An Exploration of Faculty Perspectives of Online Teaching in a Sample of Prelicensure Collaborative Baccalaureate Nursing Programs in Ontario Colleges

by

Micki Marilyn Puksa

A thesis submitted in conformity with the requirements for the degree of Doctor of Philosophy
Department of Leadership, Higher and Adult Education
Ontario Institute for Studies in Education
University of Toronto

© Copyright by Micki Marilyn Puksa 2019
An Exploration of Faculty Perspectives of Online Teaching in a Sample of Prelicensure Collaborative Baccalaureate Nursing Programs in Ontario Colleges

Doctor of Philosophy 2019
Micki Marilyn Puksa
Department of Leadership, Higher and Adult Education
University of Toronto

Abstract

This thesis examined online teaching in the Ontario college sector in prelicensure collaborative baccalaureate nursing programs with the purpose of exploring and understanding best practice implementation and the nature and appropriateness of curriculum content for online delivery in nursing programs, as perceived by the faculty who have taught or are teaching courses online. The overarching question for this study was: What are the perceptions of participating faculty regarding the nature, challenges and strengths of teaching online course content in prelicensure collaborative baccalaureate nursing programs, and what are the implications for online course delivery? I used an exploratory-descriptive design and constructivist lens and pragmatic worldview with a mixed-methods data collection methodology to answer the research questions. The theoretical framework was rooted in constructivism as a teaching approach.

My study included a representative sample of 13 English language Colleges in Ontario that offer prelicensure collaborative baccalaureate nursing programs. Participants were full-time and part-time nursing faculty and program coordinators in these programs. Data were collected through document analysis, an online questionnaire survey completed by 32 faculty (53.3%), and interviews with 16 nursing faculty.

Based on the findings, I concluded that online education is useful in these nursing programs when the content and the semesters/years are appropriate, and necessary supports are
in place. Content containing complex cognitive concepts was perceived as better suited to face-to-face settings, as was experiential learning such as relational practice and psychomotor skill mastery. A hybrid delivery format was the most preferred teaching environment. Faculty experienced challenges with developing higher level online discussions and having students collaborate. Faculty perceived that online teaching took much more time and there was a need for acknowledgement by leadership of this time in workload assignments.

Though the colleges in this study are representative of the Ontario CAATs, the findings are not broadly generalizable. However, they will be of interest to other academic programs that wish to assess their own use of online learning, particularly in people and practice-based professional programs that prepare practitioners who work with vulnerable populations.
Acknowledgements

I wish to acknowledge and extend my thanks to those who provided support during the successful completion of my PhD journey. First and foremost, I would like to extend my profound thanks to Dr. Katharine Janzen, my thesis supervisor. Your expertise, guidance, and encouragement were instrumental to the successful completion of this research. Your positive and caring nature, patience, and prompt feedback were very facilitative to my learning. You embody all the attributes of an exemplary teacher and mentor. I would also like to thank Dr. Ruth Childs and Dr. Catherine Drea, members of my Thesis Committee, for their valuable insights. Their thoughtful comments and unique perspectives strengthened my work. I wish to extend my appreciation to Olesya Falenchuk for her assistance with the statistical analysis.

I am grateful to my nursing colleagues at Georgian College who offered their support and enthusiasm for this study. I would like to especially acknowledge Lesley MacMaster, my colleague and friend with whom I worked very closely for many years. My gratitude also extends to my nursing colleagues who participated in my thesis research, shared their experiences, and provided a deeper understanding of teaching nursing content in the online format.

My deepest thanks go to Alec, my amazing husband and best friend. Without your love, encouragement, advice, and support I would not have finished this journey. Thanks for being there with me.

To my wonderful friends who supported me through this process and provided necessary balance, particularly during the more intense periods. I wish to mention Kim Cooper, Yvonne Tremblay, Karen and Mark Bruton, and, Nancy and Chris Eames. Thank you all for the chats, get-togethers, and hiking and golf outings. To my large number of siblings, for their ongoing interest and cheerleading, with a special thanks to Carmela Bonia and Gerri Walsh.
Finally, to my late parents, who highly prioritized the value of education. To Theresa, my mother, whose tenacity and commitment to goals forever inspire me. To Jeremiah, my father, whose encouragement and belief instilled the courage to pursue a journey of this magnitude. To my late parents-in-law, Ludmila and Boris Puksa, whose strength and positive presence in my life continues to inspire me, I am eternally grateful.
# Table of Contents

Abstract .............................................................................................................................. ii

Acknowledgements ........................................................................................................ iv

Table of Contents ............................................................................................................ vi

List of Tables .................................................................................................................... xiv

List of Figures ................................................................................................................... xvi

Acronyms, Terms and Definitions .................................................................................. xvii

## Chapter One: Introduction ......................................................................................... 1

- Background .................................................................................................................. 2
  - Nursing Education in Collaborative Baccalaureate Nursing Programs ........ 5

- Statement of the Problem ............................................................................................ 8
  - Inter-institutional collaboration ............................................................................ 9
  - Disciplinary differences ....................................................................................... 10

- Purpose of Research ................................................................................................... 15

- Significance of the Study ............................................................................................ 16

- Personal Significance .................................................................................................. 22

- Research Questions .................................................................................................... 24

- Theoretical Framework ............................................................................................... 25
  - Quality of Online Learning .................................................................................. 26
  - Constructivism ........................................................................................................ 28
    - Chickering and Gamson’s Seven Principles of Good Practice in Undergraduate Education.... 30

- Conceptual Framework ............................................................................................... 30

- Scope and Limitations ................................................................................................. 32

- Summary ....................................................................................................................... 33

## Chapter Two: Literature Review ................................................................................. 35

- Overview of Online Learning: Terms, Definitions, and Context .......................... 35
Overview of Online Learning: Perspectives of Stakeholders ................................................. 37
Global perspectives .................................................................................................................. 38
Post-secondary institution perspectives .............................................................................. 38
Student perspectives .............................................................................................................. 41
  Student-related concerns ..................................................................................................... 44
Faculty perspectives .............................................................................................................. 46
  Class size ............................................................................................................................. 46
  Work and time ..................................................................................................................... 48
Other concerns of faculty ....................................................................................................... 49

Online Teaching Issues in Other Disciplines ...................................................................... 49

Theories of Theoretical Models of Quality in Distance Education .................................. 51
  Quality guidelines compared ............................................................................................... 52
  Council for Higher Education (CHEA) .................................................................................. 54
  The Institute for Higher Education and Policy (IHEP) .......................................................... 54
  The American Federation of Teachers (AFT) ........................................................................ 55
  Bates’ (2000) ACTIONS Model of Quality ........................................................................... 56

Nursing Education Programs and Quality ........................................................................... 57

Institutional Support .............................................................................................................. 58

Billings’ Theoretical Framework .......................................................................................... 60

Constructivism ................................................................................................................------ 63
  Elements of constructivism .................................................................................................. 66

Assessment of Student Learning Online: Current Climate ............................................. 72
  Assessment and learning outcomes ...................................................................................... 74
  Learning outcomes and faculty ............................................................................................ 75
  Assessment and learning outcome research ....................................................................... 76

Disciplinary Differences in Online Learning and Assessment ....................................... 83

Online Learning and Constructivist-Based Activities ....................................................... 86

Nursing Education through Collaborative Baccalaureate Nursing Programs .................. 90
  Challenges of inter-institutional collaboration ................................................................... 90

Scope and Limitations of the Literature Review ............................................................... 90

Chapter Two Summary ...................................................................................................... 93
Chapter Three: Research Design and Methodology ........................................ 94

Purpose of the Study .................................................................................. 94

Research Questions ..................................................................................... 95

Research Design ......................................................................................... 95

Methodology ............................................................................................... 96
  Theoretical Perspective ............................................................................. 96
  Timing ......................................................................................................... 96
  Priority ....................................................................................................... 97
  Mixing ......................................................................................................... 98

Site Selection ............................................................................................... 99

College Participation Rates ......................................................................... 105

Participant Selection .................................................................................. 105

Recruitment of Participants for the Online Questionnaire ...................... 107

Recruitment of Participants for the Interviews ......................................... 108

Data Collection .......................................................................................... 110
  Document analysis .................................................................................. 112
  Online questionnaire survey ................................................................. 112
  Instrumentation ....................................................................................... 113

Faculty and Program Coordinator Interviews ......................................... 117

Establishing Credibility (Content and Face Validity Pilot Testing) .......... 118

Data Analysis ............................................................................................. 120

Methodological Assumptions .................................................................... 124

Scope and Limitations ............................................................................... 125

Ethical Issues and Considerations .............................................................. 126

Chapter Three Summary .......................................................................... 127

Chapter Four: Findings and Analysis for Research Question One .......... 128

Demographic and Background Information .............................................. 128

Research Question #1: What are participants’ perceptions about the
quality of their online teaching compared with:
a) best teaching practice scales, b) traditional classroom teaching, and
c) institutional and faculty supports for online teaching? ......................... 129
Research Question #1(a): What are participants’ perspectives about the quality of their online teaching compared with best teaching practices scales? ................................................................. 129

Findings ................................................................................................................. 129

Online questionnaire survey .................................................................................. 130

Research Question #1(b): What are participants’ perceptions about the quality of their online teaching compared with traditional classroom teaching? ................................................................................. 136

Findings ................................................................................................................. 136

Online questionnaire survey .................................................................................. 136

Faculty interviews ................................................................................................. 137

Theme #1: Differences in the nature of communication between traditional face-to-face classroom delivery and the online format ........ 138
Theme #2: Strategies for engaging students - bridging the physical distance gap ................................................................................................................ 148
Theme #3: Flexibility ......................................................................................... 160
Theme #4: Tech savviness ................................................................................ 163
Theme #5: Student readiness ............................................................................. 167
Theme #6: Online teaching takes more time ....................................................... 169

Research Question #1(c): What are participants’ perceptions about the quality of their online teaching compared with institutional and faculty supports for online teaching? ................................................................. 171

Findings ................................................................................................................. 171

Document analysis ................................................................................................. 171

Online questionnaire survey .................................................................................. 176

Faculty interviews ................................................................................................. 184

Theme #1: Impact of Technology ......................................................................... 184
Theme #2: Pedagogy training, course development, and design - learning how to teach online ............................................................................................................. 187
Theme #3: Acknowledgement of time .................................................................. 189

Summary of Findings Related to Research Question #1 ....................................... 193
Chapter Five: Findings and Analysis for Research Questions Two, Three and Four

Research Question #2: How and by whom are decisions made regarding the nature of the content and learning outcomes that should or should not be developed in the online delivery format? .................................................. 206

Findings........................................................................................................ 206

Document analysis ....................................................................................... 206

Faculty interviews ....................................................................................... 209
  Theme #1: Faculty participation ................................................................. 209
  Theme #2: Institutional pressure ................................................................. 211
  Theme #3: Collaboration .......................................................................... 212
  Theme #4: Student feedback .................................................................... 215
  Theme #5: Publisher resources ................................................................. 216

Summary of Findings Related to Research Question #2 ......................... 216

Interpretation of Findings in Relation to the Literature Reviewed .......... 218

Interpretation of Findings in Relation to the Theoretical Framework .... 219

Research Question #3: What a) course content and b) intended learning outcomes do participating faculty identify as appropriate or not for online learning? Why or why not?................................. 220

Research Question #3(a): What course content do participating faculty identify as appropriate or not for online learning? Why or why not? ......... 220

Findings........................................................................................................ 220

Online questionnaire survey ....................................................................... 220

Faculty interviews ....................................................................................... 223
  Theme #1: Didactic, linear type content is more suited to the online format........................................................................................................ 223
  Theme #2: Content that is complex, requires high levels of interactivity, and deeper levels of discussion is more difficult to deliver online ................................................................. 224
Theme #3: Clinical-theoretical content is more challenging to deliver online................................................................. 225
Theme #4: Perspectives on offering content online, and content that is suitable or not to this format ................................................. 227

Research Question #3(b): What learning outcomes do participating faculty identify as appropriate or not for online learning? Why or why not? ........ 230

Findings.................................................................................................................. 230

Online questionnaire survey ................................................................. 230

Faculty interviews ..................................................................................... 232
  Theme #1: Year one: Students are not ready - no online content, or offerings in smaller amounts.................................................. 233
  Theme #2: Need to scaffold online content through the years of the program - ease students into the process............................. 237
  Theme #3: Year four - students are ready.................................................. 239

Summary of Findings for Research Question #3 ............................................. 239

Interpretation of Findings in Relation to the Literature Reviewed .......... 240

Interpretation of Findings in Relation to the Theoretical Framework .......... 242

Research Question #4: What are the perceptions of faculty regarding the types of assessment strategies that are appropriate, or not, in the online format? Why or why not? ......................................................... 243

Findings.................................................................................................................. 243

Online questionnaire survey ................................................................. 243

Faculty interviews ..................................................................................... 250
  Theme #1: Understanding where the gaps are, getting a sense of the pulse of the class, and having teachable moments - comparing online and face-to-face formats .................................................. 250
  Theme #2: Online and face-to-face - evaluations are the same in both delivery formats ................................................................. 253
  Theme #3: Online assessments – approaches and opportunities ........ 256
  Theme #4: Academic integrity................................................................. 261
  Theme #5: Providing student feedback online........................................ 263
  Theme #6: Workload, quality, and assessment choices ...................... 265
  Theme #7: Learning online - students underestimate expectations and quality of the course......................................................... 267
Appendix K. Interview Guide for Faculty and Program Coordinators with Online Teaching Experience......................................................... 351

Appendix L. Interview Guide for Program Coordinators without Online Teaching Experience................................................................. 355
Appendix M. Content Validity Index Tool – Online Questionnaire Survey ........................................................................................................ 358

Appendix N. University of Toronto REB Approval ............................................. 365
Appendix O. Best Teaching Practices Scales Data ............................................. 366
Appendix P. References for College Strategic Plan Document Sources ................................................................. 369

Appendix Q. References for College Strategic Mandate Agreement Document Sources ................................................................. 371
List of Tables

Table 1. Representation of concepts in Billing’s framework for assessing outcomes and practices in web-based courses in nursing and quality of learning indicators from distance education quality assurance literature .......................... 62

Table 2. “Seven Principles for Good Practice in Undergraduate Education,” by Chickering and Gamson (1987) ............................................................................................................. 64

Table 3. Representation of educational practices in Billing’s “Framework for Assessing Outcomes and Practices in Web-based courses in Nursing” and Chickering and Gamson’s (1987) “Seven Principles for Good Practice in Undergraduate Education” ................................................................................................. 65

Table 4. Regional and geographic categories in Ontario ............................................. 101

Table 5. Classification of the 20 English language colleges offering prelicensure collaborative baccalaureate nursing programs in Ontario based on geographic location, regional population and college size .............................................................................. 102

Table 6. Selected college sites, institutional partners involved in collaboration, and collaborative baccalaureate program model and size of program ............................. 104

Table 7. College demographic information (geographic location, regional population, college size, type of programming) of 13 participating colleges self-reported by online questionnaire participant ................................................................. 107

Table 8. Best practice scales depicting Cronbach’s coefficient alpha (internal consistency) ................................................................................................................................. 116

Table 9. Research questions and sources of data collection ........................................ 121

Table 10. Best Teaching Practice (BTP) scales descriptive statistics - mean, standard deviation, skewness, and kurtosis ..................................................................................... 130

Table 11. Student and Staff Interaction (SSI) scale data ............................................. 131

Table 12. Student and Staff Interaction (SSI) data, survey question #47 .................. 132

Table 13. Collaborative Work (CW) scale data .......................................................... 132

Table 14. Online Social Interaction (OSI) scale data ................................................ 133

Table 15. Best Teaching Practices scales correlations ................................................. 134
Table 16: Relationships between faculty experiences and Best Teaching Practices scales................................................................. 135

Table 17. Percentages of faculty who preferred teaching some online courses face-to-face, and satisfaction with teaching nursing content online scales .......... 137

Table 18. Institutional Support (IS) scale - mean, standard deviation, skewness, and kurtosis ........................................................................... 176

Table 19. Institutional Support (IS) scale data................................................................................................................................. 177

Table 20. Institutional Support data from the two items not part of the Institutional Support (IS) scale .................................................................. 178

Table 21. Number of online course workload hours as indicated on the SWF faculty taught per academic year .......................................................... 179

Table 22. Percentage of faculty teaching load currently online................................. 180

Table 23. Number of students in online classrooms ......................................................... 180

Table 24. Initial training faculty received in preparation for teaching online ........ 181

Table 25: Relationships between professional development and Best Teaching Practices scales ..................................................................................... 182

Table 26. Participants’ responses to Survey Question # 64, ‘other’ option. “I think content in the following course types is better suited to online delivery”. If you select ‘other’ as an option, please explain ........................................... 221

Table 27. Years and semesters of the nursing program in which faculty perceived that nursing content should be offered .................................................. 231

Table 28. Survey Question # 63 asked faculty to respond to the statement “I think online nursing course content should be offered in the semesters/years of the nursing program” If you include ‘other’, please explain. Comments of faculty who selected ‘other’ as an option .......................................................... 232

Table 29. Percentage of participants who reported their online assessments challenged students to learn .................................................................................. 243

Table 30. Percentages of participants who perceived their online course activities prepared students for clinical practice ...................................................... 243

Table 31. Percentages of cognitive domain learning levels faculty emphasized in their online assessments ........................................................................... 245
List of Figures


Figure 2. Conceptual Framework: A depiction of the relationships between the concepts of focus - ‘Faculty Support’, ‘Institutional Support’, ‘Educational Practices’ and ‘Constructivism’ ............................................................... 31

Figure 3. Representation of the relationships between the research questions and the concepts of focus ................................................................................................................................................. 32

Figure 4. Representation of quality indicators of Council for Higher Education Accreditation (2002) ........................................................................................................................................... 60

Figure 5. Faculty responses to survey question # 10 that asked “What type of learning environment do you prefer when teaching students?” ........................................... 136

Figure 6. Faculty responses to survey question # 14 that asked “How often do you participate in faculty professional development activities that focus on teaching at your college?” .................................................................................................................... 182

Figure 7. Course content faculty perceived as better suited to online delivery when compared with face-to-face delivery .............................................................................................. 222

Figure 8. Participants’ responses to Survey Question # 58, “My online courses include which of the following assessments?” Select all that apply.............................................. 244

Figure 9. Percentages of cognitive domain learning levels faculty emphasized in their online assessments .................................................................................................................... 246
Acronyms, Terms and Definitions

**CAAT:** College of Arts and Technology in Ontario. There are 24 colleges in the province of Ontario all of which are publicly funded by the province. Many colleges have more than one campus location.

**CHEA:** Council for Higher Education Accreditation is a private, non-profit national organization that coordinates accreditation activity in the United States and represents more than 3,000 colleges and universities and 60 national, regional, and specialized accreditors.

**Constructivism:** is an approach to learning in which knowledge is constructed and created by the learner rather than being given through instruction. Learners are active rather than passive in the learning process, and it is learner’s interpretation and processing of what is received through the senses that creates knowledge, which exists in the learner’s mind and is shaped by individual experiences (Barr & Tagg, 1995). Interactivity is essential to this form of learning, as it facilities knowledge construction and high-level processing (Ally, 2004).

**COU:** Council of Ontario Universities. An advocacy organization representing the interests of Ontario’s universities and providing services to its members and the community including research, communications, and the central processing of university applications.

**eCampusOntario.ca:** was created in 2015 as the primary face of the Ontario Online Learning Consortium, whose membership is composed of all publicly-funded colleges and universities. It was funded by the Ministry of Advanced Education and Skills Development (MAESD) to serve as a portal for learners to find online and mostly online courses. In 2013 the MAESD committed $72 million over five years to support its development and the provision of quality online learning experiences for Ontario’s postsecondary students. Two of its top four
goals are supporting faculty development and enhancing the student learning experience (eCampusOntario, 2016; Ministry of Training, Colleges and Universities, 2015).

**Interaction:** is integral to a constructivist learning approach. It is typically described in the online literature in terms of student-teacher, student-student, and student-content interaction, and as being essential to success in the online environment. The terms connectivity, and presence are also used interchangeably with interaction. Interaction is the “defining component of the educational process that occurs when the student transforms inert information passed to them from another and constructs it into knowledge with personal application and value” (Dewey, as cited in Anderson, 2004, p. 8).

**ITAL:** Institute of Technology and Advanced Learning. Selected colleges in the province of Ontario have this designation and may offer up to 15 percent of programming in applied degrees.

**Online Learning:** is “well established in the nursing education literature, often with the terms distance learning, online education or distance education used synonymously” (Russell, 2015, p. 14). Because of the diverse use of terminology to reference online learning (Carey & Trick, 2013; Lopes & Dion, 2015; Russell, 2015) researchers have called for consistency in the use of a definition. For the purpose of this study, Allen and Seaman’s (2013) definition of online learning will be used. They defined online learning in terms of three online course types, each expressed in terms of the portion of course content delivered online - web-facilitated with 1-29% content online; blended or hybrid with 30-79%; and online with at least 80% of content delivered online.

**PEQAB:** is the postsecondary education quality assessment board, an arms-length agency whose function is to make recommendations to the Minister of Advanced Education and
Skills Development of Ontario on applications for Ministerial Consent to offer degree programs under the terms of the Postsecondary Education Choice and Excellence Act, 2000. All baccalaureate degrees offered by CAATs and ITALs are four-year degrees and quality assured by PEQAB.

**Prelicensure Collaborative Baccalaureate Nursing Programs**: are programs intended for first-time nursing students in which one or more Colleges of Arts and Technology (CAAT) or Institutes of Technology and Advanced Learning (ITALs) and a university partner together to offer the nursing program jointly. Collaborative baccalaureate nursing programs were implemented in September 2001 in response to the change in nursing regulation that all new graduates applying for professional registration must have completed a university baccalaureate degree as of January 1, 2005.
Chapter One: Introduction

The intent of this study was to explore and describe online teaching in prelicensure collaborative baccalaureate nursing programs in the province of Ontario. The findings were to provide a deeper understanding of the challenges and strengths faculty face with this form of teaching, and, perhaps more importantly, course content that was suitable for online delivery and that which is not. Given the applied nature of the nursing profession in a context where nursing actions have significant impact on vulnerable populations, it is reasonable to assume that the online delivery of an entire program of study in this discipline is not appropriate. However, delivery of some of the content in an online format may well be feasible and effective. For this reason, this study focused on the online delivery of courses, not programs. The findings of this study were to enhance our understanding of how best to identify and support successful teaching of relevant online course content in these programs. The current discourse in the profession is that there is increasing pressure to teach nursing courses online and there is a need to determine content that is and is not appropriate for online delivery and how best to do so given the nature of the professional preparation required.

