data were analysed.

Throughout this study, the privacy and confidentiality of my participants was treated with the utmost concern. Survey data were collected using the online survey tool FluidSurveys which is compliant with Canadian privacy regulations and all data resides on Canadian servers. Responses were stored online in the survey database until the data collection period was complete and then the responses were exported into a Microsoft (MS) Excel data file and deleted from the online survey database. With the participants' permission, interviews were digitally recorded using an encrypted recording device. In hiring a transcription service, I chose a company that uses a standard protocol for maintaining confidentiality and provided a written confidentiality agreement. To further protect participants' identities, I generated pseudonyms for the digital recordings using an online random name generator. The transcriptionist was provided with a password-protected, encrypted memory stick

containing the digital recordings, and the transcriptions were returned on the same memory stick so that no data were saved to the transcriptionist's hard drive. All electronic records were kept secure in a password-protected, encrypted file on my laptop.

3.12 Summary

This chapter contained a detailed description of the research design utilised for this study examining the impact of the Online/Hybrid Course Development Institute on college educators' teaching practice. More specifically, the chapter discussed the research paradigm, methodology, case study design and participant selection process, justified and discussed the data collection methods, and provided a description of the procedures for the analysis of the data collected for this study. It also provided an explanation of the role of the researcher, the methods utilised to ensure trustworthiness of the study, and the ethical considerations.

Chapter 4 Findings

4.1 Introduction

The purpose of this study was to examine, from the past participant perspective, the impact of the Online/Hybrid Course Development Institute on college educators' teaching practice. The aim was to determine if there was any change to college educators' previously held assumptions and beliefs about teaching and self-efficacy as a result of participating in the Institute. This chapter summarises the online survey data of 34 college educators who participated in the Online/Hybrid Course Development Institute. It discusses the findings of the thematic analysis based on Braun and Clarke's (2006) six-phase approach, as explained in section 3.7.2 of Chapter 3, of the interview data from 18 educators selected from the survey participants. The themes and subthemes from the data are presented and summarised, with extracts from the interviews provided to support the analysis. The chapter concludes with an analysis of the documentary evidence provided by 6 of the interview participants.

4.2 Online Survey Data

The online survey was developed to provide background for the data analysis and to gather demographic data in order to identify a purposive sample of potential interview participants. It also asked for initial thoughts on the research questions and helped form the foundation for the interview questions. Invitations were sent to 91 participants inviting them to take part in the online survey which was open for five weeks in late September and early October 2014. In total, 34 educators who participated in the Online/Hybrid Course Development Institute completed the online survey. There was a relatively even representation of respondents from each cohort of the Online/Hybrid Course Development Institute from Spring 2011 to Winter 2014, with the exception of the Spring 2013 cohort, which saw greater representation (see Figure 4.1). The Spring 2013 cohort was the largest cohort of the Institute to date with a total of 47 participants (51.6% of overall participation), so the online survey representation is consistent with the overall participation rate.

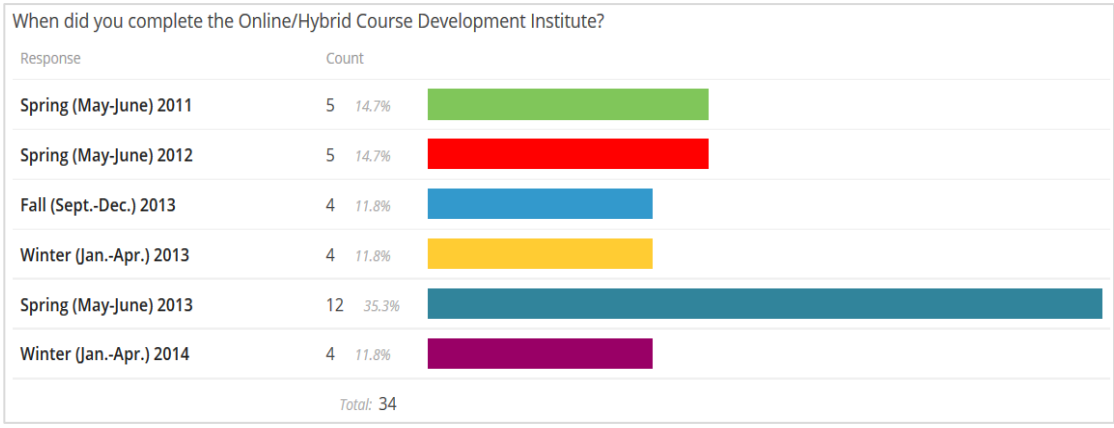


Figure 4.1 - Cohort of the Online/Hybrid Course Development Institute of online survey respondents

4.2.1 Demographics

All of the online survey respondents were faculty members of Durham College who had completed the Online/Hybrid Course Development Institute. Of those respondents, 24 were full-time, 6 were part-time (teaching up to and including six hours per week), 3 were partial load (teaching more than six and up to twelve hours per week) and 1 was sessional (teaching more than twelve hours per week). A total of 27 females and 7 males responded to the online survey during the five weeks that it was available. There was greater representation of female respondents (79.4% female and 20.6% male) compared to the overall Online/Hybrid Course Development Institute participation (68.1% female and 31.9% male). The majority of the respondents (79.4%) were between the ages of 40 and 59. The respondents taught in various academic schools (see Figure 4.2) at Durham College, with a little over half (54.5%) coming from the School of Interdisciplinary Studies and Employment Services. This is fairly consistent with the overall participation level (57.1%) of this School in the Online/Hybrid Course Development Institute as this academic school offers the most online and hybrid courses in the College.

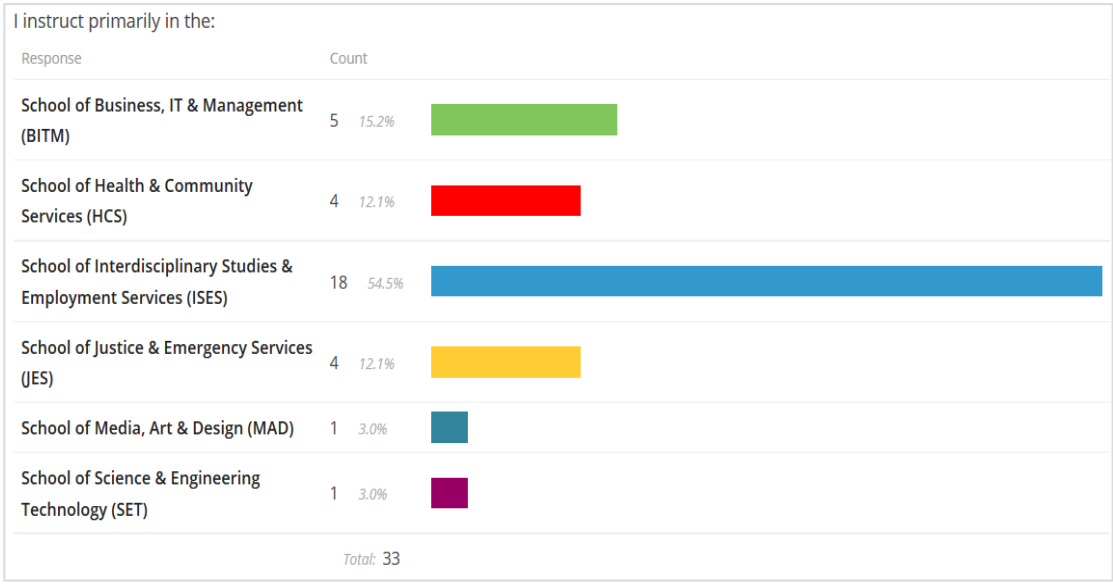


Figure 4.2 - Academic school of online survey respondents

The respondents also came from a wide variety of backgrounds and disciplines, with many having completed a Bachelor or Master's degree (82.4%) and with expertise in a variety of disciplines including: Art History, Communications, Computer Systems, Criminology and Law, Early Childhood Education, Electronics, Entrepreneurship, General Education, Information Technology, Law Enforcement, Legal Research, Library and Information Science, Mathematics, Nursing, Office Administration, Psychology, Science, Sociology, Women's Studies and 9-1-1 Emergency and Call Centre Communications.

There was also a wide range of face-to-face teaching experience among the respondents, and many respondents (70.6%) were long-standing educators with more than six years of teaching experience (see Figure 4.3).

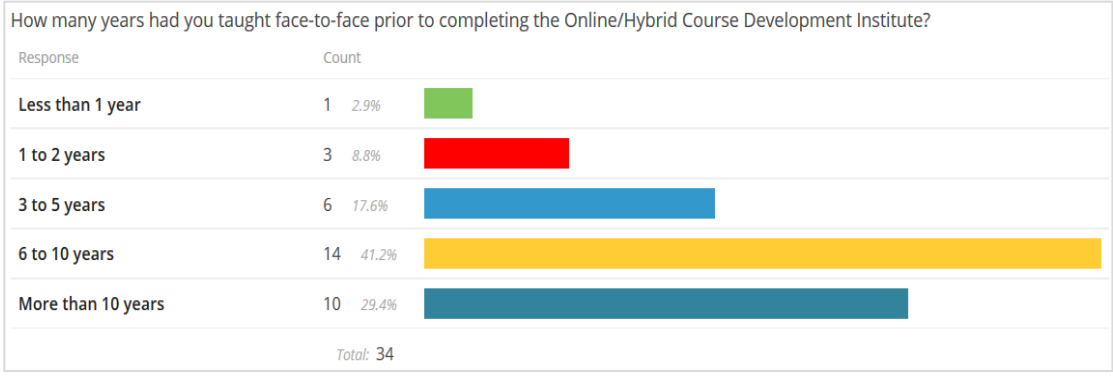


Figure 4.3 - Face-to-face teaching experience prior to completing the Institute of online survey respondents

In addition, a little more than half (52.9%) of the respondents had some experience teaching online prior to participating in the Online/Hybrid Course Development Institute (see Figure 4.4) and the range of experience was varied (see Figure 4.5).

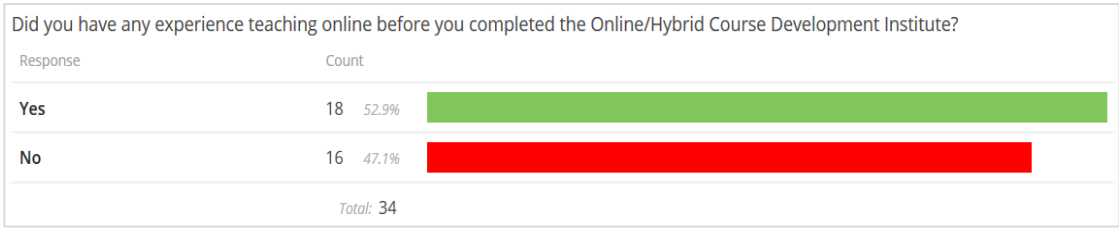


Figure 4.4 - Online teaching experience prior to completing the Institute of online survey respondents

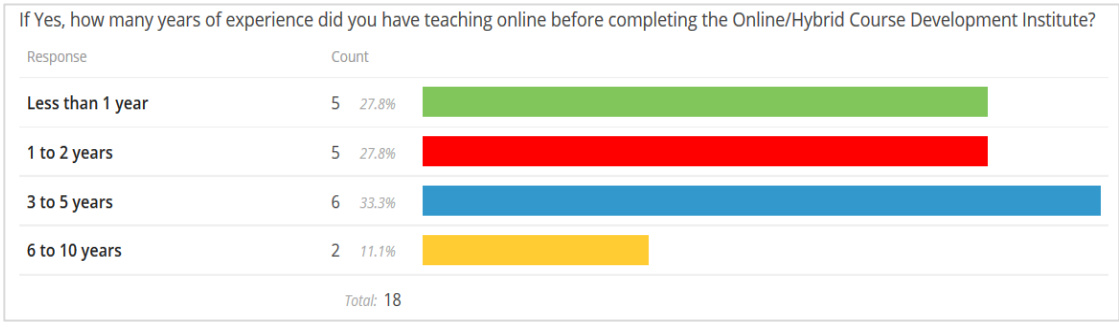
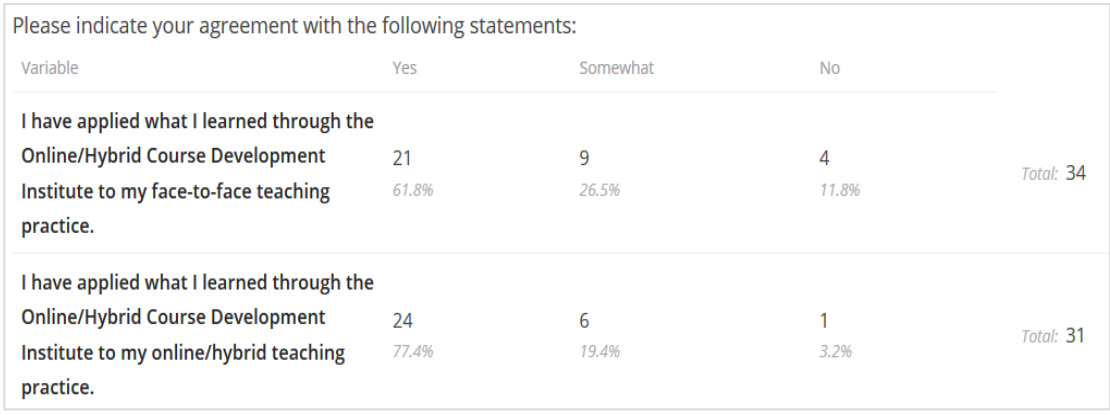


Figure 4.5 - Years of online teaching experience prior to completing the Institute of online survey respondents

4.2.2 Perception of impact of Online/Hybrid Course Development Institute

In addition to the collection of demographic data, the online survey was also used to explore whether or not the participants perceived any changes in teaching practice, previously held assumptions and beliefs about teaching, and self-efficacy after participating in the Institute. The first two questions related to the perception of the impact of the Online/Hybrid Course Development Institute asked about the application of learning from the Online/Hybrid Course Development Institute to face-to-face and online/hybrid teaching practice. These questions used a three-point scale that included the responses of Yes/Somewhat/No. These questions revealed that many of the respondents were able to apply what they learned through the Online/Hybrid Course Development Institute to both their face-to-face (61.8%) and online (77.4%) teaching practice (see Figure 4.6).

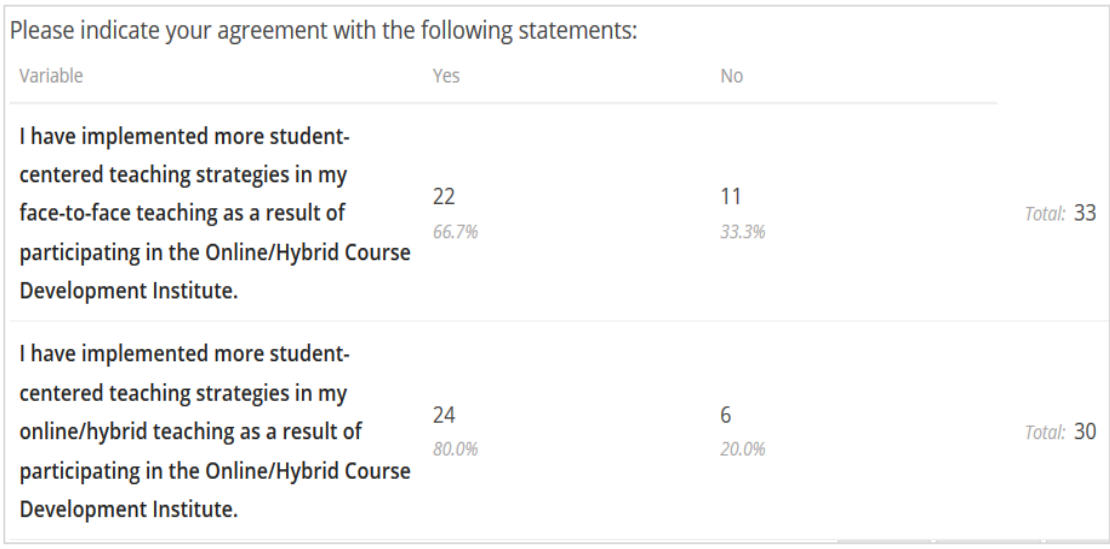


Please indicate your agreement with the following statements:

Variable	Yes	Somewhat	No	
I have applied what I learned through the Online/Hybrid Course Development Institute to my face-to-face teaching practice.	21 61.8%	9 26.5%	4 11.8%	Total: 34
I have applied what I learned through the Online/Hybrid Course Development Institute to my online/hybrid teaching practice.	24 77.4%	6 19.4%	1 3.2%	Total: 31

Figure 4.6 – Application to face-to-face and online/hybrid teaching practice

The next two questions in the survey focused specifically on whether or not participants implemented more student-centred teaching strategies as a result of participating in the Online/Hybrid Course Development Institute. This question was designed with a Yes/No response option. The results of this section were a little more varied with regard to face-to-face teaching practice, with only 66.7% of respondents agreeing that they implemented more student-centred teaching strategies in their face-to-face teaching. In terms of online/hybrid teaching practice, a large majority (80.0%) agreed that they implemented more student-centred teaching strategies in their online/hybrid teaching (see Figure 4.7).



Please indicate your agreement with the following statements:

Variable	Yes	No	
I have implemented more student-centered teaching strategies in my face-to-face teaching as a result of participating in the Online/Hybrid Course Development Institute.	22 66.7%	11 33.3%	Total: 33
I have implemented more student-centered teaching strategies in my online/hybrid teaching as a result of participating in the Online/Hybrid Course Development Institute.	24 80.0%	6 20.0%	Total: 30

Figure 4.7 – Implementation of more student-centred teaching strategies

The final three questions in the online survey asked about changes in approach to teaching face-to-face and online/hybrid and increases in self-efficacy since participating in the Online/Hybrid Course Development Institute. These questions

used a five-point Likert scale that included the following response options: Strongly Agree/Agree/Neutral/Disagree/Strongly Disagree. The majority agreed or strongly agreed that their approach to teaching face-to-face (73.5%) and online/hybrid (87.1%) had changed since participating in the Online/Hybrid Course Development Institute. In addition, a large number (79.5%) of respondents agreed or strongly agreed that their confidence in their ability to teach (self-efficacy) had increased as a result of participating in the Online/Hybrid Course Development Institute (see Figure 4.8).

Please indicate the extent to which you agree or disagree with the following statements:

Variable	Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree	
My approach to teaching face-to-face has changed since participating in the Online/Hybrid Course Development Institute.	5 *14.7%*	20 *58.8%*	6 *17.6%*	3 *8.8%*	0 *0.0%*	*Total:* 34
My approach to teaching online/hybrid has changed since participating in the Online/Hybrid Course Development Institute.	13 *41.9%*	14 *45.2%*	3 *9.7%*	1 *3.2%*	0 *0.0%*	*Total:* 31
My confidence in my ability to teach (self-efficacy) has increased as a result of participating in the Online/Hybrid Course Development Institute.	11 *32.4%*	16 *47.1%*	5 *14.7%*	1 *2.9%*	1 *2.9%*	*Total:* 34

Figure 4.8 – Change in approach to teaching and self-efficacy

In general, the online survey data seemed to indicate that the majority of the respondents had perceived some changes in teaching practice, previously held assumptions and beliefs about teaching, and self-efficacy after participating in the Online/Hybrid Course Development Institute.

4.3 Interview Data

The demographic data from the online survey informed the purposive sample and potential interview participants were selected that met the following inclusion criteria: (1) had at least one year of experience teaching face-to-face at Durham College prior to taking the Online/Hybrid Course Development Institute in order to have accumulated some assumptions and beliefs about teaching in higher education; (2) were currently teaching at least one face-to-face course at Durham College; and (3) had taught at least one online/hybrid course since completing the Online/Hybrid Course Development Institute. Of the 28 participants who indicated in the online survey that they were willing to participate in a face-to-face interview, 21 met the inclusion criteria. A total of 18 educators who met the inclusion criteria agreed to be

interviewed and each person was interviewed face-to-face from November 2014 to early January 2015.

The goal of the interviews was to gain an understanding of what participants learned in the Online/Hybrid Course Development Institute, how they applied this knowledge in their teaching practice and how their previously held assumptions and beliefs about teaching and self-efficacy changed as a result of the Institute. Each interview was digitally recorded and transcribed, and shared back with each participant to ensure that they had a chance to clarify, add, or edit their responses. The data analysis procedure for the interview data consisted of a thematic analysis of the interview transcripts based on Braun and Clarke's (2006) six-phase approach (Phase 1: familiarising yourself with your data; Phase 2: generating initial codes; Phase 3: searching for themes; Phase 4: reviewing themes; Phase 5: defining and naming themes; Phase 6: producing the report) to identify, analyse, and report the patterns/themes within data. I was specifically looking for any transformation in the teaching practice, previously held assumptions and beliefs about teaching, and self-efficacy of the participants around and through their experiences in the Online/Hybrid Course Development Institute.

4.3.1 Demographics of interviewees

The interviewees represented a subset of those who completed the online survey. I created a pseudonym for each participant using a random name generator so that their data remained confidential. There was fairly even representation of interviewees from each cohort of the Online/Hybrid Course Development Institute from Spring 2011 to Winter 2014 (see Figure 4.9).

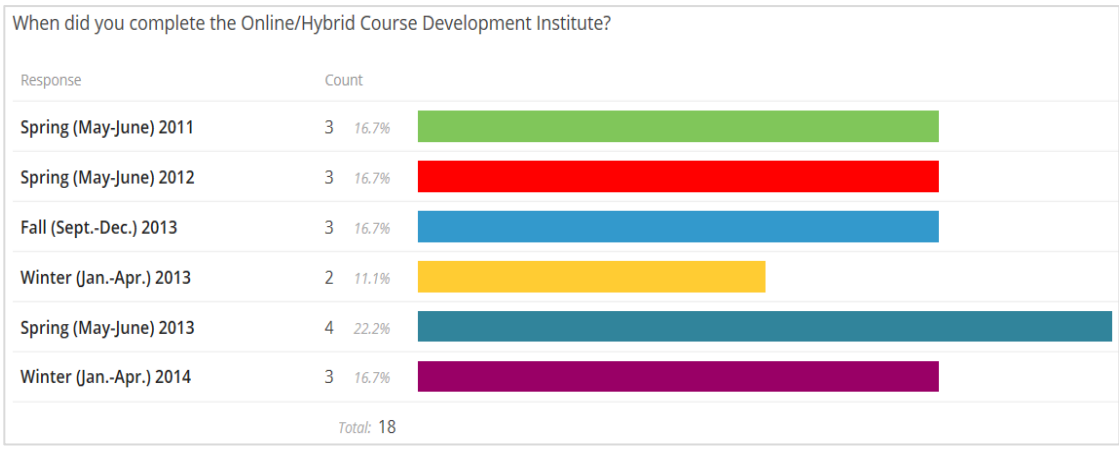


Figure 4.9 - Cohort of the Online/Hybrid Course Development Institute of interviewees

Of the 18 interviewees, 12 were full-time, 2 were part-time, 3 were partial-load, and 1 was sessional. Similar to the online survey, there was a greater representation of female interview respondents (13 female and 5 male) and the majority of the interviewees (72.2%) were between the ages of 40 and 59. The interviewees taught in various academic schools at Durham College, with a large number (66.7%) coming from the School of Interdisciplinary Studies and Employment Services (see Figure 4.10).

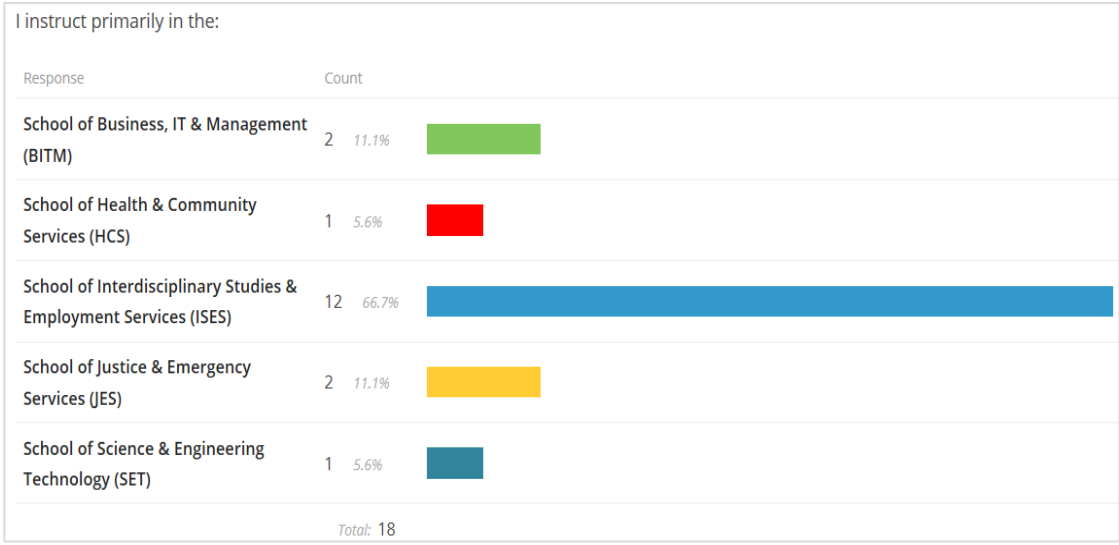


Figure 4.10 - Academic school of interviewees

The interviewees came from a wide variety of backgrounds and disciplines, with many having completed a Bachelor or Master's degree (77.8%) and with expertise in variety of disciplines including: Art History, Communications, Criminology and Law, Early Childhood Education, Electronics, Entrepreneurship, General Education, Information Technology, Legal Research, Mathematics, Office Administration, Science, and 9-1-1 Emergency and Call Centre Communications.

There was also a wide range of face-to-face teaching experience among the interviewees, and many respondents (72.2%) were long-standing educators with more than six years of teaching experience (see Figure 4.11).

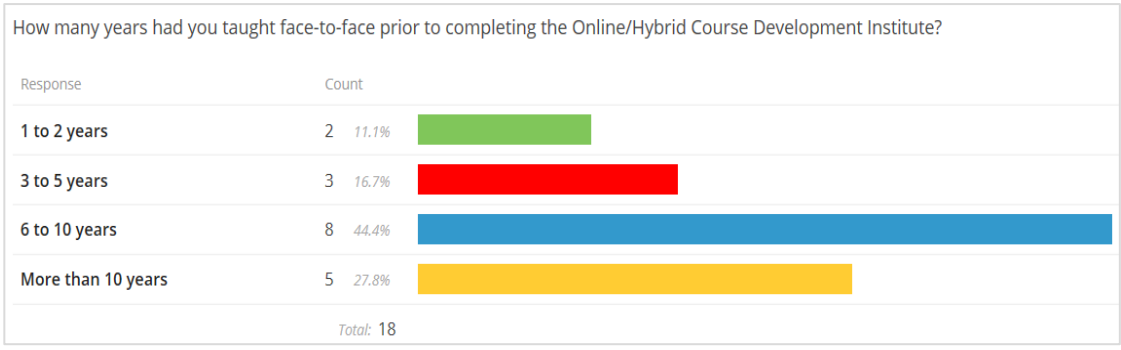


Figure 4.11 - Face-to-face teaching experience prior to completing the Institute of interviewees

In addition, a smaller number (38.9%) of the interviewees had some experience teaching online prior to participating in the Online/Hybrid Course Development Institute (see Figure 4.12) and the range of experience was varied (see Figure 4.13).

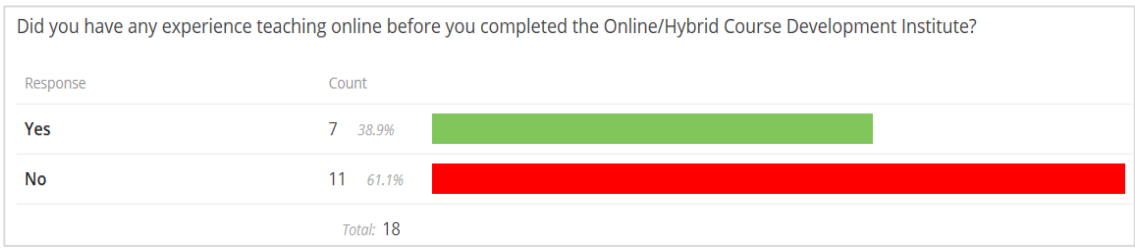


Figure 4.12 - Online teaching experience prior to completing the Institute of interviewees

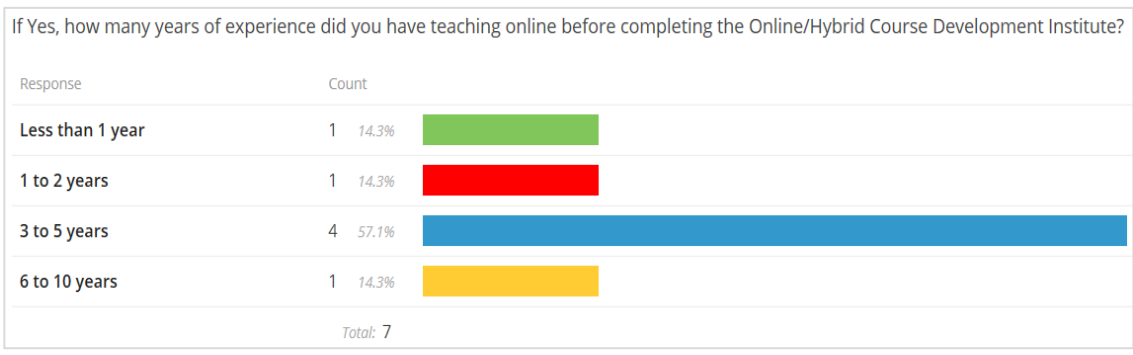


Figure 4.13 - Years of online teaching experience prior to completing the Institute of interviewees

4.3.2 Interview responses

Braun and Clarke's (2006) six-phase approach was used to identify, analyse and report patterns and themes within the interview data. Table 4.1 provides a summary

of the themes and sub-themes that emerged from the data analysis. Participant names are listed next to each theme that emerged from their interview.

Category	Theme	Sub-Theme	Participants
Motivation for Participating in the Institute	Technological Knowledge	Overview of Digital Tools/Technology Toolkit	Amy, Ann, Beverly, Donna, Irene, Rose
		Learning Management System (LMS) Knowledge	Rebecca, Shawn
	Pedagogical Knowledge	Best Practices	Angela, Elizabeth, Matthew
		Online Teaching Pedagogy	Amy, Donna, Jeffrey, Julia, Matthew
		Student Engagement	Donna, Rose, Shawn
		Curriculum Knowledge	William
	Recommended or Mandated by Administration		Angela, Beverly, Elizabeth, Jeffrey, Maria, Paul, Rebecca, William
	Early Adopter or Proactive		Ann, Catherine, Matthew
	Personal Interest or Benefit		Pamela, Paul, Rose, Shawn
	Reduce Failure Rate		Maria
Benefits of the Institute	Interdisciplinary Cohort Model		Amy, Angela, Ann, Beverly, Catherine, Donna, Jeffrey, Julia, Maria, Matthew, Pamela, Rebecca, Rose, Shawn, William
	Active Learning Approach		Angela, Ann, Catherine, Julia, Pamela, Rose, Shawn
Impact of Participation in the Institute on Teaching Practice	Technological Knowledge	LMS Knowledge/Usage	Amy, Ann, Beverly, Catherine, Rebecca, William
		Digital Tools	Amy, Ann, Catherine, Julia, Matthew, Pamela
		Multimedia (Audio and Video)	Catherine, Irene
		Open Educational Resources (OERs)	Irene, Matthew
	Pedagogical Knowledge	Use of JumpStart Lesson Planning Model	Amy, Catherine, Donna, Irene, Julia, Matthew, Maria, Pamela, Rebecca, Shawn
		Chunking Information	Amy, Catherine, Elizabeth, Rose, Shawn
		Building Community	Elizabeth, Rose, Shawn
		Assessment Practices	Irene, Rose
	Accessibility		Amy, Pamela, Rose, Shawn
	Little or No Impact		Angela, Beverly, Donna, Paul
Impact of Participation in the Institute on Assumptions and Beliefs about Teaching	Shift to a More Student-Centred Approach		Amy, Angela, Catherine, Elizabeth, Irene, Julia, Maria, Pamela, Paul, Rose, Shawn
	Change in Assumptions and Beliefs about Online Teaching/Learning		Ann, Catherine, Elizabeth, Irene, Julia, Matthew, Rebecca, William
Impact of Participation in the Institute on Self-Efficacy	Technological Confidence		Amy, Angela, Ann,
	Pedagogical Confidence	Reduction in Fear/Increased Risk Taking	Beverly, Julia, Pamela, Shawn
		Confidence to Continue Teaching Online/Hybrid	Ann, Pamela, Shawn
		Confidence in Online Pedagogy	Amy, Catherine, Elizabeth, Irene, Julia, Matthew, Rebecca
	Little or No Impact	Already Confident	Donna, Jeffrey, Maria
		Reduced Confidence	Elizabeth, Rose
Perceived Impact of Participation in the Institute on Students	Better Learning Experience		Amy, Catherine, Elizabeth, Julia, Maria, Matthew, Pamela, Rose, Shawn
	Greater Accessibility		Ann, Irene, Rebecca

Table 4.1 – Themes by category and participant

This section will provide an overview of the main themes and subthemes that emerged from the data analysis. Evidence for each theme is presented in the form of data extracts from the original transcripts.

4.3.2.1 Motivation for participating in the Institute

When asked to explain why they enrolled in the Online/Hybrid Course Development Institute, the interviewees identified a number of different factors that motivated them to participate. These motivators were classified into six main themes: (1) Technological Knowledge; (2) Pedagogical Knowledge; (3) Early Adopter or Proactive; (4) Personal Interest or Benefit; (5) Recommended or Mandated by Administration; and (6) Reduction in Failure Rate.

Technological knowledge. Eight of the interviewees explained that they enrolled in the Online/Hybrid Course Development Institute in order to increase or improve their technological knowledge. Many wanted to obtain an overview of digital tools to add to their teaching toolboxes. Amy stated: "I wanted to obtain some digital tools for learning so that I could apply those to the online environment for the course." Donna was looking to explore some new technologies to add to her repertoire, and "wanted to come away with what I call a tool box of added things that would help me to enhance the courses that I was teaching." Ann was also interested in "building a tool kit of this is what I do today, and this is how I am going to do that online" and wanted to find ways to translate what she did in the face-to-face classroom to the online environment.

Two interviewees were specifically interested in gaining increased technological knowledge related to the College's Learning Management System (LMS) which is called DC Connect and runs on the Desire2Learn platform. Rebecca was interested in "how to use DC Connect, all the tools, and how to use the content and how to set it up properly so it's organized and it works for the students." Shawn wanted to know "How do I use DC Connect to facilitate things differently online?"

Pedagogical knowledge. There were twelve interviewees who cited factors related to increased pedagogical knowledge as the motivation for enrolling in the Institute. Three were interested in learning about best practices related to online course development and facilitation. Angela was "looking for ideas about best practices for online course development." Elizabeth hoped "to get some resources on teaching online specifically and hybrid. Just some overall best practices basically."

Matthew was also interested in best practices and stated "I wanted to ensure that I understood some of the leading practices in online course development as well as hybrid course delivery and ensure that I was utilizing those before beginning the development process." William was motived to learn more about the online curriculum design process and "was looking for some more guidance or assistance in developing course outlines and weekly lesson plans for the online environment." Moreover, Julia wanted to "learn good pedagogy for online teaching" and was looking for "teaching techniques specific to online learning and how to use them in an asynchronous course." Despite having taught for over twenty-five years, Donna claimed: "I hadn't taught in an online or hybrid course before so I wanted to gain more information and more techniques and look into what could be incorporated into my course to actively engage the students in this format." Three participants also mentioned the desire to increase student engagement.

Early adopter or proactive. There were three interviewees who decided to enrol in the Online/Hybrid Course Development Institute because they had a tendency to be early adopters, or they wanted to be proactive as they saw a greater move to online and hybrid teaching at the College in the future. Catherine noted: "I knew that the college was moving in that direction and I tend to be an early adopter so part of it was that, and I like to be prepared. So, I thought that that would be a good idea." Ann also wanted to be proactive:

> Originally I had the idea that I would move some of my current Communications courses to either hybrid or online so I didn't have a specific course in mind but I wanted to start developing strategies to make sure that when the time came to start doing that I would have some idea, some concrete examples of how I could move things from the current face to face model into either a hybrid or online model.

Matthew was motivated by the potential delivery of his course in a hybrid format in the future:

> I enrolled in anticipation that I was going to be taking one of our first semester courses and converting it to hybrid. I understood and I recognized that we had resources and delivery of a course here on campus to help do that, so I thought it was a good opportunity to take that education when it was available and the timing was such that I could complete it prior to the beginning of the time when I had anticipated that I was going to do the development work.

Personal interest or benefit. Four interviewees chose to enrol in the Online/Hybrid Course Development Institute out of personal interest or benefit. Pamela enrolled in the Institute for "personal benefit to improve myself. I wished to learn hybrid and hybrid technology." Shawn explained that he was "interested in technology enhanced learning for quite a while. For me it's partly a hobby to be interested in computers and technology and also different media."

Three of the interviewees who were part-time, partial load, or sessional were motivated by the potential for future online course development or teaching contracts. Paul stated "I will be honest, any time that I have applied to develop or teach an online course they always ask: have you been through the Institute? And I wanted to be able to tick that box." Rose shared a similar motivation and explained: "I wanted the background information for myself, but I also wanted to have a little bit of an edge so that I would be chosen for online course development in the future, and I was, so it was successful."

Recommended or mandated by administration. Administration at Durham College refers those that are in a managerial role, which in the case of educators, includes the Deans and Associate Deans who oversee their teaching activities. Eight of the interviewees enrolled in the Institute because it was recommended by their Dean or Associate Dean. Angela participated because "It was recommended by my Dean because I was going to be developing and teaching courses online. Maria said "My Dean was looking for somebody to be the pioneer so I decided to enrol so that I could be a champion within my School." Others were actually mandated by administration to participate in the Institute (this is not generally recommended by the Centre for Academic and Faculty Enrichment). Elizabeth shared:

> I enrolled initially because it was mandated so I was switching from a role of traditional face-to-face and then my Dean had asked me to do an online course, so I was basically told I had to do that in my spring time frame and then develop the course.

Paul also experienced a similar situation stating: "Basically the administration said I should probably do this, so I did it."

Reduction in failure rate. Maria enrolled in the Institute with the specific goal of reducing the failure rate in one of her courses: "I wanted to see if I could reduce the failure rate of a particular course. So that was my motivation."

Overall, the interviewees participated in the Online/Hybrid Course Development Institute for a variety of reasons. The intrinsic motivators that emerged came primarily from a desire to increase their technological or pedagogical knowledge, and to be early adopters or proactive leaders of online/hybrid teaching and learning. The extrinsic driving forces towards participation in the Institute included personal benefit or interest, especially from non-full-time participants, recommendation or mandate from administration, and in one case the specific desire to reduce the failure rate in a course.

4.3.2.2 Self-Reported Benefits of the Institute

During the interviews, participants were asked to discuss the most beneficial components of the Online/Hybrid Course Development Institute and to identify the elements (content, structure, instructional approaches, etc.) that had the greatest influence on them. The interview responses revealed two main themes related to the benefits of the Online/Hybrid Course Development Institute: (1) The Interdisciplinary Cohort Model; and (2) The Active Learning Approach.

The interdisciplinary cohort model. The interaction with other educators from varied disciplines and the sense of community that developed among the cohort was identified by fifteen of the interviewees as one of the main benefits of the Online/Hybrid Course Development Institute. All fifteen of interviewees said they found that the cohort model was effective and that it helped to facilitate their learning. The following are some of the interviewee comments related to the interdisciplinary cohort model:

> One of the things I enjoyed about the Institute was speaking with the other faculty and what I liked was there was a cross section of people in the course…My favourite thing was talking to those people and listening to them, and working together on the content that we brought with us. (Angela)

> I think teaching is often very lonely and as we work, we are insulated. We don't really often talk to each other and this was a great opportunity to see what other people are doing and what they found worked and what doesn't. I

> like the whole idea of community of practice which came out of being in the Institute. So, thinking of teaching as a collaborative effort rather than something that is individual and lonely. (Julia)

> I liked the cohort model because we were able to view other types of courses and it was really interesting to see how the other participants were designing their courses. I can recall that one participant was developing a History of Art course and she was able to showcase artefacts visually online using Google Museums. Even though it wasn't my topic, I still found it interesting to see other ways of doing things and other topics because you could still access some of these resources and potentially apply them to your own course development. (Amy)

The active learning approach. The Online/Hybrid Course Development Institute was designed using an active learning approach in which participants engaged in a hybrid learning environment, while applying principles of course design and delivery to a course they were preparing to teach online or hybrid. The goal of this design was to model best practices and to provide participants with an authentic learning experience. Seven of the interviewees commented on the fact that they had to work on developing an online or hybrid course throughout the Institute as being beneficial and identified the active learning approach as having the greatest influence on them. Angela felt "the Institute was very practical and hands-on, and I liked that we got to work on lessons plans for our actual course and get feedback from the group. It was really practical that way." Ann stated:

> I think the having to actually develop a course had the biggest influence. So having to sit and actually create a course was critical. Because without that I think it would have been all theory to think about and it wouldn't have been very applicable to my own course development.

Three of the interviewees described the hybrid design of the Institute as being particularly effective as it allowed them to actively participate in a hybrid course and to experience the online environment from a student perspective:

> I thought the fact that the Institute was designed as a hybrid course and that we had an online component was really effective. I'm a big proponent of immersive learning, so I was happy that we got to experience the online environment first-hand. Also, being in the role of the student helped provide a

> good example of what the learning environment will be like for our students, and that has stayed with me. (Catherine)
>
> I liked the way we were put into a class ourselves, the way it was modelled so that we could sort of see both sides of it almost at the same time so that we could see what you were doing as a model and also then experiencing it as a student in a way. (Shawn)

In summary, the interviewees found the interdisciplinary cohort model of the Institute to be beneficial as it allowed them to interact with colleagues from diverse backgrounds and to build lasting connections with other educators across the College. Several interviewees mentioned this as being key to their experience, and at various points in the interview most of the interviewees mentioned the collegial support that they received by participating in the Institute. The interviewees also enjoyed being able to follow the course development of their peers as they were able to get new ideas that they could translate into their own practice. The active learning design of the Institute was also identified by the interviewees as being beneficial, and several commented on the effectiveness of the hands-on approach that allowed them to work on their own course development as well as the hybrid design which provided an opportunity to experience the online environment from a student's perspective.

4.3.2.3 Impact of participation in the Institute on teaching practice

The interviewees were asked to explain how, if at all, they applied what they learned through the Online/Hybrid Course Development Institute to their current teaching practice, either face-to-face or online. It is important to note that the lapse of time since the interviewees participated in the Institute varied among the respondents, with some having up to a three-year gap between participation in the Institute and the interview. The interviewees described a number of ways that they have, and are continuing to change their teaching practice as a result of participating in the Institute. This is supported by the online survey data, in which the majority of the respondents indicated that they were able to apply what they learned through the Online/Hybrid Course Development Institute to both their face-to-face (61.8%) and online (77.4%) teaching practice (see Figure 4.6). The interview responses were categorised into four common themes: (1) Technological Knowledge; (2) Pedagogical Knowledge; (3) Accessibility; and (4) Little or No Impact.