This thesis is organized into six chapters. Chapter One provides an overview of the study. The chapter begins with the purpose of the study followed by the background of the problem, the statement of the problem situation, and the purpose and rationale of the research. The research questions, theoretical and conceptual frameworks, scope and limitations of the research are then outlined. Chapter Two consists of the review of relevant literature. In Chapter Three the research design and methodology are described. The chapter begins with a re-introduction of the purpose and research questions. Presented next are explanations of the design, site selection, participant selection, data collection and recording, credibility issues, methodological assumptions,
limitations, and ethical concerns and considerations. A summary and restatement of the purpose of the research concludes the chapter. Chapter Four consists of the findings and analysis for Research Question one. The findings are then summarized and interpreted in relation to the literature reviewed and the theoretical framework that ground this study. Following the same presentation format as Chapter Four, the findings and analysis for Research Questions two, three, and four are presented in Chapter Five. Presented in Chapter Six are the conclusions, implications for policy and practice, and recommendations for further research.

Background

Online courses and programs in the United States (US) continue to grow at a rate of 20 percent per year (Allen & Seaman, 2007). These authors claim (2013, p. 4) that the “proportion of all students taking at least one online course is at an all-time high of 32 percent.” The advantages of increased student access and flexibility are driving this tremendous interest, as online learning is not restricted to time and place and students are drawn to the flexibility that this form of delivery affords (e.g., Billings, 2000; Hartman, Dziuban, & Moskal, 2007; Skiba, Connors & Jeffries, 2008). Institutions recognize the importance of online learning to the post-secondary education landscape. In a survey of U.S. based post-secondary institutions, the percentage of institutions that agreed that “online education ‘is critical to the long-term strategy of my institution’, reached its highest level in 2012 at 69.1 percent”, reported Allen and Seaman (2013, p. 16).

On a province, wide scale, on October 8, 2015, the Ministry of Training Colleges and Universities (MTCU) announced the launching of eCampusOntario, an online education portal housing more than 13,000 accredited online college and university courses, giving Ontario postsecondary students “the flexibility to access high quality online courses wherever and
whenever works best for them” stated Moridi, the minister of MTCU (2015, p. 1). Additionally, the Ministry announced that it plans to invest 72 million dollars over five years in support of the development and operation of eCampusOntario, listing on the portal all 45 publicly-assisted colleges and universities in Ontario offering online courses.

Institutions are positioning themselves to capture the online learning market, which is growing and expanding. Greenberg explained that “universities are indeed businesses, and if they are to compete in the ever-growing competitive online higher education market, they need to take a close look at their culture and processes” (as cited in Puzziferro & Shelton, 2008, p. 2). Friedman and Friedman (2011) advised that money is tight, and colleges need students and suggested that “academe will have to learn to be more productive and move from a brick and mortar approach to a click- and-mortar approach” (p. 160), for example, by offering more online and hybrid courses, less space will be required.

With increasing interest in, and growing pressure for online course and entire program delivery (Leppa, 2004; Russell, 2015), faculty members are increasingly expected by their institutions to convert and deliver their courses partially or completely online (Todd, 2009), and incorporate and use digital technologies to facilitate learning (Button, Harrington, & Belan, 2014). While there are significant advantages to online learning, including greater access for students, who may otherwise be underrepresented (Billings, 2000), “faculty and students must become more skilled and comfortable with these methods in order to enable a successful educational experience”, warns Todd (p. 15). In addition, discipline-specific differences may present unique challenges.

The study of Smith, Passmore and Faught (2009) highlighted discipline-specific differences in online nursing education and the need for modifications related to those
differences. These researchers found that online nursing instructors were most concerned with “identifying the most effective assessment methods to judge students’ ability to apply their lessons in real-world situations…which comprise both high-stake medical and interpersonal elements” (p. 98). Others have expressed concerns of quality. For example, Little (2009) explained that “nurse educators and students have been expressing concern about the quality of online education for more than a decade” (p. 381).

In the recent online learning literature, considerable discussion has focused on the topics of implementation of best practices for online pedagogy, and the key role of faculty. In response to the new initiative of an Ontario Open Institute (OOI) faculty perspectives emphasized the need for implementation strategies and sufficient resourcing to ensure accepted standards for quality assurance (Harrison, 2016). In the same study of online learning in Ontario, the author found that effective pedagogy was prioritized amongst all stakeholders within the policy community, including students. Student perspectives underscored “the need to assist faculty in implementing new methods and were concerned about the transition from classroom teaching to online environments” (p. 88). Thurmond found that student satisfaction was more dependent on the quality and effectiveness of the instructor and the instruction than on technology (as cited in Appana, 2008, p. 8). The role of faculty in effective pedagogy is also evident in the strategic plan of eCampusOntario 2016-2018, with the goal of supporting faculty listed as one of the four priorities. In this study, the perspectives of nursing faculty as a key stakeholder group may provide insight into how best to identify and support best practices and successful online course delivery in prelicensure collaborative baccalaureate nursing programs which I believe has not been done to date, based on my review of the literature.
Nursing education in Collaborative Baccalaureate Nursing Programs. Nursing education in collaborative programs is the legislated mode of delivery of nursing education in Ontario. A Collaborative Baccalaureate Nursing Program is one in which one or more Ontario Colleges of Arts and Technology (CAAT) or Institutes of Technology and Advanced Learning (ITAL) partner with a university to offer nursing education jointly, with the degree being granted by the university partner.

Collaborative baccalaureate nursing programs, intended for prelicensure or first-time nursing students, were first established in 2001 in response to new Provincial legislation governing nursing education that requires that all graduates applying for professional registration and entry into practice as Registered Nurses, must have completed a university baccalaureate degree in nursing as of January 1, 2005. Prior to 2000, the requirement for entry-to-practice for Registered Nurses in Ontario was either a diploma from a college nursing program or a baccalaureate degree from a university nursing program, as stated by the Council of Universities (COU, 2010). Both sets of graduates were required to write and successfully complete the same entry to practice exam set by the Canadian Nurses Association (CNA) to obtain a registration license to practice nursing not only in Ontario but anywhere in Canada, except Quebec, which had its own examination (CNA, 2007). In March 1999, the Ontario Minister of Health and Long-Term Care announced that completion of a four-year baccalaureate program in nursing would be mandatory for nursing graduates seeking professional registration as of January 2005 (Clark, Moran, Skolnik, & Trick, 2009). The change in the entry-level requirement was implemented in “response to the greater levels of critical thinking and nursing knowledge that were required in a health care system with advanced technology and higher levels of complexity of patients and environments” (COU, 2010, p. 1). It was also believed that with a science-based baccalaureate
nursing degree requirement, nursing would be viewed as a valued profession and a desirable career destination (Kirby, 2007). The new regulation marked a profound change not only to the entry-to-practice requirement but to the way in which nursing education was delivered.

The new nursing registration regulation, enacted through changes under the Nursing Act March 2000, did not permit an individual whose baccalaureate in nursing was from a college to obtain registration (Clark et al., 2009). The new nursing regulation recognized collaborative baccalaureate college-university programs as an eligible form of nursing preparation with the degree granted by the university (COU, 2010; Kirby, 2007). The province of Ontario supported collaboration between the two sectors for several reasons. The most important being that up to that point in time colleges had delivered approximately 70% of the nursing programs (Colleges Ontario, 2010) and needed to “avoid the transition costs and disruption that would result from transferring everything to the universities” (Clark et al., p. 167). Other reasons for the province’s support of collaboration between the two sectors were concerns related to “human resources, physical capacity of the universities to accommodate the number of students and graduates that were required; adequate space and costing of creating new space; and geographical access to programs” (Thompson, 2007, p. 50).

Thus, the government made clear that it preferred that universities and colleges work together to deliver collaborative baccalaureate programs where part of the curriculum was delivered by the university and part by the partner college. The government also announced funding arrangements to encourage the development of and provide guidelines for the programs (Clark et al., 2009). Colleges were advised that if they wished to continue to prepare nursing graduates that they would now be required to find a university partner with whom to collaborate (Kirby, 2007). Universities were advised that they would be ineligible for “funding for growth
unless they were in a partnership with a college” (COU, 2010, p. 2). By 2005 when the new requirement for nursing regulation took effect, 22 colleges and 12 of the 14 Ontario university nursing schools were participating in collaborative programs (Clark et al.). A few universities, for example, the University of Toronto, continued to offer stand-alone programs.

Kirby (2007) explained that the collaborative programs were designed “following one of three delivery models - articulated, integrated, or hybrid” (p. 35). In the articulated and hybrid models the first part of the program is delivered by the college partner and the remaining years delivered by the university. Students in the integrated program may or may not move back and forth between institutions. In a study of collaborative nursing programs in Ontario, Thompson (2007) described six types of collaborative baccalaureate models:

1. Concurrent agreement: Learners take courses from both institutions at the same time and they may receive credentials from both organizations.

2. Consecutive agreement: After completing credential at the sending organization, the learner completes additional credential at the receiving organization. Often this type of agreement is referred to as an articulation agreement.

3. Degree-completion: Learners complete a block of courses at the sending organization leading to completion of a credential at the receiving organization. In some jurisdictions, this is also called an articulation agreement.

4. Joint-programming: The curriculum is jointly planned, designed and delivered by both the college and the university faculty. All years of the program are delivered at each partner’s site. Learners complete their program of study at one institution and receive one credential.
5. Integrated program: The curriculum is jointly planned, designed and delivered by both the college and the university faculty. Professors are cross-appointed, and the learners have the option to move between institutions to complete their program of study. Learners receive one credential.

6. Hybrid program: The curriculum is integrated and jointly planned, designed and delivered in part by both the college and the university faculty. Faculties teach within their own institutions and generally the learners complete a portion of their studies in the college setting prior to moving to the university to complete their program of study. Learners receive one credential. (p. 80)

While there are many approaches to institutional collaboration (e.g., Kirby, 2007, Thompson, 2007; Zorzi et al., 2007), most collaborative baccalaureate nursing models require that students transfer at some specified stage from the college(s) to the partner university to complete the program. Cameron (2003) found that more than half of nursing students enrolled in Ontario collaborative nursing programs are required to transfer.

Statement of the Problem

This study is situated within prelicensure collaborative baccalaureate nursing programs in Ontario, with a focus on teaching practices and course content in online teaching in this discipline. While it is the discipline and not the collaboration itself that is the focus of this study, I would be remiss not to discuss issues of inter-institutional collaboration as it impacts online learning. Because baccalaureate nursing education in the province of Ontario is overwhelmingly delivered in collaborative programs, inter-institutional challenges may compromise online learning in these programs. Therefore, this discussion will begin with a highlight of the
challenges of inter-institutional collaboration followed by a presentation of the challenges associated with online learning in the discipline of nursing.

**Inter-institutional collaboration.** Challenges inherent in inter-institutional collaboration are multi-dimensional and intersecting and may include differing perspectives on curriculum issues and program changes that stem from the differing missions of the colleges and the universities in Ontario. In her research on collaborative nursing programs in Ontario, Thompson (2007) found that barriers in effective collaboration included the time and effort required of participants to work through these differing perspectives, both initially and ongoing. As in any collaborative relationship, the building of understanding and trust is essential and that may take considerable time on everyone’s part and effort and it is an ongoing challenge.

Challenges that may impact quality that have to be worked out collaboratively are issues around curriculum development; course suitability, sequence and scaffolding of courses in the program, and sharing of resources to ensure appropriate progression and rigour of the program. Although restrictions are not typically placed on course delivery options, decisions regarding modes of delivery such as online, are best made through ongoing and open communication between the collaborative partners. Financial mindfulness must also be on the list of institutional priorities, not only because of risk to reputation but because of the high cost of initial production of online courses and programs, the ongoing revisions needed as the technology becomes more sophisticated, and the costs and methods for ongoing professional development of faculty to ensure that the curriculum is driven by pedagogical decisions rather than the technology.

Thompson (2007) concluded from her research that institutional and financial support were essential to ensuring the long-term success of teaching teams and effective collaborative partnerships. Alternatively, Boggs and Trick (2009) were of the opinion that barriers inherent in
formal partnerships have little to do with finances, but rather, that the challenges institutions face in forming and maintaining college-university partnerships are difficulties in negotiating agreements, lack of support from major stakeholders within the institution, disincentives to share gains, and potential irreversibility of agreements. These multi-dimensional and intersecting challenges may negatively impact the quality of online learning in collaborative baccalaureate nursing programs which is the focus of this study. It is worthy of mention that in 2010, Colleges Ontario (CO) proposed to the government that the current registration regulation be amended “so that new entrants to the nursing profession can hold a Bachelor of Science in Nursing degree granted by either a college or a university” (p. 2). Colleges explained the limitations of collaborative programs in terms of restrictions on access, collaboration costs, and costs to students - suggesting that a range of options are needed to meet the future need for baccalaureate-prepared nurses including stand-alone university programs, stand-alone college programs, and collaborative college-university nursing programs. At this point in time colleges have not been granted permission to offer stand-alone baccalaureate nursing programs.

**Disciplinary Differences.** Discipline-specific differences may impact the quality of online learning, such as the need to ensure that knowledge learning outcomes as well as the professional nursing skills are maximized in online course delivery. I found best practice implementation in this discipline and the suitability of courses for online delivery or not to be an area not deeply explored in the online learning literature. With online learning growing and expanding at such a rapid pace (Allen & Seaman, 2013) it is important to address this significant gap in the literature.

Nursing is a soft-applied profession in which knowledge is constructed and applied, and learning approaches need to be consistent with achieving these standards of learning. Smith et al.
warned that in a practice-oriented field such as nursing, students need to be able to “apply the theory to the patient in that particular situation as they are dealing with people who are having illnesses, health care crises and so on” (p. 101). This makes online learning in this discipline different, with its own unique challenges, when compared to the pure hard-disciplines (e.g., Science Technology and Mathematics), in which knowledge is more linear, and more likely to be commoditized explained Smith, Heindel, and Torres-Ayala (2008) who found that in soft-applied disciplines, such as nursing, “knowledge is constructed and assessment tasks emphasize knowledge application and integration” (p. 158). Their study highlighted the need within the discipline to integrate learning activities which emphasize higher level thinking, such as those involving case studies, written assignments, and discussion boards. While a high level of interaction may be required in any online learning course or program, the type of interaction needed for learning and assessment in the nursing discipline may be more layered and complex. Activities which emphasize higher level thinking require a constructivist approach, and include, for example, case studies, group projects, discussion forms, simulations, and journal writing. Staton emphasized that the “more complex the human task, the more qualitative the feedback needs to be, and the more important interpersonal communication becomes as a part of the feedback cycle to approach mastery” (as cited in Carey & Trick, 2013, p. 47).

Best practices in nursing require a constructivist approach and a high level of interactivity; this approach increases course delivery time (Oncu & Cakir, 2011). Smith (2014) found that online nurse-educators were concerned about scalability of class size and time, attributing increased workload to the “amount and type of communication needed to keep students engaged in online classes, class size, number of sections assigned, and receiving assignments early enough to complete course planning and set up” (p. 190). Lewis and Abdul-
Hamid (2006) identified issues of “scalability” not only of class sizes but also of faculty time, particularly related to “course planning and design, course assessment, and scalability in online instruction” (p. 96). Scalability of time is not always recognized by academic leaders, for example, Allen and Seaman’s (2007) findings of the attitudes of academic deans regarding online learning revealed that only one-third of deans surveyed believed that online delivery required more time of faculty when compared to face-to-face delivery. The University of British Columbia’s cost-benefit study revealed that the first offering of an online course was 75 percent over budget, due largely to the time spent on instructional and administrative tasks (Appana 2008). The lack of recognition concerning time requirements is of concern, particularly in a high stakes practice-oriented field such as nursing.

Although online course development and delivery takes a considerable amount of time compared with face-to-face traditional delivery, scalability of faculty time may present challenges for College faculty who teach online. The Ontario College of Applied Arts and Technology (CAAT) - Academic Collective Agreement 2014-2017 (Ontario Public Service Employees Union, 2014) does not address online teaching. There is no recognition in the Standard Workload Form (SWF) for this mode of delivery in terms of predetermined workload factors for “attributed hours of preparation” and “attributed hours for evaluation or feedback”. While a difference is reflected between the factors for a new course and a repeat course, factors are not in place to reflect differences for an online course. This lack of time recognition for workload may have influenced the types of evaluation and feedback strategies faculty selected for their online courses.

While constructivist-based activities such as essays and projects are more suited to learning nursing course content, faculty may choose, or be asked by administrators (who have
this authority under the Collective Agreement), for budgetary reasons, to use strategies that are less time intensive, such as multiple-choice evaluation, which will significantly impact faculty workload. Appana (2008) advised that “if instructors rely too heavily on multiple choice/true/false or other ‘click the answer’ responses, it may not be sufficient to judge students’ depth of knowledge and their ability to respond in length” (p. 11).

The Council for Higher Accreditation and Accreditation (CHEA) (2002) advised that institutions offering online courses or programs should have the financial capacity to do so, for example, faculty workload should not be impacted. Hartman et al. (2007) cautioned that faculty who will prepare and deliver online courses require professional development, ongoing opportunities to update about evolving technologies, update their courses, and “ongoing efforts to address concerns regarding time commitments, quality, and personal competence” (p. 163).

The authors explained that the University of Central Florida offers a semester-long program in the format of a blended course for faculty members who are transforming their face-to-face courses into the online modality.

In the online environment, nursing educators are concerned about assessment of learning. Smith et al. (2009) point out that educators in the nursing discipline are concerned with “identifying the most effective assessment methods to judge students’ ability to apply their lessons in real-world settings” (p. 98) and would like more options for assessment through testing. In discussing summative assessments, Carey and Trick (2013) explained that online summative assessment has been criticized for focusing on superficial learning, such as recall of facts and basic applications (p. 15). They cited the work of Joordens, Desa, and Pare in explaining that universities are relying on multiple choice assessments of learning because of economic and logistic pressures, and that this form of assessment is problematic because
“multiple-choice tests are not suited to teaching cognitive skills such as critical thinking, analyses based on quality discriminations, and the creation of new perspectives based on a unique synthesis of information” (p. 16). The authors suggested that a key to emerging developments in online learning lies in the potential to “deploy faculty away from activities where high value can be generated by scalable online resources or tools toward activities where interpersonal interaction between instructors and students generates the most value” (p. 26).

Institutions are increasingly pressured to ensure and demonstrate quality and accountability within programs and processes (Chaney et al., 2009; Shelton, 2011). Institutional support is vital to the successful launching and delivery of online courses and programs (Shelton). Good practices must be followed for course and program development, including integrating distance learning pedagogy in course design, development and delivery. Distance education requires a learner-centred approach, which may challenge longstanding practices and traditions of nurse-educators who have come through the traditional educational system (Billings, 2000). The cost of initial production is high, and faculty require an adequate amount of time for professional development in order to understand and maximize online teaching, including course development and delivery (Appana, 2008).

A review of the literature highlights the challenges of online teaching in the nursing discipline. Nursing is a high stakes practice-oriented field, one in which safety is an overriding principle and concern. Nursing involves working with a vulnerable public - often when they are in health care crises. Students need to integrate, apply and adapt their learning in a variety of complex situations. The program needs to ensure that knowledge learning outcomes as well as professional nursing skills and informed judgement are maximized in online course delivery. Knowledge learning outcome mastery requires a constructivist, experiential learning approach
based on authentic assessment with opportunities for critical analysis of complex learning situations. And, “this involves the mastery of functional, knowledge-based intellectual frameworks rather than short-term retention of fractionated, contextual cues” (Barr & Tagg, 1995, p. 22).

Because I found a gap in the literature on online teaching in prelicensure collaborative baccalaureate nursing programs, an exploration of the challenges and strengths in the implementation of best practices of this new form of delivery, and the identification of course content appropriate for online teaching, as perceived by faculty, are warranted. It is important that we understand the current state before further exploration of particular aspects can be engaged in. This understanding was intended to provide insight to supporting successful online course delivery in the programs that are the sites of this study and inform further research into other relevant topics related to specific challenges identified by the participating faculty.

**Purpose of the Research**

The purpose of this study was to gain an understanding of the challenges and strengths faced by faculty who were teaching online content in prelicensure collaborative baccalaureate nursing programs in Ontario colleges. Insights gained from participating nursing faculty as well as from document analysis may provide guidance to decision-makers regarding support of online learning, to what extent and how to ensure successful online course delivery in prelicensure collaborative baccalaureate nursing programs and will provide a starting point for further exploration of challenges identified in this study as they impact online course delivery. Because of the implications for the efficacy and effectiveness of studies to the nursing profession (given its responsibilities for providing hands-on care to vulnerable populations), the findings of this study may be of interest also to other professional programs that face similar challenges.
Institutions agree that “online education is critical to the long-term strategy of my institution” (Allen & Seaman, 2013, p. 16). With online courses and programs growing at a rate of 20 percent a year, and nursing faculty pressed to increase online offerings, the need exists to explore discipline-specific differences with this form of delivery. I did not find this to be an area that was deeply explored in the literature on online delivery; nor did I find much research related specifically to online learning in prelicensure collaborative nursing programs in Ontario colleges and universities. The purpose of this study is to address the gap I found in the literature on this specific topic.

While the findings are not generalizable beyond the participating programs, they may be of broader interest to faculty, curriculum designers and administrators and have implications for program evaluation, collaborative program delivery, and curriculum in other professions. The findings may also be of interest to the provincial government which has made substantial financial investments toward the development of online learning in the province of Ontario (Ministry of Training, Colleges and Universities, 2015).

Significance of the Study

Online delivery of nursing education has been identified as a solution to the need to expand program capacity and increase access to nursing education (Russell, 2015). As nursing programs continue to address capacity with online course delivery, it is essential to ensure quality of online courses and mastery of intended learning outcomes. Russell found, in reviewing evaluation practices, instructional strategies, and outcomes within the context of online nursing education, that evaluation practices were diffuse and superficial. When assessment of the quality of the performance of nurses who are the graduates of such programs is at stake, the consequences can be great for stakeholders. Key stakeholders include students, faculty,
institutions, patients, and society. The current discourse in the profession is that there is increasing pressure to teach nursing courses online and there is a need to determine content that is and is not appropriate for online delivery and how best to do so given the nature of the professional preparation required.