Technological knowledge. The Institute appears to have triggered a greater comfort level and increased use of digital tools and the College's LMS (DC Connect). The following excerpts highlight the impact that the Institute has had on interviewees' technological knowledge, comfort level, and overall use:

> I implemented many digital tools that I was unaware of previously that I believe enhanced my courses substantially. I use those pretty much in every class face to face. There's some kind of technology. I also became better equipped to understand and utilize our internal management system, DC Connect as it gave me an opportunity to investigate all the areas and use them. My LMS usage has gone up significantly, I used to just use it to post the information, leave it there, and put in the grades. Now I'm more active on it and able to do really interesting things with it and survey tools and other components that I'm really excited about. (Amy)

> So I've been teaching online for I guess two semesters but I'm finally back in the classroom and I'm finding just being able to play with DC Connect as much as I did, my face to face students are getting a lot more videos and handouts and calendar reminders and all of that so I think that that's helped a lot with my face-to-face courses. I have also been making quick video lessons about how to do a math problem and I post it and they can watch it when they get home because a lot of times you leave class and forget what the teacher said. (Rebecca)

During the Online/Hybrid Course Development Institute, the participants were introduced to Open Educational Resources (OERs) and two participants also commented on how they incorporated them into their teaching. Moreover, two participants also commented on the increased use of multimedia, including the development of YouTube videos, and audio recordings.

Pedagogical knowledge. Participation in the Online/Hybrid Course Development Institute also appears to have affected interviewees' pedagogical knowledge and increased the use of the JumpStart lesson planning model. Participants in the Online/Hybrid Course Development Institute were introduced to a lesson planning model called the "JumpStart model" which provides a framework for designing active, student-centred lessons both face-to-face and online (http://cafe.durhamcollege.ca/index.php/teaching-learning/the-jumpstart-model). The JumpStart model is an in-house model that was developed based on Kolb's (1984)

Experiential Learning Theory. The JumpStart model consists of four main types of activities: (1) Connection Activity; (2) Content Activity; (3) Practice Activity; and (4) Summary Activity (see Figure 4.11). The connection activity captures the students' attention, motivates them to learn and relates the new lesson to existing knowledge, and engages the student in personal reflection. Each lesson has one connection activity. Content activities are used to divide the lesson content into digestible chunks and take a variety of forms (lectures, readings, research, audio-visuals etc.). There are multiple content activities within each lesson that relate to the major sub-topics of the lesson. Practice activities consist of hands-on application immediately following exposure to the content and provide feedback on achievement (self-marking, peer marking, etc.) so that students can determine whether or not they have understood the content. Each content activity within a lesson should have a corresponding practice activity. The summary activity provides an opportunity to consolidate the sub-topics of the lesson into one application and provides a practice run as similar as possible to the eventual graded assignment/test. Each lesson has one summary activity.

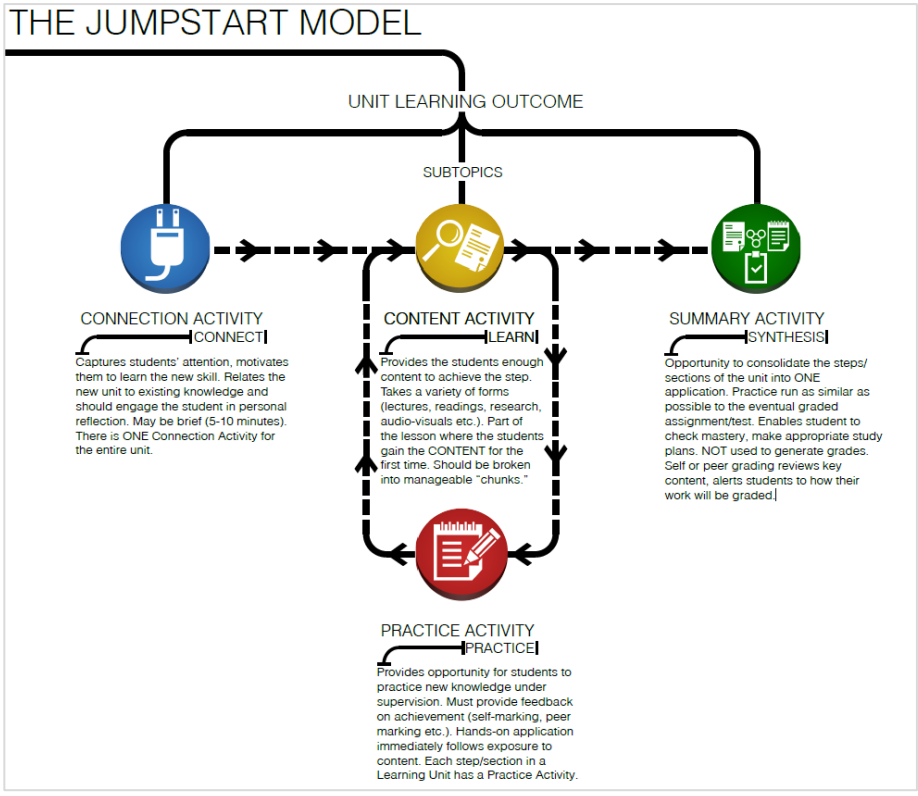


Figure 4.14 - The JumpStart lesson planning model

Ten interviewees commented on the JumpStart model during the interviews and many described how they implemented this model in both their face-to-face and online

classrooms. The following examples describe how the interviewees have implemented the JumpStart model:

> I was able to incorporate the Jumpstart model and many other additional design principles just by having examples and being able to be creative. It seems like I'm always tweaking and I'm learning something new and I'm applying it but certainly the Institute got that ball rolling for me and the teaching practice that I've changed is I do lesson plans, I incorporate the Jumpstart model so content and practice and summary allow them to do practice assessments before they're actually going to be assessed for grades. (Amy)

> The JumpStart model was the important thing I learned from the Online/Hybrid Course Development Institute. I really enjoyed learning about the model as it really brought the whole learning process together for me and simply made it more of a directed learning approach. I have applied both the Jumpstart model and hybrid learning to my course I teach in the fall and winter semester. Classes are more engaging and some of the connection activities I have developed with the Jumpstart model are very interactive and the students show enthusiasm about what they are about to learn. (Pamela)

The Institute also included discussion about how to create a positive climate for learning and explored strategies for building community within the online environment. Three of the interviewees mentioned that they implemented some of the strategies discussed within the Institute to help foster community within their own course. Participants in the Institute were also introduced to the notion of "chunking" content, which refers to the strategy of breaking down information into bite-sized pieces so the brain can more easily digest new information. The concept of chunking was also something that five interviewees stated that they put into practice. Two interviewees also mentioned that since participating in the Institute they have made changes to their assessment practices, including the implementation of practice quizzes.

Accessibility. The Online/Hybrid Course Development Institute also discussed the topic of accessibility in the online environment and introduced participants to the Universal Design for Learning (UDL) framework which is a set of principles for curriculum development that makes learning more accessible and gives all individuals equal opportunities to learn. UDL consists of three main principles:

(1) Multiple Means of Representation - give learners various ways of acquiring information and knowledge; (2) Multiple Means of Action and Expression - provide learners alternatives for demonstrating what they know; and (3) Multiple Means of Engagement - tap into learners' interests, challenge them appropriately, and motivate them to learn (Rose & Meyer, 2002). Four of the interviewees stated that they were conscious of accessibility issues and incorporated the UDL principles into their practice as a result of participating in the Institute.

> I believe the Institute has really helped by changing my approach to teaching and in the process by simply revisiting my course and analysing it to see how to make it better and more accessible. Students have shared that they can go back to the online lectures and listen to them at a later date to reinforce the material and be better prepared for the quizzes and assessments based on lecture material. I think both the Jumpstart model and more active learning have contributed to my approach to take the learning material and break it up and make it more learner-friendly and accessible for students. (Pamela)

> I support universal design for learning, it's just something that I'll always do and I feel strongly about and I feel that it's just so worth it and if a student for some reason they miss a class I can tell them that pretty much everything they need they can also get on the learning management system. Or they can practice things on the learning management system. I think just having that accessible is definitely worth it. (Amy)

Little or no impact. Not everyone felt that the Online/Hybrid Course Development Institute had an impact on their teaching practice. It was interesting to note that out of the four participants who felt that the Institute had little or no impact on their teaching practice, three had more than 10 years of prior face-to-face teaching experience.

> I don't think I have changed my teaching practice very much, my approach was always introduce something; show how to do it and then practice. It just went naturally with the way I do things. (Beverly)

> My impression of the Institute is that a portion of what it does is help give a foundation of the teaching techniques; at this point in my career, this piece was not necessary as I have been teaching for a number of years and I have taught a number of courses, this was not new information. So I guess you

> could say that it reaffirmed some of the things that I already do and allowed me to reflect on my practice. (Donna)

Also, one interviewee had a Bachelor of Education and was already familiar with many of the principles that were presented in the Institute and as a result didn't feel that participation in the Institute had an impact on his practice.

Overall, several participants were able to put the theory and examples from the Institute into practice. This theme flowed through many of the comments from interviewees as they described their increased use of digital tools and the LMS, and the planning of their lessons using the JumpStart model. Others made adjustments by incorporating community building activities, chunking information, and modifying assignments. Participants also became more aware of accessibility issues and the Universal Design for Learning framework was also embraced by some interviewees who provided greater access to content online and afforded opportunities for students to demonstrate their learning in multiple ways. Even when no changes in practice were specifically attributed to the Institute, the interviewees indicated that they still had a sense of support from colleagues and reinforcement of their current teaching practices.

4.3.2.4 Impact of participation in the Institute on assumptions and beliefs about teaching

During the interviews, the participants were asked to describe how, if at all, their approach to teaching had changed since participating in the Online/Hybrid Course Development Institute and if there was any change in their assumptions and belief about teaching. This question was supported by the online survey data which showed that the majority of participants agreed or strongly agreed that their approach to teaching face-to-face (73.5%) and online/hybrid (87.1%) had changed since participating in the Online/Hybrid Course Development Institute (see Figure 4.8). The interview responses related to the impact of participation on assumptions and beliefs about teaching were organised into two main themes: (1) Shift to a More Student-Centred Approach; and (2) Change in Beliefs about Online Teaching and Learning.

Shift to a more student-centred approach. The interview responses indicated that eleven interviewees started thinking and acting beyond the transmission mode of teaching and began implementing more student-centred approaches to teaching as a

result of participating in the Institute. There was an implication that interviewees wanted students to become engaged in their own learning and not just passive receptors of information. This finding was consistent with the online survey data which showed that 66.7% of respondents agreed that they implemented more student-centred teaching strategies in their face-to-face teaching and a large majority (80.0%) agreed that they implemented more student-centred teaching strategies in their online/hybrid teaching (see Figure 4.7). The following comments showcase the shift towards a more student-centred approach to teaching:

> I feel I am going from that of being the knowledge keeper, and the learner being the empty vessel, to one of activating learning and igniting ideas. I've moved to lecturettes rather than long lectures and chunking things down into units that are more manageable so students can practice. The Institute reinforced my skills and my drive and my interest to improve that learning environment for the students, for the learners and I think it's had a direct impact on my teaching abilities because it's empowered me to do better and reflect. (Amy)

> Through the Institute I found that the old ways of teaching which usually consist of lecturing for two hours really don't work well in the online arena so you have to adapt and it's a huge learning curve. When I first started doing it in the Institute you guys and other people said, developing an online course is a lot of work. And I really didn't believe it. I thought well how much more work could it be compared to developing a course normally, but it really is. It's a lot more work because you're learning how to teach online at the same time and you're adapting what are the old school styles to a totally different arena. (Angela)

> Since completing the Online/Hybrid Course Development Institute my approach is more of an active learning style. I have enjoyed changing my approach to teaching, being more interactive and knowing that I am helping the students. In general it's come to less of me talking and much more of trying to provoke students to discuss which is one of the biggest challenges with online, and I think I've finally in the last couple of semesters figured out how to get that working online. (Pamela)

Changes in assumptions and beliefs about online teaching and learning. In addition to the shift towards a more student-centred approach, eight interviewees also

mentioned that participation in the Institute caused them to think differently about online teaching and learning. Some interviewees who were not very strong proponents of online learning prior to participating in the Institute changed their views about its effectiveness and others discovered that there is much more to online teaching and learning than just posting materials online.

> I taught online for the Distance Education Department a couple of courses four or five years ago and I literally just took the curriculum and posted it, so there was no interaction. There were some quizzes but they weren't even interactive quizzes, they were just a word document that the student would answer and then save and send to me. So, I didn't really have a high opinion of online learning and although there was a demand for it for this particular course, I didn't see the benefit having it online. But now looking back I see how I could have enhanced those courses because they weren't really effective online courses. I now have a higher opinion of online learning because I know how effective it can be. I've seen it be effective and I'm pro online. (Irene)

> The online Institute definitely gave me a more or better comfort zone and originally I didn't think I was going to enjoy online teaching as much as I actually do so that was a nice surprise for sure. (Elizabeth)

> The Institute gave me some insight into the fact that taking a traditional course and making it into an online or hybrid course is not just a case of you know putting all the notes online and making them available. There's more to it and to achieve the learning outcomes. There needs to be more in the teaching process and sometimes there's an element of creativity. So for me, it has given me greater appreciation that any time I'm going to embark in some kind online or hybrid course, it's more than just porting existing material to a different platform. (Matthew)

To summarise, many of the interviewees mentioned a shift to a more student-centred teaching approach as a result of participating in the Institute. Several of the interviewees commented on moving away from the transmission mode of teaching and incorporating further opportunities for practice and formative feedback. A few interviewees also explained that the Institute helped to reinforce the notion that they don't always have to be at the front of the class lecturing, that it is okay to transfer some of the content delivery online, and that in many cases this leads to more effective and engaging learning experiences. The Institute also seemed to encourage

a greater appreciation for the value of online teaching and learning and the effort that goes into developing successful online learning experiences.

4.3.2.5 Impact of participation in the Institute on confidence in ability to teach (self-efficacy)

The interviewees were also asked to comment on how participation in the Online/Hybrid Course Development Institute affected their feelings of confidence (self-efficacy) in their teaching ability. This question was supported by the online survey data which found that a large number (79.5%) of respondents agreed or strongly agreed that their confidence in their ability to teach (self-efficacy) had increased as a result of participating in the Online/Hybrid Course Development Institute (see Figure 4.8). The interview responses were categorised into three key themes: (1) Technological Confidence; (2) Pedagogical Confidence; (3) and Little or No Impact on Confidence.

Technological confidence. Three interviewees stated that the Online/Hybrid Course Development Institute helped to increase their confidence level in using digital tools and the College's LMS which helped to increase their overall teaching confidence.

> So I was introduced to many new digital tools. I explored the learning management system in depth and I used those tools and methods and the LMS and because I keep using it, that practice, that builds my confidence. Then I'm just going to keep going with it so that's really helped. I definitely found that it strengthened my confidence and I find if you practice and use the tools that helps build your teaching confidence too, especially with technology. (Amy)

> I think it helped with my confidence level because I was able to start with a framework instead of starting from scratch. So if I had started to develop my online course and had no idea what one looked like at the end of the day, you're really presented with a blank slate and you don't know where to start. So that definitely helped me in that I could adapt what were established best practices for creating an online course and effectively using technology and use them for myself. So I think that was extremely helpful for me. (Angela)

> I felt prepared this past spring to take on another online course development project and I felt much more prepared that I would say those who have not

> taken the Institute. It was really evident very early on those that really don't use the tools that we have today or any additional online tools for their courses, so I felt really comfortable with that knowing that I use really the full capacity right now in what we have available and I am able to develop courses in an online format. (Ann)

Pedagogical confidence. Participation in the Online/Hybrid Course Development Institute also seemed to increase seven of the interviewees' feelings of confidence related to online pedagogy and teaching and learning principles. The following quotes from the interviews emphasise the increase in confidence related to pedagogy:

> So I can report that when I took the Institute I did develop a course and it was a lot better than previous courses I had developed online in fact I was pretty embarrassed and ashamed of the courses that I had years ago, this was 10 years ago, created. I was so proud, having gone through the Institute and created these wonderful courses because I had that knowledge and know-how and ability and confidence in my teaching. (Amy)

> I think participating in the Institute was a huge confidence booster because we were actually producing things as we went through, so I guess I was feeling like I was applying a solid model to develop curriculum. Because I think that the curriculum framework is really important. If it was all just about technology then it wouldn't make sense but if you frame it with that curriculum approach I really feel that that was important. (Catherine)

> The Institute definitely helped my confidence both online and face to face because the pedagogy was there. Part of the online Institute was taught face to face and we were doing the continuing practice sort of cycle. So there were some great ideas that came out. You know cool things that I could put into my face to face teaching as well as learning about the online. The more you practice and the more you have exposure to something often you feel more comfortable with it. (Julia)

Three interviewees also mentioned that participating in the Online/Hybrid Course Development Institute increased their willingness and confidence in developing future online or hybrid courses and also helped to reduce their fear and encouraged more risk-taking.

> Last spring I was part of a project where I had the opportunity to develop some courses in a hybrid and online format and my area was presentation skills. And so my task was to develop both a hybrid and an online presentations course and I don't think I would have been able to complete it having not completed this, the Online Hybrid Institute. I think the biggest takeaway is I would feel really comfortable today if someone said to me all of your courses need to go for instance, hybrid. You have a month to make that happen. I would feel confident to be able to say I could do that with the strategies that I have now to be able to say okay how, what are the different things and places where I'd be able to make that more of an online and not necessarily require that face to face. (Ann)

> I believe the confidence I have gained from the Online/Hybrid Course Development Institute has encouraged me to look forward and convert more courses to hybrid if provided with the opportunity. (Pamela)

> The Institute definitely made me feel more confident and a little bit more daring as well, more willing to take risks and try new things. (Julia)

Little or no impact on confidence. There were three interviewees who said that the Online/Hybrid Course Development Institute did not affect their feelings of confidence in their teaching ability. Similar to the interview responses regarding the impact on teaching practice, two of the three interviewees had more than 10 years of teaching experience.

> I don't think the Institute impacted my feelings of confidence…I think that I am a pretty confident person when it comes to technology and asking about technology. My inquiring nature is part of who I am and this is especially true with my interest in technology; once I see something, I'll go and try to figure it out and ask questions about it. The course has expanded my knowledge; I think it's enhanced my desire to look at other avenues, but as far as confidence, I can't say it affected my confidence. (Donna)

> In terms of the actual teaching part I don't think the Institute has impacted my confidence very much because I wasn't unconfident to begin with. I think that the confidence was more in the structure of how to go about it and the creation of the course. I was completely uncomfortable with that aspect because I've

> never done that before. The online aspect, I didn't think I had too much of an issue with and the experience I've had since is what I would have expected, nothing more, nothing less. It's pretty much on par with what I would have expected. (Jeffrey)

> I don't know if I would relate it to confidence. I would say I have too many years teaching so being shy because I'm dealing with something new, I passed that stage a long time ago. It's just a novelty. I like to try new things. It's not a matter of confidence. It's just trying to get them to try something new and be up to date and deliver what we think students are looking for. (Maria)

In addition, two of the interviewees stated that the Online/Hybrid Course Development Institute actually decreased their feelings of confidence in their teaching ability. One of the participants seemed to be overconfident in her online teaching abilities, so the Institute helped give her a more realistic evaluation of her current skills. The other participant started to question her face-to-face teaching abilities since teaching in the online environment.

> So confidence wise it didn't exactly knock my confidence but it humbled me in a sense that I was able to more realistically evaluate myself and say there is so much more to learn. I thought that I would come into the Institute and be like yeah I got this, and I really wanted to get that piece of paper at the end that says I did it. But, I learned way more than I sort of anticipated I would need to learn. (Rose)

> Interestingly, I am losing confidence in my face-to-face teaching since I have started teaching online. (Elizabeth)

Overall, many of the interviewees expressed that their participation in the Online/Hybrid Course Development Institute affected their feelings of confidence (self-efficacy) in their teaching ability. Some felt that the Institute improved their technological confidence level and they were more comfortable incorporating digital tools and utilising the LMS. Others described increased feelings of confidence related to their pedagogical knowledge and explained that participating in the Institute encouraged them to consider developing or teaching future online or hybrid courses. In addition, participation in the Institute seemed to reduce some interviewees' fear of the online environment, and led to greater risk-taking and the courage to try new teaching methods and strategies. Two interviewees expressed that their participation

in the Institute reduced their feelings of confidence in their teaching ability. This may be a temporary reaction to their exposure to sound pedagogical models and principles, which they may not have been following in their teaching to date. It may also stem from

4.3.2.6 Perceived impact of participation in the Institute on students

Finally, the interviewees were asked to reflect and report on the perceived impact of their teaching on their students' learning as it related to their participation in the Online/Hybrid Course Development Institute. Two main themes emerged from these reflections: (1) Improved Learning Experience; and (2) Greater Accessibility.

Improved learning experience. Nine of the interviewees perceived that the students had an improved learning experience as a result of their participation in the Online/Hybrid Course Development Institute.

> I think the student evaluations of the course were strong. I know myself that it was a significant improvement to what I was doing 10 years ago. I felt that it was more engaging and active. I felt that the layout and look was organized; attractive; appealing; and I feel that those types of methods did contribute to the participation and understanding and student success in the course. Again, it's anecdotal, I have nothing other than the evaluations but I think that it's improved my face-to-face instruction as I'm doing that consistently now. I hear from the students that wow, thank you for posting that; wow, you have a lot of resources; thank you for the news reminders; you know all of the content, everything is there and there's even more and thank you for the practice quizzes and so I do get reports of appreciation from the students for using that LMS and implementing that into the class. (Amy)

> I've had very positive feedback. A lot of the students enjoy the content and enjoy the course. That's one thing I think they benefit from but probably my participation it sort of snowballs in that if I was confident in delivering the course then the students are going to benefit from that. (Elizabeth)

> The courses are organized and there's pedagogy behind it and whether the students are aware of it or not I do feel that it translates into their learning and success. How has it affected them? I mean I could say I like to think it's made them successful students. I mean being a better teacher and having confidence

> and having the tools to be a better teacher can only mean that the students gain from that. One would hope. (Julia)

One interviewee, who was motivated to complete the Institute in order to reduce the failure rate in one of her courses, found that the Institute helped to achieve this goal.

> Proving that I could reduce the failure rate was awesome for me. After they graduated and I taught the course for the second round that group was deficient with math skills, so I said this might give me a better idea of how the hybrid is preforming. I was surprised. I did not have any failures again. This is the third time I'm running it as a hybrid course, let's see what happens. (Maria)

Greater accessibility. Three of the interviewees also commented that their participation in the Institute caused them to implement accessibility principles from the UDL framework, which was beneficial to the students and helped to support their success.

> I think that because I am much deeper with the online content that I have for them my understanding is that I am able to reach those students more that don't come to class and I have had students say to me that I am very accessible both in person but now I think even more accessible online. With things like the checklist, I've always been an avid user of things like news items but I think even more so now but I think it's helped with the accessibility factor. I appreciate that; again, I've always understood UDL and making sure we've got multiple ways of reaching students in terms of engagement but it's made me think through how else could I reach this student? If they don't come to class, if they look at the PowerPoint great but what else could I put on there? What other resource could I put on there that's really going to help them understand this content so I think it's made it more accessible for my students. (Ann)

> I think it has affected the students in the sense that they are seeing that even if I'm at home, they're still getting the feedback they need, even the in-class students. I had a really nice email from a staff member over in the Student Support Centre saying thank you for doing this. I had some students who were stuck on a math problem and I said well send it to me I'll make you a video. And so they sent me their problem and I made a video explaining it and

> you know it helped out a lot. So, I think it affects them where they see that we're helpful. We're here to help in any possible way. (Rebecca)

It is evident from the interview responses that many of the interviewees felt that their participation in the Online/Hybrid Course Development Institute had a perceived impact on their students. Several interviewees indicated that their participation led to an improved learning experience for the students, as their teaching was more engaging and active, and students were exposed to well-designed and thoughtful learning experiences. One interviewee was also able to reduce the failure rate in one of her courses as a result of being able to put some of the course material online to support student success. A few of the interviewees also implemented UDL principles which made the learning experience more accessible for students and allowed the interviewees to reach a more diverse population of students.

4.3.2.7 Summary

The interviewees had several motivations for participating in the Online/Hybrid Course Development Institute including technological and pedagogical knowledge, early adoption and pro-activeness, personal interest and benefit, recommendation or mandate from administration, and a desire to reduce the failure rate in a specific course. The two main benefits of the Institute that were identified by the interviewees were the interdisciplinary cohort model and the active learning approach. The interview responses revealed that most of the interviewees had a positive experience participating in the Institute and there was a general indication that the Institute impacted the teaching practice of many interviewees including the technological and pedagogical knowledge, and the implementation of UDL principles. Even in the case where interviewees with more than ten years of face-to-face teaching experience noted little or no change to their teaching practice, the participants still felt that the Institute was helpful at reinforcing their current teaching practice. Further, the Online/Hybrid Course Development Institute was seen as causing a shift for some interviewees to a more student-centred teaching approach and also transformed a few interviewees' perceptions about online teaching and learning. In addition, participation in the Institute affected several interviewees' feelings of confidence related to their teaching ability and their technological and pedagogical knowledge. In two instances, participation in the Institute led to a decline in interviewees' feelings of confidence. However, with regard to the perceived impact of participation in the Institute on students, quite a few interviewees felt that their participation supported an improved learning experience for the students, and some also implemented UDL

principles that made the learning more accessible for learners. Overall, the themes that emerged through the analysis of the interview responses triangulated with the online survey data and helped to provide a more detailed narrative of how participation in the Online/Hybrid Course Development Institute impacted the participants' teaching practice, previously held assumptions and beliefs about teaching, and self-efficacy.

4.4 Documentary Evidence

Interview participants were asked to provide documentary evidence (i.e. course outlines, content, assignments, and assessments) to illustrate specific changes that they have made as a result of participating in the Institute. Six out of the 18 interview participants supplied documentary evidence. One brought it with her to the interview, three provided it via email as a follow-up to the interview, and two provided it via email after review of their interview transcripts. Although limited documentary evidence was provided, the documents that were submitted were coded following the same process as the interview data, looking for examples which were consistent with themes identified in the interview data analysis.

Julia provided several screen captures (images) from the online course that she developed through the Institute which provided evidence of active learning and the use of the JumpStart model. She provided examples of a variety of content activities that included the use of images and video (see Figures 4.15 and 4.16). She also included some examples of interactive practice activities such as a treasure hunt activity that required students to go to the Google Art Project website and locate an image and provide an analysis of the image for discussion (see Figure 4.17) and a virtual field trip activity using Google Street View that asked students to examine the current architecture in downtown Toronto (See Figure 4.18). In addition, she also provided an example of an ungraded quiz that provided formative feedback for students (see Figure 4.19). These artefacts were consistent with the interview responses and provided evidence that Julia was able to apply what she learned through the Online/Hybrid Course Development Institute to her current teaching practice and aligned with the interview response themes of technological and pedagogical knowledge. In terms of technological knowledge, the artefacts provided by Julie demonstrated sophisticated use of the LMS including the embedding of images and videos and the use of online quizzing, as well as the implementation of a variety of external technologies including YouTube, Google Street View and Google Art Project. With regards to pedagogical knowledge, the artefacts provided by Julie

also showed evidence of active learning, chunking of information, formative feedback and multiple means of representation of content via text, images and video.

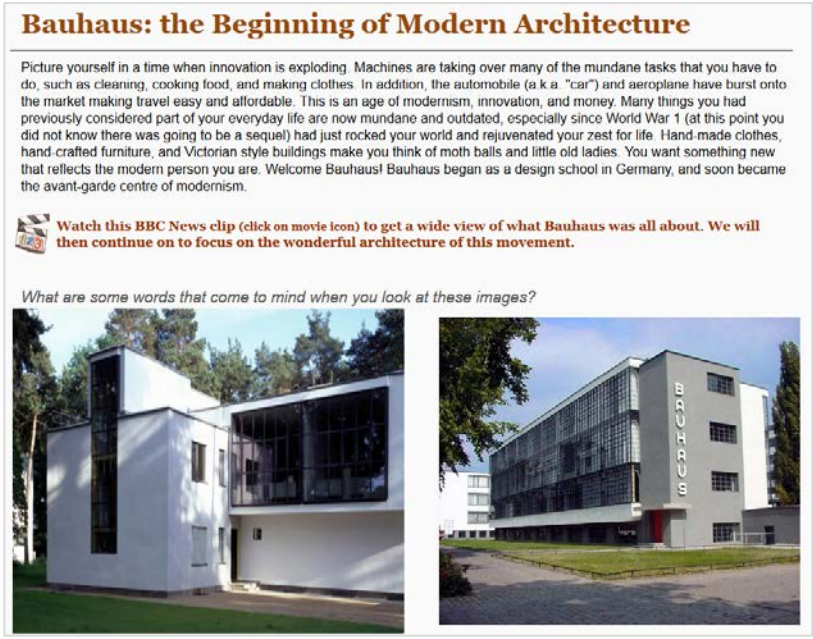


Figure 4.15 - Content activity example #1

Figure 4.16 - Content activity example #2

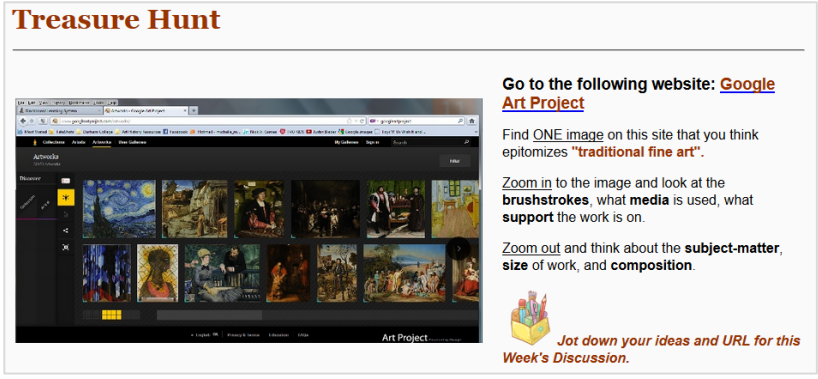


Figure 4.17 - Treasure Hunt activity

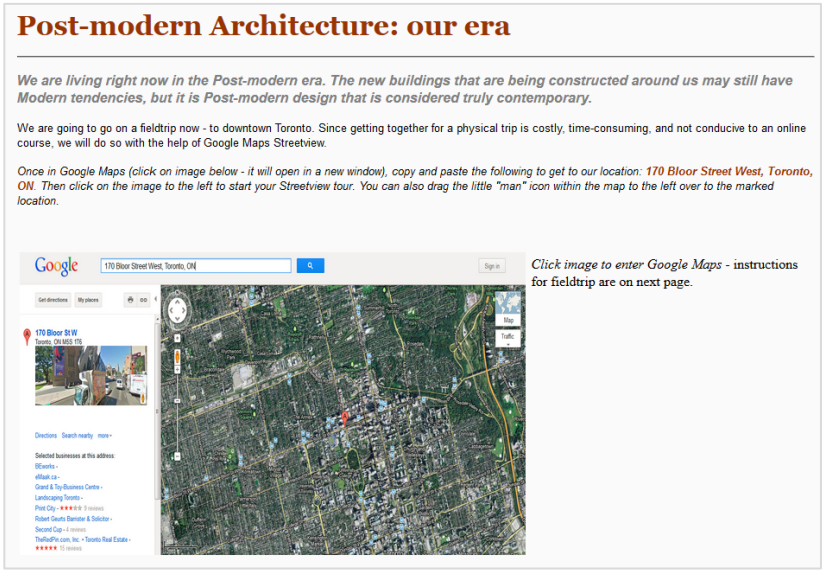


Figure 4.18 - Virtual Field Trip activity

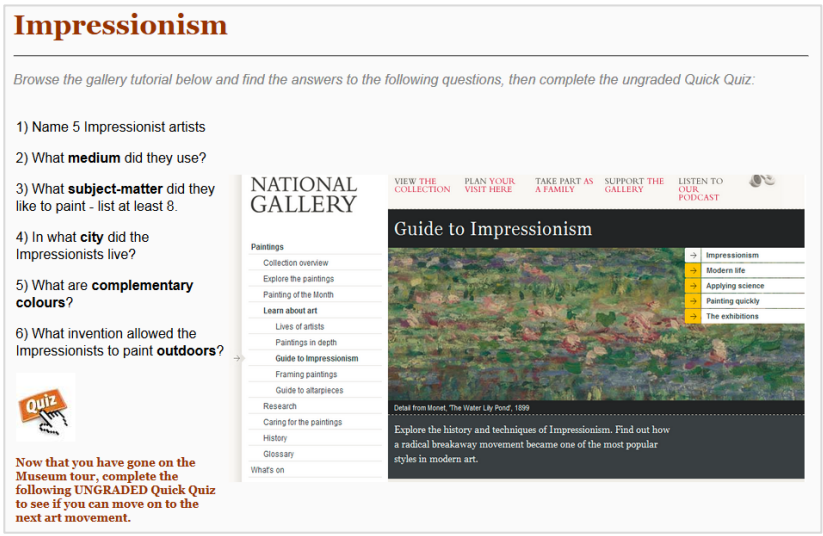


Figure 4.19 - Formative online quiz

Pamela provided links to a number of different activities that she created for the hybrid course that she developed through the Institute. This included examples of interactive practice activities such as drag and drop exercises, matching activities and crossword puzzles (see Figure 4.20). She also provided examples of some short videos that she created related to the major concepts within the course. The videos followed good practice and were appropriately organised into “digestible chunks” that students could review anytime (see Figure 4.21). These artefacts demonstrated the

application of active learning and were consistent with the pedagogical theme related to the impact of the Institute on teaching practice.

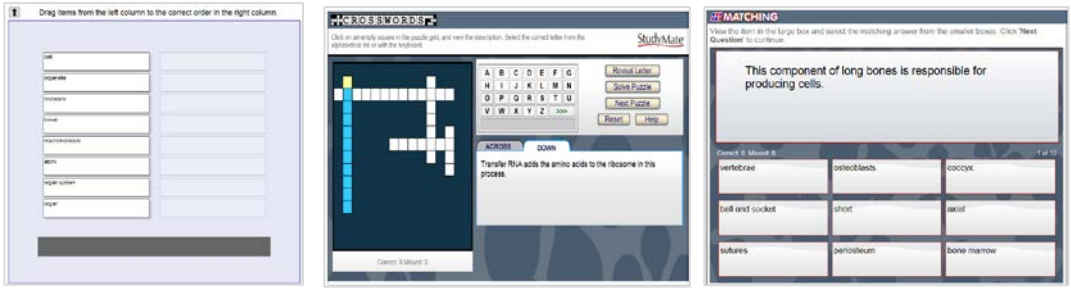


Figure 4.20 - Sample practice activities

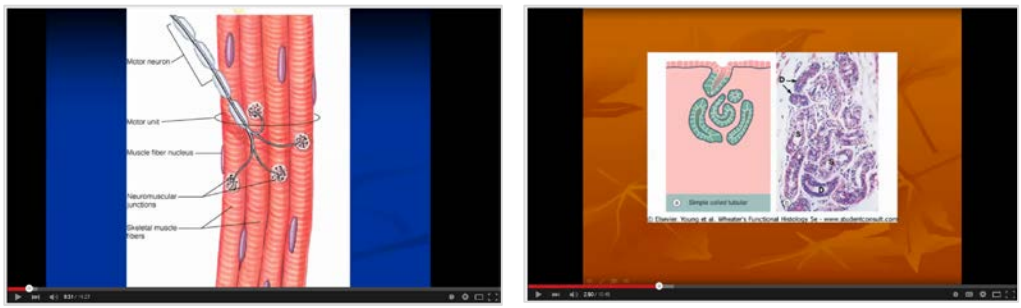


Figure 4.21 - Sample videos

Amy provided evidence of how she has incorporated active learning and the use of the JumpStart model into her face-to-face teaching practice. She provided two sample lesson plans (see Figure 4.22) showcasing the use of the JumpStart model and included an example of a MS PowerPoint presentation from one of her face-to-face courses that incorporated active learning and used the JumpStart model framework.

LESSON PLAN

Unit Topic: What is Creativity and how do you promote it in children?

Connection Activity:

Description	Time required	Resources
Answer Garden Brainstorming Activity There are many ways to define creativity. How would you define creativity?	5 minutes	Answer Garden online or Chalk board/paper Slides 3 & 4

Step / section	Content Activity	Time & Resources	Practice Activity	Time & Resources
1. Creativity: who or what?	Think, Pair, Share = What or who do you associate with creativity?	10 minutes Slides 6-11 Handout #1	In small groups create whatever you want with the Lego pieces. Share your creation	10 minutes Lego bricks, or blocks, or play-dough Slides 12 &13
2. Teacher's Role	Show two examples of art activities provided by two different kindergarten teachers ask: which teacher is encouraging creative process and individual expression? Discuss	10 minutes Flower Art Blossoms Slide 14 Handout #2	How do you think a teacher can promote creativity in an Early Learning Environment?	10 minutes Slides15-17

Summary Activity:

Description	Time required	Resources
Align Activity What did I learn about creativity and how to promote it in children? Framework for promoting creativity across all domains being inclusive of all learners.	10 minutes	Soft Chalk Activity Slide 18 Concept Map Slide 19

LESSON PLAN

Unit Topic: Learning Environments and Early Childhood Development Services and Programs.

Connection Activity:

Description	Time required	Resources
Poll (clickers) or Hands up to questions	3-5 minutes	Personal experience (Slide 5)

Step / section	Content Activity	Time & Resources	Practice Activity	Time & Resources
1. Content from text pages 27-35 Slides 6-21 2. Slides 22 3. Show course wiki resource 4. Child Care Services Guide Section 6 Region of Durham Slides 23-26	1. Learning Environments Activity 5 questions 2. Video clips (3 that are 8 minutes each in length)	25 minutes 27 minutes 3 minutes 15 minutes	Small groups respond and share CCSG Activity (Slide 26)	15 minutes Handout #1 Slides Handout #2 Licensing – this will help with DNA & assessments in weeks 9,10 & 12
2. Teacher's Role	Show videos Go through content and provide examples, respond to any questions, encourage discussion	10-15 minutes	Check –in on understanding, guide and assist when needed	

Summary Activity:

Description	Time required	Resources
1. Check understanding of lesson Wrap Up and Questions 2. Homework for next week 3. Guest Speakers (students: year 2 and graduate of program)	10 minutes 3 minutes (Slide 27) 30 minutes	Remind students of DC Connect weekly review posted online

Figure 4.22 - Sample JumpStart model lesson plans

In addition, Amy provided an example of how she modified one of her evaluations to incorporate the principles of Universal Design for Learning. Her original evaluation consisted of a group project that required the students to develop a written report. As a result of participating in the Online/Hybrid Course Development Institute, Amy modified the evaluation to provide the students with greater choice in how they demonstrated their learning and they were given the option to produce a written report, or to develop an infographic or video. They were also given the option to work individually or in a group (see Figure 4.23). These artefacts showcased the direct impact of the Institute on Amy's face-to-face teaching practice and were consistent with the pedagogical knowledge and UDL themes that emerged from the interview data analysis.

Assignment Two: How Does Learning Happen (HDLH) Reflection/Consolidation/Summary

In groups of two to four or independently (to be arranged in week 4)
You will **select** your **topic** choice of either: Belonging or Well Bring in reference to the HDLH document.
http://www.edu.gov.on.ca/childcare/HowLearningHappens.pdf
You will choose **one** of the following three options to complete this assessment:
1. Create an **infographic** consolidating and summarizing your topic.
2. Compose a meaningful **video** that addresses your topic.
3. Provide a one to two page(s), meaningful, **written summary** reflection on your topic.

Option # 1 Infographics

Instructions
Prepare a one page visual infographic that captures all of the learning outcomes and key concepts for the topic. This will be a consolidation of your learning from reading and in-class learning. You must use text and related images to represent your summary and consolidation of the topic. Remember to include your full name, date and course code (CHLD 1302), CRN_____(found on DC Connect), and topic title on the infographic. If you submit it in the drop box, you do not need to include the rubric but must monitor your email to ensure I can open the document, otherwise you will need to submit it in person and it is a 10% per day late penalty (if the submission is in person, it must be printed in colour and have the rubric attached (in addition to the contract and peer evaluations if completed in a group).

Option # 2 Video

Instructions
Prepare a two to five minute video that captures all of the learning outcomes and key concepts for the topic. This will be a consolidation of your learning from reading and in-class learning. You must use text and related images to represent your summary and consolidation of the topic. Remember to include your full name, date and course code (CHLD 1302), CRN_____(found on DC Connect), and topic title in the video. If you submit the link in the drop box, you do not need to include the rubric but must monitor your email to ensure I can open the video, otherwise you will incur a 10% per day late penalty (remember to include the contract and peer evaluations if completed in a group).

Option #3 Written Paper (1-2 pages)

Instructions
Prepare a well written paper that clearly demonstrates your learning through a detailed reflection summarizing the topic. Remember to address all of the learning outcomes and key concepts for the topic. This will be a consolidation of your learning from reading and in-class learning. Remember to include your full name, date and course code (CHLD 1302), CRN_____(found on DC Connect), and topic title in the header/footer area of the paper –no title page please). If you submit it in the drop box, you do not need to include the rubric but must monitor your email to ensure I can open the document, otherwise you will incur a 10% per day late penalty (remember to include the contract and peer evaluations if completed in a group).

Figure 4.23 - Evaluation using UDL principles

Rose also provided documentary evidence of how she modified her course evaluations to incorporate UDL principles and how she provided increased opportunities for formative assessment. She supplied a copy of the course outline for the online course that she developed during the Online/Hybrid Course Development Institute which detailed the evaluation criteria (see Figure 4.24), as well as a copy of the murder mystery test that she developed as a result of participating in the Institute (see Figure 4.25). Both artefacts demonstrated a commitment to UDL and to making the course evaluations more student-centred, which supports the interview response data. The evaluation criteria from the course outline indicated that several different types of evaluations were used within the course and it also included two creative projects that allowed students to select the format of their assignment which supports the UDL principle of multiple means of action and expression. The murder mystery test also provided evidence of active learning as it was student-focused and added a game element to the evaluation in order to motivate the students to complete it.

Evaluation Criteria:

(A full description of the Academic Appeals Process can be found in your Student Handbook.)

Pre-Assessment	10%
Creative Project	15%
Quizzes- short, multiple choice quizzes (5 @ 2% each)	10%
Final Project- choice of creative or non-creative option	30%
Post Assessment	15%
Participation/Online Activities – completing required readings, participating in discussions, completing online activities as assigned	20%
Total	100%

1. In the **Pre-Assessment** students will take note of their current daily lifestyle and evaluate themselves comparatively to living a more eco-friendly life. This will include monitoring their routines and activities for 3 days and reporting where they found areas of improvement within their own lives.
2. The **Creative Project** will have students leaving their study space and challenging them to find an environmental issue or risk within their community. Once they have identified the risk, they will present their findings in a creative way. This can include website, blog, painting, drawing, photo-collage etc. Students are to represent their finding in some creative aspect. There will be a short written portion to explain their creative work.
3. **Quizzes** will be short and just checking for comprehension of the content students are learning about. They will be multiple-choice and led in a casual fashion. There will be a total of five (5) quizzes worth 2% each spaced throughout the semester.
4. The **Final Project** will be the capstone to the students' learning throughout the semester. Students will be given an option to complete either another creative project (website, blog, painting, drawing, photo-collage, 3D project etc.) or a written report, depending on their personal learning style. Students will be asked to tackle a major environmental issue, report on what the issue is and suggest a solution. Students will be expected to show their knowledge from the course and explain their rationale.
5. The **Post-Assessment** is similar to the Pre-Assessment in that students will evaluate themselves and their daily life compared to the knowledge they have gained from the class. Have the students' behaviours and lifestyle changed? How or how not? Do they still see any area they can improve upon?
6. **Participation/Online Activities** is a summative assessment of the students' contribution to the learning environment through discussion board postings, weekly online activities, journal entries, completing the readings & viewings and being an active and engaged student.