Online nursing courses and programs need to prepare students to develop competencies that are aligned with the College of Nurses of Ontario (CNO) Standards for Nursing Practice. The CNO is the governing body for registered nurses in Ontario and responsible for establishing requirements for entry to practice (CNO, 2017a). The CNO defines a competency as the “knowledge, skill, ability, and judgment required for safe and ethical nursing practice” (2014, p. 4). It organizes 100 competencies under five competency categories - professional accountability and responsibility, knowledge-based care, ethical practice, service to the public, and self-regulation, and advises that “safe and ethical registered nursing practice requires the assessment, integration, and performance of many competencies at the same time” (p. 4). The CNO (2014) further defines individual competence as “the nurse’s independent ability to use her/his knowledge, skill, judgment, attitudes, values and beliefs to perform in a given role, situation and practice setting” (p. 11). For example, one of the competencies of professional responsibility and accountability states that the entry-level registered nurse “recognizes individual competence within the legislated scope of practice and seeks support and guidance when necessary” (p. 5) and, in the ethical practice competency standard “identifies the effect of own values, beliefs and experiences in relationships with clients, and recognizes potential conflicts while ensuring culturally safe care” (p. 9). Regarding these two competencies, online nursing instructors have concerns about their ability to meet the competencies in online courses, for example “teaching people to be culturally sensitive when they come from different cultural
backgrounds with different cultural norms and expectations” (Smith et al., 2009, p. 101), the
types of human relations difficulties that nurses face every day. Being able to meet the standards
of practice competencies in an online course is an important consideration in the determination
of content that is suitable for online courses. When the Standards of Practice are not met, patient
care, and ultimately society, are impacted. In addition to the nurse candidates’ performance on a
standardized written exam, the attestation of the nursing program regarding the demonstrated
competencies of its nursing graduates is a critical element in the decision of the CNO to grant
registration for entry into practice of all nurses.

Along with meeting the nursing standards of practice, graduating students are expected to
meet the college program standard as indicated by the Ministry of Training Colleges and
Universities (MTCU, 2005). A key principle underlying the standard is that “colleges play a
major role in the achievement of economic prosperity in the province of Ontario through the
provision of programs of instruction that prepare graduates to meet the needs of the workplace,
the economy, and society” (p. 2). The standard sets out the “essential learning that a student must
achieve before being deemed ready to graduate” (p. 3) irrespective of the program of instruction.
The college program standard consists of three standards - vocational, general education
requirements, and generic skills. In the nursing program, the vocational skills component is
guided by the standards of the nursing program, as is the general educational component. The
generic skills standard, represented in the Essential Employability Skills (EES) outcomes, is a
requirement of nursing student graduates and is thus embedded into the nursing course and
program outcomes. The skills are presented in six categories – communication, numeracy,
critical thinking and problem solving, information management, interpersonal, and personal. In
making decisions about content and intended outcomes appropriate for online courses, EES need
to be considered. In discussing what is lost in an online learning setting, Arbaugh, Desai, Rau, and Balakuntalam (2010) identified communication, as a ‘clear’ example. The authors discussed the negative impact on online learning on the “development and assessment of oral communication skills, both interpersonal and presentation skills” (p. 49) and the ability to think on one’s feet, which is developed in the spontaneity of classroom discussion.

A further point of consideration relates to the integration of domains of learning—cognitive, affective, and psychomotor to the teaching process, given the applied nature of the nursing profession. In the cognitive domain, Bloom’s taxonomy of educational objectives consists of six classes—knowledge, comprehension, application, analysis, synthesis, and evaluation (Bloom, Engelhart, Furst, Hill, & Krathwohl, 1956). In discussing the cognitive domain, Appana (2008) stressed that “instructors need to be aware of encompassing the Bloom’s (1956) taxonomy while assessing learners online and the skills their students need to demonstrate from each category to reveal genuine learning” (p. 12). Regarding the affective domain, discussed previously under individual competency and the CNO professional and accountability, and ethical standards of practice, Coppola et al. stated the following about faculty who teach online “they need to find different tools to express emotions and develop intimate relationships with students” (as cited in Baran, Correia & Thompson, 2011, p. 426). Given that nursing is a practice-oriented field, consideration must be given to course content and intended outcomes that are possible online in terms of all domains of learning, particularly those which require the integration of knowledge and standard practice competencies in high stakes practice situations.

I found very little research on discipline-specific challenges in online teaching. In one article, in which seven nursing instructors and two instructional designers were interviewed about the challenges of online nursing education, instructors expressed concerns about the use of
appropriate delivery methods and tools to develop nursing courses consistent with national curriculum standards to “help students develop higher-level thinking and skill development” (Smith et al., 2009, p. 101). Smith et al. point out that the challenge of authentically assessing student learning in the online context is a major concern of online nursing instructors because nursing is a human care-giving activity and there is the danger that online courses will be too didactic and theoretical and “not closely related in an authentic way to real nursing (practice) situations” (pp. 100-101). And, they continue to stress concern about “not providing nursing students with online learning experiences that relate to real-world nursing situations, which comprise both high-stake medical and interpersonal elements” (p. 102).

While this study explored some of the issues faculty grapple with in relation to strategies for assessing learning in teaching an online course, that is not the specific focus of this study. Because assessment is an important and complex issue, I recognize that a fuller exploration specifically into that issue is warranted but it is beyond the scope of this study. Before student learning can be credibly assessed, it is essential that we understand the unique discipline-specific challenges faced in the development of course curricula, and best practices in teaching online, are identified. Based on my review of the literature, I found a gap in the research literature related to the exploration of the perceptions of faculty about the relevance of teaching online courses in nursing, which is the focus of this study. This is precisely why this study is warranted as a first step for further research of important variables identified.

In the study by Smith et al (2009) faculty expressed their concerns as follows: “students need to do more than just learn the theory that teaches you how to do it; they have to be able to actually do it”; “assessments must be applicable to real life because nursing is a practice-oriented field”; and “we are trying to teach a profession where human contact is the nuts and bolts of it”
Other participants shared that the number of students enrolled limits the instructor’s ability to grade and provide timely feedback. Finally, most of the online nursing instructors mentioned that due to the lack of immediate real-time interaction between students and instructor and “you don’t have the feedback that is useful from seeing them face-to-face” (p. 101). While participants in that study by Smith et al. were registered nurses (RN) enrolled in an RN to baccalaureate nursing (BN) program, the participating instructional designers and instructors interviewed stressed that core nursing courses are typically not taught online at the undergraduate level.

When the quality of learning is in question, students pay the cost in variety of ways. These costs include, for example, tuition and living expenses, length of time to graduate, and inability to pass the National Council Licensure Exam (NCLEX) following graduation, thus, being unable to practice as a registered nurse. Additionally, students who are unsuccessful may view their time in the course or program from a negative perspective due to decreased opportunities in pursuing other career pathways while enrolled and studying in the program, and financial implications.

Carey and Trick’s (2013) findings suggested that students who are most likely to benefit from online learning are those who are academically prepared and highly motivated to learn independently. Furthermore, Doherty (2006) found that the primary reasons why college students fail or drop a web-based course is lack of time management skills and procrastination. He also found that “web-based courses are more attractive to busy students, who are also more likely to fail or drop the course” (p. 245).

Post-secondary institutions are negatively impacted when students are unsuccessful or fail to persist. When students are not retained, the institution’s bottom line is affected. The
quality and reputation of a course or program can also negatively impact future enrollment. Institutional support is paramount to success in online learning which requires a significant amount of start-up funding, organizational preparedness, faculty time, and selection of self-directed learners (Appana, 2008). As pressure to expand the inclusion of online courses in nursing curricula continues to grow, further exploration of the challenges and strengths of all aspects of this delivery option is warranted to promote success in online learning in this discipline, and to avoid or minimize potential costs to stakeholders. This study seeks to address that important gap.

**Personal Significance**

As a full-time professor who taught second-year students in a prelicensure collaborative baccalaureate nursing program in the college context for 17 years, this study is important to me personally. My teaching experience consists of teaching theoretical Health and Healing nursing courses and mentoring student groups in clinical placement settings. The college in which I was employed, has an explicit goal of increasing online course offerings by 10 per cent annually to an overall target of offering 30 per cent of all courses online by 2020. With this pressure to increase online course offerings, I am interested in understanding more deeply the strengths and challenges of this form of curriculum delivery in the nursing program, particularly related to integrative nursing-based courses.

For the last three years, I have taught Health and Healing theory courses in blended format, the same courses I had previously facilitated in the face-to-face format during the previous 14 years. The health and healing courses are offered across four sections, and in the same format by all teachers. The assignments and examinations are common across course sections. The first course in which I developed and delivered the online classes, I was mentored
by a colleague, who had extensive experience in teaching online. I utilized a variety of activities and approaches including case studies, discussion boards, videos, and quizzes. Students received participation marks, for example, for their contributions in discussion boards and online activities.

I felt somewhat disconnected from my students during the weeks in which online classes were scheduled, and often wondered whether the students understood and integrated the online content, as I did not have this critical feedback in real time as I had with the traditional face-to-face classes I facilitated. The first time I delivered a course in blended format (defined on page xix), student grades were lower in the content areas I delivered online when compared to student grades in my face-to-face courses. As a follow-up to the online course and prior to teaching my next online class, the health and healing team and I consulted with an online designer at the teaching-learning centre. The designer, while assuring us we were on the right track, recommended a few strategies, for example, integrating activities at the beginning of the face-to-face classes that followed online classes with the purpose of bridging student learning between both class formats. Following implementation of this and a few other recommendations, examination results improved to a point of being on par with the content we delivered traditionally.

I think it is important to note that in selecting concepts for the online classes, our team decided on content that was less complex in nature. The team’s experience was that during face-to-face discussions in which students were required to link the online concepts with other more complex ones, a gap in knowledge (of content delivered online) was evident, which impacted students’ ability to make those linkages. Informal feedback from students suggested that they preferred face-to-face classes and found it more difficult to organize themselves to complete the
work during the online weeks. Several students mentioned that they accepted extra shifts at work during this time. All students enjoyed the flexibility, however, some viewed it as a week off.

Informed by my online teaching and learning experiences, anecdotal information from colleagues who teach online, students whom I have taught, and students I did not teach who were taking online courses, I wondered whether specific courses are better suited to online delivery. I also questioned whether consideration should be given to online course sequencing within a program. Several students with whom I spoke advised against offering online courses during the first year of a program, as online learning can be isolating at a time when they have not yet connected face-to-face with other students, and socialization may be more difficult. Also, in prelicensure baccalaureate nursing programs the average age of the students is between 19-25 years. As students socialize into the program and progress from year to year, their level of self-directedness may also progress. This is an important factor to consider because self-directness is important to success in the online course format.

Research Questions

The overall question that motivated this study is: What are the perceptions of participating faculty regarding the nature, challenges and strengths of teaching online course content in prelicensure collaborative baccalaureate nursing programs, and what are the implications for online course delivery?

The specific research questions that drove this study are:

1. What are participants’ perceptions about the quality of their online teaching compared with a) best practice scales, b) traditional classroom teaching, and c) institutional and faculty supports for online teaching?
2. How and by whom are decisions made regarding the nature of the content and learning outcomes that should or should not be developed in the online delivery format?

3. What a) course content and b) intended learning outcomes do participating faculty identify as appropriate or not for online learning? Why or why not?

4. What are the perceptions of faculty regarding the types of assessment strategies that are appropriate or not in the online format? Why or Why not?

Theoretical Framework

Educators must strive to incorporate best practices and philosophies of teaching and learning in the online environment. There is a “tremendous amount of work involved in developing and designing quality learning experiences which incorporate new and technologically enhanced approaches” (Lopes, 2008, p. 18), and best teaching and learning practices. Best practice implementation requires a learner-centred approach and is reliant on institutional commitment, including appropriate accessible and reliable technology, and faculty and students who are feeling supported (Chaney et al. 2009; CHEA, 2002; Meyer, 2002). This study involves an exploration of quality in online education with a focus on the implementation of educational practices in this format, and the following aspects of quality on which effective implementation relies - institutional commitment and faculty support. Billings’ (2000) “Framework for Assessing Outcomes and Practices in Web-Based Courses in Nursing”, with a focus on best practices, captures these concepts and thus is appropriate to guide and inform this study. The theoretical framework informed my study about educational practices in online education and the processes needed for effective implementation of those practices. In addition to Billings’ framework, educational practices were explored further through the lens of constructivism, a learning theory based on construction of knowledge and development of
higher-level thinking. Chickering and Gamson’s (1987) principles of good practice in undergraduate education were used to inform and guide the exploration of this concept. Overviews of Billings’ framework and Chickering and Gamson’s principles are presented below and discussed in more detail in Chapter Two.

Quality of online learning. Chaney et al. (2009) suggested that the enormous growth of distance education is tempered by one overriding question: “How does one ensure that distance education coursework and degrees are of high quality?” (p. 1). Similar concerns are echoed by others (e.g., Little, 2009; Smith et al., 2009). With distance education growing and expanding at such a rapid pace, institutions are increasingly pressured to demonstrate quality and accountability within programs and processes (Chaney et al., 2009; Kuh, Jankowski, Ikenberry, & Kinzie, 2014; Shelton, 2011). Meyer (as cited in Chaney et al., 2007) suggested that “the lack of consistent, agreed-on definitions for what quality is” (p. 3), can be problematic as its meaning can change for different stakeholders such as students, faculty, administrators, instructors.

Despite the lack of consistency in the meaning of quality in online learning, several researchers who compared multiple existing guidelines found commonalities across the guidelines (Chaney et al., 2009; Meyer, 2002; Shelton, 2011). Guidelines compared were, for example, those of The Institute for Higher Education Policy (IHEP) (2000), The Council for Higher Education Accreditation (CHEA) (2002), and Western Cooperative for Educational Telecommunications (WCET) (1995). Commonalities considered important to quality were: institutional commitment (consistently cited as the most important), support and leadership; teaching and learning, with a focus on quality of teaching and pedagogy (e.g., active learning, student-teacher interaction, prompt feedback); faculty support, student support, and course development; technology and evaluation and assessment, and student outcomes; cost
effectiveness; management and planning; and student and faculty satisfaction. Billings’ (2000) “Framework for Assessing Outcomes and Practices in Web-Based Courses in Nursing” encompasses those commonalities and is an appropriate framework to guide this study.

**Billings’ (2000) Framework for Assessing Outcomes and Practices in Web-Based Courses in Nursing.** Billings’ framework consists of five major concepts intended to assess outcomes and practices in web-based nursing courses. The framework is presented in Figure 1.


Because the focus of this study was on educational practices, and more specifically implementation of these practices from a faculty perspective, the concepts of the framework which are most relevant to the focus were used to frame this study. Although all five concepts of
this framework informed this research - use of technology, faculty support, educational practices, student support, and outcomes, only three of these concepts were used as its frame. These concepts are: educational practices (with emphasis on constructivism); faculty support; and use of technology. While ‘use of technology’, was not explored as a separate concept, its elements inform the concept of institutional support, discussed in detail in Chapter Two. It is important to recognize, that because quality is a complex, multi-layered concept, all concepts of quality intersect; this is evident in Billings’ framework and in the quality assurance literature on online education. Further discussion of Billings framework is presented in Chapter Two, including a comparison of concepts of the framework with those of the quality assurance literature.

**Constructivism.** This study is rooted in a learner-centered philosophy. The work of Barr and Tagg (1995) influenced recent literature on teaching and learning with a shift from teacher-centered education to learner-centered education from where the teacher is “the sage on the stage to the guide on the side” (King, 1993, p. 30). Constructivism is based on the belief that learners are active rather than passive in the learning process; knowledge is constructed and created by the learner rather than being given through instruction (Barr & Tagg). Constructivism is often articulated in sharp contrast to the behaviourist model of learning which focuses on students’ efforts to accumulate knowledge and teachers’ efforts to transmit it. Murphy (1997) explained that behaviourism “relies on a transmission, instructionist approach which is largely passive, teacher-directed and controlled” (p. 6) with an emphasis “observable, external behaviours, and, as such, avoids reference to meaning, representation and thought” (p. 7).

Within the constructivist paradigm, the role of the constructivist is as a “designer of learning methods and environments” (Barr & Tagg, 1995, p. 17), providing learning environments that offer maximum learner control and learning opportunities such as real-world,
case-based environments that are meaningful to the learner (Huang, 2002; Lopes, 2008). The
constructivist must be cognizant that learning is affected by the context and the beliefs and the
attitudes of the learners and all learning is “seen through the conceptual framework of the learner
and new learning must be fitted into this framework” (Lopes, p. 16). Dewey, the well-known
educational philosopher, punctuated the important role of educators in students’ learning
suggesting that a primary responsibility of educators is in “shaping of actual experience” (1938,
p.40) as some experiences may be mis-educative. Ally (2004) explained that in shaping
experiences that are educative, the facilitator must apply principles foundational to
constructivism: learning is an active process; learners construct their own knowledge;
collaborative and cooperative learning is encouraged; learning must be meaningful and
contextual; learning should be interactive to promote higher-level learning; and learners should
be given time and opportunity to reflect. These principles are supported by other scholars (e.g.,
Barr & Tagg, 1995; Huang, 2002; Mayes, Luebeck, Ku, Akarasriworn & Korkmaz, 2011).

Constructivism, is an appropriate theoretical concept to frame this study because it is
rooted in a learner-centered approach which emphasizes construction of knowledge and higher-
level thinking. Chickering and Gamson’s (1987) principles of good practice in undergraduate
education support a constructivist approach and their seven principles of good practice in
teaching and learning framed this concept. These principles and their foundations that underpin
them guide this research. Chickering and Gamson emphasized that good undergraduate
education: (1) encourages contact between students and faculty, (2) develops reciprocity and
cooperation between students and faculty, (3) uses active learning strategies, (4) gives prompt
feedback, (5) emphasizes time on task, (6) communicates high expectations, and (7) respects
diverse talents and ways of learning. In their work Chickering and Ehrmann (1996) explained how the seven principles may be applied in online education, using technology as a lever.

**Chickering and Gamson’s (1987) Seven Principles of Good Practice in Undergraduate Education.** The seven principles outlined by the authors, further described in Chapter Two, support a constructivist approach to learning and these principles and the substance that underpins them guide this research. Chickering and Gamson’s principles of good practices are substantiated by the following works including - Barr and Tagg (1995); Billings’ (2000) concept of educational practices; Garrison, Anderson, and Archer’s (2000) concept of presence in Community of Learning model; and theories of quality from the distance learning literature (e.g., Chaney et al., 2009; CHEA, 2002; Phipps & Merisotis, 2000).

**Conceptual Framework**

A conceptual framework is the system of concepts, assumptions, expectations, beliefs, and theories that support and inform the research (Miles & Huberman, 1994). It “explains, either graphically or in narrative form, the main things to be studied—the key factors, concepts, or variables—and the presumed relationships among them” (p. 18). The conceptual framework developed to guide this study focuses on best practice implementation in online course delivery. The framework, presented in Figure 2, is supported and informed by the online education literature and based on two existing frameworks - Billings (2000) “Framework for Assessing Outcomes and Practices in Web-Based Courses in Nursing”, with a focus on best practices, and Chickering and Gamson’s (1987) “Seven Principles of Good Practice in Undergraduate Education.”
Chickering and Gamson’s principles are rooted in best practices and the promotion of higher-level thinking and will be used as a framework to further inform and guide the exploration of best teaching practices through the lens of constructivism, a learning theory based on construction of knowledge and development of higher level thinking. Finally, ‘institutional support’, also a concept of this framework is informed by the concepts of Billings’ framework ‘use of technology’, and ‘student support, and faculty support’; and the distance education literature, particularly the CHEA guidelines, further discussed in Chapter Two. It is worthy of
note that while the outcome ‘Learning and Preparation for Real-World Work’ is depicted in this framework, it is not a concept of exploration (as the focus is not on outcomes) but instead is included to demonstrate the outcomes that are possible when best practices are implemented.

A depiction of the linkages between the research questions and the concepts of focus is demonstrated in Figure 3 below.

Figure 3. A representation of the relationships between the research questions and the concepts of focus. © Copyright 2016 Micki Marilyn Puksa.

Scope and Limitations of this Study

The study is an exploration, not an evaluation, of online teaching in prelicensure collaborative baccalaureate nursing programs in the province of Ontario to gain a deeper understanding of the challenges and strengths faculty face in implementation of best practices in this new form of delivery. Given the applied nature of the nursing profession, it is reasonable to assume that the online delivery of an entire program of study in this discipline is not appropriate. However, delivery of some of the content in an online format is feasible. For this reason, this study focuses on the online delivery of courses, not programs.
It is crucial that we first understand the unique challenges in best practice implementation and the development of course curricula in this discipline before exploring critical issues, such as valid and reliable assessment of online learning, while I recognize as critically important, it is not the focus of this study. Based on my review of the literature, this is currently not so. This is precisely why this study was warranted as a first step for further research of important variables identified. The understanding gained may provide insights to support successful online course delivery in the programs that are the sites of this study and may inform further research into other relevant topics related to specific challenges identified by the participating faculty.

**Summary of Chapter One**

This study is situated within the profession of baccalaureate nursing education, with an exploration of the challenges and strengths faced by this profession specifically related to best practice implementation in course based online learning, as perceived by nursing faculty. The aim of this study was to explore the challenges and strengths of online teaching in prelicensure collaborative baccalaureate nursing programs. The perceptions of nursing faculty were explored, and a documentation analysis completed to gain a deeper understanding of online learning in this profession. Billings’ (2000) Framework for Assessing Outcomes and Practices in Web-based courses in Nursing was used to frame the study. Constructivism as a learning theory also informed the study and it was grounded in Chickering & Gamson’s (1987) seven principles for good practice in undergraduate education. These frameworks and the literature on quality assurance distance-education informed the research questions and interpret the findings.

Chapter One provided an overview of the study. The chapter began with the purpose of the study followed by the background of the problem, the statement of the problem situation, and the purpose and rationale of the research. The research questions, theoretical and conceptual
frameworks, scope and limitations of the research were outlined. The next chapter provides a review of the literature.
Chapter Two: Literature Review

Chapter Two consists of the review of the relevant literature. It begins by situating the review within this study and clarifying several points. Next, an overview of online learning in post-secondary education is presented, with perspectives of key stakeholders including institutions, students, and faculty. Theories of quality in online course delivery are then examined, including recommended quality indicators and benchmarks. The concepts of focus are next reviewed followed by the theoretical framework that will ground the concepts - Billings’ (2000) “Framework for Assessing Outcomes and Practices in Web-Based Courses in Nursing.

Constructivism, the learning theory is next reviewed, followed by a review of the concept of ‘interaction’, a key element of constructivism. Chickering and Gamson’s (1987) “Good Practices in Undergraduate Education”, which is rooted in constructivism and best practices, and were used to further explore this concept is then presented. The concept of assessment is next reviewed, followed by disciplinary differences. To situate the study, nursing education in Ontario through collaborative baccalaureate programs, and challenges of inter-institutional collaboration, are then presented. Finally, the scope and limitations of the literature are included.

Overview of Online Learning: Terms, Definitions and Context

For the purpose of situating and contextualizing this review, several points of clarification are necessary. First, although the topic of online learning is well established in the distance-education literature, the term is often used synonymously with following terms distance learning, distance education, online education, and elearning (Russell, 2015). Because of the diverse use of terminology (Carey & Trick 2013; Lopes & Dion, 2015; Russell, 2015) researchers have called for more consistency in its use to reference this topic. Although
online learning is the term used in this study, other variations of the term may be used to reflect those used by the authors across the studies reviewed.

The second point of clarification relates to variations in the definition of online learning. For the purpose of this study, Allen and Seaman’s (2013) definition will be used. The authors defined online learning in terms of three online course types, with each expressed relative to the portion of course content delivered online - web-facilitated with 1% to 29%; blended or hybrid with 30-79%; and online with at least 80% of content delivered online.

A third point of clarification is that in addition to the online course types (web-facilitated, blended, online) as previously described, courses may be offered asynchronously or synchronously. In my review of the literature I found the overwhelming focus was on asynchronous delivery. This is likely because students enjoy the flexibility that this form of delivery affords, as interactions do not depend on time and place (Billings & Halstead, 2015), for instance, data captured in a student online survey between Sept 30, 2015 and August 8, 2016 revealed that 90% of students would choose online over in class because “it allows me to have control over the time and place I learn”, and 78% said they would “participate in online courses to accommodate work and other activities” (eCampusOntario, 2016, p. 4). While the specific approach to online course delivery was noted across the studies reviewed, emphasis was on the more salient findings of best practices in online learning as is common with both approaches. Billings and Halstead (2015) emphasized that “regardless of the type of online course the faculty is teaching, it is important to remember that it is the use of educational practices….that ultimately determine students’ satisfaction with the learning experience and the attainment of intended outcomes” (p. 360)
Finally, in reviewing the literature, I observed that online ‘courses’ and ‘programs’ are discussed and referenced in the same articles and at times interchangeably. As a point of clarification, the focus of this study is on course delivery, not program delivery, as the ‘prelicensure’ baccalaureate collaborative nursing program, could not be offered entirely online. Additionally, the deeper focus is on best practices and the concepts upon which best practice implementation relies. Because many of the supports needed for best practices are the same for courses and programs (institutional support, constructivism, faculty support, use of technology), in this review, ‘programs’ may be referenced within the discussion of those contexts. Such contexts are - growth of online learning, global and institutional perspectives, best teaching practices, and institutional infrastructure where aspects such as technology, student and faculty support are required for course or program delivery.

**Overview of Online Learning: Perspectives of Stakeholders**

Online courses and programs continue to grow each year with the “proportion of all students taking at least one online course is at an all-time high of 32 percent” (Allen & Seaman, 2013, p. 4). The advantages that online learning affords, such as increased access and flexibility, are attractive to key stakeholders because online learning is not restricted to time and place (Billings, 2000; eCampusOntario, 2016; Hartman et al., 2007). With the accelerated growth of online learning, concerns of quality have been expressed. For example, Little (2009) explained that “nurse educators and students have been expressing concern about the quality of online education for more than a decade” (p. 381). Meyer (2002) theorized that quality is a “complex and difficult concept as it depends on a range of factors arising from the student, the curriculum, the instructional design, technology used, [and] faculty characteristics” (p. 101). Perspectives of key stakeholders highlight the advantages and challenges of online learning.
Global perspectives. Globalization is the context of economic and academic trends that are part of the reality of the 21st century, including the use of information technology, which allows providers to offer academic programs through e-learning. Altbach and Knight (2007) defined globalization as the “economic, political, and societal forces pushing 21st century higher education toward greater international involvement” (p. 290). The authors explained that global capital has, for the first time, heavily invested in knowledge industries worldwide, including higher education and advanced training.

Ossiannilsson and Landgren (2012) explained the future of distance learning will be “reoriented along paradigms of collaboration and connectivity, and networking, globalization, sustainability, student involvement, and lifelong learning will become key elements in this process” (p. 50). They cited Ehlers and Schneckenburg, who argued that the drivers for change to technology based-teaching and learning are found among several groups including students, teachers, the university administration, the government and civil society.

Post-secondary institution perspectives. Institutional motives that are driving the interest in online learning stem from several interests, including the need to respond to student demands of increased access and flexibility and the desire to the capture the online learning market. Greenberg explained that “universities are indeed businesses, and if they are to compete in the ever-growing competitive online higher education market, they need to take a close look at their culture and processes” (as cited in Puzziferro & Shelton, 2008, p. 2). Friedman & Friedman (2011) advised that money is tight, and colleges need students and suggested that “academe will have to learn to be more productive and move from a brick and mortar approach to a click- and-mortar approach” (p. 160), for example, by offering more online and hybrid courses, less space will be required. Skiba et al. (2008) explained that web-based programs provide campuses with a
means of accessing “different populations, transcending barriers of time, geography, and physical space” (p. 4). In terms of cost, Baumol (1993) argued that in labour-intensive industries such as the performing arts and education, there is less opportunity than in other sectors to increase productivity by scaling, since "human touch is crucial, and are thus resistant to labour productivity growth" (as cited in Harrison, 2016, p. 23).

Institutions recognize the significance of online learning to the post-secondary education landscape. This is evident in a survey by the USA-based Babson Research group in which sixty-one percent of administrators in US based institutions shared that online learning was critical to the long-term strategy of their institutions (Allen & Seaman, 2013). Since 2004, The Babson Research group has annually surveyed Chief Administrative Officers at thousands of USA higher education institutions to gather information on trends in online learning and the attitudes of these administrators. The research group also found that the growth rate from 2013 to 2014 of the number of students taking at least one online course was up 3.9% from 3.7% for the previous year (Allen & Seaman, 2016). At the provincial level, several reports demonstrate that online learning is a strategic priority at many post-secondary institutions. A quantitative survey undertaken by the province of Ontario in 2010 to determine all online activities of universities and colleges showed that, of those institutions participating, 14 universities had specific eLearning plans, and eLearning was part of the overall strategic plans of 18 institutions (Harrison, 2016).

In another source, results of aggregated data from Multi-Year Accountability Agreement (MYAA) annual reports in which Ontario universities are required to share quantitative data on eLearning activity indicated “enrollment increases of 14.4% and 11.9% in 2012 and 2013 respectively, suggesting a more rapid growth than the 7.2% for public four-year institutions
noted in Allen and Seaman’s US report for the same period” (Harrison, 2016, p. 110). The author explained that from 2011-2013 the enrollment growth averaged 13.14% per year, while the increase in number of course offerings averaged 5.4% per year during this same period. A national report by Educonsillium in 2015, for Global Affairs Canada, indicated that each Ontario university, on average, offered 123 online courses across undergraduate and graduate programs with 6908 students registered in those courses (Harrison, p. 110). The launching of eCampusOntario by Ontario Ministry of Training, Colleges and Universities (MTCU) in 2015 with a financial commitment of 75 million dollars to its creation and development is further evidence of the significance of online learning to the post-secondary landscape.

The College in which I am employed, has a goal of increasing online course offerings by 10 per cent annually to an overall target of offering 30 per cent of all courses online by 2020 (Georgian College Academic Plan, 2014-17). The stated rationale is that technology-enabled learning will “offer students increased access, more flexibility and expanded options….allow them to study where, when, and how they want….and in ways that allow students to balance their work, family, and other life commitments” (p. 12). At the same time, its strategic enrollment management plan emphasizes attracting, engaging and supporting students, with a commitment to enhancing student access, recruitment and retention (Georgian College Academic Plan). Retention strategies include, for example, the provision of integrated student support through holistic advising and using predictive analytics to demonstrate strategies for increased student retention, success and graduation (Georgian College Business Plan, 2018-2019).

A disadvantage of online education that is worthy of note relates to the possible inequity in student admissions, for example, are institutions more likely to admit international students over domestic students or a higher number because the tuition is higher than it is for domestic
students? Publicly funded institutions need to strike the right balance in terms of student admissions. For example, “some US public institutions with an international reputation (and hence competitive selection) face conflict with the local community as international students are seen as taking places off the state students” (Muche, Kelo, & Wachter, 2004, p. 54). These institutions have responded by making admissions criteria higher for international students than for nationals.

**Student perspectives.** The stated most significant force driving the tremendous interest in e-learning is student access (Billings, 2000; Hartman et al., 2007; Skiba et al., 2008). E-learning reduces barriers related to geography, class scheduling, work responsibilities, child care, and parking (James, 2010; Potter, 1998), as it “knows no time zones, and location and distance are not an issue” (Ally, 2004, p. 5), thus providing flexibility to students who cannot attend traditional face-to-face classes (Billings, 2000). Whether delivered asynchronously or synchronously, online delivery offers students the benefit of access.

In **asynchronous** learning, students log onto the Web and access lessons whenever it is convenient for them, whereas, in a synchronous classroom, students log onto the Web at the same (in real) time and are able to communicate with the instructor and each other using chat facilities or audio/video links” (Appana, 2008, p. 10). Because asynchronous delivery provides students with access to lessons at any time, students enjoy the convenience and flexibility that this approach provides as it transcends time zones, class scheduling, work responsibilities and child care. Bates (2013a) explained that “over a very broad range of circumstances, learners will on balance benefit more from asynchronous technologies because of the extent to which they can control the pace and place of learning, and this is of particular significance for distance and/or lifelong learners (p. 3). The author further explained that for both e-learning and distance
education - a major use of the web is asynchronous because materials can be accessed at any time by learners, and teachers do not have to be present while students are learning (Bates, 2005).

Several disadvantages exist with both approaches. Appana (2008) made clear that asynchronous classes prelude getting immediate feedback and students may feel the need for more immediate responses to their questions and submissions. In synchronous learning, students may not sign in at the same time, and if their participation is necessary, this could upset the entire lesson or be disruptive if signing in late. Time zones may also make synchronous delivery challenging, and instructors should be cognizant of where students live and work for they may well have work, family, or other conflicting commitments.

Potter (1998) profiled students who were enrolled in credit course(s) by distance at three Canadian universities, University of Victoria, University of Manitoba, and Memorial University of Newfoundland and found that of the 225 students profiled, three-quarters were aged 25-50 (older students), primarily studying on a part-time basis, while younger ones were largely enrolled on a full-time basis. Distance students were largely married with children and employed, with approximately 6 in 10 working on a full-time basis. Almost two-thirds of participants lived at least 50 kilometers from a university, with 44 percent residing more than 200 kilometers, reporting that distance education “was the only option available to them for participating in post-secondary education” (p. 64).

Hartman et al. (2007) explained that Online @ UCF, an online learning initiative at the University of Central Florida, was conceptualized from the onset as an “institutional response to the need for increased access to higher education in a rapidly-growing region…and viewed as an
opportunity to increase student engagement and learning outcomes…and improve efficiency in using the university’s scarce classroom resources” (p. 157).

Alexander, Polyakova-Norwood, Johnston, Christensen, and Loquist (2003) presented a case study of how three schools of nursing collaboratively developed and implemented an online asynchronous undergraduate-nursing course and highlighted the challenges that were encountered by faculty and students. Online students rated the course lower than students taking the course using other delivery methods. Students liked the convenience and flexibility of taking the course asynchronously, for example, working from home, as it fit their particular schedules, however, many had unrealistic expectations about the time required to take an online course. In addition, some of the students found the new pedagogy a difficult transition from the traditional classroom environment.

Appana’s (2008) findings also supported student desires for increased access and flexibility. In reviewing the literature on the benefits and the limitations of online learning in the context of the student, the instructor and the tenured faculty, the author found that benefits of this form of delivery included increased access, better preparation of students for a knowledge-based society, opportunity for “lifelong” learning, and profit making. The flexibility of online learning was “clearly of great value to many mature adults trying to balance work, family and study requirements” (p. 12). Limitations included start-up funding, organizational preparedness, and student readiness.

Another advantage of online is that students have more time to interact with the material. Regarding learning outcomes, Billings (2000) explained that critical thinking and creativity are promoted in web-based courses. Web-based courses also have the “capability of creating options for learning, eliciting and promoting respect for diverse options, and bringing individuals and
groups with varying cultural backgrounds into the course” (p. 64). She explained that students come to classes from diverse cultures with diverse ways of knowing, and with varying learning abilities, styles, and interests (p. 64). Billings cited Todd who found that “students who had learning disabilities made significant contributions to the discussion in a way they had not in a classroom and, thus she was able to give them additional feedback” (p. 64).

**Student-related concerns.** While distance education has reduced, and removed barriers related to access (James, 2010) and increased student flexibility (Appana, 2008; Chaney et al., 2009; Michael, 2012; Potter, 1998), it comes with potential drawbacks. Students have unrealistic expectations about the time required to take an online course and find the new pedagogy a difficult transition from the traditional classroom environment (Alexander et al., 2003; Mayes et al., 2011). Billings (2007) warned that “e-learning required a substantial time commitment….it’s not easier than the traditional classroom approach and it requires just as much time” (p. 37). Mayes et al. suggested that to ensure success in the online environment the instructor must communicate clear expectations regarding role adjustment, time requirements, and assignment and course expectations prior to and at the beginning of the course.

Doherty (2006) examined four factors affecting retention in web-based community college courses and found time management a concern. Time management and procrastination were the primary reasons why college students failed or dropped a web-based course. Interestingly Doherty also found that “web-based courses are more attractive to busy students who are also more likely to fail or drop the course” (p. 245). Lack of contact with the instructor was also a concern of students in that “they were not able to get answers to questions or enough help from the instructor as they could in a face-to-face class” (p. 253). Parker (2003) identified self-motivation and self-direction as learner characteristics that are essential to online success (as
cited in Mayes et al. (2011). The authors explained that “for some adult learners, the self-discipline and self-pacing inherent in distance learning can be a drawback” (p. 152). Billings (2007) cautioned that students learn in different ways; some prefer a classroom where the instructor guides learning, while others are more self-directed. She warned that self-discipline and good time management skills will help students cope with online work. Allen and Seaman (2013) reported that the percentage of academic leaders who believe that online students need more discipline increased from just over 80 percent in 2007 to 88.8 percent in 2012.

Assessing student readiness for online learning is an important consideration to determine their readiness to work in an online learning environment. The Council of Ontario Universities (2014) cited Penn State University in discussing a shift over the past decade away from assessing technology readiness to including other factors such as self-direction, cognitive style, social interactions, motivation, learning preferences and study habits. Hung, Chou, Chen, and Own (2010) explained that having students complete a learner readiness scale prior to course enrollment would help guide them toward more successful and fruitful online learning experiences. And to promote success, the instructor must also communicate expectations of online learning prior to and at the beginning of the course (Billings, 2007; Mayes et al., 2011).

While online learning affords benefits to many, it is important to recognize that it is not a fit for all students. Students who are most likely to benefit from online learning are those who are academically prepared and highly motivated to learn independently (Carey & Trick, 2013). In discussing non-traditional students, the authors explained, that while online learning opens the door to higher education such as with scheduling conflicts associated with heavy work and family responsibilities, the literature should make us “cautious about assuming that these
students will be the primary beneficiaries of fully online education…most of these students may be most in need of the academic and personal supports that traditional campuses provide” (p. 45).

**Faculty perspectives.** Faculty enjoy many of the same benefits as students including the flexibility that online delivery affords, however, faculty are concerned about the scalability of class size and time with this form of delivery (Lewis & Abdul-Hamid, 2006; Smith, 2014; Todd, 2009). In addition, nursing faculty are most concerned about assessment with this format (Smith et al., 2009). Scalability of class size and time will be discussed in this section and assessment reviewed in the next section.

**Class size.** Smith (2014) used a qualitative approach to explore nursing faculty perceptions of teaching online. Ten experienced nursing faculty were interviewed about their experiences of teaching web-based nursing courses asynchronously in undergraduate baccalaureate and graduate programs. Online nursing faculty were concerned with workload expressing that they worked six to seven days a week, and well into the evening hours. They attributed the increased workload to the “amount and type of communication needed to keep students engaged in online classes, class size, number of sections assigned, and receiving assignments early enough to complete course planning and set up” (p. 190). An interesting finding was that faculty adjusted their course assignments so that the work was more manageable for both themselves and students. Although some participants saw online teaching as an opportunity, others did not, suggesting that class size “drives pedagogy, rather than pedagogy driving class size” (p. 191) and regarding online teaching some participants expressed, “[I] really had no choice; course went online, so if I wanted to teach the course, I had to do it online; and, I was told I had to do an online class” (p. 191).
Class size may also impact best practices. In an exploratory-descriptive study in which Burruss, Billings, Brownrigg, Skiba, and Connors (2009) examined class size in relation to the use of technology, educational practices, and outcomes in web-based courses they found differences by class size in peer and student-faculty interactions. In the largest class size, there were significantly fewer peer interactions than there were in the other classes. The sample consisted of 265 undergraduate students and 863 graduate students enrolled in fully web-based courses in which the class sizes were defined as very small (1-10 students), small (11-20 students), medium (21-30 students), large (31-40 students), and very large (41 students and more). Undergraduate students perceived there was greater social presence in medium-size classes than in small classes and graduate students that there was less social presence in medium and very large classes than in small classes. Graduate students often remarked about how unwieldy asynchronous conversations could become in large classes. These findings are significant to best practices because “active participation in learning requires students to engage in a variety of ways to discover and construct their knowledge” (p. 39).

The work of Smith et al. (2009) identified a similar concern by instructors who, in referring to class size and assessment expressed “the minimum is supposed to be thirty, but some instructors will take up 60 to 70 students and say they have to use multiple choice questions to assess the student” (p. 100). Although instructors found that effective assessment methods such as “discussions of case studies, group projects that simulate real-life situations and journals that describe how students apply theory to practice” (p. 102) were alternatives to the assessment issues found in online learning, their ability to use such approaches was negatively impacted by larger class sizes. Similar concerns of online instructors regarding class sizes were found in the literature, for example, in interviewing thirty exemplary online faculty regarding effective online
practices, Lewis and Abdul-Hamid’s (2006) findings supported the need for establishing an optimal class size for online courses. Nursing educators, Cassar and Trapani (2014), in discussing the challenges they faced in delivering a module on evidence-based practice through the use of an e-learning platform, found that “when the size of the group was very large, the resulting discussion was less focused and effective” (p. 15).

**Work and time.** Lewis and Abdul-Hamid (2006) discussed “scalability” not only of class sizes but also of faculty time, particularly related to “course planning and design, course assessment, and scalability in online instruction” (p. 96). Todd (2009) explained that teaching in the online environment requires more time than traditional delivery and in citing Brown’s work shared that online instruction requires 40-50% more effort which is expended in learning the technology and teaching the online course. Baran et al. (2011) found in examining the literature on the roles and competences of online teachers that teachers often feel uncertain and unprepared for the challenges of teaching online and “support and development programs are critical in helping teachers engage in the process of pedagogical inquiry” (p. 436).

Allen and Seaman (2007) in their examination of the attitudes of chief academic leaders toward online learning found that only one-third believed that teaching online courses required more faculty time and effort when compared with teaching face-to-face courses. Academic leaders also believed that online course evaluation was no more difficult when compared to face-to-face instruction. And, that faculty do not accept or value online instruction, a finding that Allen and Seaman (2016) reported has changed very little from year to year – with less than 30% of all academic leaders reporting that their faculty accepted “the value and legitimacy of online education” (p. 26). Allen and Seaman (2007) concluded that while online education was part of the long-term strategy of chief academic leaders, their attitudes regarding the “issues of faculty
acceptance and the time and effort required to teach online may put significant limits on how rapidly their online programs can grow” (p. 138). A recent white paper on “Trends of Online Learning in Higher Education” by the University of Buffalo (2016) explained that faculty acceptance of online learning remains neutral or low due to the “relatively high workload for online teaching, little or no exposure to online learning and lack of institutional supports for faculty who teach online” (p. 5). Heubeck (2008) explained that while “convenience, flexibility, and the potential for enhanced student and professor communication top the list of online education’s pros….professors all say it is more work than they thought it would be….you are really packaging a learning experience” (pp. 30, 31).

**Other concerns of faculty.** In addition to the issues of class size and time, other faculty concerns in the literature were about support from administration (Mitchell, 2009), technical support (Carter; Smith et al.), establishing relationships online (Cassar & Trapani, 2014), instructional design (Baran et al., 2011; Carter, 2008; Smith et al., 2009), plagiarism (Cassar & Trapani), and assessment and evaluation of student learning. With the exceptions of assessment of student learning and instructional design, these issues are not examined separately but instead integrated throughout this literature review. For example, support from administration and technical support are highlighted under institutional support and the frameworks that ground this study.

**Online Teaching Issues in Other Disciplines**

The first Canadian online and digital learning survey, launched in 2017, and operated by the Canadian Digital Learning Research Association (CDLRA) reported the following: “Ontario colleges in particular consider online learning to be very or extremely important to their future” (CDLRA, 2017, p. 26); the rate in growth in online course enrollments in Ontario seemed to be
higher than the national average of 11% with a growth of “25% per annum for Ontario colleges and 20% per annum for Ontario universities” (p. 20), and “online courses can be found in every subject area, with business, education and health being the most frequent” (p. 21). With the expansion of online courses across all programs, an examination of the literature in other health related disciplines would provide insight to similar issues or not in these programs. While a review of the literature in other health related disciplines was beyond the scope of this study, following a scan, I found there was a paucity of research on faculty perspectives of online teaching, with more online education research in medicine and dental hygiene programs. Several articles I found regarding various programs (e.g., physio and occupational therapy, medicine, dental hygiene, radiologic sciences) indicate possible challenges related to time acknowledgement, professional development, and suitability of content.

Unge, Lundh, Gummesson, and Amner (2018) found in their review of the literature on the state of e-learning activities in physiotherapy and occupational education that e-learning activities are not always grounded in a theoretical learning perspective, and teachers may want to “consort with theories that have connectivist connotations…. [for example], to augment conditions for learning as well as for learning space, is through collaboration between the students” (p. 59). In a paper on emergency medicine, Roe, Carley, and Sherratt (2010) described the potential benefits, pitfalls and barriers to adopting e-learning - that e-learning cannot replace traditional face-to-face teaching entirely because the “practical skills, communication, and interpersonal interaction – arguably the core attributes of an effective emergency physician - are almost impossible to teach or assess in an e-learning setting” (p. 100).