Figure 4.24 - Sample evaluation criteria from course outline

Excel 2013 Test

There's been a murder! Patrick was a long-time writer, and was recently found dead in his office. On his computer screen is his most recent article he was in the process of writing. After he was killed, it is obvious his hands or head fell on the keyboard and typed E 5 6 7 8 9 10 11 after his article. When the police speak with his agent, Robert- who had called the police when he hadn't received Patrick's latest work, he provides them the names of 2 possible suspects.

Jan is Patrick's ex-wife. They separated mutually and were still on talking-terms until Jan's lawyers began demanding unreasonable amounts of alimony. This has caused issues between Patrick and Jan in recent months.

Eli is Patrick's twin brother. Before Patrick married Jan (his ex-wife), Eli had been dating her. Eli has held a grudge all these years and since Patrick & Jan's split has considered trying to win her back.

Complete the Excel test which will help you solve the mystery. If you get the correct answer (who the killer is and with what weapon) you will receive an extra bonus mark for each correct answer. That is, you will receive one bonus mark for the name of the killer and one bonus mark for the weapon used.

This chart may help you decipher the clues:

A	B	C	D	E	F	G
10.46	9.37	9.76	19.30	2.92	23.01	56.51
H	**I**	**J**	**K**	**L**	**M**	**N**
27.13	53.06	24.32	6.04	15.35	7.82	6.37
O	**P**	**Q**	**R**	**S**	**T**	**U**
6.94	1.47	34.05	41.70	2.87	11.01	24.38
V	**W**	**X**	**Y**	**Z**		
10.67	83.09	72.41	8.70	7.52		

Figure 4.25 - Sample Murder Mystery evaluation

Finally, Beverly and Shawn both provided links to introduction videos that they created to help build a positive climate and foster a sense of community within their courses (see Figure 4.26). Beverly's video provided an overview of the course and explained how the content would be relevant to the students when they went out into the field, and featured a number of faculty members from the programme which helped to put a face to the programme team. Although it was initially intended to be part of her fully online course, she ended up using the video in her face-to-face courses as well and has received positive feedback from the students. Shawn's video featured a cartoon-like introduction to the course and similar to Beverly, he initially developed it for the hybrid version of his course but also ended up using it in the face-to-face version of the course. Both videos provide evidence of how the participants were able to transfer the learning from the Online/Hybrid Course Development Institute into their own practice and are consistent with the interview data analysis and related to the theme of pedagogical knowledge.

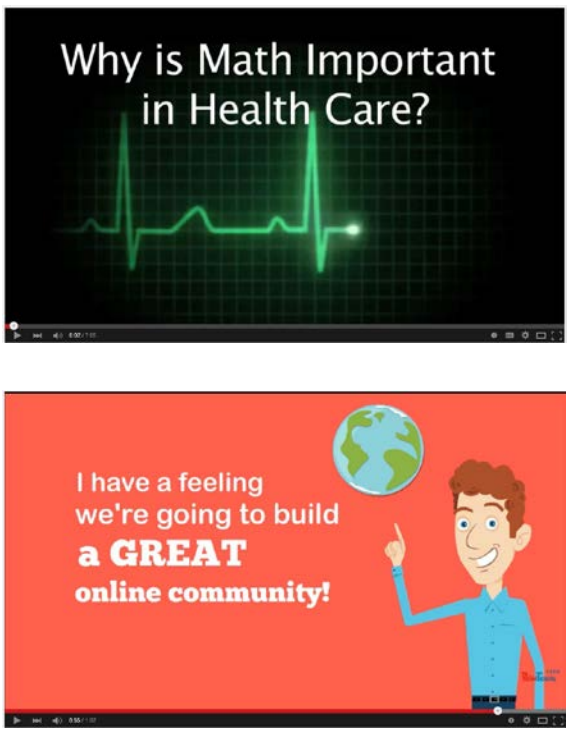


Figure 4.26 - Sample introduction videos

Although not all of the interview participants provided documentary evidence to validate the self-reported information gathered in the interviews, the evidence that was provided was consistent with the interview responses and helped to provide further evidence of the impact that the Online/Hybrid Course Development Institute had on participants' teaching practice. The documentary evidence consisted of a variety of different types of artefacts including screen captures of online activities,

links to interactive practice activities, copies of lesson plans, evaluations and course outlines, as well as links to online videos. Each of these artefacts demonstrated how the participants were able to transfer what they had learned from the Institute into their current teaching practice, both face-to-face and online.

4.5 Critical Discussion of Findings

As mentioned in Chapter 3, over the course of this study, I became aware that my role as the facilitator of the Institute and as an educational developer may have impacted the participants' willingness to share documentary evidence in support of their interview responses. Teaching within higher education has a long tradition as a private endeavour, and this private culture can cause resistance by educators to observation from peers (Hutchings, 1996). Participants may have been reluctant to present documentary evidence for fear of judgement or critique. From my own practice as an educator, I know that it can be very intimidating to have a colleague review your teaching material or observe your teaching. I am much more comfortable informally discussing my practice than providing first-hand evidence of my teaching, so it is possible that the interviewees felt the same way. In addition, if the interviewees did not refer to documentary evidence during their interview I did not request it as I did not want to exert any pressure on the interviewees. It is possible that if I had explicitly requested it during the interview, more interviewees may have provided documentary evidence to support their responses.

Given that I was the facilitator of the Institute, it is possible that some of the interviewees may have overstated the impact of the Institute due to my involvement in the design and delivery of it. That said, my role as an educational developer does not yield any power or authority over other educators as we all have the same employment status, and I am typically considered a peer. In addition, I had an established collegial relationship and good rapport with all the interviewees, and at the beginning of each interview I reiterated that their responses to the interview questions were not taken as an evaluation of my work, so I hope that encouraged many to be candid and honest in their responses. Moreover, the last half of the Institute was devoted to peer sharing and feedback so the interviewees were already exposed to the notion of critical feedback and continuous improvement, and it is hoped that they were able to translate these principles to the responses that they provided me during the interviews. Finally, there was consistency between the anonymous online survey responses and the interview responses, which provides support for the claims of impact made within the interviews.

During the peer sharing and feedback sessions of the Online/Hybrid Course Development Institute I have the opportunity to see first-hand many of the changes that participants make to their teaching practice as a result of their participation. The themes that emerged through the data analysis are fairly consistent with my informal observations and with anecdotal feedback that I have heard from participants over the years. There are some themes that had more evidence than others, but overall I feel the analysis provides a good depiction of the breadth and depth of the changes that participants experience as a result of participating in the Institute. In addition, as participation in the study was voluntary, it is possible that people who were unhappy with their experience in Online/Hybrid Course Development Institute may not have volunteered to participate in the study. It should be noted, however, that some participants expressed little or no impact, which suggests that there is some representation from those that who did not attribute any positive impact to the Institute.

4.6 Summary

In summary, the online survey data of 34 college educators who participated in the Online/Hybrid Course Development Institute seemed to indicate that the majority of the respondents perceived some changes in teaching practice, previously held assumptions and beliefs about teaching, and self-efficacy that could be attributed to their participation in the Institute. The thematic analysis of the interview data from 18 educators selected from the survey participants identified a number of different factors that motivated educators to participate in the Institute including a desire to increase their technological or pedagogical knowledge, the tendency to be early adopters or proactive leaders, personal benefit or interest, recommendation or mandate from Administration, and in one case the specific desire to reduce the failure rate in a course. The interviewees found the interdisciplinary cohort model and the active learning approach of the Institute to be beneficial as it allowed them to interact with colleagues from diverse backgrounds and provided an opportunity to work on their own course development and to experience the online environment from a student's perspective. Most of the interviewees were able to apply what they learned from the Institute to their teaching practice, with some increasing their use of digital tools and the LMS, many implementing the JumpStart lesson planning model, and others incorporating community building activities, chunking information, modifying assignments and embracing the UDL framework. Even when no changes in practice were specifically attributed to the Institute by some interviewees many who had ten or more years of teaching experience, they indicated that the Institute still provided a

sense of support from colleagues and helped to reinforce their current teaching practices.

Many of the interviewees expressed that their participation in the Online/Hybrid Course Development Institute affected their feelings of confidence (self-efficacy) in their teaching ability. Some felt that the Institute improved their technological confidence level, others described increased feelings of confidence related to their pedagogical knowledge, and participation in the Institute seemed to reduce some interviewees' fear of the online environment, and led to greater risk-taking and the courage to try new teaching methods and strategies. Two interviewees expressed that their participation in the Institute reduced their feelings of confidence in their teaching ability, but it is hoped that this is just a short-term impact and that their self-efficacy will increase in the future. The interview responses also revealed that participation in the Institute had a perceived impact on the interviewees' students. Several interviewees indicated that their participation led to an improved learning experience for the students and to the adoption of UDL principles which helped to make the learning experience more accessible for students.

The limited documentary evidence that was provided helped to reinforce the self-reported information gathered in the interviews, and provided concrete examples of how the participants were able to transfer what they had learned from the Institute to their current teaching practice. The documentary evidence demonstrated a strong focus on active learning and the JumpStart model, the adoption of formative feedback strategies and chunking of information, and the development of community building activities to help foster a positive climate for learning. Overall, the themes that emerged through the analysis of the interview responses and the documentary evidence were fairly consistent with the online survey data and helped to provide a detailed account of how participation in the Online/Hybrid Course Development Institute impacted the participants teaching practice, previously held assumptions and beliefs about teaching, and self-efficacy.

Chapter 5 Discussion and Conclusion

5.1 Introduction

The purpose of this case study was to examine college educators' assumptions and beliefs about teaching through an investigation of the impact of the Online/Hybrid Course Development Institute on previously-held beliefs. This study also aimed to understand educators' confidence in their ability to teach (self-efficacy) and the impact of participation in the Online/Hybrid Course Development Institute on their self-efficacy. This study addressed the following main and sub-research questions:

Main Research Question

1. How does participation in the Online/Hybrid Course Development Institute impact college educators' teaching practice?

Sub-Research Questions

2. What changes, if any, do educators experience in their previously held assumptions and beliefs about teaching as a result of participating in the Online/Hybrid Course Development Institute?

3. What changes, if any, do educators experience in their confidence in their ability to teach (self-efficacy) as a result of participating in the Online/Hybrid Course Development Institute?

The findings were based on online survey data of 34 college educators who participated in the Online/Hybrid Course Development Institute, and interview data from 18 educators selected from the survey participants, as well as documentary evidence from 6 interviewees. The data generated multiple perspectives towards understanding the impact of the Online/Hybrid Course Development Institute on teaching practice, assumptions and beliefs about teaching, and educators' confidence in their ability to teach (self-efficacy). This chapter presents a discussion of the findings related to the literature, considers the contribution of this research to the field, and examines the implications for theory, policy and educational development practice. It also includes a discussion of the methodology and research design limitations, recommendations for future research and conclusion.

5.2 Summary of the Findings

5.2.1 Motivation for participating in the Institute

The interviews sought to understand the factors that motivated college educators to participate in the Online/Hybrid Course Development Institute. The intrinsic motivators that emerged came primarily from a desire to increase technological or pedagogical knowledge, and to be early adopters or proactive leaders of online/hybrid teaching and learning. A recent study of over 600 adjunct instructors revealed that the majority of participants (78.8%) were intrinsically motivated to engage in educational development; motivators included the desire for professional growth and the opportunity to improve teaching effectiveness (Dailey-Hebert, Mandernach, Donnelli-Sallee & Norris, 2014). In another study of clinical educators, intrinsic motivating factors for educators to participate in development initiatives included personal and professional growth, self-improvement, relevant topics, and the opportunity to network with colleagues (Steinert et al., 2010). Although the opportunity to interact and collaborate with colleagues was not identified by participants in this study as a motivator, it was later revealed as a benefit of the Online/Hybrid Course Development Institute.

Several participants were motivated to participate in the Online/Hybrid Course Development Institute in order to improve their technological skills and gain increased knowledge of the College's Learning Management System (LMS). According to Cranton (2006), learning technical skills, such as how to use various tools within a LMS, is what is referred to as instrumental learning, which can often lead to transformative learning. Educators may come to a development programme for online teaching with the goal of obtaining instrumental learning related to a specific objective such as how to upload a document to the LMS or how to create an online assessment; however, what often happens in the process of developing that technical skill is a deepening of their conceptions of learning and a questioning of their existing assumptions and beliefs about teaching and learning. This seemed to be the case in this study as all but one (out of 8) of the participants that were motivated to participate in the Institute in order to learn technical skills reported a change in their approach to teaching and assumptions and beliefs about teaching.

Guskey (2002) suggests that what motivates many educators to participate in professional development is their belief that it will enhance student learning outcomes and ultimately benefit students. Thus, educators are more likely to be motivated to

participate in professional development programmes when they are focused on improving the learning outcomes of students. There were a number of interviewees who cited factors related to increased pedagogical knowledge as the motivation for enrolling in the Institute as well as the desire to increase student engagement. The focus on improving the student learning experience aligns with Guskey's (2002) findings and implies that several of the interviewees were motived to enhance student learning outcomes.

Several extrinsic driving forces towards participation in the Institute were also identified including: (1) personal benefit or interest, especially from non-full-time participants; (2) recommendation or mandate from administration; (3) and in one case the specific desire to reduce the failure rate in a course. In the study of adjunct instructors cited earlier, the external motivating factors included pay increases, course scheduling priority, and retention (Dailey-Hebert, Mandernach, Donnelli-Sallee & Norris, 2014). This finding is somewhat consistent with the motivators that were identified by the non-full-time participants in this study as they indicated that they participated in the Institute to give them an edge in order to be hired for online teaching opportunities in the future. Another study in the United States looked at motivators and obstacles to participation in faculty development across four institutions and found that the most motivating factors for engaging in educational development were receiving a stipend and being offered release time to complete educational development (Lowenthal, Wray, Bates, Switzer, & Stevens, 2013). In the context of this study, the college does not offer stipends but does allow for release time for educational development; however, this was not indicated by any of the participants as being a motivator for participating in the Institute. In addition, although the Centre for Academic and Faculty Enrichment does not encourage administrators to mandate educators to participate in educational development opportunities, a few of the interviewees indicated that they were mandated by their Deans to participate. In some instances, mandatory training has been shown to have a negative motivational effect on instructors (Cilliers & Herman, 2010; Parsons et al., 2013; Weaver, Robbie, & Borland, 2008). That said, the interviewees who were mandated to participate in this case did not mention any negative feelings related to the mandated participation.

These findings suggest that a combination of both intrinsic and extrinsic motivators encouraged educators to participate in the Institute. Although some of the participants were motivated by a drive to learn more about the technological aspects of learning to teach online, it is evident that this initial motivation for instrumental learning may still

encourage transformative learning and a challenging of existing assumptions and beliefs about the conception of teaching. It is also evident that non-full-time educators may be extrinsically motivated to participate in educational development for online teaching given the future professional opportunities that it may offer. In addition, it seemed that participants in this case were not motivated by release time as was indicated in previous studies. Overall, although the research questions in this study were not specifically concerned with motivation for participating in educational development for online teaching, having some understanding of the motivating factors is helpful in providing context for the study and may be useful when designing future educational development initiatives.

5.2.2 Self-Reported Benefits of the Online/Hybrid Course Development Institute

The Online/Hybrid Course Development Institute was designed with an active learning approach in which participants engaged in a hybrid learning environment while applying principles of course design and delivery to a course they were preparing to teach online or hybrid. The curriculum was focused on defining and creating student-centred learning experiences, and examining effective design of content and activities, as well as implementation of successful assessment and facilitation techniques. The face-to-face time in the first half of the Institute was spent discussing theory and showcasing best practices for online course design and delivery, and the online time was devoted to the practical application of the theory to the participants' own course development. During the second half of the Institute, the face-to-face time was devoted to peer sharing and review, and the participants had the opportunity to showcase their on-going course development and obtain feedback from each other.

The Institute was intended to develop participants' conceptions of teaching and learning and help participants develop practical online teaching skills through which to realise their conceptions. This design was based on best practices which suggests that changes in teaching are unlikely to occur or have lasting positive impact unless an educator's conceptions of teaching also change (Butcher & Stoncel, 2012; Cilliers & Herman, 2010; Ginns, Kitay & Prosser, 2008; Hanbury, Prosser & Rickinson, 2008; Hubball, Collins & Pratt, 2005; Gibbs & Coffey, 2004; Ho, Watkins & Kelly, 2001; Postareff, Lindblom-Ylänne & Nevgi, 2007; Stes, Coertjens & Van Petegem, 2010). The design of the Institute also took into consideration recommendations from past research related to educational development for online teaching which proposes that

educational development should be based on adult learning principles; include collegial sharing; the focus should be on pedagogy, not simply technology skill acquisition; and educators should be added to an online course as a student to get a better understanding of the online environment (Barker, 2003; Esterhuizen, Blignaut & Ellis, 2013; Gallant, 2000; Hinson & LaPrairie, 2005; Reilly et al., 2012; Signer, 2008; Steinert at al., 2006). Moreover, the Institute was consistent with the theoretical foundations of constructivism (Cross, 2009) and situated cognition (Lave, 1988).

The participants in this study identified the interaction with other educators from diverse disciplines and the sense of community that developed among the cohort as one of the main benefits of the Online/Hybrid Course Development Institute. The interviewees enjoyed being able to follow the course development of their peers as it enabled them to get new ideas that they could translate into their own practice. Being part of a community of peers is not a new concept and is embedded in the literature on communities of practice (CoP). CoPs are defined as "groups of people who share a concern, a set of problems, or a passion about a topic and who deepen their knowledge and expertise in this area by interacting on an ongoing basis" (Wenger, McDermott, & Snyder, 2002, p. 4). Faculty Learning Communities (FLCs) have emerged as a specific type of CoP within higher education and are defined as an interdisciplinary group of around 8-12 faculty and staff who engage in an extended planned programme to enhance teaching and learning that incorporates frequent activities to facilitate learning, development, and community building (Cox, 2004). The interdisciplinary cohort model employed in the Online/Hybrid Course Development Institute could be considered an example of an FLC.

Over the past several years, there has been a growing recognition that effective educational development needs to incorporate opportunities for educators to work together, and the utilisation of various forms of Communities of Practice (CoPs) has become a common element in many educational development programmes. These communities provide a venue for educators from different disciplines to collectively and critically reflect on their teaching practice, which is consistent with reflective discourse in the transformative learning model (Cox, 2001). Britnell et al. (2010) conducted a survey of 876 faculty members in 6 publicly funded universities in Ontario and found that seventy percent of respondents felt it was important/very important to have opportunities to make contact with peers and to network. Beach and Cox (2009) conducted a survey examining the impact of FLCs on faculty self-reports of student learning outcomes across six American universities. They found

that as a result of their participation in FLCs, faculty reported using new pedagogical approaches. O'Meara (2005) examined the outcomes of an FLC that was comprised of faculty in science, engineering, and mathematics from seven partnering colleges in the US. In their study, faculty members' self-reported teaching effectiveness improved as a result of participating in the year-long FLC. Other research indicates that participation in FLCs can improve scholarly practice, foster higher levels of interdisciplinary collegiality within the institution, and establish a foundation for sustained professional development (Cox, 2004; Heath & McDonald, 2012).

A few studies that explored the preferences for educational development for online teaching found that opportunities for mentoring and learning with peers were identified as the most useful by participants (Gilbert, 1995; Herman, 2012; Kinuthia, 2005). A study by Maier (2012) of online professors at 12 colleges in Washington DC found that 87% of participants (regardless of gender, appointment type, age, experience with online teaching, and discipline) found interacting with other educators on issues around online teaching to be valuable to their development. Lu, Todd, and Miller (2011) also found that educators desired supportive learning communities to experiment with online teaching. It is evident that the interdisciplinary cohort model used in the Online/Hybrid Course Development Institute provided a sense of community and created a strong climate of support which was beneficial to the participants' learning experience and was consistent with the findings in the literature. The Institute created a safe space for dialogue about teaching and the interviewees particularly noted that the peer sharing and feedback process allowed them the chance to share their ongoing progress and get ideas from others that helped to spark innovation in their own practice.

The social process of peer dialogue provides an opportunity for educators to "learn about teaching by talking about their experiences, becoming aware of the assumptions and expectations they have, questioning these assumptions, and possibly revising their perspectives" (Cranton, 1996, p. 2). The interviewees consistently identified the opportunity to engage in discussions with colleagues as one of the most positive features of their learning experience in the Institute. Reflective discourse is one of the three overarching tenets of transformative learning and, according to Mezirow (2000) "feelings of trust, solidarity, security, and empathy are essential preconditions for free full participation in discourse" (p. 12). The findings from the interviews in this study indicate that reflective discourse occurred among many of the participants and that a climate of mutual respect and trust was established. The interdisciplinary composition of the Institute provided an opportunity for participants to hear about

ways that educators from different disciplines approached the development of their respective courses. The peer feedback forced the participants to move their thinking beyond the context of their own courses to consider the wider issues of online and hybrid course development, a finding that is consistent with deNoyelles, Cobb and Lowe (2012) and Shattuck and Anderson (2013). The peer support that the participants felt may have also positively impacted the transfer of learning, which has been found to be a contributing factor to successful transfer of learning in previous studies (Baldwin & Ford, 1988; Ginns, Kitay & Prosser, 2008; Seyler et al., 1998).

The active learning design of the Institute was also identified by the interviewees as being beneficial, and several commented on the effectiveness of the hands-on approach that allowed them to work on their own course development as well as the hybrid design which provided an opportunity to experience the online environment from a student's perspective. Action is another important component of transformative learning and educational development programmes that include active learning techniques and provide opportunities for participants to act on their new learning can help to support transformative learning (Mezirow, 1991). Guskey (2002) also claims that there are positive benefits when educators experiment in the context of their everyday teaching practice as part of professional development activities rather than afterwards when the professional development has finished. Brookfield (1993) suggests that "experiencing what it feels like to learn something unfamiliar and difficult is the best way to help teachers empathise with the emotions and feelings of their own learners as they begin to traverse new intellectual terrains" (p. 21). The findings from the interviews suggest that experiencing what it feels like to be an online student in an authentic environment may have provided the participants with a different viewpoint of the online learning experience which in turn may have helped to support their transition to more student-centred learning strategies.