In a study by Corum, Gadbury-Amyot, Johnson, and Strait (2014) that involved 287 dental hygiene educators regarding their perceptions of interaction in online courses, the majority
of respondents perceived interaction to be achievable, with discussion board being the most preferred modality. The authors pointed out that the use of discussion boards versus the inclusion of other available modalities may have been related to time constraints and lack of professional development and training in the use of current technology - as respondents identified these issues affected the achievability of interaction. The type of course content which faculty facilitated in this study was not identified.

In a study in which Kowalczyk (2014) surveyed 373 educators in the radiologic sciences to identify perceived barriers to providing online courses, she found that online education was not prevalent in radiologic courses, due to the need for clinical application of the science course content. However, the author identified the following three themes related to identified barriers: (1) information technology (IT) training and support, including the need for faculty development beyond basic IT to include support with appropriate pedagogy and course design; (2) student-related, such as appropriate policies and procedures for online course delivery; and 3) institutional barriers, for example, adequate compensation of time and salary and institutional support for faculty development.

**Theories of Theoretical Models of Quality in Distance Education**

Quality is a complex and difficult concept as it relies on many factors (Meyer, 2002). Chaney et al. (2009) warned that guidelines and benchmarks of quality are essential to guiding the design, implementation, and evaluation of distance education courses and programs. In my review of the literature I found various guidelines and benchmarks of quality, including those of The Council for Higher Education Accreditation (CHEA) (2002), The Institute for Higher Education and Policy (IHEP) (Phipps & Merisotis, 2000), Western Cooperative for Educational Telecommunication (WCET) (1995), Instructional Telecommunications Council (ITO) (1998),
and The Council of Regional Accrediting Commissions (CRAC) (2001). Other guidelines of quality were those of Chickering and Gamson (1987) Seven Principles in Undergraduate Education, Bates Actions Model of Quality (2000), and the American Federation of Teachers (2001). These commonly used guidelines were examined and compared by several researchers (e.g., Chaney et al.; Meyer, 2002; Shelton, 2011), and their findings will be included in this section.

**Quality guidelines compared.** Chaney et al. (2009) conducted a review of the literature with the purpose of identifying quality indicators of distance education instruction, courses and programs. The review consisted of commonly cited quality indicators and benchmarks of quality including by the following sources - CHEA (2002), CRAC (2001), Chickering and Gamson (1987), IHEP (Phipps & Merisotis, 2000), Western Association of Schools and Colleges (WASC) (1997), and WCET (1995). Benchmarks and quality indicators that “all parties deemed important in designing, implementing, and evaluating distance education courses and programs” (p. 1) were - student-teacher interaction; active learning techniques; prompt feedback; respect diverse ways of learning; student support services; faculty support services; evaluation and assessment; strong rationale for distance education that correlates to mission of the institution; clear analysis of the audience; appropriate tools and media; documented technology plan to ensure quality; reliability of technology; institutional support and institutional resources; implementation of guidelines for course development and review of instructional materials.

course structure guidelines.

Shelton (2011) reviewed and compared 13 different recommended guidelines of sources similar to those reviewed by Chaney et al. (2009) including IHEP (2000), CHEA (2002), WCET (1995), and Bates (2000) and found six themes considered integral to quality in distance
education. Beginning with the most frequently cited, the themes included - institutional commitment, support and leadership; teaching and learning; faculty support, student support, and course development; technology and evaluation and assessment; cost effectiveness; management and planning; and student and faculty satisfaction. Interestingly, technology and evaluation and assessment were identified in only 6 of the 13 studies reviewed. Institutional commitment, support and leadership was the theme most frequently cited, with teaching and learning being the second most cited. Although the author’s intent was to review paradigms for evaluating quality in online education programs she found that the literature focused far more on quality of teaching and pedagogy than on program quality with most authors writing about courses rather than programs. Shelton suggested the need of a common method for assessing quality as specific indicators vary from institution to institution.

Meyer (2002) also compared major sets of guidelines. In a chapter of her book entitled *The Pursuit of Guidelines*, Meyer discussed and compared five major sets of guidelines from different organizations, including WCET (1995), CHEA (1998), IHEP (Phipps & Merisotis, 2000), ITC (1998), and CRAC (2001). In addition, she compared Chickering & Gamson’s (1987) seven principles of good practice to the guidelines. Meyer found that CHEA had more standards focusing on the assessment of student learning while IHEP had more standards focusing on the teaching and learning process. The ITC had a greater number of standards on facilities and technology. Meyer suggested that each set of guidelines had some good standards not found in others and the best choice may be a combination of these standards, choosing and selecting those that fit. In discussing quality, she suggested “focusing predominantly on student learning and augmenting it with those variables that contribute to learning” (2002, p. vii).
Council for Higher Education Accreditation (CHEA). This is a private, non-profit national organization that coordinates accreditation activity in the United States. The organization represents more than 3,000 colleges and universities and 60 national, regional, and specialized accreditors (2002). In a national review of distance learning in which CHEA collected data from eight regional and nine national recognized institutional accrediting organizations about distance learning in their accredited institutions, CHEA found that all 17 accrediting organizations routinely review seven key areas of institutional activity when examining quality in online learning. The areas routinely reviewed were (1) “institutional mission, (2) institutional organizational structure, (3) institutional resources, (4) curriculum and instruction, (5) faculty support, (6) student support, and (7) student learning outcomes” (2002, p. 7). CHEA addressed three major areas that present challenges to accreditation in distance learning offerings - alternative design of instruction, alternative providers of higher education, and expanded focus on the remaining.

To provide background on accrediting organizations from which data were collected - the 17 organizations reported accrediting 5,655 degree-granting and non-degree-granting postsecondary institutions in the United States, of which 1,979 offered a form of distance-delivered programs or courses. Eighty-eight percent of students who attended colleges and universities in 2001 were enrolled in institutions accredited by one of the eight regional organizations.

The Institute for Higher Education and Policy (IHEP). This is a non-profit organization whose mission is to foster access and quality in postsecondary education. Its activities are designed to promote solutions to complex issues facing higher education, including, research and policy analysis, policy formulation, program evaluation, and strategic planning and
implementation. Phipps & Merisotis (2000) reported on their findings of a study in which they examined previously established IHEP benchmarks for success in internet-based distance education. Of the original 45 benchmarks compiled from a comprehensive literature search, 24 were chosen as absolutely essential by various respected online education leaders of higher education. The 24 benchmarks were categorized under seven areas – institutional support; course development; teaching/learning; course structure; student support; faculty support; and evaluation and assessment. For example, a benchmark for evaluation and assessment stated “intended learning outcomes are reviewed regularly to ensure clarity, utility, and appropriateness” (p. 3), and for teaching and learning that “student interaction with faculty and other students is an essential characteristic and is facilitated through a variety of ways…” (p. 2).

Of the 10 original benchmarks for teaching and learning, four were deemed not essential to quality and were removed (Phipps & Merisotis. 2000). Two of these four benchmarks were - “courses are designed to require students to work in groups utilizing problem-solving activities in order to develop topic understanding” (p. 24), and “course materials promote collaboration among students” (p. 24). Although the benchmark concerning collaboration was removed, its importance was addressed in the following statement, “the decision to design collaboration in a specific course should be based upon several factors, including the difficulty of the content, course level, subject matter, and maturity of the students” (Phipps & Merisotis, p. 24).

The American Federation of Teachers (AFT). The 2001 guidelines for good practice were based on survey results of 200 members and focused on standards for distance education courses, which related to the following areas – granting college credit; the appropriate faculty to teach courses and the appropriate supports for those faculty; course requirements; and technical
support. The AFT had concerns about faculty workload and role and the emphasis on standardizing the curriculum and relying too heavily on competencies (Meyer, 2002).

**Bates’ (2000) ACTIONS Model of Quality.** This was one of the first models to address cost factors for students and institutions and although designed to help with the selection of instructional technologies, “each of the themes can be applied to online education” (as cited in Shelton, 2011, p. 3). The acronym ACTIONS is an acronym for Access and flexibility, Costs, Teaching and Learning, Interactivity and user friendliness, Organizational issues, Novelty, and Speed. In choosing technology for distance learning, Bates (2016) explained that “constructivists approach technology for teaching differently from behaviourists - from a constructivist perspective, brains have more plasticity, adaptability and complexity than current computer software programs….making human learning very different from the way computers operate” (p. 55). He warned that following this reasoning, “education would be much better served if computer scientists tried to make software to support learning more reflective of the way human learning operates, rather than trying to fit human learning into the current restrictions of behaviourist computer programming” (p. 55).

In summary, theoretical frameworks and models are essential to the long-term credibility and viability of a field of practice, and essential to “guiding the complex practice of a rational process such as of teaching and learning at a distance” (Garrison, 2000, p. 2). Shelton (2011) warns that as distance education becomes increasingly important to the higher education landscape, there is increasing pressure for institutions to demonstrate quality and accountability within its programs and processes. Guidelines and benchmarks established for distance education reflect the theoretical concepts integral to quality and for which are necessary to guiding the design, implementation, and evaluation of online courses and programs (Chaney et al., 2009).
Evidence threaded through the distance education literature supports the following guidelines and benchmarks of quality - institutional commitment, support and leadership; teaching and learning; faculty support, student support, and course development; technology and evaluation and assessment, and student outcomes; cost effectiveness; management and planning; and student and faculty satisfaction. While all indicators are essential to quality, the focus of this study is on four of those indicators - institutional commitment and support; teaching and learning (constructivism); faculty support; and use of technology. For the purpose of this study, these quality indicators or themes are referred to as concepts. The guidelines and quality indicators of these recognized organizations inform and support the concepts of focus in this study, including the concept of institutional support, which is discussed in a later section.

**Nursing Education Programs and Quality**

In an effort to ensure quality in online nursing education programs, several US based organizations have incorporated criteria for distance education into standards and guidelines. The Alliance for Nursing Accreditation (2007) statement on distance education policies recommended that “all nursing programs delivered solely or in part through distance learning technologies must meet the same academic program and learning support standards as programs provided in face-to-face formats” and this includes the assessment of “overall program outcomes, in addition to specific course outcomes” (as cited in American Association of Colleges of Nursing, 2007, p. 1). The Commission on Collegiate Nursing Education (CCNE) (2014) incorporated distance education into its accreditation standards and developed interpretative guidelines for assessing student support services for distance education (Billings & Halstead, 2015; Little, 2009). In addition to CCNE, the two other professional nursing accreditation bodies, the Accreditation Commission for Education in Nursing (ACEN), and the
Commission for Nursing Education (CNEA) have established standards for distance education programs that state “the expectation that learner outcomes will be evaluated using appropriate methodology and with the same rigor associated with face-to-face courses” (as cited in Billings & Halstead, 2015, p. 362). Regulatory guidelines have also been developed for prelicensure programs by the National Council for State Board of Nursing (NCSBN) Distance Learning Education Committee (Billings & Halstead, 2015).

The Canadian Association of Schools of Nursing (CASN), the national accrediting body for nursing education in Canada, do not make mention of distance education in its standards (CASN, 2014). The College of Nurses of Ontario (2014), the governing body for registered nurses (RNs), registered practical nurses (RPNs) and nurse practitioners (NPs) in Ontario, do not have standards or guidelines in place for distance education.

**Institutional Support**

The guidelines and, more specifically those of CHEA informed my discussion of Institutional Support, a concept of focus in this study. Quality assurance organizations frequently underscore institutional support as integral to quality, many stress it as the most important aspect (Shelton, 2011). CHEA (2002) recommended seven fundamental features of institutional operations as integral to assuring quality in distance learning: institutional mission, institutional organizational structure, institutional resources, curriculum and instruction, and faculty support, student support, and student learning outcomes. The organization also laid out associated indicators for these features, for example, institutional mission indicators focus on demonstration of the need for a distance learning offering in relation to the mission, and the relevance of the distance courses and programs to the mission. These features and the associated indicators informed the concept of Institutional Support. For example, indicators of faculty capacity and
faculty workload are presented under two features, institutional resources and faculty support. A representation of the seven areas and associated indicators is presented in Figure 4. Institutional support was examined from a faculty perspective not an institutional evaluation perspective.

Data will be gathered from faculty, for example, about workload, resources, pedagogical support and technical support. Additionally, data will be gathered from an analysis of documents including mission and vision statements, and strategic plans, and strategic mandate agreements to gleam data about institutional support of online education with the intention to explore the strengths and challenges of online learning, not to evaluate. Thus, not all the CHEA guidelines will be applicable for use in this study, for example, institutional organizational structure and student learning outcomes which are more evaluative of the institution will not be used.

Support at the institutional level is paramount to the successful launching and delivery of online courses and programs (Shelton, 2011). Lewis and Abdul-Hamid (2006) discussed “scalability” not only of class sizes but also of faculty time, particularly related to “course planning and design, course assessment, and scalability in online instruction” (p.96). Best practices in online education require a constructivist approach, and a high level of interaction, which increases delivery faculty time (Oncu & Cakir, 2011). Scalability of class size is important as size impacts level of interaction, the larger the size, the greater the transactional distance (Smith et al., 2008).

Todd (2009) agreed that teaching in the online environment requires more time than traditional delivery and in citing Brown’s work shared that online instruction requires 40-50% more effort, which is expended in learning the technology and teaching the online course. Baran et al. (2011) found that teachers often feel uncertain and unprepared for the challenges of teaching online and “support and development programs are critical in helping teachers engage
in the process of pedagogical inquiry” (p. 436). Academic leaders need to support faculty to ensure best practices occur in online teaching.

![Diagram of CHEA Quality Guidelines in Distance Learning]

**Figure 4.** Representation of quality indicators of Council for Higher Education Accreditation. (2002). Source: Adapted from, Accreditation and Assuring Quality in Distance Learning. *CHEA Monograph Series, 1.*

**Billings’ Theoretical Framework**

For almost 25 years Billings has consistently contributed to the distance education literature with her work on *Benchmarking Best Practices in Web-based Nursing Courses* (Billings, Connors, & Skiba, 2001), and research on student experiences in web-based nursing courses (Seiler & Billings, 2004) including a study of generational differences across undergraduate and graduate nursing students (Billings, Skiba, & Connors, 2005). The American Academy of Nursing, which in 2015 inducted Billings stated, she is “known for her legendary
work to improve how faculty teach and prepare their students to provide safe and high-quality care to patients” (as cited in Yoder-Wise, 2015, p. 427). To receive this highest of distinctions a nurse can attain, one must first become a Fellow - a designation in recognition of consistent and distinctive contributions to the profession (Yoder-Wise).

In 2000, Billings developed the “Framework for Assessing Outcomes and Practices in Web-Based Courses in Nursing” which has since been recommended by researchers for assessing quality in online courses (Little, 2009; Russell, 2015). The framework is consistent with the indicators and benchmarks of quality in online learning found in the distance education literature (Billings & Halstead, 2015; Chaney, 2009; CHEA, 2002; Murphy, 1997), depicted in Table 1, and, is thus, appropriate to ground this study. The development of Billings (2000) framework was guided by a “review of nursing literature about distance education (DE) and the emerging literature from pilot projects and classroom studies of the uses of web-based and web-enhanced courses” (p. 60). The framework was also adapted from models (e.g., Chickering & Ehrmann, 1996; Ehrmann, 1995; Johnstone & Krauth, 1996) that were developed to study the impact of the use of technology in higher education. While the framework enables the assessment of both practices and outcomes, the focus of this study is on ‘Practices’, not on ‘Outcomes’, with the intention of exploring the implementation of best practices in online courses in the program of focus - the intention being to explore, not to evaluate.

The framework, presented in Chapter One (Figure 1), consists of five concepts and associated operational variables, and is intended to provide context for relating to a variety of likely variables. It begins with outcomes that are enabled by web-based (full web courses or web enhanced) courses, and which are influenced by educational practices (e.g., active learning, student-faculty interaction, interaction, collaboration with peers). Billings explained that
effective teaching and learning (educational practices) in distance education courses and programs “are dependent on faculty and student development and orientation for role changes, as well as technical support - thus, the third and fourth components of the model are faculty and student support” (pp. 60-61). Because successful web courses require reliable internet connections and appropriate learning activities (e.g., discussion boards, collaborative learning tools, email) the final component is the use of technology.

Table 1

*Representation of concepts in Billings’ Framework for Assessing Outcomes and Practices in Web-based Courses in Nursing and quality of learning indicators from distance education quality assurance literature*

<table>
<thead>
<tr>
<th>Billings’ (2000) Framework for Assessing Outcomes and Practices in Web-based courses in Nursing</th>
<th>Common Quality Indicators in Distance Education Literature</th>
</tr>
</thead>
</table>
| **Educational Practices**  
Active learning, time on task, feedback, student-faculty interaction, interaction and collaboration with peers, respect for diversity, high expectations  
**Faculty Support; Student Support; Outcomes** | **Teaching and Learning**  
Student-teacher interaction; prompt feedback; respect diverse ways of learning; active learning (CHEA, 2002; Chickering & Gamson, 1996; Garrison et al., 2000; Meyer, 2002; Shelton, 2011) |
| **Faculty Support**  
Faculty development, orientation to technology, ongoing technical support, workload recognition, rewards | **Faculty Support and Satisfaction**  
Strong and ongoing support, training, motivation, compensation, and policy (CHEA, 2002; Chaney et al., 2007) |
| **Student Support**  
Information, orientation to technology, ongoing technical support, learning resources, student services | **Student Support and Satisfaction**  
Student support services; clear analysis of the audience (CHEA, 2002; Garrison et al., 2000; Meyer, 2002; Shelton, 2011) |
| **Outcomes**  
Learning, recruitment, retention, graduation, access, convenience, connectedness, preparation for real world work, computer tool proficiency, professional practice socialization, satisfaction  
**Use of Technology**  
Accessible & reliable infrastructure, use of hardware and software promotes productive use of time  
**Educational Practice Faculty Support; Student Support** | **Institutional Commitment and Support**  
Institutional support and resources; strong rationale for distance education/correlates to institutional mission (Billings & Halstead, 2015; Chaney et al., 2007; Phipps & Merisotis, 2000; Shelton, 2011). Relevance of courses and programs to mission; need for a distance learning offering in relation to mission (CHEA, 2002). Financial capacity to provide program (e.g., not affect faculty overload or cause instability) (CHEA, 2002); Appropriate technology (Bates, 2016) |
Billings framework, while being nursing education focused, consists of five major concepts that are consistent with indicators of quality in the online education literature, depicted in Table 1. The framework is intended to assess outcomes and practices in web-based nursing courses, however, because this study focused on educational practices and, more specifically implementation of best practices from the faculty perspective, and NOT on outcomes, the concepts of the framework which are most relevant to the topic of focus were used to frame this study. Although all five concepts of this framework informed this research - use of technology, faculty support, educational practices, student support, and outcomes, only three of these concepts were used as its frame. Those concepts are: educational practices (with emphasis on constructivism); faculty support; and use of technology. While “use of technology”, was not explored as a separate concept, its elements informed the concept of institutional support, discussed previously. It is important to note that because quality in online education is complex and multi-layered, all concepts of quality intersect, which is evident across those that comprise Billings’ framework and the distance education literature.

**Constructivism**

This study is rooted in a learner-centered philosophy. The distance-education literature consistently articulates teaching and learning (best practices) as an integral indicator of quality and highlights a learner-centred approach as being the most effective in the online environment (Billings, 2000; CHEA, 2002). The learning theory, constructivism, is based on a learner-centred approach and the belief that knowledge is constructed and created by the learner rather than being given through instruction, with learners active rather than passive in the learning process (Barr & Tagg, 1995). This learning theory is consistent with Chickering and Gamson’s (1987) Seven Principles of Good Practice in Undergraduate Education, depicted in Table 2.
Table 2

“Seven Principles for Good Practice in Undergraduate Education” by Chickering and Gamson (1987)

<table>
<thead>
<tr>
<th>Seven Principles of Good Practice in Undergraduate Education</th>
<th>Descriptors</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Encourages contact between students and faculty</td>
<td>• Increasing contact promotes student motivation, involvement, and intellectual commitment</td>
</tr>
<tr>
<td>2. Develops reciprocity and cooperation among students</td>
<td>• Sharing of ideas and responding to others’ reactions, sharpens thinking and deepens understanding; increases involvement in learning</td>
</tr>
<tr>
<td>3. Uses active learning techniques</td>
<td>• Integrating activities in which students are required to talk about learning, write about it, relate it to past experiences, and apply it to daily lives</td>
</tr>
<tr>
<td>4. Gives prompt feedback</td>
<td>• Providing students opportunities to perform and receive suggestions for improvement; students require help in assessing existing knowledge and competence and in reflecting on what they have learned, what they need to learn, and how to self-assess</td>
</tr>
<tr>
<td>5. Emphasizes time on task</td>
<td>• Defining time expectations for students establishes the basis of high performance; time plus energy equals learning; students need help with time management</td>
</tr>
<tr>
<td>6. Communicates high expectations</td>
<td>• Setting high expectations; high expectations are important for everyone including students, faculty, and institutions; expecting more and you will get more</td>
</tr>
<tr>
<td>7. Respects diverse talents and ways of learning</td>
<td>• Providing opportunities for students to show their talents and learn in ways that work for them; then pushing them to learning in new ways that do not come so easily; there are many roads to learning</td>
</tr>
</tbody>
</table>

Thus, Chickering and Gamson’s (1987) principles and the substance that underpins them were used to further explore best practices, through the lens of constructivism, and will be used to ground this research. The literature supports the use of the principles as a framework for assessing best practices in online courses (Billings & Halstead, 2015; Chaney et al., 2009; Little, 2009; Meyer, 2002; Owston, 2008; Puzziferro & Shelton, 2008). The relationships between Billings’ framework and Chickering & Gamson’s seven principles is represented in Table 3.
Table 3


<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Active Learning</td>
<td>Students and faculty actively engage in learning</td>
<td>Uses Active Learning Techniques</td>
</tr>
</tbody>
</table>
<pre><code>                                  | Students - take responsibility for own learning; complete assignments on time; share responsibilities for collaboration; construct own knowledge and meaning; actively participate in discussions or other online learning activities |
</code></pre>
<p>| Time on Task                         | Students spend sufficient time on course-related activities to achieve course goals | Forests Time on Task                                                             |
| Feedback                             | Students and faculty seek, provide, and use feedback to improve learning and connectedness | Gives Promise Feedback                                                           |
| Student-Faculty Interaction          | Faculty and students create learning communities to solve problems; faculty provide access to authentic context and opportunities to explore and solve real-life problems; faculty are accessible both inside and outside of class to discuss personal and professional goals; faculty and students assume responsibility for overcoming isolation or other barriers to meaningful student-faculty interaction | Encourages Contact between the Student and Faculty |
| Interaction and Collaboration with Peers | Students and faculty pose problems, ask questions, discuss, share information and resources to elicit greater understanding for all course members; members assume responsibility for completing collaborative work assignments | Develops Reciprocity and Cooperation among Students |
| Respect for Diverse Talents, Ideas, and Ways of Knowing | Students and faculty demonstrate respect for varying abilities, multiple views, and diverse cultures; options are provided for learning and demonstrating learning | Respects Diverse Talents and Ways of Learning |
| High Expectations                    | There are high expectations and standards for achievement; progress is monitored continuously by students, faculty peers, and experts. | Communicates High Expectations                                                  |</p>

Chickering and Gamson’s principles of good practices are substantiated by the following works - Barr and Tagg (1995); the concept of presence in the Community of Learning model by Garrison et al. (2000); Billings’ (2000) concept of educational practices; theories of quality assurance from the distance learning literature, including existing guidelines such as Council for Higher Education Accreditation (CHEA, 2002); and Chickering and Ehrmann’s (1996) work on how the seven principles may be applied in distance education, using technology as a lever.
Elements of constructivism. Distance education has influenced a pedagogical shift from instructor-centred to student-centred learning, with a “focus not so much on what but how we are learning” (Skiba et al., 2008, p. 3). The roots of constructivism can be traced to the work of Dewey who rejected dualistic thinking (as cited in Garrison, 2011), and whose “ideas were radical at a time when schooling was almost equated with rote memorization” (Cranton, 1992, p. 5). Dewey (1938) rejected the traditional approach to education and described it as imposed “from above and from outside” (p. 18), with learning being the “acquisition of what is incorporated in books and in the heads of elders” (p. 19). “…a diet of predigested materials” (p.46). Dewey’s philosophy informed theories of higher education, including the work of Garrison, Anderson and Archer (2000) in the development of the Community of Inquiry (COI) framework (as cited in Swan, Garrison, & Richardson, 2009).

In the constructivist school of learning, learners are active rather than passive in the learning process, with knowledge constructed and created by the learner rather than being given through instruction (Barr & Tagg, 1995; Billings, 2000; CHEA, 2002; Dewey, 1938; Garrison et al., 2000). Ally (2004) suggested that learning is no longer a one-way instruction, but instead a construction and discovery of knowledge. It is the learner’s interpretation and processing of what is received through the senses that creates knowledge, which exists in the learner’s mind and is shaped by individual experiences (Barr & Tagg, 1995). Interactivity is considered integral to constructivism as it facilities knowledge construction and high-level processing. Anderson (2004) suggested that the values of another person’s perspective, usually gained through interaction, is a key component to constructivist learning theory. Collaborative and cooperative learning should be encouraged to facilitate constructivist learning, which gives learners real-
experience of working in a group and the advantage of sharing strengths and learning from one another (Ally).

A major aspect of constructivism is situated learning, where learning is seen as contextual (Ally, 2004; Dewey, 1938). Learners need to be able to contextualize or situate information, so as to create meaning. If the information has to be applied in many contexts, then learning strategies that promote multi-contextual learning should be used to make sure that learners can apply the information broadly (Ally, 2004). Learning activities that allow learners to contextualize or situate the information should be used in online instruction. In discussing authentic learning, Huang (2002) explained that the “learning environment should provide real-world, case-based environments for meaningful and authentic knowledge” (p. 34).

The facilitator’s role in constructivism-based learning is as a “designer of learning methods and environments” (Barr & Tagg, 1995, p. 17). Dewey’s (1938) work punctuated the important role of educators in students’ learning suggesting that some experiences may be mis-educative and have the effect of arresting or distorting the growth of further experience. A primary responsibility of educators is in “shaping of actual experience” (p. 40). In shaping experiences that are educative, the facilitator must apply principles foundational to constructivism - learning is an active process; learners construct their own knowledge; learners are encouraged to collaborate and cooperate learning; learning must be meaningful and contextual; learning should be interactive to promote higher-level learning; and learners should be given time and opportunity to reflect (Ally, 2004). Those principles were cited by others (Barr & Tagg, 1995; Huang, 2002; Mayes et al., 2011). Gulati (2004) argued that for constructivism to be truly embedded in learning, formal online and offline educators need to realize the “link between constructivist worldview and informal learning that enables an environment of trust and
risk taking…if formal education is truly going to implement open, flexible, and learner centered strategies” (p. 5).

**Interaction and constructivism.** Interaction, including student-teacher, student-student, and student-content, is a common quality indicator against which online course and programs are evaluated (Chaney et al., 2009). It is foundational to online learning because of the physical distance of this form of delivery (Ally, 2004). Garrison (2000) noted a theoretical development shift in the distance education literature from structural constraints, for example, geographical distance, to educational issues associated with transaction within the teaching and learning process. The concept of interaction is deeply explored in the online literature, particularly within the context of developing a community and reducing transactional distance, with implications for course design and delivery. A variety of terms such as interaction, transaction, connectivity, and presence are used to describe student-teacher, student-student, and student-content communication, for example, Garrison et al. (2000) discussed interaction in terms of three types of presence essential to online learning in the Community of Inquiry framework (COI), Moore (1993) proposed a theory of transactional distance, and Dewey (1938) discussed interaction as being integral to the educational process.

To situate the role of interaction in the learning process, Dewey considered interaction as integral to learning to describe it as the “defining component of the educational process that occurs when the student transforms inert information passed to them from another and constructs it into knowledge with personal application and value” (as cited in Anderson, 2004, p. 8). In addition to promoting learning, interactions in the online environment can create a sense of community thereby reducing the sense of physical isolation that learners may experience. Mayes et al. (2011) explained that interactions are essential to the development of a community of
learners, increasing connections with others and promoting student success. In terms of creating a community, Garrison, et al. (2000) advanced the Community of Inquiry (COI) framework.

The COI framework is based on three presence types - social, cognitive and teacher presence. Garrison et al. (2000) defined each presence type as follows: social presence - the ability of participants “to project their personal characteristics into the community of inquiry, thereby presenting themselves to other participants as real people” (p. 89); cognitive presence - the “extent to which participants in any particular configuration of a community of inquiry are able to construct meaning through sustained communication” (p. 89); and teacher presence - a “means to an end - to support and enhance social and cognitive presence for the purpose of realizing educational outcomes” (p. 90). Teacher presence consists of two functions, first, the design of the educational experience (including the selection, organization, and primary presentation of course content), and the design and development of learning activities and assessment; and second, facilitation, a responsibility that may be shared with some or all the other participants or students (Garrison et al.). The COI has been frequently used by the following researchers as a frame to explore the concept of presence in the online environment.

Thompson, Miller, and Franz (2013) used a case study approach to compare the experiences of three non-traditional students who were unsuccessful in an online course and opted to repeat it in a face-to-face setting. The authors used the Community of Inquiry model and self-regulated learning theory together to provide a framework through which to analyze student experiences. They found that establishing teaching presence and cultivating social presence among students supported online success. The authors suggested that communication approaches employed in face-to-face classes should be used in online classes. For example, contact should
be made immediately after a student is unsuccessful on an exam or assignment. Also, developing strategies to help students better manage their time could lead to enhanced cognitive presence.

Swan, Matthews, Bogle, Boles, and Day (2012) reported preliminary findings from design-based research in which they used a quantitative, pre/post, quasi-experimental strategy to explore the effects of course revisions on student learning outcomes. The authors found support for the efficacy of Quality Matters (QM) and Community of Inquiry (COI) theoretical frameworks used to guide the redesign. The “COI revisions to course design and implementation resulted in gradual improvements in students’ perceptions of teaching, social, and cognitive presence from the spring of 2010 to the point where teaching presence scores were higher in the fall of 2010 than they were in the fall of 2009, and social and cognitive presence scores were a good bit higher” (p. 86). Findings suggested that revising the course around stated objectives (QM) and presence deficits, identified by the COL scores, resulted in better student performance, especially in terms of overall grades.

Garrison and Arbaugh (2007) researched the COI framework for review, issues and future directions. They found that the COL framework has advanced the understanding of the role of social presence in creating a community of inquiry and in designing, facilitating, and directing higher-order thinking. They called for future research on cognitive presence, as this presence type was the least explored, as well as the examination of the relationship between presence types versus focusing on one particular presence.

Lewis and Abdul-Hamid (2006) used a qualitative approach to examine the perspectives of faculty regarding effective online teaching practices and strategies for implementation. Faculty perceived that “fostering an online atmosphere with vibrant interaction among students and between the instructor and students” (p. 87) are most important to effective online teaching
practices. Suggested strategies for promoting interaction included course conferences, study
groups, group projects, and providing students the opportunity to introduce themselves in an
introductory conference, with one instructor suggesting marks for this activity. Additionally,
maintaining a continuous presence over the course of the semester was considered important
because most communication in online courses is written without the assistance of bodily cues or
facial expressions (Lewis & Abdul-Hamid).

Smith et al. (2008) examined the theoretical construct of transactional distance in terms
of disciplinary differences in e-learning. The authors used Moore’s (1990) theory of transactional
distance to guide the study. Moore (as cited in Smith) specified three types of interaction in
distance education “1) learner-content-results in changes in understanding through internal
conversation, 2) learner-instructor-results in changes in understanding that contributes to reality
testing and feedback, and 3) learner-learner-leads to changes in understanding through peer-to-
peer comparisons of understanding” (p. 153). Transactional Distance (TD) was explained as the
“psychological distance that learners perceive between themselves and the instructor, and
between themselves and other learners” (p. 154). Smith et al. found that applied disciplines had a
shorter learner-instructor transactional distance than did pure disciplines, that “the larger the
class size, the less available the instructor was” and “the larger the class size, the less students
perceive the instructor as respectful and concerned” (p.156).

The research highlights the significance of interaction in online learning. Interactions
between learners are essential to the development of community, which ultimately enhances
collaborative learning and reduces the feeling of physical distance inherent in distance learning
(Mayes, et al, 2011, p. 156). Interaction supports online success by connecting participants to
others by reducing transactional distance, so that students are not feeling on the fringes of the
course (Thompson et al., 2013). Instructors express that “fostering interaction” is the most important factor to effective online delivery (Lewis & Abdul-Hamid, 2006). And, Hung et al. (2010) advise that “teachers should design activities to pull students in, for example, encouraging students to share real-life experiences (p. 1088).”

**Assessment of Student Learning Online: Current Climate**

Assessment of student learning keeps climbing upward on the national higher education agenda because of the “persistent prods from external bodies such as accrediting and government entities and, increasingly, the recognition by institutions of the need for more evidence of student accomplishment” (Kuh et al, 2014, p. 3). Assessment of learning has gone by many names including outcomes assessment, evaluation, and institutional effectiveness. It may occur at many levels within institutions and by a variety of stakeholders for an assortment of purposes including assessment of individual students, class, programs, curriculum, institution, or education systems (Jankowski, 2013). Its uses may include - diagnostic, formative, needs, reaction, and summative (Shepherd & Godwin, 2004). The Council of Ontario Universities (2014) explained the evolvement of research and practice over the past 50 years to include assessments for a variety of purposes including assessment as (occurs through the learning process), for (diagnostic or formal to check students’ understanding), or of learning (summative) and “online educators have begun to embrace this shift” (p. 41). While the term, “assessment” has various reference names and purposes in higher education, it generally focuses on learning outcomes with the ultimate purpose of improving teaching and learning (Jankowski).

Assessment through the learning process is defined in different ways, for example, Shepherd and Godwin (2004) described it as “any systematic method of obtaining evidence from posing questions to draw inferences about the knowledge, skills, attitudes and other
characteristics of people for a specific purpose” (p. 3) while Dwyer (2008) described it as the “process by which we ascertain through data collection if students have learned the skills, content, and habits of mind that will make them successful….we decide on changes in the curriculum or teaching strategy to improve learning” (p. 2) (as cited in Tiffin University).

Jankowski (2013) explained that institutional change or continuous improvement is embedded in conceptions of assessment with it serving two purposes – one for internal improvement, the other for external accountability. The recent online learning literature highlights the need to legitimize the learning outcomes that can be achieved in online learning. In 2017, the Higher Quality Council of Ontario (HEQCO), on behalf of The Learning Outcomes Assessment Consortium (LOAC) invited requests for proposals (RFP) for a research project that would pilot assessment tools in the online environment. In this invitation, HECQO described online learning as “a wide range of teaching practices that differ in terms of learning outcomes and assessment” (p. 1) and assessing learning outcomes in online environments would allow HECQO to “develop validated assessment tools to be used by postsecondary institutions in a variety of environments” (p. 1).

In responding to the provincial initiative of an Ontario Online Institute (OOI), a student lobby group vocalized considerable concerns about the quality of online courses as being the most important aspect of this initiative, suggesting that course offerings should be “subject to a robust quality assurance framework specific to online learning” (Harrison, 2016, p. 89), referencing the Postsecondary Education Quality Assessment Board (PEQAB) guidelines as an example. Faculty concerns were about the need for implementation strategies and sufficient resources so that accepted standards of quality assurance would be met. Harrison, in her study of
eLearning in Ontario found that a common thread in public communication by stakeholders within the policy community was “a paradigm in which effective pedagogy was prioritized” (p. 87) and in citing a white paper by OUSA (2013) that “online learning offered by Ontario universities must facilitate learning outcomes comparable to in-person classroom education” (p. 88).

In an MTCU discussion paper, quality was linked to economic considerations with responses to a demand for pedagogical quality ranging from proposed “new resourcing to support faculty development, through to accountability for a concrete return on investment” (Harrison, 2016, p. 88). Those proposed discussions of supporting faculty are a priority in eCampusOntario’s 2016-2018 strategic plan, with the goal of supporting faculty development for the purpose of enhancing the ability of faculty to develop and deliver online courses characterized by quality and the use of appropriate leading-edge technology.

**Assessment and learning outcomes.** Learning outcomes are “measurable statements of student knowledge (what successful students should know) and skills (what successful students should be able to do) expected upon graduation” (Lennon et al., 2014, p. 3). The authors explained that when clearly articulated, learning outcomes can ensure that instruction is constructively aligned with assessment, and that students understand expectations. Learning outcomes can also provide high-quality information to describe what students have learned, when used in an effective assessment environment.

Clark, Trick, and Van Loon (2011) explained that the current Ontario Quality Assessment Framework, used to determine degree standards, needs to be revised to include learning outcomes measurement. The Higher Education Quality Council of Ontario (HEQCO) agreed that the Ontario Qualifications Framework (QAF) “does not provide explicit measurable learning
Learning outcomes and faculty. Learning outcomes for students are the norm in American higher education and “faculty are the key to moving assessment work forward” states Kuh et al. (2014, p. 4). The authors reported on a national survey of provosts by the National Institute for Learning Outcomes Assessment (NILOA). The authors warned that one matter on which everyone agrees is that “faculty involvement in assessment and improvement is essential both to improve teaching and learning and to enhance institutional effectiveness” (p. 4). A similar study was conducted in Canada in which an adapted version of the NILOA survey was sent to a provost or VP academic in public colleges and universities to gather data on the learning outcomes assessment landscape in Canada. Although there appeared to be some confusion around the definition of course, program, department, or school-level goals - what respondents repeatedly emphasized in the open responses was that “involvement of faculty supports assessment activities the most” (MacFarlane & Brumwell, 2016, p. 17) and “faculty involvement is crucial to the assessment of student learning” (p. 17). Respondents recommended additional staff resources and more professional development activities for faculty. Centres for
teaching and learning and institutional policies were also found as big supports for assessment skills.

Faculty buy-in is necessary to the successful adoption of learning outcomes and is a significant challenge to the implementation of outcomes-based education. These challenges exist because outcome-based processes such as curriculum mapping and program review require a significant time commitment. Faculty do not see the full value of an outcomes-based approach to teaching, or they prioritize content instruction over skill development (Lennon et al., 2014). Huang (2002) suggested that with a constructivist approach, the evaluation of learners’ achievement is time consuming and “it is not easy to evaluate learners’ learning outcomes” (p. 32). Class size makes a difference, for example, “in the smallest class size ranges, the ability of faculty to identify the needs of the median student might quickly diminish with incremental changes in class sizes” (Clark et al. 2011, p. 66).

Assessment and learning outcome research. Researchers are encouraged to measure educational outcomes more consistently, evaluate cognitive learning versus perceived learning, and use more effective research designs. The lack of consistency in measuring learning outcomes may be that there is “no real consensus on how to measure learning outcomes - in part because assessment is a relatively new field of study and because the range of learning outcomes being assessed are so broad” (HEQCO, 2015, p. 1). Although assessment and evaluation are integral to the quality of online learning, in a review of thirteen existing paradigms used to evaluate quality in this format only six included assessment and evaluation as indicators of quality (Shelton, 2011). Frydenberg explained that assessment of the online learner is the least written about “since few fully developed programs have arrived at a stage” (as cited in Shelton, 2011, p. 5)
where summative evaluation is possible. This is a reasonable assumption about online learning in collaborative baccalaureate nursing programs in Ontario.

Meyer (2002) expressed concerns of the quality of research following a review of the distance education literature. Concerns were related to the research designs, particularly the simple comparison study design, where student outcomes, such as course grades were compared with a traditional course. She referred to this design type as the “source of the ‘no significant difference’ phenomenon, where possible intervening factors are ignored, and the researcher and instructor are the same person, further muddling the results” (pp. iv-v). Russell (2015) also invited future researchers to expand outcomes evaluations away from the affective domain and focus on cognitive learning domains. She explained that the use of well-established criteria such as nursing competences should be used “on which to evaluate student learning and guide faculty in course redesign through integration of activities based on knowledge, skills and attitudes” (p. 19). Smith et al. (2009) investigated the challenges of online nursing education. They used a qualitative, descriptive, exploratory, and multisite approach within colleges of nursing at major research universities in the states of Florida and New York. Participants included seven online nursing instructors, teaching students enrolled in a post-registered nurse (RN) to Bachelor of Nursing (BN) programs, and two instructional designers. Instructors were most concerned with “identifying the most effective assessment methods to judge students’ ability to apply their lessons in real-world settings” (p. 98), particularly related to “delivery methods, tools, and academic integrity” (p. 100). They desired more options for analysis with testing. Their study highlighted the need within the discipline to integrate activities which emphasize higher level thinking, such as those involving case studies, written assignments, and discussion boards and the time needed for integration of those activities.
Carpenter, Theeke, and Smothers (2013) used a quantitative, retrospective design strategy in which they evaluated the impact of three distance education technology platforms - Webcasting, Camtasia, Wimba Live - on course grades and student evaluations in an undergraduate baccalaureate university medical-surgical nursing course. The platforms were incorporated into a traditional face-to-face course with the purpose of enhancing student access to course materials. Although each platform offered specific features, the platforms were intended to be used asynchronously outside of the regularly scheduled class times, for example, students could listen to Webcasting and Wimba postings of live lecture recordings. Data were collected from 266 undergraduate baccalaureate nursing students from the three different instructional modality groups. Group 1 (n=68) took the course in 2008 when Webcasting was used, group 2 (n=134) in 2009 when Webcasting and Camtasia were used, and group 3 (n=64) took the course in 2010 when Webcasting, Camtasia, and Wimba Live were used.

Carpenter et al. (2013) found that mean course grades improved over the implementation period, but statistical significance was noted only with the addition of Camtasia technology. However, “the small increase in grade percentage translated to an actual change in course grade average from a D (using webcast only), to a C (using Webcast and Camtasia), and to a B (using Webcast, Camtasia, and Wimba)” (p. 116). Student comments indicated that the technologies had a positive impact on their learning and were of value. The authors concluded that “learning outcomes may improve by adding a distance technology to an existing traditional classroom setting” (p. 116).

Gagnon, Gagnon, Desmartis, & Njoya (2013) reported on findings of a quantitative study in which they used a two-group, randomized, non-blinded, controlled research design to assess the effectiveness of a blended-teaching intervention on knowledge, satisfaction, and self-learning
readiness. Knowledge was assessed by students’ scores on the midterm and final exams, which consisted of multiple-choice questions and a few open-ended questions. Exams were graded by an assistant blinded to the research project. The intervention consisted of both internet-based tutorials and traditional lectures and effects were compared with conventional and face-to-face classroom teaching. Participants were 112 first-year nursing undergraduates enrolled in a mandatory research course at a Quebec university.

Gagnon et al. (2013) found that teaching method had no direct impact on knowledge acquisition, satisfaction, and self-learning readiness. However, motivation and teaching method had an interaction effect on knowledge acquisition by students. Among less motivated students, those in the intervention group performed better than those who received traditional training. The authors concluded that “blended-teaching better suits some students, depending on the degree of motivation and self-directed learning readiness” (p. 381).

Swan et al. (2012) used the Quality Matters (QM) theoretical framework and the Community of Inquiry framework to guide a course redesign in a fully online Master of Arts in Teacher Leadership program and found that QM course revisions improved student outcomes. Meaningful increases were found in all three course outcome measures including research proposal, final exam, and course grade. The authors concluded that performance improved because the QM revision led instructors to ‘focus on objectives and mapping of objectives to assessments, which in turn led to a clearer focus in the course’ (p. 86).

Russell (2015) reported on findings in which she examined the state of the science around the current evaluation practices within online nursing education. The author reviewed the literature for theoretical and empirical based articles published between 2008 and 2013. Populations of interest were baccalaureate, including RN-to-Bachelor of Science in Nursing
(BSN) students; graduate students at the master’s and doctoral levels; and faculty of these student populations. Thirty-six articles were identified for inclusion with 21 being empirical based studies and 15 theoretical or descriptive. Of the 21 empirical studies, 6 were qualitative and 15 were quantitative based. In the quantitative studies, a consistent evaluation method of descriptive and inferential statistical analysis was used based on established scales and questionnaires. Of the qualitative studies, interpretive analysis was the primary method of evaluation and proved to be the most consistent. Theoretical and descriptive literature had the most inconsistent method of evaluation. Generalizability was limited due to the lack of specificity by the study authors and the reliance on individual course evaluations specific to a particular study. Overall findings revealed “evaluation practices that are diffuse and superficial and serve as a basis for future recommendation and research opportunities” (p. 13).

Russell (2015) advised that future research in online nursing education needs to expand outcomes evaluation away from the affective learning domain and now focus on the cognitive learning domain. She suggested that established research has demonstrated positive affective learning outcomes, but much of it is perceived learning versus actual learning. She also recommended examining nursing program outcomes versus student learning outcomes, using NCLEX-RN, for example, as an outcome measure, in the context of online nursing education. She underscored the value of examining program outcomes to nurse educators and nursing education as a whole.