Finally, the Online/Hybrid Course Development Institute is offered in both a compressed seven-week format (3 hours face-to-face and 3 hours online) in the spring semester and a fourteen-week format (2 hours face-to-face and 1 hour online) during the fall and winter semesters. Although the length of educational development programmes has been explored in several others studies within the literature, the duration of the Institute was not mentioned by any of the interviewees as being either a benefit or an obstacle. There did not seem to be any noteworthy differences in the survey results or interview responses from those who participated in the seven-week versus the fourteen-week format of the Institute. Also, the interviewees did not comment on whether the period of time that had lapsed since they participated in the

Institute had an impact on their teaching practices, assumptions and beliefs or self-efficacy. Thus, it would seem that in the context of this study it was possible to witness changes in teaching practice after only a seven-week intensive Institute. This finding is inconsistent with previous evidence that suggests that longer programmes result in greater change in perceptions, attitudes and behaviour (Gibbs & Coffey, 2004; Guskey, 2000; Postareff et al., 2007; Stes et al., 2010). That said, Ho et al. (2001) found that changes to teaching conceptions resulted from only a 12-hour educational development programme, so it is reasonable to conclude that the compressed format of the Institute can still encourage lasting changes.

Overall, the findings of this study suggest that creating an educational development environment for online teaching that cultivates peer sharing and feedback and encourages active learning can enable educators to extend their practice in new directions. Participation in the Online/Hybrid Course Development led to the development of a sense of community that encouraged, engaged, and supported educators in their evolving teaching practice. The participants recognised the importance of peer dialogue and immersive learning which is consistent with the literature related to transformational learning (Cranton, 2006; Mezirow, 1997). This study makes clear the benefit of an interdisciplinary cohort model and active learning, as college educators transition from face-to-face teaching to the online environment. During this study, the opportunity to discuss online course development with peers and the ability to experience the online environment from the student perspective provided the stimulus for educators to reflect on their current conceptions of teaching and contemplate changes to their practice. These findings emphasise the important role of collegial support and active learning in educational development to support the knowledge and skills required for effective online teaching.

5.2.3 Impact of participation in the Online/Hybrid Course Development Institute on teaching practice

The interviewees described a number of ways that they have changed, and are continuing to change, their teaching practice as a result of participating in the Online/Hybrid Course Development Institute. It is important to note that the lapse of time since the interviewees participated in the Institute varied among the respondents, with some having up to a three-year gap between participation in the Institute and the interview. The reports of changes to teaching practice were supported by the online survey data, in which the majority of the respondents indicated that they were able to apply what they learned through the Online/Hybrid Course Development Institute to

both their face-to-face (61.8%) and online (77.4%) teaching practice. The finding of a change to face-to-face teaching practice as a result of participating in the Institute was consistent with previous studies which also reported a positive effect of educational development for online teaching on classroom practice (Buckenmeyer et al., 2013; McQuigan, 2012; Koepke & O'Brien, 2012; Shea et al., 2002). McQuigan (2012) found that opportunities to engage with more experienced online colleagues, view examples of online courses, and reflect on online teaching were perceived by the participants to be most effective in supporting transformational change. The benefits of the Online/Hybrid Course Development Institute that were revealed by the participants, including the interdisciplinary cohort model and the active learning approach, are consistent with McQuigan's findings. Scagnoli et al. (2009) discovered that transfer of learning is more likely to occur when there is a connection between the content and context of the online and face-to-face courses that the educator is teaching. This study did not inquire about the specific courses that the participants were teaching face-to-face, so it is not possible to determine whether the content and context had an impact on the transfer in this case.

Several interviewees described an increase in technological knowledge and greater use of digital tools and the LMS as a result of participating in the Online/Hybrid Course Development Institute. Many of the participants had used the LMS prior to the Institute, but through the Institute the tools within the LMS and external digital tools were aligned with teaching and learning issues. The Institute modelled the effective use of technology and communicated the message that technology should support pedagogy and that the focus should not be on the specific tools, but on how they can help to support the teaching and learning objectives. A number of participants reported a realisation that the LMS tools that they used for their online course such as announcements, checklists, and online assignments provided benefits for all students, regardless of the mode of delivery for the course. This was also the case for many of the online resources that the participants created for their online courses such as video lectures which proved to be beneficial to face-to-face students. These perceived benefits, combined with the first-hand experience of using the LMS in the role of both student and teacher, prompted many participants to begin implementing technology and tools once believed to be solely the domain of online courses into their face-to-face courses as well. The finding of educational development for online teaching supporting the integration of educational technologies into the classroom has also been raised as a secondary finding in a few other studies (Cho & Berge 2002; McKenzie, Mims, Bennett & Waugh, 2000; O'Quinn, 2002; Shea et al., 2002). These findings suggest that educational

development for online teaching has the potential to facilitate technology integration in both the online environment and within the traditional classroom.

Many interviewees also indicated a growth in pedagogical knowledge and the implementation of the JumpStart model to develop lesson plans, which provides a framework for designing active, student-centred lessons both face-to-face and online. The participants identified several examples of the ways in which they were able to use the JumpStart model lesson planning template to design interactive lessons for both the online and face-to-face environment. The documentary evidence provided also showcased the use of the JumpStart model by participants. In addition, participants made pedagogical adjustments to their teaching practice by incorporating community building activities, chunking information, and modifying assignments. Evidence by Shea et al. (2002) also suggests that educational development for online teaching can foster pedagogical review and instructional transformation. In their study, they found that participation in educational development encouraged educators to engage in more systematic design of instruction, and use appropriate alternative means of instruction and assessment. The use of more systematic instructional design is consistent with the use of the JumpStart model lesson plan as described in this study.

Mishra and Koehler (2006) proposed a model known as the TPACK framework which identifies the knowledge that is needed to teach effectively with technology. Building on Shulman's (1986) concept of pedagogical content knowledge, TPACK focuses on the complex interactions between three primary bodies of knowledge: (1) Technological Knowledge (TK) which involves an understanding of how to accomplish a variety of different tasks using information technology; (2) Content Knowledge (CK) which includes knowledge about the subject matter to be learned or taught; and (3) Pedagogical Knowledge (PK) which includes knowledge of student thinking and learning (Koehler, Mishra & Cain, 2013). The TPACK framework has emerged as a useful construct for researchers interested in understanding technology integration in teaching and learning (Baran et al., 2011). TPACK suggests that educational development programmes related to the integration of technology into teaching should help teachers bridge the gap between knowledge of good pedagogical practice, technical skills and content knowledge (Mishra & Koehler, 2006). The findings of this study suggest that many participants in the Online/Hybrid Course Development institute gained both increased pedagogical knowledge and technical knowledge as a result of their participation.

Greater understanding of student accessibility issues were also demonstrated by some interviewees who, as a result of the Institute, provided greater access to content online and afforded opportunities for students to demonstrate their learning in multiple ways. Given that students with disabilities are pursuing post-secondary education at a higher rate, it is important that educators are able to implement teaching and learning practices that are inclusive and equitable (Izzo, Murray & Novak, 2008). One strategy for promoting inclusivity that is gaining attention in higher education and that was introduced in the Online/Hybrid Course Development Institute is Universal Design for Learning (UDL). UDL is a framework that consists of instructional approaches that provide students with choices and alternatives in the materials and supports their use with the intent of providing access to the curriculum for all students (Izzo et al., 2008). The adoption of UDL principles requires that educators carefully contemplate the impact of their teaching practices on student learning which encourages a more student-centred approach to teaching (Rose & Meyer, 2002). Educators have to adopt more flexible teaching strategies that can be customised and adjusted for individual needs in order to support UDL and increase accessibility for students (Izzo et al., 2008). The adoption of UDL aligns with the conceptions of teaching literature as it requires a shift to a more student-centred approach in order to ensure that the curriculum is accessible to all students.

A study by Schelly, Davies and Spooner (2011) found that UDL training for educators may increase their adoption of UDL principles as perceived by their students. Students in their study reported that their instructors provided more course materials in multiple formats and representations, making the material more accessible for all students. Studies by Spooner, Baker, Harris, Ahlgrim-Delzell and Browder (2007) and by Izzo et al. (2008) also reported changes in teaching practice as a result of educational development related to UDL. Similarly, the findings of this study suggest that participation in educational development for online teaching, which includes discussion of Universal Design for Learning principles and accessibility, has the potential to encourage more inclusive teaching practices among educators.

The changes in both face-to-face and online teaching practices identified suggest the occurrence of transformational learning for some participants. Transformational learning is focused on “dramatic, fundamental change in the way we see ourselves and the world in which we live” (Merriam, Caffarella, & Baumgartner, 2007, p. 130) and these changes in perspective result in change to actions and behaviours (Cranton, 1994). According to Sokol and Cranton (1998) when transformational learning occurs, learners “question their perspectives, open up new ways of looking at their

practice, revise their views, and act based on new perspectives" (p. 14). It is evident from the findings that participation in the Online/Hybrid Course Development Institute caused some participants to question their assumptions and beliefs about teaching and learning. Many of the participants were able to enact their newly developed conceptions through changes to their face-to-face and online teaching practices including greater use of digital tools, the LMS, Open Educational Resources (OERs) and multimedia, the planning of student-centred lessons using the JumpStart Model, the incorporation of community building activities, the chunking of information, the modification of assignments, and the implementation of Universal Design for Learning principles.

However, not all participants felt that the Online/Hybrid Course Development Institute had an impact on their teaching practice. A few of the interviewees indicated that their teaching practices upon entering into the Institute were already congruent with the active, student-centred approach depicted by the Institute; thus, they felt that their teaching practice had not changed. It was interesting to note that out of the four participants who felt that the Institute had little or no impact on their teaching practice, three had more than 10 years of prior face-to-face teaching experience. This may suggest that participation in the Online/Hybrid Course Development Institute has the potential to accelerate learning for novice educators with less than 10 years of prior teaching experience. As a result, it might be more effective to target educational development initiatives for online teaching to more novice educators as the potential for impact on teaching practice may be higher.

That said, in many cases having veteran participants in the group enhances the experience for everyone, which may require design changes to the Institute in order to optimise the experience of more seasoned educators. Even when no changes in practice were specifically attributed to the Institute, the interviewees indicated that they still had a sense of support from colleagues and reinforcement of their current teaching practices. This finding implies that educational development for online teaching may still be beneficial to educators even if it does not lead to changes in teaching practice.

In summary, the findings suggest that the knowledge and experience that educators acquired when participating in the Online/Hybrid Course Development Institute can produce a positive increase in technological and pedagogical knowledge and understanding of UDL and accessibility. This new understanding, in turn, may result in changes to both online and face-to-face teaching practices of educators.

Participation in the Institute provided an opportunity for educators to develop new ideas about teaching and learning and caused many of the participants to rethink and enhance their teaching practices. The findings support the efficacy of the Online/Hybrid Course Development Institute and indicate that participation in educational development for online teaching presents a good opportunity to impact teaching and learning far beyond just the single online course that is being developed.

5.2.4 Impact of participation in the Online/Hybrid Course Development Institute on assumptions and beliefs about teaching

Many of the interviewees mentioned a change in their assumptions and beliefs about teaching as a result of participating in the Online/Hybrid Course Development Institute. This question was supported by the online survey data, which showed that the majority of participants agreed or strongly agreed that their approach to teaching face-to-face (73.5%) and online/hybrid (87.1%) had changed since participating in the Online/Hybrid Course Development Institute (see Figure 4.8). The interviewees noted a shift to a more student-centred teaching approach as a result of participating in the Institute. Several of the interviewees commented on moving away from the transmission mode of teaching and incorporating further opportunities for practice and formative feedback. A few interviewees also explained that the Institute helped to reinforce the notion that they do not always have to be at the front of the class lecturing, that it is okay to transfer some of the content delivery online, and that in many cases this leads to more effective and engaging learning experiences. This finding was consistent with the online survey data, which showed that 66.7% of respondents agreed that they implemented more student-centred teaching strategies in their face-to-face teaching and a large majority (80.0%) agreed that they implemented more student-centred teaching strategies in their online/hybrid teaching (see Figure 4.7).

These findings confirm that participation in the Online/Hybrid Course Development Institute has the potential to impact educators' conceptions of teaching. The evidence of a shift to more student-focused approaches to teaching and learning following participation in the Institute offers support for the effectiveness of this educational development in changing teaching conceptions found in previous research (Butcher & Stoncel, 2012; Gibbs & Coffey; 2004; Hanbury et al., 2008; Hinson & LaPrairie, 2005; Ho et al., 2001; Owens, 2012; Postareff et al., 2007; Samuelowicz & Bain, 2001). Participating in educational development for online teaching presents a new opportunity for educators to examine their assumptions and beliefs about teaching and

may provide the catalyst needed to shift educators to more student-centred approaches.

Although participants in this study were not asked directly to comment on whether they viewed the learning that resulted from participation in the Online/Hybrid Course Development Institute to be transformative, the shift toward a more student-centred teaching approach provided an indication of transformative learning. Learning is said to be transformative when learners' views of their worlds is altered through their learning, enabling them to achieve a different perspective than they had previously held (Cranton, 2006; Mezirow, 1997). It is this change or expanded perception of the world that can be considered the indicator of transformation within an individual (King, 2002). Thus, it would seem that the change in assumptions and beliefs and the shift towards a more student-centred approach described by the educators in this study is characteristic of transformational learning.

In addition to the shift towards a more student-centred approach, several interviewees also mentioned that participation in the Institute caused them to think differently about online teaching and learning. Some interviewees who were not very strong proponents of online learning prior to participating in the Institute changed their views about its effectiveness, and there was evidence of a greater appreciation for the value of online teaching and learning and the effort that goes into developing successful online learning experiences. This finding is consistent with Koepke and O'Brien (2012) who also discovered that participation in educational development for online teaching significantly changed participants' beliefs about some common misconceptions of online education, including the academic rigour of online courses and the level of interaction that is possible in the online environment. Redmond (2011) also noted initial scepticism by educators regarding the ability to gain similar student learning outcomes in blended or online environments when compared to face-to-face teaching and a transformation in these beliefs upon participation in educational development for online teaching. It is possible that the change in the assumptions and beliefs regarding the value of online teaching and learning and the effort that goes into developing successful online learning experiences may be due to participants having the opportunity to see and experience effective pedagogical delivery in the Institute.

Overall, the findings of this study suggest that participation in the Online/Hybrid Course Development Institute helped several educators move away from their role as deliverers of content to facilitators of learning. This study and previous studies

provide evidence to suggest that educational development, and specifically educational development for online teaching that is delivered using and modelling an active learning and student-centred approach, has the potential to change educators' approaches to teaching to being more student-focused. This experience of developing new understanding and undergoing shifts in conceptions of teaching can lead to the emergence of transformative learning. Educational development programmes targeting the development of an online course also have the potential to foster changes in the assumptions and beliefs about online teaching and to dispel misconceptions about the quality and value of online learning.

5.2.5 Impact of participation in the Online/Hybrid Course Development Institute on confidence in ability to teach (self-efficacy)

Many of the interviewees expressed that their participation in the Online/Hybrid Course Development Institute affected their feelings of confidence (self-efficacy) in their teaching ability. This finding was supported by the online survey data which found that a large number (79.5%) of respondents agreed or strongly agreed that their confidence in their ability to teach (self-efficacy) had increased as a result of participating in the Online/Hybrid Course Development Institute (see Figure 4.8). Some felt that the Institute improved their technological confidence level and they were more comfortable incorporating digital tools and utilising the LMS. Others described increased feelings of confidence related to their pedagogical knowledge and explained that participating in the Institute encouraged them to consider developing or teaching future online or hybrid courses. In addition, participation in the Institute seemed to reduce some interviewees' fear of the online environment, and led to greater risk-taking and the courage to try new teaching methods and strategies. The patterns of increased teaching self-efficacy observed here are consistent with previous research on educational development programmes (Horvitz & Beach, 2011; Prieto & Meyers, 1999).

Bandura (1977) proposed four possible sources of self-efficacy: (1) mastery experience or actual experience; (2) vicarious experience; (3) verbal or social persuasion; and (4) physiological arousal or emotional state. Morris and Usher (2011) found that incorporating a combination of mastery experiences and verbal persuasions within educational development programmes can help in developing high teaching self-efficacy. The Online/Hybrid Course Development Institute promoted mastery experiences as participants worked on their own course development and were able to gain feedback on their ongoing progress. The peer sharing process in the second half

of the Institute allowed participants to engage with more experienced colleagues and observe their successes which provided an opportunity for vicarious experience, and the peer feedback opportunities also promoted verbal persuasion through encouraging facilitator and peer feedback. In addition, the Institute provided a sense of community and created a strong climate of support which may have also helped to encourage a more relaxed and calm emotional state for participants. Thus, the design of the Institute may have helped to increase the self-efficacy of the participants.

Moreover, Bandura's conception of vicarious experience and verbal or social persuasion align with the need for reflective discourse in transformation learning theory. Mezirow (2003) defined reflective discourse as "dialogue involving the assessment of beliefs, feelings and values" (p. 59) and "feelings of trust, solidarity, security, and empathy are essential preconditions for free full participation in discourse" (Mezirow, 2000, p. 12). The findings from this study indicate that reflective discourse occurred among many of the participants and that a climate of mutual respect and trust was established. Thus, it is possible that the inclusion of reflective discourse in the design of the Online/Hybrid Course Development Institute also helped to influence the self-efficacy of the participants, supporting both transformational learning and positive gains in self-efficacy.

Two interviewees expressed that their participation in the Institute reduced their feelings of confidence in their teaching ability. One of the participants commented that the Institute made her realise that her confidence levels were unrealistically high in the beginning, and the other participant started to question his face-to-face teaching practice as a result of participating in the Institute. This finding was consistent with Tschannen-Moran et al. (1998) who found that trying new teaching strategies and methods can initially have a negative effect on a teacher's sense of efficacy. Before they participate in educational development, educators may initially feel a high level of self-efficacy, but after participating in educational development they may develop a more accurate perception of their own teaching ability that is perhaps lower than initially perceived. When they participate in educational development, educators may become aware of some of their limitations and they might feel themselves less confident than before, which seemed to be the case with the two participants in this study. Tschannen-Moran et al. (1998) found there is an initial decline in teaching efficacy levels with new experiences followed by a significant rise in teaching efficacy levels after three teaching experiences. Hopefully, in the case of this study, the participants' self-efficacy may increase after further teaching experience. A similar pattern was observed by Postareff et al., (2007) who found that "shorter

training seems to make teachers more uncertain about themselves as teachers" (p. 568). Thus, it is possible that the shorter length of the Online/Hybrid Course Development Institute may have affected its impact on self-efficacy.

Moreover, the initial decline in self-efficacy may also be explained in part by transformational learning theory (Mezirow, 1978). It is possible that participation in the Online/Hybrid Course Development Institute acted as the disorienting dilemma for those that experienced a decline in self-efficacy. A disorienting dilemma typically reveals "a discrepancy between what a person has always assumed to be true and what has just been experienced, heard or read" (Cranton, 2002, p. 66). As a result, the person engages in self-examination and reflection, which is often accompanied by uncomfortable or undesirable emotions such as a decline in self-efficacy in the case of this study (Mezirow, 1990). Generally, the disorienting dilemma leads to a critical assessment of assumptions and beliefs followed by a process of making new or revised interpretations of one's experience, which guides future understanding and action (Mezirow, 1991). It is possible that those participants who experienced a decline in self-efficacy were still in the process of questioning their assumptions and beliefs and did not have an opportunity to develop new or revised interpretations of teaching and learning, and thus had not reached a new transformed perspective (Mezirow, 2000). Mezirow (1990) warns that transformative learning is a gradual process and the whole experience may take longer than expected. The length of time between participation in the Online/Hybrid Course Development Institute and the data collection for this study may not have been long enough to allow for transformation, which may help to further explain the decline in self-efficacy of the two participants.

There were a few interviewees who said that the Online/Hybrid Course Development Institute did not affect their feelings of confidence in their teaching ability. Similar to the interview responses regarding the impact on teaching practice, most of these interviewees had more than 10 years of teaching experience. Postareff et al. (2007) also found that prior teaching experience influences the way educational development programmes may impact participants' self-efficacy. They found that "pedagogical training is more likely to strengthen the self-efficacy beliefs of teachers who have less teaching experience than those who have more teaching experience" (p. 43). Moreover, if veteran educators already have high self-efficacy regarding their teaching ability, it may not be possible to increase their self-efficacy any further through educational development initiatives. This finding provides further support for the need to encourage more novice educators to participate in educational development for online teaching as the impact on self-efficacy may be greater.

Overall, the findings of this study suggest that participation in educational development for online teaching has the potential to increase educators' confidence in their teaching ability. That said, it is possible that some participants may experience an initial decline in self-efficacy as they become aware of new teaching approaches that might not align with their current practice. In some cases, it may take time for educators to redefine themselves and rebuild their confidence after participating in educational development. Educational development for online teaching can be disorienting for some educators, as they may have to adopt new student-centred strategies and teaching approaches in which they may feel less efficacious (Tschannen-Moran et al., 1998). In addition, educational development for online teaching is more likely to strengthen the self-efficacy beliefs of novice educators who have less teaching experience. This finding is significant, as a higher level of self-efficacy may facilitate an educator's openness to new ideas about teaching and lead to more student-centred teaching practices.

5.2.6 Perceived impact of participation in the Online/Hybrid Course Development Institute on students

Many of the interviewees felt that their participation in the Online/Hybrid Course Development Institute had a perceived impact on their students. Several interviewees indicated that their participation led to an improved learning experience for the students, as their teaching was more engaging and active, and students were exposed to well-designed and thoughtful learning experiences. One interviewee was also able to reduce the failure rate in one of her courses as a result of being able to put some of the course material online to support student success. A few of the interviewees also implemented UDL principles which made the learning experience more accessible for students and allowed the interviewees to reach a more diverse population of students. Gibbs and Coffey's (2004) study identifies a direct relationship between educational development and student learning outcomes, with students in their study reporting using less surface approaches to study and rating their educators' teaching more highly after they had attended an educational development programme. Similar findings were also confirmed by Hanbury et al. (2008), who found that when educators adopt a student-focused teaching approach, following participation in an educational development programme, their students adopt deep learning approaches. Ho et al. (2001) also discovered that those who participated in an educational development programme demonstrated a significant improvement in their teaching practices as perceived by their students. Prebble et al. (2004) also concluded that

educational development can have a direct impact on teaching quality, which in turn can have a positive influence on student learning, but that the relationship between educational development and student learning outcomes was indirect. Although this study did not specifically measure student learning outcomes, the participants felt that their participation in the Institute had a positive impact on their students, which helps to support the conclusions of past research that linked educational development and student learning outcomes (Gibbs & Coffey, 2004; Hanbury et al., 2008; Ho et al., 2001; Prebble et al., 2004).

In addition, it has been established by Trigwell and Prosser (2004) that when student-centred approaches to teaching are adopted, students tend to present deeper approaches to learning and achieve better quality learning outcomes. Thus, the fact that the Institute helped to promote more student-centred approaches to teaching among the participants may have also contributed to the improvement of student learning. Moreover, teaching self-efficacy has also been consistently correlated with student achievement in the literature (Ashton, Buhr, & Crocker, 1984). Educators with high self-efficacy persist longer with students who struggle, and promote greater motivation in their students (Henson et al., 2001). When educators have confidence in their ability to improve student learning, they are better at doing so and they also tend to employ more student-centred learning practices in their classrooms (Ashton and Webb, 1986; Czernaik, 1990; Gibson & Dembo, 1984; Goddard et al., 2004; Tschannen-Moran et al., 1998; Wheatley, 2005). Therefore, given that the Institute increased the self-efficacy of many of the participants, this may have led to more supportive teaching and learning environments, and could have contributed to higher academic achievement for students (Ashton & Webb, 1986).

Moreover, prior research suggests that changes in teaching practice and attitudes and beliefs about teaching may be positively influenced by first-hand evidence of improvements in student learning (Ertmer, 2005; Guskey, 2002; Ottenbreit-Leftwich, Glazewski, Newby, & Ertmer, 2010). Ertmer (2005) proposes that educators tend to believe in the pedagogical value of what they are learning only after seeing for themselves the positive effect on their students' learning. According to Guskey (1985, 1986, 1989) clear evidence of improvement in the learning outcomes of students is key to the endurance of any change in instructional practice. Given that many of the interviewees felt that their participation in the Online/Hybrid Course Development Institute had a perceived impact on their students, it is possible that this evidence also helped to encourage the changes to teaching practice and assumptions and beliefs about teaching experienced by the participants.

5.3 Implications for the Conceptual Framework

The findings of this study support the usefulness of conceptions of teaching as a component of the conceptual framework for examining the changes in teaching practice and assumptions and beliefs about teaching that can result from participation in educational development for online teaching. The conceptions of teaching literature identifies a continuum of teaching conceptions which range from strongly teacher-focused and content-oriented conceptions on the one end, to strongly student-focused and learning-oriented on the other (Calderhead, 1996; Kember, 1997; Trigwell & Prosser, 2004). Fundamental changes in teaching practice are unlikely to occur without changes in educators' conceptions of teaching (Kember & Kwan, 2000). The literature confirms that participation in educational development initiatives has the potential to impact educators' conceptions of teaching and there has been evidence of a shift from teacher-focused to student-focused approaches in teaching and learning following participation in these programmes (Butcher & Stoncel, 2012; Cilliers & Herman, 2010; Gibbs & Coffey, 2004; Ginns, Kitay & Prosser, 2008; Hanbury, Prosser & Rickinson, 2008; Ho, Watkins & Kelly, 2001; Hubball, Collins & Pratt, 2005; Postareff, Lindblom-Ylänne & Nevgi, 2007; Stes, Coertjens & Van Petegem, 2010).

The results of this study align with the conceptions of teaching literature as it was found that several participants noted a shift to a more student-centred teaching approach, and a change in assumptions and beliefs about online teaching and learning. The Online/Hybrid Course Development Institute helped to support this shift by engaging educators in critical reflection, reflective discourse, and action causing them to critically examine their beliefs and assumptions about online teaching and supporting transformational learning.

The motivation for participating in educational development programmes was added to the conceptual framework as the findings of this study suggest that a combination of both intrinsic and extrinsic motivators encouraged educators to participate in the Institute. The inclusion of motivation within the conceptual framework was deemed important as motivation can impact whether or not educators participate in educational development programmes, which can ultimately impact whether or not they experience changes in conceptions or approaches to teaching (Dailey-Hebert, et al., 2014; Guskey, 2002; Lowenthal, 2013; Steinert et al., 2010).

The representation of the educational development programme as a Faculty Learning Community (FLC) was also added to the conceptual framework as the interdisciplinary cohort model used in the Online/Hybrid Course Development Institute and the resulting community that emerged was consistent with the characteristics of an FLC. The interdisciplinary cohort model was found by the participants in this study to be a major benefit of the Institute and created a strong climate of support which was beneficial to the participants' learning experience. The Institute provided a venue for educators from different disciplines to collectively reflect on their teaching practice and created a safe space for peer sharing and feedback. The cohort model fostered high levels of interdisciplinary collegiality and led to the development of a community of practice that encouraged, engaged, and supported educators in their ongoing development throughout the Institute. The addition of the FLC to the conceptual framework is also supported by additional literature that emphasises the importance of communities of practice (Britnell et al., 2010; Beach & Cox, 2009; Cox, 2004; Heath & McDonald, 2012; O'Meara, 2005) and opportunities for mentoring and learning with peers (deNoyelles et al., 2012; Gilbert, 1995; Herman, 2012; Kinuthia, 2005; Lu et al., 2011; Maier, 2012; Shattuck & Anderson, 2013).

The conceptions of teaching literature also suggests that the experience of participating in educational development can cause a shift towards more student-centred approaches to teaching which can lead to changes in both face-to-face and online teaching practices and evidence of transfer of learning (Barczyk et al., 2011; Baldwin & Ford, 1988; Blume et al., 2010; Buckenmeyer et al., 2013; Crowne & Marlowe, 1964; McQuigan, 2012; Owens, 2012; Shea et al., 2002). This study found the majority of participants agreed or strongly agreed that their approach to teaching face-to-face and online/hybrid had changed since participating in the Online/Hybrid Course Development Institute and several noted a shift to a more student-centred teaching approach as a result of participating in the Institute. The findings also revealed that participants had changed, and were continuing to change, their face-to-face and online teaching practice as a result of participating in the Online/Hybrid Course Development Institute including a positive increase in technological and pedagogical knowledge and understanding of UDL and accessibility. In addition, it was noted that those with more than 10 years of prior face-to-face teaching experience indicated little or no impact on their teaching practice after participation in the Online/Hybrid Course Development Institute. This exception was added to the conceptual framework to indicate that more experienced educators may not

experience the same changes to teaching approach and face-to-face and online teaching practice as a result of participation in educational development.

It has also been established that when student-centred approaches to teaching are adopted, students tend to present deeper approaches to learning and achieve better quality learning outcomes (Trigwell & Prosser, 2004). A study by Kember and Gow (1994) found that educators who employed student-centred approaches encouraged more meaningful learning among students. It has been found that educational development programmes can produce positive influences on participants' students' approaches to learning (Gibbs & Coffey, 2004; Hanbury, Rickinson & Prosser, 2008; Ho, Watkins & Kelly, 2001). Although this study did not directly measure changes to students' approaches to learning, the findings indicate that participants perceived that their participation in the Institute led to better learning experiences for students and greater accessibility, which was also added to the conceptual framework.

In terms of self-efficacy, the findings of this study suggest that viewing educational development for online teaching through the perspective of teacher self-efficacy also proved to be a valuable component of the conceptual framework. Teachers with a high sense of self-efficacy have been shown to have higher levels of planning and organisation, display greater passion for teaching, and tend to be more willing to explore new teaching strategies and methods (Allinder, 1994; Ashton & Webb, 1986; Tschannen-Moran & Woolfolk Hoy, 2001; Woolfolk Hoy, 1990). In addition, research has shown that teachers with high self-efficacy tend to employ more student-centred learning practices in their classrooms (Czernaik, 1990; Goddard, Hoy, & Woolfolk Hoy, 2004; Wheatley, 2005). The findings of this study demonstrated that participation in the Institute improved some participants' technological and pedagogical confidence level and reduced some participants' fear of the online environment, leading to greater risk-taking and the courage to try new teaching methods and strategies. This suggests that educational development for online learning has the potential to increase teacher self-efficacy leading to greater student-centred teaching approaches and changes in face-to-face and online teaching practice. The self-efficacy literature also proposes that self-efficacy beliefs are influenced to a greater extent during the early stages of a teacher's career, which was also consistent with the findings of this study and was added to the conceptual framework (Morris & Usher, 2011; Mulholland & Wallace, 2001; Woolfolk & Hoy, 2000).

The following diagram depicts the revised conceptual framework based on the findings of this study:

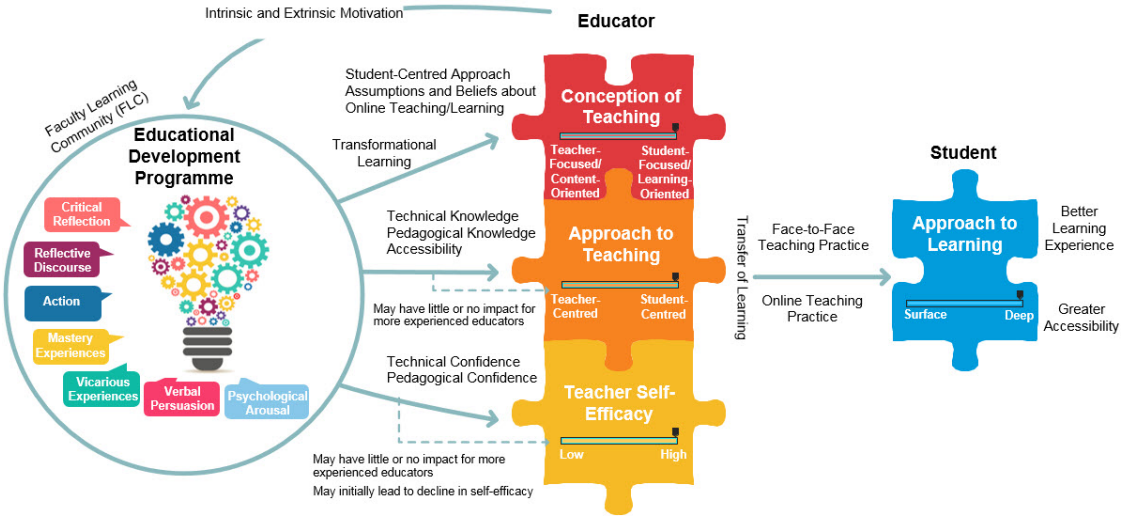


Figure 5.1 - Revised conceptual framework

5.4 New Knowledge Contribution

Much of the research related to the impact of educational development on conceptions of teaching and self-efficacy has focused on educators in the university sector (Buckenmeyer et al., 2013; Butcher & Stoncel, 2012; Cilliers & Herman, 2010; Gibbs & Coffey, 2004; Hanbury et al., 2008; Ho et al., 2001; Horvitz & Beach, 2011; Koepke & O'Brien, 2012; McQuigan, 2012; Owens, 2012; Postareff et al., 2007; Prieto & Meyers, 1999; Scagnoli et al., 2009; Stes et al., 2007; Stes et al., 2010), with research focused on the community college environment being quite limited. Hinson and LaPrairie (2005) and Shea et al. (2001) are the only two studies that included community college participants, although both of these studies centred on American institutions. This study focused specifically on educators in a community college environment in Canada, which presents a unique perspective given that Canadian community college educators are employed as full-time teachers, with no expectation, remuneration, employment, tenure, or promotion specifically related to conducting research, unlike educators in the university setting (Fedderson, 2008). According to Skolnik (2011), in Canada teaching is the primary activity of college educators which can differ from other countries in North America. In addition, educators in the community college environment in Canada are hired primarily based on their vocational expertise and few have formal educational training or qualifications related to teaching and learning. As a result, effective teaching among college educators is a high priority at both the institutional and provincial levels (Barnes, 2005). Howard and Taber (2010) also state, that "faculty development has become increasingly recognized as an important element for the success of community colleges" (p. 36).

That said, according to Twombly and Townsend (2008), what is missing from the literature is consideration about how educational development programmes improve the teaching and learning related knowledge and skills of community college educators. The present study helps to address this gap by examining the impact of educational development for online teaching on educators within a Canadian community college environment.

In addition, the literature to date has examined mostly full-time or tenured educators (Buckenmeyer et al., 2013; Butcher & Stoncel, 2012; Hanbury et al., 2008; Ho et al., 2001; Horvitz & Beach, 2011) with only a few examining both full-time and part-time educators (Shea et al., 2002; McQuigan, 2012). This study included data from full-time, part-time (teaching up to and including six hours per week), partial load (teaching more than six and up to twelve hours per week) and sessional (teaching more than twelve hours per week) educators. In addition, a number of prior studies focused solely on novice educators (Butcher & Stoncel, 2012; Hanbury et al., 2008; Stes et al., 2007; Stes et al., 2010) whereas others focused on experienced educators (Buckenmeyer et al., 2013; Scagnoli et al., 2009; Horvitz & Beach, 2011) and only a few focused on both groups (Cilliers & Herman, 2010; Ho et al., 2001; Postareff et al., 2007). This study included participants with experience ranging from less than one year to more than 10 years. Valuable insights may be gained from this study as it included a diverse range of participants in terms of their employment status and prior teaching experience.

Many of the investigations of changes in conceptions of teaching and self-efficacy were reported with results obtained through the use of quantitative inventories and questionnaires such as the Approaches to Teaching Inventory and the Educators' Sense of Efficacy for Online Teaching Scale (Gibbs & Coffey, 2004; Hanbury et al., 2008; Horvitz & Beach, 2011; Postareff et al., 2007; Prieto & Meyers, 1999; Stes et al., 2010). Other research in this area also used customised surveys for data collection with much of the data being quantitative in nature (Buckenmeyer et al., 2013; Owens, 2012; Stes et al., 2007). Several of the literature reviews related to educational development (Levinson-Rose & Menges, 1981; Meyer, 2013; Weimer & Lenze, 1991; Wilson, 2012) recommended an increase in qualitative or mixed method studies in order to develop a richer picture of the field. This study responded to calls from the literature for greater use of a mixed methods approach to research related to educational development by implementing a combination of an online survey, face-to-face interviews, and documentary analysis. A few researchers have used both survey and interview data (Cilliers & Herman, 2010; Ho et al., 2001; Koepke & O'Brien,

2012) and some have implemented the use of documentary evidence to help substantiate self-reported changes (Butcher & Stoncel, 2012; McQuigan, 2012; Scagnoli et al., 2009) so this study builds on these results and helps to provide a more holistic perspective by using a combination of survey, interview and documentary analysis.

Moreover, this research contributes to the existing body of research literature, discussed in Chapter 2, by providing further empirical evidence of the impact of educational development for online teaching on teaching practice, assumptions and beliefs about teaching, and self-efficacy. It adds to the body of literature on motivation for participating in educational development (Dailey-Hebert, et al., 2014; Lowenthal, 2013; Steinert et al., 2010) and suggests that a combination of both intrinsic and extrinsic motivators encourage educators to participate in educational development for online teaching.

The analysis concurs with research that suggests it is valuable for educational development to support peer sharing and to employ active learning strategies that allow participants to experience authentic learning environments (Barker, 2003; Beach & Cox, 2009; Britnell et al., 2010; Brookfield, 1993; Cox, 2004; deNoyelles et al., 2012; Esterhuizen et al., 2013; Gallant, 2000; Gilbert, 1995; Heath & McDonald, 2012; Herman, 2012; Hinson & LaPrairie, 2005; Kinuthia, 2005; Lu et al., 2011; Maier, 2012; O'Meara, 2005; Reilly et al., 2012; Shattuck & Anderson, 2013; Signer, 2008; Steinert at al., 2006). The findings of this study offer further confirmation of the value of Communities of Practice (CoPs) and Faculty Learning Communities (FLCs) in supporting educational development and the importance of providing a venue for educators from different disciplines to critically reflect on their teaching practice (Cox, 2004; Wenger, McDermott, & Snyder, 2002). This study also provides further evidence to suggest that educational development programmes have the potential to inspire transformational learning, especially those that incorporate critical reflection, reflective dialogue and opportunities for active learning (Cranton, 2006; Hubball et al., 2005; King, 2002; King 2004; Meyer, 2013).

This study further supports research that reports a positive effect of educational development for online teaching on classroom practice (Buckenmeyer et al., 2013; McQuigan, 2012; Koepke & O'Brien, 2012; Shea et al., 2002), technology integration (Cho & Berge 2002; McKenzie, Mims, Bennett & Waugh, 2000; O'Quinn, 2002; Shea et al., 2002), pedagogical knowledge (Shea et al., 2002), and accessibility (Izzo et al., 2008; Schelly et al., 2011; Spooner et al., 2007). It concurs with the literature

which documents a shift to more student-focused approaches to teaching and learning following participation in educational development (Butcher & Stoncel, 2012; Gibbs & Coffey; 2004; Hanbury et al., 2008; Hinson & LaPrairie, 2005; Ho et al., 2001; Owens, 2012; Postareff et al., 2007; Samuelowicz & Bain, 2001) as well as change in the assumptions and beliefs regarding the value of online teaching and learning (Koepke & O'Brien, 2012; Redmond, 2011). Contrary to some research (Gibbs & Coffey, 2004; Guskey, 2000; Postareff et al., 2007; Stes et al., 2010), this research suggests that changes can occur after only a seven-week intensive Institute.

This study also suggests that participation in educational development for online teaching has the potential to increase educators' confidence in their teaching ability, although some participants may experience an initial decline in self-efficacy as they become aware of new teaching approaches that might not align with their current practice (Postareff et al., 2007; Tschannen-Moran et al., 1998). Finally, this study also helps to support the conclusions of past research that links educational development and student learning outcomes (Gibbs & Coffey, 2004; Hanbury et al., 2008; Ho et al., 2001; Prebble et al., 2004). This study extends and addresses a gap in the literature by showing that educational development for online teaching can lead to changes in teaching practices, assumptions and beliefs about teaching, and self-efficacy. These results highlight the role that well-designed educational development programmes can play in enhancing the quality of teaching and learning at community colleges.

5.5 Implications for Policy and Practice

In the current economic climate, funding for higher education continues to decline and legislative bodies are requiring a greater degree of accountability from colleges and universities (Jacob et al., 2015). Consequently, the quality of teaching and learning has garnered increased attention, and there have been calls for more constructivist and student-centred teaching and learning approaches (Kumar, 2000). The literature suggests that when student-centred approaches to teaching are adopted, students tend to present deeper approaches to learning and achieve better quality learning outcomes (Trigwell & Prosser, 2004). The impact on student learning outcomes can lead to greater student engagement and rates of retention, performance measures commonly scrutinised by funding sources. In addition, as the number of students learning online has dramatically increased (Allen & Seaman, 2013) the need to ensure quality online teaching has also become very important. If institutions want to increase online education and maintain teaching quality, they should invest in

educational development programmes, particularly through institutional policies that provide for adequate resources for effective educational development. This study may be helpful when determining institutional policies for educational development for online teaching as it provides an indication of the scope, format and resources required to develop an effective educational development programme. The results of this study may also spark discussions at the policy level regarding the level of training and support that educators receive at the start of their teaching careers, as educational development for online teaching has been shown to have greater impacts on the teaching practice and self-efficacy of more novice educators.

Twombly and Townsend (2008) argue that if we are to be truly student focused, we need to subject educational development programmes to ongoing, formal scrutiny and evaluation. Brew (2007) also calls for the need for educational development centres to provide greater evidence that programmes have resulted in improved teaching practices and student learning outcomes. Given the growing emphasis on accountability in higher education, it is possible that institutions will increasingly be required to provide research evidence supporting the efficacy of educational development initiatives and programmes (Wilson, 2012). The methodology presented in this study offers a potential model which could be adapted or expanded as a way to gather concrete evidence of the impact of educational development initiatives for online teaching. The use of a mixed methods approach utilising an online survey, face-to-face interviews, and documentary analysis may provide a useful framework for other institutions or educational development centres interested in measuring their own initiatives.

This study also has several implications for institutions of higher education and those responsible for the design and delivery of educational development. Based on the findings of this study, other institutions interested in creating an educational development programme for online teaching should take into consideration both the intrinsic and extrinsic motivational factors that can influence educators' willingness to participate in such initiatives. Consideration of motivational factors can be used to guide promotional efforts for educational development and to develop relevant incentives to encourage participation.

Educational development programmes for online teaching should also be designed to provide opportunities for faculty to engage purposefully with one another and should emphasise a collaborative focus to the programme. The value of an interdisciplinary cohort model was supported by this research and additional literature that emphasises

the importance of communities of practice (Britnell et al., 2010; Beach & Cox, 2009; Cox, 2004; Heath & McDonald, 2012; O'Meara, 2005) and opportunities for mentoring and learning with peers (deNoyelles et al., 2012; Gilbert, 1995; Herman, 2012; Kinuthia, 2005; Lu et al., 2011; Maier, 2012; Shattuck & Anderson, 2013). Participants learned from the variety of perspectives that they encountered during the Online/Hybrid Course Development Institute and were able to take ideas from others and adapt them to their particular contexts. This suggests that those developing educational development programmes for online teaching should consider maximising participant diversity and soliciting participation from those who have a wide range of experiences and backgrounds and are from an array of disciplines to capitalise on the diffusion of knowledge and interdisciplinary collegiality.