Carey and Trick (2013) explored the relationship between online learning and quality in a literature review and environmental scan on the use of online learning on higher education in Canada and internationally. The evidence suggested that “the students most likely to benefit are those who are academically well prepared and highly motivated to learn independently” (p. 43).
In discussing non-traditional students, the authors explained that while online learning opens the door to higher education related to, for example, scheduling conflicts associated with heavy work and family responsibilities, the literature should make us “cautious about assuming that these students will be the primary beneficiaries of fully online education….these students may be most in need of the academic and personal supports that traditional campuses provide” (p. 45).

In discussing summative assessments, Carey and Trick (2013) explained that online summative assessment has been “criticized for encouraging superficial learning such as recall of facts and basic applications” (p. 15). They cited the work of Joordens, Desa, and Pare in explaining that universities are relying on multiple-choice assessments of learning because of economic and logistic pressures, and that this form of assessment is problematic because “multiple-choice tests are not suited to teaching cognitive skills such as critical thinking, analyses based on quality discriminations, and the creation of new perspectives based on a unique synthesis of information” (p. 16). The authors suggested that a key to emerging developments in online learning lies in the potential to “deploy faculty away from activities where high value can be generated by scalable online resources or tools toward activities where interpersonal interaction between instructors and students generates the most value” (p. 26).

Lopes and Dion (2015) reported on the pitfalls and potential of lessons learned from Higher Education Quality Council of Ontario (HEQCO) - funded research on technology - enhanced instruction. In 2011, HEQCO awarded thirteen contracts to the province’s colleges and universities with the goal of examining pedagogical practices that aimed to enhance the quality of student learning through the introduction of new technologies, including initiatives in areas of course design, assessment strategies, or the development of innovative teaching methods. The authors supplemented those contracts with other funded projects on similar topics related to
teaching and learning in 2010 and 2011. They explained that the simple presence of technology will rarely enhance a classroom, and that some thought has to go into integrating it effectively. The technology should be relevant to students so that they are able to recognize the value it holds for their learning, and that it should be integrated with a specific goal or learning outcome in mind, not simply for the sake of using technology.

Lopes and Dion (2015) found that while the technology being assessed had no significant impact on student learning, they found it difficult to judge if the results were genuine or a “result of the challenges associated with isolating the effects of a given technological tool in a complex and organic learning environment” (p. 20). Regarding research, they recommended that questions addressed with subjective data about student satisfaction should focus on technology as a means of learning, rather than on technology’s direct impact on learning.

The literature highlights the challenges and complexities associated with assessment and evaluation of online learning, and more specifically issues related to nursing education. As a result of her review of the state of evaluation in online nursing education, Russell concluded that “evaluation practices…are diffuse and superficial” (p. 19), which was the case with several studies I reviewed (Carpenter et al., 2013; Gagnon et al., 2013). Carey and Trick (2013) also reported similar concerns on evaluation of outcomes in that researchers have not measured educational outcomes consistently, and most studies do not control for instructor or student differences. Russell suggested that future research expand away from the affective learning domain and focus on the cognitive learning domain and agreed with Swan et al. (2012) that QM offers a promising option in promoting quality in online learning.

A more profound concern of online nursing faculty is the ability to assess learners and the need for more options for analysis with testing (Smith et al., 2009). Because nursing is a
profession in which knowledge is constructed and applied, learning approaches need to be consistent with achieving this standard of learning. Recommended learning approaches include case studies, group projects, discussion forms, simulations, and journal writing, all of which may present implementation challenges, due to faculty time constraints related to larger class sizes (Smith, 2014; Smith et al., 2009). A high level of interaction is also needed in online nursing education including student-student, student-teacher, and student-content interactions. The level of interaction and the types of activities required for assessment and evaluation require a considerable time commitment of faculty (Carter, 2008; Smith, 2014). This time is not always recognized by academic leaders, for example, Allen and Seaman’s (2007) findings of the attitudes of academic deans regarding online learning revealed that only one-third of deans surveyed believed that online delivery required more time of faculty when compared to face-to-face delivery. Russell (2015) suggested that with so “few studies of nursing faculty, this population is in need of the attention of researchers” (p. 19)

**Disciplinary Differences in Online Learning and Assessment**

Several researchers have explored discipline-specific differences in online learning. Smith et al. (2008) reported on their findings of a study conducted at a large metropolitan university in which they analyzed differences between online courses in disciplinary quadrants. Using a course as a unit of analysis and collecting data from the university’s course management systems and course evaluations, the authors applied Biglan’s taxonomy of academic disciplines to classify courses into one of four discipline quadrants “hard-applied, hard-pure, soft-applied, and soft-pure” (p. 153). Findings revealed significant differences in tool usage between disciplines, particularly for assessment tools. Hard-pure courses used Tests and Pool tools more
often than did soft-pure courses. Document and Dropbox tools were used more extensively in applied courses.

Smith et al. (2008) concluded that tool usage across disciplines illustrates differences in disciplinary views on knowledge and the resulting assessments methods. Nursing education, classified as a soft-applied discipline, used the Dropbox tool more frequently. High usage of this tool, which is typically used to receive written assignments such as project reports and essays, suggested that this discipline “views knowledge building as a formative process” (p. 158), utilizing activities consistent with knowledge application and integration. This is consistent with nursing education in which “assessment tasks emphasize knowledge application and integration” (p. 158). The authors cited Neumann, Parry, & Becher in explaining that “knowledge is viewed as atomistic and linear” (p. 158) in hard-pure disciplines “with an emphasis on learning facts and figures, and the need to quantitatively measure that knowledge” (p. 158). They explained that “pure and hard-pure, online courses are moving in the direction of commoditization, while applied online courses are moving in the opposite direction, diversification and community practice” (p. 158).

Smith et al. (2009) also studied discipline-specific differences in online learning, with a specific focus on nursing education, a soft-applied discipline. Their study highlighted the unique challenges of online nursing in that online instructors are most concerned with “identifying the most effective assessment methods to judge students’ ability to apply their lessons in real-world situations” (p. 98), which comprise both high-stake medical and interpersonal elements” (p. 98). Both online instructors and instructional designers reported that core clinical courses at the undergraduate level “are typically not taught online, for the obvious reason that nurses need to
learn procedural medical skills, which have life and death implications, in the context of face-to-face supervision and feedback” (p. 102).

Smith (2014) found in interviewing nursing faculty about their perceptions of teaching that faculty members differentiated “between courses that are less constructivist in design that are well suited to lecture as the primary content delivery method and testing as the primary method of evaluating student learning” (p. 179). Faculty feared losing personal connections in technology, and of not “knowing” the student. The concept of ‘knowing’ seemed to focus more on student work and their learning than on the social aspect, leaving the researcher to question its significance regarding specificity to the nursing discipline. However, this makes sense in a discipline such as nursing where knowledge is constructed and applied in face-to-face situations and under high stake conditions.

Koch’s (2014) studied how e-learning transforms the role of the nurse educator and found that electronic, impersonal communication made it difficult for nurse educators to serve as professional role models for students and other nurses and they need to find new ways to “mentor, guide, encourage, teach, and fairly assess and evaluate student nurses” (p. 1386). The author cautioned that facilitating student learning process in all domains of learning becomes a special didactical challenge and may exacerbate the theory-practice gap.

Carey (2014) in his report prepared for The Ontario Council of Universities (COU) on faculty supports for online teaching highlighted the discipline as a focal point for knowledge about teaching and learning emphasizing cultural and pedagogical perspectives. The author also highlighted disciplinary networks “as a key for building, applying, and spreading innovative teaching practices” (p. 13). In this report he underscored Berthiaume’s (2008) model of discipline-specific pedagogical knowledge in university teaching.
In terms of technology Bates’ (2000) ACTIONS Model was one of the first to address cost factors for students and institutions in the selection of instructional technologies. In choosing technology for distance learning, Bates (2016) cautioned that constructivists approach technology for teaching differently from behaviourists and education would be much better served if software to support learning were more reflective of the way human learning operates.

Smith et al. (2008), Smith et al. (2009), and Smith (2014) highlighted differences across disciplines in online education and the need for modifications related to those differences. Nursing, a soft-applied discipline, is one in which “knowledge is constructed and assessment tasks emphasize knowledge application and integration” (Smith et al., 2008, p. 158). Smith et al. (2009) highlighted the need within the discipline to integrate activities which emphasize higher level thinking, such as those involving case studies, written assignments, and discussion boards. They warned that in a practice-oriented field such as nursing, students need to be able to “apply the theory to the patient in that particular situation as they are dealing with people who are having illnesses, health care crises and so on” (Smith et al., 2009, p. 101). This makes online learning in this discipline different, with its own unique challenges, when compared to a pure-hard discipline, in which knowledge is more linear, and more likely to be commoditized (Smith et al., 2008).

**Online Learning and Constructivist-Based Activities**

Ally (2004) explained that learning strategies should be selected to “motivate learners, facilitate deep processing, cater for individual differences, promote meaningful learning, encourage interaction, provide feedback, facilitate contextual learning, and provide support during the learning process” (p. 6) and educators must “tacitly or explicitly know the principles of learning” and how students learn before any materials are developed. The IHEP benchmarks
in online learning advised that “courses are designed to require students to engage themselves in analysis, synthesis, and evaluation as part of their course and program requirement” (Phipps & Merisotis, 2000, p. 2). Baran et al. (2011) emphasized that while course designers are part of the online delivery team, and their role is to work with and support faculty in the development and delivery of courses, they need to consider teachers as active agents in the course design process, “instead of building courses for them” (p. 435), and suggested that technology staff and instructional designers “collaborate with online teachers and listen to their voices as they transform and create their own online teaching personas” (p. 435).

The research previously presented on the concept of interaction highlights its significance in online teaching and learning, and of a constructivist approach. In a study of student responses to the idea of an Ontario Online Institute (OOI), the Ontario Undergraduate Student Alliance (OUSA) (2010) reported that “above all, students studying online must receive the same level of interaction with their instructors and peers as they would receive at a traditional institution” (p. 5) and recommended that all online courses offered through the OOI “be modeled on the Seven Principles of Good Practice in Undergraduate Education” (p.18) explaining that Chickering and Gamson’s principles are supported by many decades of educational research findings about the kinds of teaching and learning activities most likely to improve learning outcomes.

Interaction opportunities should be integrated to course design and delivery in forms of student-teacher, student-student, and student-content (Garrison et al., 2000). Strategies to promoting interaction are having students introduce themselves, such as in an introductory conference, group projects, discussion forums, study groups, course conferences, and providing frequent reminders and timely feedback (Lewis & Abdul-Hamil, 2006), including immediately
contacting a student who is unsuccessful on an exam or assignment (Thompson et al., 2013). Based on their review of the online literature, Mayes et al. (2011) recommended the following commonly highlighted constructivism focused teaching-learning strategies - a reduced lecturing approach; presentations and discussions; cooperative and collaborative learning techniques that engage in problem solving such as discussion, reflection, case studies, and analysis of students’ work; and explicitly modeling problem solving, collaborative strategies, and self-regulation strategies through instruction and discussion.

Similar strategies for a constructivist approach were echoed by others, for example, Huang (2002) emphasized that learning should be authentic and consistent with real life experiences. He suggested the use of case-based environments, as well as practical learning such as games. Huang characterized online discussion groups as “being discussion oriented, authentic, project-based, inquiry focused and collaborative” (p. 35) - integrating principles of learner centered and collaborative environments. Smith et al. (2009) explained that authentic activities were needed, particularly in the nursing discipline, suggesting as an example, a case study could be used “to relate online nursing education to the human values of a real nursing situation” (p. 101). Legg, Adelman, Mueller, and Levitt (2009) discussed scaffolding as an essential concept of constructivist theory and suggested that discussions should build on previous courses and work, thereby anchoring learning to a larger task or problem. The Council of Ontario Universities (COU) (2014) pointed out a shift in assessment away from a reliance on assessment of learning (summative assessment) to include assessments for a variety of purposes including assessment for (diagnostic or formative), assessment as (occurs throughout the learning process), and assessment of (summative) learning. The COU cited the work of Crisp (2011) who outlined various assessment approaches, in addition to the usual formative and summative approaches,
including authentic assessment, stating, “he ventures into authentic assessment outlining how role play, scenario-based learning, gaming, artefact construction, and virtual worlds can be used for assessment of, for and as learning” (p. 42).

In a study of the challenges of online nursing education, Smith et al. (2009) found that faculty were most concerned about assessment in the online environment and “getting that ‘application and synthesis’ available in face-to-face courses to the same level of assessment into the online learning courses” (p. 101). Faculty suggested activities such as discussion boards in which students interacted with one another, and other online tools that promote such interaction, as well as papers. However, participants explained that “none of these online tools are effective if students do not use what is available” (p. 101), and faculty have to “maintain a level of competency in the new technology” (p. 103). Faculty also explained that the use of writing assignments is negatively impacted by the number of students and some instructors will take more students and “use multiple choice questions to assess the student” (p. 100). Other participants shared that the number of students enrolled limits the instructor’s ability to grade and provide timely feedback. Most of the online nursing instructors mentioned that due to the lack of immediate real-time interaction between students and instructor and “you don’t have the feedback that is useful from seeing them face-to-face” (p. 101).

Regarding technology, Karaksha, Grant, Anoopkumar-Dukie, Nirthanan, & Davey, (2013) warned that the addition of technology-based teaching strategies is ineffective in increasing student engagement unless supported with frequent reminders and encouragement, indicating the need for teacher presence. Lopes and Dion (2015) cautioned that technology should be integrated with a specific goal or learning outcome in mind, not simply for the sake of using technology as its simple presence will rarely enhance a classroom. Bates (2016) explained
in terms of using a constructivist approach, computer scientists should make software to support learning more reflective of the way human learning operates.

**Nursing Education through Collaborative Baccalaureate Nursing Programs**

Prelicensure baccalaureate nursing education in the province of Ontario is delivered through Collaborative Baccalaureate Nursing programs, programs in which one or more Colleges of Arts and Technology (CAAT) or Institutes of Technology and Advanced Learning (ITALs) and a university partner together to offer nursing education jointly. Collaborative baccalaureate nursing programs and the background of these programs is described in Chapter One. The various types of collaborative baccalaureate program models were also highlighted in this chapter. Most collaborative programs require students to transfer from the college to the university to complete the program (Cameron, 2003).

**Challenges of inter-institutional collaboration.** and how those challenges may impact online learning in these programs were also discussed in Chapter One. Challenges may include differing perspectives on curriculum issues and program changes that stem from the differing missions of the colleges and the universities in Ontario. Effective collaboration requires time and effort of participants to work through these differing perspectives, both initially and ongoing and this building of understanding and trust is essential. The considerable time and effort required is an ongoing challenge (Thompson, 2007).

**Scope and Limitations of the Literature Review**

The literature reviewed provided insight to understanding the growth of online learning to the post-secondary education landscape. Perspectives of various stakeholders including those of students, faculty, institutions, and others were also informative. A number of models and benchmarks of quality in distance education were found, predominantly in the USA based
literature, for example, CHEA (2002) and IHEP (2000). These benchmarks are relevant to the Ontario context. The Community of Inquiry model by Garrison et al. (2000), and the work of Bates and others informed the Canadian literature. In terms of nursing education, the USA based nursing accreditation agencies incorporate criteria for distance learning into their accreditation standards, however, this is not the case in Canada. The Canadian Association of Schools of Nursing (2014), the accrediting agency for baccalaureate nursing programs in Canada, does not make mention of online learning in its standards.

The scope of my review on discipline-specific differences in online nursing education dates back to 2005 when the requirement for entry to practice for Registered Nurses in Ontario changed from a diploma level of preparation to a baccalaureate degree. In the distance education literature, I found very little research on discipline-specific challenges in online learning, and the challenges such differences may present. In one non-nursing focused research article, Smith et al. (2008) found there were differences in tool usage across disciplines with soft-applied disciplines (such as nursing) using the drop box tool, which is typically used to receive written assignments, such as project reports and essays - suggesting that the discipline views knowledge building as a formative process, utilizing activities consistent with knowledge application and integration, which is consistent with a constructivist learning approach. In another article, Smith et al. (2009) studied disciplinary differences in online learning, with a focus on nursing education, and found that nursing instructors were concerned about the ability of students to integrate theoretical knowledge to the care of patients who were in health crisis situations and were challenged with identifying effective assessment methods to judge whether the knowledge being taught online could be applied by students. Other concerns were scalability of class size, challenge of providing immediate feedback, and lack of immediate real-time interaction. Others have
expressed concerns of quality in online nursing course delivery, for example, Little (2009) explained that for over a decade both nurse educators and students have been concerned about the quality of online education.

This study is an exploration, not an evaluation, of online teaching in prelicensure collaborative baccalaureate nursing programs in the province of Ontario to gain a deeper understanding of the challenges and strengths faculty face in implementation of best practices in this new form of course delivery. Before student learning can be credibly assessed, it is essential that we understand the unique discipline-specific challenges in the development of course curricula, and best practices are identified before further exploration of current practice can be engaged in, such as assessment - which I recognize as a very important issue but is not the focus of this study. Based on my review of the literature, this is currently not so. This is precisely why this study was warranted as a first step for further research of important variables identified. In this study, the perspectives of nursing faculty as a key stakeholder group provided insight into how best to identify and support best practices and successful online course delivery in prelicensure collaborative baccalaureate nursing programs which I believe has not been done to date, based on my review of the literature. The understanding gained will provide insight to supporting successful online course delivery in the programs that are the sites of this study and may inform further research into other relevant topics related to specific challenges identified by the participating faculty. Although the findings of this study are not generalizable, the study focuses on nursing as an example relevant to other programs and disciplines where students are preparing to be practitioners with vulnerable populations.

Given the applied nature of the nursing profession, it is reasonable to assume that the online delivery of an entire program of study in this discipline is not appropriate. However,
delivery of some of the content in an online format is feasible. For this reason, this study focuses on the online delivery of courses, not programs.

**Summary of Chapter Two**

In Chapter Two a review of the literature was presented. The review consisted of an overview of online learning, perspectives of stakeholders, theories of quality, and Billing’ (2000) framework which ground this study. The constructivist learning theory, was then reviewed and Chickering and Gamson’s (1987) seven principles of good practice, which ground this concept. The concept of assessment was then reviewed from various perspectives. Discipline-specific challenges were then presented. Next reviewed was nursing education through collaborative baccalaureate nursing programs. Finally, the scope and limitations of the literature were stated followed by a summary of the chapter. In Chapter Three the research design and methodology are presented. The chapter begins with a re-introduction of the purpose and research questions. Presented next is the design, site selection, participant selection, data collection and recording, credibility, data analysis, methodological assumptions, limitations, and ethical issues and considerations. A summary and restatement of the purpose of the research concludes the chapter.
Chapter Three: Research Design and Methodology

In Chapter Three I describe the research design and methodology used for this study. The chapter begins with a brief re-introduction of the purpose and overall and specific research questions that drove this study. Presented next are the design, methodology, site selection, participant selection, data collection and recording, credibility, data analysis, methodological assumptions, limitations, and ethical issues and considerations. A summary and restatement of the purpose of the research concludes the chapter.

Purpose of the Study

The purpose of this study was to explore and understand best practice implementation and the nature and appropriateness of curriculum content in online courses in prelicensure collaborative baccalaureate nursing programs in participating Ontario colleges to gain a deeper understanding of the challenges and strengths with this form of delivery, as perceived by the faculty who have taught or are teaching online courses. Program coordinators, who are designated as faculty in the Colleges of Applied Arts and Technology (CAAT)-Academic contract, were also included as key informants. In addition to their teaching responsibilities, program coordinators have a broad range of responsibilities at the course and program levels and their insights were helpful to informing the research questions. Insights gained from participating nursing faculty, program coordinators, as well as from document analysis provide guidance to decision-makers in participating colleges regarding support of online learning, to what extent and how to ensure successful online course delivery in prelicensure collaborative baccalaureate nursing programs. Though the findings are not directly generalizable, given that the colleges selected for this study are representative of the Ontario CAATs, the findings are of interest to them and other academic programs who wish to assess their own use of online learning.
Research Questions

The overall research question addressed by this study was: What are the perceptions of participating faculty regarding the nature, challenges and strengths of teaching online course content in prelicensure collaborative baccalaureate nursing programs, and what are the implications for online course delivery? The following specific research questions drove this study:

Research Question #1: What are participants’ perceptions about the nature of their teaching compared with: a) best practice scales, b) traditional classroom teaching, and c) institutional and faculty supports for online teaching?

Research Question #2: How and by whom are decisions made regarding the nature of the content and learning outcomes that should or should not be developed in the online delivery format?

Research Question #3: What a) course content and b) intended learning outcomes do participating faculty identify as appropriate, or not, for online learning? Why or why not?

Research Question #4: What are the perceptions of faculty regarding the types of assessment strategies that are appropriate, or not, in the online format? Why or why not?

Research Design

In this study I used an exploratory-descriptive design with a mixed-methods strategy to gain a deep understanding of informants’ perspectives of the challenges and strengths faculty face with this form of teaching and learning in the collaborative prelicensure baccalaureate nursing program. Perhaps more importantly, I sought to understand course content deemed by the participants to be suitable for online delivery and content that is not. I found limited research
conducted with this specific focus, and according to Creswell (2009) an exploratory design is appropriate when the topic has not been previously explored and the intent is to understand.

**Methodology**

Creswell (2009) identified four important aspects that influence the design of procedures for a mixed methods approach - theoretical perspectives used to ground the study and situate the findings, timing of the qualitative and quantitative data collection, priority given to qualitative or quantitative data, and the stage of the research process in which the multiple methods are mixed. These aspects were applied in shaping the procedures of this study as described below.

**Theoretical perspective.** My study was rooted in best practice implementation in online nursing courses with a focus on constructivism, which is a learning-centered theory based on the co-construction of knowledge and development of higher level thinking skills. Billings’ (2000) “Framework for Assessing Outcomes and Practices in Web-Based Courses in Nursing” was used to inform and guide educational practices in online teaching and the processes needed for implementation of those practices. Educational practices were further explored through the lens of constructivism using Chickering and Gamson’s “Principles of Good Practice in Undergraduate Education” (see Chapter Two, Table 2) to inform and guide the exploration of this concept; these principles and the substance that underpins them grounded this research. For example, from a constructivist learning lens, learners are active rather than passive in the learning process; knowledge is constructed and created by the learner rather than being given through instruction; and the role of the teacher is as a “designer of learning methods and environments” (Barr & Tagg, 1995, p. 17).