The findings of this study also propose that educational development programmes developed for online teaching incorporate active learning strategies and provide faculty with hands-on opportunities to apply their learning in authentic situations. As part of learning to teach online, educational development should also include opportunities for faculty to learn online in the role of a student. These recommendations could be helpful to divisions or departments within higher education institutions that are charged with providing educational development and who desire to deliver meaningful educational development for online teaching.

The results of this study reveal that learning to teach online can be an impetus for changes in teaching practice both face-to-face and online. Participants in this study described an increase in technological knowledge and greater use of digital tools and the LMS, greater pedagogical knowledge and the implementation of active, student-centred lessons, as well as a greater understanding of student accessibility issues as a result of participating in the Online/Hybrid Course Development Institute. Such knowledge could encourage more educational development opportunities for online teaching given the potential for far-reaching impacts, thereby maximising the value of these programmes for educators as well as institutions. Faced with shrinking budgets, institutions should invest their limited resources in the educational development initiatives that will produce the greatest gains (Elliott et al., 2015). In addition, this study found that it may be more meaningful to target educational development initiatives for online teaching to novice educators as the potential for impact on teaching practice may be higher. Based on this finding, other institutions may consider promoting educational development initiatives for online teaching to new educators for greater impact.

The evidence of a shift to more student-focused approaches to teaching and learning and changes in assumptions and beliefs about the quality and value of online learning following participation in the Institute may also help to inform practice. Given the focus on teaching and learning quality within the field of higher education, many institutions are looking for ways to promote more student-centred teaching and learning environments. Programmes that focus on educational development for online teaching provide institutions with a potential mechanism to help encourage more student-focused teaching practices. In addition, as more and more educational institutions are embracing online learning, educators are experiencing increased pressure to become engaged in the design and delivery of online instruction (Kang, 2012). Although some educators welcome this new adventure, many are hesitant and even resistant to teaching online which can be a barrier to the growth of online programmes within an institution (Shea, 2007). Given that participation in educational development for online teaching helped to encourage a greater appreciation for the value and quality of online education among participants in this study, institutions that face resistance to online teaching by educators may want to consider educational development as a potential solution to help address this resistance.

Moreover, the findings of this study suggest that educational development for online teaching has the potential to affect educators' feelings of self-efficacy in their teaching ability. This provides further support for other institutions interested in implementing similar educational development initiatives, as self-efficacy has been shown to improve overall teaching performance and to promote greater student success. In addition, this study demonstrated that for some educators, participation in development programmes can initially have a negative effect on their sense of efficacy. This knowledge can be important when designing educational development initiatives, as facilitators may want to inform participants of this possible decline and plan additional support mechanisms to ease feelings of uncertainty.

Finally, participation in educational development has potential ripple effects on improved student learning outcomes and other gains, such as student engagement and retention (Ashton et al., 1984; Gibbs & Coffey, 2004; Hanbury et al., 2008; Ho et al., 2001; Prebble et al., 2004; Trigwell & Prosser, 2004). It is clear that educational development for online teaching is a significant, relevant, and multifaceted issue that has implications for educators, educational developers, administrators, institutions, and, by extension, students. With greater attention being paid to the quality of teaching in higher education, and greater demand for online learning, institutions will

increasingly be required to provide educational development initiatives to help support educators as they make the transition to the online environment. The results of this study provide valuable insights for other institutions that are interested in developing effective educational development for online teaching that can impact teaching practice, assumptions and beliefs, and self-efficacy.

The following is a summary of the main recommendations for policy and practice:

1. Consider both intrinsic and extrinsic motivational factors of educators when promoting and determining incentives for educational development programmes.

The continued professional growth and development of educators is necessary in order for higher education institutions to continue to provide educational programmes that meet the changing needs and expectations of students. Institutional policies related to educational development have the potential to greatly affect educators' motivation and willingness to participate in educational development. Policies that allow for a stipend or release time to complete educational development for online teaching have the potential to increase motivation for participation (Lowenthal, Wray, Bates, Switzer, & Stevens, 2013). In addition, incentive and promotion structures that reward teaching excellence and recognise participation in educational development for online teaching may also encourage more educators to be involved in educational development initiatives. Thus, in order to encourage educators to continually develop and improve their professional skills and knowledge it is important to consider policy initiatives that will appeal to the motivational factors of educators.

Educators are motivated to engage in educational development for online teaching by internal factors including the desire for professional and self-growth and the opportunity to improve teaching effectiveness (Dailey-Hebert et al., 2014; Steinert et al., 2010). These factors should also be taken into consideration when designing and promoting educational development initiatives. It is imperative that educational development programmes have clear descriptions and learning outcomes so that educators can determine how they align with their goals for both personal and professional development. Guskey (2002) suggests that what motivates many educators to participate in professional development is their belief that it will enhance student learning outcomes and ultimately benefit students. Thus, when promoting educational development programmes for online teaching, it can also be beneficial to highlight the potential impact of participation on the learning outcomes of students.

2. Plan evaluation procedures to help measure the impact of educational development programmes.

There is a growing need for institutions to demonstrate that their educational development programmes have resulted in improved teaching practices and student learning experiences and outcomes (Brew, 2007). Institutions are increasingly being asked to provide evidence supporting the efficacy of their educational development initiatives and programmes (Wilson, 2012). As a result, when developing new educational development programmes for online teaching or revising existing programmes, it is important that evaluation measures are taken into consideration. Institutions may want to consider using a mixed methods approach, such as the one presented in this study, as a way to gather concrete evidence of the impact of educational development initiatives. Evaluation procedures for educational development programmes for online teaching could also be embedded in policy to ensure that all initiatives are evaluated, in order to support greater accountability.

3. Solicit participation from those who have a wide range of experiences and backgrounds and are from an array of disciplines.

Having a diverse group of participants within an educational development programme for online teaching allows educators to hear perspectives not usually available to them and allows educators to engage with and learn from each other. There has been a growing recognition that effective educational development needs to incorporate opportunities for educators to work together, and the utilisation of various forms of CoPs and FLCs have become a common element in many educational development programmes. Interaction among educators with diverse experiences and backgrounds can foster higher levels of interdisciplinary collegiality within the institution, and establish a foundation for sustained professional development (Cox, 2004; Heath & McDonald, 2012). In order to encourage participation from a wide range of educators, institutions should consider focusing their promotional efforts on both full-time and part-time educators and may consider asking individual schools/disciplines to assist with promoting educational development initiatives. In addition, institutions could consider implementing an application procedure for educational development programmes which would allow them to customize participation in specific programmes and ensure diversity of participants.

4. Incorporate active learning strategies and provide educators with hands-on opportunities to apply their learning in authentic situations.

Educational development programmes that include active learning techniques and provide opportunities for participants to act on their new learning can help to support transformative learning (Mezirow, 1991). There are many positive benefits when educators are able to try out what they are learning in the context of their everyday teaching practice as part of an educational development programme rather than afterwards when the programme has finished (Guskey, 2002). Thus, when designing educational development programmes for online teaching, it is advised that institutions consider adopting a hands-on approach that allows educators to apply the principles of course design and delivery to a course they are preparing to teach online or hybrid. This approach models best practices and provides participants with an authentic learning experience. The use of active learning is also consistent with the current trend in higher education towards the adoption of constructivist learning theories that emphasise the importance of active engagement of learners (Cross, 2009).

5. Include opportunities for educators to learn online in the role of a student.

When educators are provided with an opportunity to experience the online environment from a student's perspective they are able to gain a better understanding of what online learning is like for students which can help to inform their online course design and facilitation strategies. By putting educators in the learner's shoes, they are able to actively experience the learning environments that are advocated for their students. This allows them to develop greater empathy for the online student experience and provides educators with first-hand practice with the affordances of online learning environments. Moreover, experiencing what it feels like to be an online student in an authentic environment can provide educators with a different viewpoint of the online learning experience which in turn may help to support their transition to more student-centred learning strategies. Institutions that are thinking about developing an educational development programme for online teaching should consider putting educators in the role of an online student so that they can have an authentic experience of the online learning environment before they are required to teach in this setting.

6. Target educational development initiatives to novice educators as the potential for impact on teaching practice and self-efficacy may be higher.

The literature suggests that it can often be easier and more effective to intervene early

in an educator's teaching career (Weimer and Lenze, 1991). Conceptions of teaching are typically established early on; thus, educational development initiatives aimed at novice educators can have a strong impact on teaching conceptions and teaching practice. In addition, educational development is more likely to strengthen the self-efficacy beliefs of educators who have less teaching experience than those who have more teaching experience (Postareff et al., 2008; Morris & Usher, 2011; Mulholland & Wallace, 2001; Woolfolk & Hoy, 2000). Accordingly, institutions should consider promoting educational development initiatives for online teaching to new educators for greater impact. They may also want to consider implementing policy mandating a specific level of training and support for novice educators, which could have a lasting impact on educators' openness to new ideas about teaching and lead to more student-centred teaching practices.

7. Consider educational development for online teaching as a potential solution to help address resistance to online teaching.

In the higher education environment, many educators have little or no experience as online students or teachers, having spent the majority of their time in traditional face-to-face classrooms (Daley, 2003; Gallant, 2000). As a result, some educators have misconceptions about online learning, and may be resistant to teaching online due to a lack of familiarity with, and understanding of, the online environment. In addition, experienced or expert face-to-face educators find themselves as novices or beginners when first teaching online, which in some cases can also result in a resistance towards online teaching (Major, 2010; McQuiggan, 2007; Schunk, 2012). Given that participation in educational development for online teaching helped to encourage a greater appreciation for the value and quality of online education among participants in this study, institutions that face resistance to online teaching by educators may want to consider educational development as a potential solution to help address this resistance. Educational development programmes for online teaching may help to support greater buy-in from educators and could aid in shifting educators' perceptions of online education (Hinson & LaPrairie, 2005).

8. Inform participants of possible decline in self-efficacy as a result of participation in educational development for online teaching and plan additional support mechanisms to ease feelings of uncertainty.

As was evidenced in this study, it is possible that some educators may experience an initial decline in self-efficacy after participating in educational development for online teaching as they become aware of new teaching approaches that might not align with their current practice. It can take time for educators to redefine themselves and

rebuild their confidence after participating in educational development for online teaching (Postareff et al., 2007; Tschannen-Moran et al., 1998). As a result, when designing educational development programmes for online teaching it is important to ensure that participants are made aware of the possible decline in self-efficacy, and that they are fully supported throughout their transition to the online environment. According to Tschannen-Moran et al. (1998) there can be an initial decline in teaching efficacy levels with new experiences followed by a significant rise in teaching efficacy levels after three teaching experiences. Thus, institutions should make sure that educational development support is offered for an extended period of time beyond the end of an educational development programme for online teaching.

5.6 Limitations

One of the main limitations of this study is that it relies on self-reported data. The use of self-report has the potential of creating a social-desirability bias that may cause participants to under-report behaviours deemed inappropriate and over-report behaviours viewed as desirable (Barczyk, Buckenmeyer, Feldman & Hixon, 2011; Crowne & Marlowe, 1964). Also, given that only six of the participants provided documentary evidence to support their self-reports, it is possible that the reported data may not fully reflect the actual changes that occurred to teaching practice, assumptions and beliefs, and self-efficacy. Moreover, as the facilitator of the Online/Hybrid Course Development Institute I have an established professional relationship with all of the past participants of the Institute. Having an existing professional relationship with the educators participating in this study could impact their reporting of any changes resulting from the Online/Hybrid Course Development Institute to me, and lead to the possibility of them only reporting what they think I want to hear. Attempts were made within the design of this study to minimise these limitations through the use of triangulation of data sources and through member checking of interview transcripts.

Furthermore, the Online/Hybrid Course Development Institute is voluntary, and educators who choose to participate may differ from the general pool of educators and may be more motivated to improve their teaching practices. Educators who chose not to access educational development for online teaching were not captured in this study. It is also possible that people who were unhappy with their experience in Online/Hybrid Course Development Institute may not have volunteered to participate in the study. Also, given that this study did not implement a control group, it is unclear to what extent educators who did not participate in the Institute may have

experienced similar changes in their teaching practice, assumptions and beliefs, and self-efficacy. It is also possible that the nature of the Online/Hybrid Course Development Institute may attract educators who are already student-centred in their approach to teaching. Educators' desire to participate in educational development and their wish to become better educators might also lead to changes in teaching practice not related to participation in educational development. In addition, some educators were mandated to participate in the Institute by administration, so this may have also impacted their desire to participate in the research study.

Additional factors, such as other educational development and professional growth due to maturation, could not be controlled in this study. Although the online survey and interview questions asked the respondents to specifically attribute any impact to their involvement in the Institute, it could be argued that factors other than the Online/Hybrid Course Development Institute could have brought about some of the changes reported by participants. The retrospective nature of this research creates a limitation as varying amounts of time had passed between educators' participation in the Online/Hybrid Course Development Institute and the data collection. It is possible that some of the participants' recollections may have been inaccurate or incomplete given the amount of time that had passed.

Finally, this study focused on educators who participated in the Online/Hybrid Course Development Institute at Durham College, so findings may not be generalisable to other institutions or groups of educators. That said, the results of this study contribute to the findings of past studies and taken together they can provide a more comprehensive picture of the impact of educational development on educators' teaching practices, assumptions and beliefs about teaching, and self-efficacy. It is hoped that sufficient context and analysis have been provided for the readers so that they can infer the relevance of it in their own contexts and apply the results in a way that they interpret as being appropriate to their situations (Yin, 1994). With this understanding, this study presents a basis to promote further discussion and research about educational development for online teaching and its potential to imp
act teaching practice, assumptions and beliefs, and self-efficacy.

5.7 Recommendations for Future Research

It is recommended that future research substantiates findings with additional evidence beyond self-report. One way to improve the usefulness of the self-report data would be to collect a pre- and post-inventory of both conceptions of teaching and self-

efficacy to minimise the reliance on retrospective self-reports, enabling better comparison of changes across the time span of participation in the Institute. The Online/Hybrid Course Development Institute was not established with comprehensive evaluation in mind; thus, there was no existing pre-test data that could be utilised, which argued for a retrospective approach. Beyond the scope of the current inquiry was validation of the claims that educators made about changes in teaching practice, assumptions and beliefs, and self-efficacy that they attributed to participation in educational development for online teaching. Also beyond the scope of this study was substantiation of the effect, if any, on student learning outcomes. Future research could include pre and post-observer ratings of participants' teaching in both face-to-face and online settings; these observations could be compared to educators' self-reports. Plans for future research could also include a comparison of student evaluations of courses taught by educators who have completed educational development for online teaching to those taught by educators who have not completed the development, as well as a comparison of student evaluations of courses taught by the same educator both before and after participation in educational development for online teaching. This study also suggests a need for more longitudinal research to clarify how long changes persist and whether there are differences in teaching practices, assumptions and beliefs, and self-efficacy between educators who have and have not participated in educational development for online teaching.

While it has been instructive to learn about the positive impacts of educational development for online teaching from the educators who participated in this inquiry, there is still a significant amount to learn from those educators for whom educational development had little or no impact. It would be worthwhile to pursue further investigation into the factors that minimise the impact of educational development for online learning on educators' teaching practice, assumptions and beliefs, and self-efficacy. Future studies may extend the ideas presented in this study by analysing how educational development programmes for online teaching can support veteran educators, as in this study they reported the least amount of impact from participation in educational development. Additional research may also want to further examine individual educator differences (such as learning style, personality traits, vocational background) and investigate whether such differences might affect the impact of educational development.

Future research might also consider educators' prior experiences with educational development and their attitudes toward educational development to determine how that impacts their motivations to engage in educational development for teaching in

the online environment. It is also suggested that future research include several different community college institutions with different disciplines, educators, and outcomes. This could be accomplished by having several educational developers at different institutions work together to share materials and develop similar outcome measures.

5.8 Conclusion

There is a strong emphasis on accountability within the current post-secondary climate which has made the quality of teaching and learning, both within the classroom and online, an increasing concern. The growing expectations of 21st century students have further motivated higher education institutions to raise the quality of teaching and learning (Hanbury et al., 2008). Consequently, educators are being encouraged to incorporate innovative teaching practices to address the diverse needs of the broadening range of learners found in today's classrooms (Ouellett & Sorcinelli, 1995). Thus, we are witnessing a shift across higher education from long-established teacher-centred modalities focused primarily on the passive, one-way transmission of knowledge predominantly towards more student-centred approaches that emphasise active student construction of knowledge and meaning-making in the classroom (Barr & Tagg, 1995).

Another driving force for change in higher education and teaching is the rapid growth of online learning, which offers challenging new opportunities to re-examine teaching and learning and places new and different demands on educators (McQuiggan, 2012). Many authors argue that the online environment promotes more learner-centred instruction, requiring educators to share control of the learning process with students (Coppola et al., 2002; Hixon et al., 2012; Natriello, 2005; Redmond, 2011; Schrum & Hong, 2002; Vaughan, 2010). Educators may find that they need to play a more facilitative role in the online environment, which may require a rethinking of their underlying assumptions about teaching, about the learning process, and about their role as educators (Wiesenberg & Stacey, 2008). Carefully designed educational development programmes for online teaching can help support educators as they make the transition from face-to-face to online teaching and can provide a critical foundation for higher education institutions looking to improve or expand their online programmes. Educational development programmes targeting the development of online teaching also have the potential to create a far-reaching and lasting impact on educators and the institution as a whole (Buckenmeyer, et al., 2013).

The findings of this study indicate that the majority of the participants perceived some changes in teaching practice, previously held assumptions and beliefs about teaching, and self-efficacy that could be attributed to their participation in the Online/Hybrid Course Development Institute. The results revealed a number of different factors that motivated educators to participate in the Institute including a desire to increase their technological or pedagogical knowledge, the tendency to be early adopters or proactive leaders, personal benefit or interest, recommendation or mandate from administration, and in one case the specific desire to reduce the failure rate in a course. The participants identified the interaction with other educators from diverse disciplines and the community that developed among the cohort as one of the main benefits of the Online/Hybrid Course Development Institute. The findings revealed that reflective discourse occurred among many of the participants and that a climate of mutual respect and trust was established which is characteristic of a Faculty Learning Community. The participants also acknowledged the benefits of the active learning approach that allowed them to work on their own course development as well as the hybrid design which provided an opportunity to experience the online environment from a student's perspective. The findings from the interviews suggest that experiencing what it feels like to be an online student in an authentic environment may have provided the participants with a different viewpoint of the online learning experience which in turn may have helped to support their transition to more student-centred learning strategies.

Most of the interviewees were able to apply what they learned from the Institute to their teaching practice, with some increasing their use of digital tools and the LMS, many implementing the JumpStart model, and others incorporating community building activities, chunking information, modifying assignments and obtaining a greater understanding of accessibility issues. Many of the participants also felt that their participation in the Online/Hybrid Course Development Institute affected their feelings of self-efficacy in their teaching ability, with some experiencing improved technological confidence, increased feelings of confidence related to their pedagogical knowledge, reduction of fear of the online environment, and greater risk-taking and the courage to try new teaching methods and strategies. The participants also revealed that participation in the Institute had a perceived impact on their students, with reports of improved learning experiences and the adoption of UDL principles, which helped to make the learning experience more accessible for students.

Overall, this study suggests that an educational development programme that targets online teaching and that is designed using an interdisciplinary cohort model and active

learning approach has the potential to positively impact college educators' teaching practice. Participants' changes in assumptions and beliefs about teaching and gains in self-efficacy provide evidence that this type of programme can be an effective tool in helping educators make the transition from face-to-face to online teaching. This study also proposes that participation in educational development for online teaching provides a good opportunity to impact teaching and learning far beyond the online environment and can provide an impetus for the transformation of teaching practice. When educators are exposed to new ideas and teaching and learning approaches during the process of learning to teach online, they are persuaded to rethink their conceptions of teaching in light of the student-centred strategies that they see elicited by the online environment (Shea et al., 2002). The new concepts and techniques that they encounter during the educational development programme for online teaching can, in turn, transform what they do in their traditional classrooms (Lowes, 2008). In short, educational development for online teaching can effectively become a stimulus for educators to reflect on and evaluate their current teaching practices. The results of this research demonstrate that educational development for online teaching is effective at helping educators implement new pedagogical strategies into their teaching practice, both face-to-face and online, and can encourage educators to transform their assumptions and beliefs about established methods of teaching and can increase levels of self-efficacy.

The present study helps to address the current gap in the literature by examining the impact of educational development for online teaching on educators within a Canadian community college environment and examines a diverse range of participants in terms of their employment status and prior teaching experience. This study also responds to calls from the literature for greater use of mixed methods approach to research related to educational development and contributes to the existing body of research literature by providing further empirical evidence of the impact of educational development for online teaching on teaching practice, assumptions and beliefs about teaching, and self-efficacy. The findings of this study provide several implications for theory, policy, and the design and facilitation of educational development for online teaching and learning. The conceptual framework in this study helped to strengthen the relationship between conceptions of teaching, self-efficacy and transformational learning theory, and their connection to educational development for online teaching. The findings also provide insights for institutional policies for educational development for online teaching and the methodology provides a framework that can be used to measure the impact of educational development initiatives. Finally, the implications for practice that are derived from

this study can be helpful to divisions or departments within higher education institutions that are charged with providing educational development for online teaching.

The future of higher education depends upon knowledgeable educators who are continuously improving their teaching and learning abilities, and who are able to adapt to the fast-paced and ever-changing education climate. The need for ongoing educational development for post-secondary educators is well documented, and this is especially true for educators at community colleges. Educational development programmes for online teaching can help educators obtain the confidence they need to provide students with valuable learning experiences in a variety of environments. Well-trained and supported online educators can transfer their skills into the classroom, and improve the student experience overall. Participation in educational development for online teaching presents an opportunity for educators to look at education through new eyes and to envision new possibilities for creating enriched and meaningful teaching experiences. Educational development for online teaching can also provide institutions with an important opportunity to promote excellence in teaching and can help support the goal of placing students at the centre of their learning experiences.

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