**Timing.** According to Creswell (2009), timing refers to the sequence used to collect both
quantitative and qualitative data - whether it will be gathered at the same time or in phases.

Creswell & Plano Clark (2007) point out that while timing is often discussed in terms of when the data sets are collected, it relates more to “when the data are analyzed and interpreted, although these times are often interrelated” (p. 81). I collected the quantitative and qualitative data concurrently during a single phase, and analyzed and interpreted both data sets at approximately the same time, consistent with concurrent timing, as described by Creswell & Plano Clark (2007). In discussing the use of quantitative and qualitative methods at the same time, Morse (1991) explained “there is limited interaction between the two data sets during the data collection, but the findings complement one another at the end the study” (p. 1).

**Priority.** According to Creswell (2009), the priority or weighting given to the quantitative or qualitative research should be considered when designing procedures. The weighting is influenced by many factors, including one’s worldview – “a pragmatic world view calls for equal or unequal weighting, depending on the research question” (Creswell & Plano Clark, 2007, p. 82). I believed at the start of the study that both sets of data were needed to advance a more complete understanding of the problem and each would be needed to answer the research questions. Mixed-method researchers believe that “quantitative and qualitative data and approaches will add insights as one considers most, if not all, research questions” (Johnson, Onwuegbuzie & Turner, 2007, p. 123). Following integration of the analysis, the qualitative data helped advance a deeper understanding of the relationships identified among the variables explored in the quantitative data. However, because of the richness of the qualitative data elicited from 16 participants, and given that the qualitative data addressed research question two, as well as largely informed the three remaining questions, I weighted the qualitative data with a slightly greater priority. Creswell (2009) pointed out that with a concurrent triangulation strategy, the
weight is ideally equal between the two methods, “but often in practice, priority may be given to one or the other” (p. 213), during the mixing of the data sets.

**Mixing.** Creswell (2009) advised that in mixing the data, the researcher needs to answer two questions, when (at what stage) and how does the mixing occur? I used a concurrent triangulation strategy which involved “the concurrent, but separate, collection and analysis of quantitative and qualitative data” (Creswell & Plano Clark, 2007, p. 64), and then merged the two data sets, by bringing the separate results together in the interpretation and discussion stages. A triangulation strategy serves to validate or expand quantitative results with qualitative data (Creswell & Plano Clark, 2007) and the mixing in a concurrent triangulation strategy is usually during the interpretation and discussion phases (Creswell, 2009). Of the four variants of the triangulation design, as described by Creswell & Plano Clark, I chose the *convergent model* in which the quantitative and qualitative data were collected and analyzed separately and “then the different results are converged during the interpretation” (p. 64). This model is used by researchers to compare results or to validate, confirm or corroborate quantitative results with qualitative findings with the purpose “to end up with valid and well-substantiated conclusions about a single phenomenon” (Creswell & Plano Clark, 2007, p. 65).

Denzin (2012) explained triangulation as a “strategy that aids rigor, breadth complexity, richness and depth to any inquiry” (p. 82) with the use of multiple methods, empirical materials, perspectives, and observers in a single study. In terms of increasing credibility, Huessein (2015) described triangulation as “the combination of two or more methodological approaches, theoretical perspectives, data sources, investigators, and analysis methods to study the same phenomenon” (p. 3), for the purpose of increasing study credibility. And, Greene and Caracelli (1997) were of the opinion that the use of triangulation “in which different methods are used to
assess the same phenomenon toward convergence and increased validity” (p. 22) is well supported in literature.

By mixing methods in this study, I believed that the use of both approaches in combination provided a better understanding on how best to identify and support successful teaching of relevant online course content in this type of professional program than by using either approach alone. The quantitative data were used to identify relationships among variables explored, and the qualitative data to increase the strength of and expand on the findings from the quantitative data, at the interpretation and discussion stages, which provided deeper insights into the meaning of those relationships.

While Creswell (2009) advised that a mixed methods approach strengthens the conclusions when the findings are cross-validated through triangulation, and “the biases inherent in any single method could neutralize or cancel the biases of other methods” (p.14), the author pointed out that there are limitations with this design – that it requires great effort and expertise to adequately study a phenomenon when using two separate methods, and it can be difficult to compare the results of two analyses using different forms of data. Klassen, Creswell, Plano Clark, Smith, and Meissner (2012) discussed challenges specific to concurrent designs such as having adequate sample sizes for analyses, and issues that may arise during data analysis and interpretation when the findings conflict. Creswell and Plano Clark (2007) advised that differences resulting when two data sets do not agree may require additional data collection.

**Site Selection**

Key informants including part and full-time nursing faculty and program coordinators from a representative sample of English language colleges in Ontario offering prelicensure collaborative baccalaureate nursing programs were invited to participate in the study. In the
province of Ontario there are 24 publicly supported Colleges of Applied Arts and Technology (CAATs). Two of the 24 CAATs are French speaking (Boreal and La Cite) and excluded from this study because of the cost of translation. Of the remaining 22 English language colleges, Niagara and Sheridan do not offer the prelicensure collaborative baccalaureate nursing programs and were also excluded. Of the 20 remaining colleges, eight were initially selected as a representative sample to include informants in years one and two of the nursing programs. Due to the limited amount of nursing content delivered during the first two years of the programs initially selected, I needed to include informants in years three and four and to increase the number of college programs in my study. Of the eight colleges initially selected, five additional colleges were included for a total of 13 colleges as the final representative sample, with informants in all four program years.

To select a representative sample of the colleges, purposeful selection was based on four criteria: geographic location, regional population, college size, and type of programming offered. The regions included in each geographic location are listed in Table 4. For the purposes of this study, I used geographic location categories as described by Holmes (2016), based on Colleges Ontario (2015) which organizes colleges into four categories: western, central, eastern, and northern. The categories used for regions were based on Holmes’ (2016) adaption of the regional boundaries as defined by the Ontario Ministry of Tourism, Culture and Sport.

Regional population consists of two categories: rural and urban. Statistics Canada uses the term “population centres” in reference to any area with a population of at least 1,000 and a density of 400 or more people per square kilometer (as cited in Holmes, 2016). Population centres are divided into three groups: small, with populations of between 1,000 and 29,999; medium, with populations of between 30,000 and 99,000; and large urban, with populations of
100,000 and over. In this study, the term “rural” refers to colleges located in an area with a population of less than 100,000, and “urban” to colleges located in an area with a population of 100,000 or over.

Table 4

*Regional and geographic categories in Ontario*

<table>
<thead>
<tr>
<th>Western</th>
<th>Central</th>
<th>Eastern</th>
<th>Northern</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Region 1</strong>: Southwest Ontario</td>
<td><strong>Region 5</strong>: Greater Toronto Area</td>
<td><strong>Region 8</strong>: Kawartha's and Northumberland</td>
<td><strong>Region 12</strong>: Algonquin Park, Almaguinch Highlands, Muskoka, Parry Sound</td>
</tr>
<tr>
<td><strong>Region 2</strong>: Niagara, Canada</td>
<td><strong>Region 6</strong>: York, Durham and The Hills of Headwaters</td>
<td><strong>Region 9</strong>: South Eastern Ontario</td>
<td><strong>Region 13a</strong>: Northeastern Ontario</td>
</tr>
<tr>
<td><strong>Region 3</strong>: Hamilton, Halton and Brant</td>
<td><strong>Region 7</strong>: Bruce Peninsula, Southern Georgian Bay and Lake Simcoe</td>
<td><strong>Region 10</strong>: Ottawa and Countryside</td>
<td><strong>Region 13b</strong>: Sault Ste. Marie - Algoma</td>
</tr>
<tr>
<td><strong>Region 4</strong>: Huron, Perth, Waterloo and Wellington</td>
<td></td>
<td><strong>Region 11</strong>: Haliburton Highlands to the Ottawa Valley</td>
<td><strong>Region 13c</strong>: Northwest Ontario</td>
</tr>
</tbody>
</table>


College size consists of three categories: small, medium, and large. The full-time equivalent student population was used to determine these categories. Small colleges are those with a full-time equivalent student population of fewer than 8,000 students. Medium-sized colleges are those with a population of 8,000 to 16,000 full-time equivalent students, and large are those with a full-time equivalent student population of over 16,000 (Holmes, 2016).

Although all colleges in Ontario fall under the CAAT category, colleges are not a homogenous group as each has varying mandates and ambitions. For this study, colleges are organized into three categories according to the type of programming offered: Colleges of Applied Arts and Technology (CAATs), Institutes of Technology and Advanced Learning (ITALs), and polytechnics (Holmes, 2016). Table 5 depicts the grouping of 20 English language colleges for
this study based on geographic location, regional population, college size, and type of programming. In 2003, five CAATs, including Humber, Sheridan, Conestoga, Seneca, and George Brown were designated as Institutes of Technology and Advanced Learning (ITALs).

Table 5

Classification of the 20 English language Colleges offering prelicensure collaborative baccalaureate nursing programs in Ontario based on geographic location, regional population and college size

<table>
<thead>
<tr>
<th>Small Rural</th>
<th>Small Urban</th>
<th>Medium Urban</th>
<th>Large Urban</th>
</tr>
</thead>
<tbody>
<tr>
<td>Western</td>
<td></td>
<td>Conestoga*</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Lambton</td>
<td>St. Clair</td>
<td>Humber*</td>
</tr>
<tr>
<td></td>
<td>Niagara</td>
<td></td>
<td>Seneca*</td>
</tr>
<tr>
<td>Central</td>
<td></td>
<td>Centennial</td>
<td>Sheridan*</td>
</tr>
<tr>
<td></td>
<td>Fleming</td>
<td>Georgian</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Loyalist</td>
<td>George Brown*</td>
<td></td>
</tr>
<tr>
<td>Eastern</td>
<td></td>
<td>St. Lawrence</td>
<td>Durham</td>
</tr>
<tr>
<td></td>
<td>Fleming</td>
<td></td>
<td>Algonquin</td>
</tr>
<tr>
<td></td>
<td>Loyalist</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Canadore</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Sault</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Northern</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Northern</td>
<td>Cambrian</td>
<td>Confederation</td>
<td></td>
</tr>
</tbody>
</table>

*Institutes of Technology and Advanced Learning (ITAL); Polytechnics appear in italics.

Classification: Based on STATS Canada classification of institutions: Urban > 100,000 population, Rural < 100,000 population. College Size (small, medium, large) is based on Full-time (FT) student population: Small < 8000 FT students; Medium 8,000-16,000 FT students; Large 16,000 + FT students.


Colour coding - The yellow highlights the initial eight colleges selected as a representative sample, the blue highlighted the five additional colleges that were added. Niagara and Sheridan Colleges (strikethrough) do not offer a Collaborative Baccalaureate Nursing Program.

These ITALs are authorized by the Ministry of Training, Colleges, and Universities to offer up to 15% of their programming at the honours baccalaureate degree level, if approved by the postsecondary education quality assessment board (PEQAB), while the other colleges are limited to 5%. Six colleges are classified as polytechnics because they offer a wide range of advanced education credentials, their programs are skills-intensive and technology-based, experiential
learning opportunities are integral to the curriculum they offer, and they have significant industry partnerships (Holmes, 2016; Polytechnics Canada, 2015). However, these designations do not impact the collaborative baccalaureate nursing programs in any way and all CAATs in three categories were included in this study.

These classifications are important because generalizations cannot be made due to the diversity of Ontario colleges, and thus the classifications may be useful for understanding the diversity within the CAATs. For example, in the northern regions the colleges are small and primarily rural, whereas in the central regions the colleges are medium-large and urban. These regional differences may provide a clearer overview of what is happening within the college diversity, for example, about institutional resources available to faculty to support best practices, such as, professional development opportunities, scalability of faculty time, and learning management platforms. My final sample included 13 colleges within the following categories: geographic – two western, five central, four eastern, two northern; size/region – two small rural, three small urban, five medium urban, three large urban.

While the purposeful selection of a representative sample of the colleges was based on five criteria (geographic location, regional population, college size, and type of programming offered), and that the college offered a collaborative prelicensure baccalaureate nursing program, two pieces of information, although not part of the college selection criteria, provided information about the sample. These included the type of collaborative delivery model in place for each college prelicensure collaborative baccalaureate nursing programs, and the size of the nursing programs based on the number of graduating students who were first time writers of the 2017 National Council Licensure Examination (NCLEX). The selected colleges, collaborative program partners and the collaborative program model types are outlined in Table 6.
Table 6.

Selected College sites, institutional partners involved in collaboration, and collaborative baccalaureate program model and size of program

<table>
<thead>
<tr>
<th>College Sites</th>
<th>Institutional Partners</th>
<th>Program Model</th>
<th>Size (based on # of first time NCLEX writers)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>College/s</td>
<td>University</td>
<td></td>
</tr>
<tr>
<td><strong>Algonquin</strong></td>
<td>Algonquin</td>
<td>University of Ottawa</td>
<td>Hybrid (courses completed at university &amp; college in 1st two years and college in years 3 and 4)</td>
</tr>
<tr>
<td><strong>Centennial</strong></td>
<td>Centennial &amp; George Brown</td>
<td>Ryerson</td>
<td>Hybrid (2+2 model)</td>
</tr>
<tr>
<td><strong>Conestoga</strong></td>
<td>Conestoga &amp; Mohawk</td>
<td>McMaster</td>
<td>Joint-programming</td>
</tr>
<tr>
<td><strong>Confederation</strong></td>
<td>Confederation</td>
<td>Lakehead University</td>
<td>Regional Program/Entire program delivered online (synchronously)</td>
</tr>
<tr>
<td><strong>Durham</strong></td>
<td>Durham</td>
<td>UOIT</td>
<td>Fully Integrated; all years are on the same site</td>
</tr>
<tr>
<td><strong>Fleming</strong></td>
<td>Fleming</td>
<td>Trent</td>
<td>Fully Integrated (all at Trent)</td>
</tr>
<tr>
<td><strong>George Brown</strong></td>
<td>George Brown &amp; Centennial</td>
<td>Ryerson</td>
<td>Hybrid (2+2 model)</td>
</tr>
<tr>
<td><strong>Georgian</strong></td>
<td>Georgian &amp; Seneca</td>
<td>York</td>
<td>Hybrid (2 + 2 model: College - first 4 semesters; University-last 4 semesters)</td>
</tr>
<tr>
<td><strong>Humber</strong></td>
<td>Humber</td>
<td>University of New Brunswick</td>
<td>All 4 years are delivered by Humber</td>
</tr>
<tr>
<td><strong>Northern</strong></td>
<td>Northern, Sault, Cambrian &amp; St. Lawrence</td>
<td>Laurentian University</td>
<td>Joint-programming (all 4 years on all campuses)</td>
</tr>
<tr>
<td><strong>Seneca</strong></td>
<td>Seneca &amp; Georgian</td>
<td>York</td>
<td>Hybrid (2+2 model)</td>
</tr>
<tr>
<td><strong>St. Clair</strong></td>
<td>St. Clair &amp; Lambton</td>
<td>University of Windsor</td>
<td>Hybrid (college semesters 1-4; university-semesters 5-7; college semester 8)</td>
</tr>
<tr>
<td><strong>St Lawrance</strong></td>
<td>St. Lawrance, Northern, Sault &amp; Cambrian</td>
<td>Laurentian University</td>
<td>Joint-programming (all 4 years on all campuses)</td>
</tr>
</tbody>
</table>

**TOTAL**

13 of 20 English language colleges

*Note. Colour coding = 1st eight selected - yellow highlight, five added colleges - blue highlight.*
While there are various collaborative baccalaureate nursing models (described in Chapter One), many require students to transfer at some specified stage from the college(s) to the partner university to complete the program. Cameron (2003) found that more than half of nursing students enrolled in Ontario collaborative nursing programs are required to transfer. In addition to the collaborative delivery model type, the size of the programs informed the sample. Nursing program graduates are required to pass the NCLEX to practice as Registered Nurses. The number of graduating students who wrote the examination was retrieved from the College of Nurses (2017b) website, the regulatory body for nurses practicing in the province of Ontario. A point of interest was that several nursing programs in the small rural and small urban areas (i.e., Fleming and Humber) were comparable in size to programs in the medium and large urban areas.

**College participation rates.** Participation rates of the thirteen colleges invited to participate varied based on the criteria depicted in Table 7. Participation by geographical location ranged from 40% in the West to 100% of the colleges located Centrally. Thirty-three percent of the rural colleges participated while 78% of urban colleges did so. All the large colleges participated and half of the small colleges, just over 57% of the medium colleges are represented in the data.

**Participant Selection**

The faculty participants were purposefully and conveniently selected as the key informants who could best help me understand the strengths and challenges of online learning in prelicensure baccalaureate nursing programs in their specific colleges. Participants were full-time and part-time nursing faculty, as well as program coordinators in all years of the prelicensure collaborative baccalaureate nursing programs. Program coordinators were key informants with perhaps a slightly different perspective since they are designated in the
Collective Agreement as faculty with teaching responsibilities. In addition, their broad range of responsibilities at the course and program levels provide insight to challenges faculty face and inform the research questions. Although informants were from all years of the nursing program, the program years varied across the colleges depending on the type of collaborative delivery model in place between the college/s and the partner university. For example, in the 2 + 2 model the first two years of the program are offered at the college setting and students transfer to the university to complete the final two years of the program, whereas in a fully integrated model all four years are completed at each collaborative partner site.

Years one and two were initially selected for several reasons, first, to explore informants’ perspectives at program start and midway through this professional program, years in which faculty teach foundational concepts of nursing and on which they build throughout the program of study. Second, in more than half the collaborative baccalaureate nursing programs in Ontario, students study in the college setting for the first two years and then transfer to the partner university to complete the final two years, thus, faculty have experiences teaching students in both years and may have greater insights into course content that they consider suitable for online delivery or not. However, due to the limited amount of nursing content delivered online during the first two years of the program, I needed to expand the sample to include informants in years three and four.

Finally, the college setting was of interest to me not only from a college professor perspective but because of the philosophical differences between the two institutions (i.e., universities and colleges) namely the “emphasis on teaching and learning, and the associated nurturing environment in the colleges” (Clark et al., 2009, p. 159). Anecdotal comments from my students reflect the nurturing environment philosophy of colleges, in that they enjoy the
smaller class sizes, teachers are easier to connect with and know their names, and they feel like they belong.

Table 7

College demographic information (geographic location, regional population, college size, type of programming) of 13 participating colleges self-reported by online questionnaire participants

<table>
<thead>
<tr>
<th>Category</th>
<th>Number of Participating Colleges</th>
<th>Total Number of Colleges in each Category</th>
<th>College Participation Rate in each Category</th>
</tr>
</thead>
<tbody>
<tr>
<td>Regional Population</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Rural</td>
<td>2</td>
<td>6</td>
<td>33%</td>
</tr>
<tr>
<td>Urban</td>
<td>11</td>
<td>14</td>
<td>79%</td>
</tr>
<tr>
<td>College Size</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Small</td>
<td>5</td>
<td>10</td>
<td>50%</td>
</tr>
<tr>
<td>Medium</td>
<td>4</td>
<td>7</td>
<td>57%</td>
</tr>
<tr>
<td>Large</td>
<td>3</td>
<td>3</td>
<td>100%</td>
</tr>
<tr>
<td>Type of Programming</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>CAAT</td>
<td>9</td>
<td>15</td>
<td>60%</td>
</tr>
<tr>
<td>ITAL</td>
<td>4</td>
<td>4</td>
<td>80%</td>
</tr>
<tr>
<td>Polytechnic</td>
<td>5</td>
<td>6</td>
<td>83%</td>
</tr>
</tbody>
</table>

Recruitment of participants for the online questionnaire. A purposive convenience sampling was used for the recruitment of participants. Experience with teaching online nursing courses during the past two years was a criterion for participation. All full and part-time nursing faculty and program coordinators in collaborative baccalaureate nursing programs at the 13 English language colleges selected were invited to participate in the study by completing an online questionnaire survey (Appendix A) through their own College email communications by the appropriate college designates on my behalf. The email (Appendix B) included the Information Letter and Request for Consent (Appendix C) and requested that, if willing to
participate in the study, they go directly to the survey by clicking on the URL provided. A reminder email was sent out two weeks (Appendix D) and four weeks following the date of the original invitation.

Thirty-two faculty submitted responses for the online questionnaire survey by clicking on the URL (included in the recruitment email). Based on the information I received from the program deans, coordinators, and interviewees, I estimated that at the time of the survey there were 60 faculty in the collaborative baccalaureate nursing programs at the selected colleges, who were teaching or had taught online nursing courses in the past two years. Therefore, the response rate of 32 of the estimated 60 faculty identified as teaching (or having taught) online courses in the collaborative baccalaureate nursing programs in the sample of 13 representative Ontario colleges was 53.3%. In absolute numbers the sample size would be considered small, however, considering that the entire population was 60, it was more than 50% coverage, which is appropriate (Olesya Falenchuk, Research Systems Analyst, OISE/U of T, personal communication, August 31, 2017). Laguilles, Williams and Saunders (2011) point out that “within the context of higher education research….response rates higher than 50% are now anomalous, and rates lower than 40% are quite typical” (p. 538). Hill (1998) noted that for descriptive research the sample size should be 10% of the population, but if the population is small, then 20% may be required. And, in correlation research at least 30 subjects are required to establish a relationship. I drew from the same pool of 32 for 14 of the qualitative interviews. The interview data expanded on the quantitative findings of the survey, which also justifies a small sample size, according to Hill.

**Recruitment of participants for the interviews.** Potential interviewee participants consisted of nursing faculty including program coordinators with online teaching experience, and
program coordinators without online teaching experience. Nursing faculty who completed the survey were invited (at the end of the questionnaire survey) to participate in a follow-up interview and if interested to send me a separate email if they were willing to participate, if selected.

Program coordinators without online teaching experience, were invited to participate in an interview through their own College email invitations (Appendix E) by the appropriate college designates on my behalf. Potential participants were asked to read the Information Letter (Appendix F) and Consent to Participate (Appendix G), and if they were willing to participate in the study, they were asked to contact me by email. A reminder email was sent out two weeks (Appendix H) and four weeks following the date of the original invitation. This invitation was necessary to access those coordinators who could not be recruited via the online survey due to their ineligibility to participate because they did not meet the online teaching experience criterion.

Should an appropriate number of interviewees not be attained, I had permission from the University of Toronto Research Ethics Board (REB) to recruit participants by contacting program chairs or deans, who on my behalf, would invite program coordinators to participate, or program coordinators who would remind potential faculty participants of the study, and if interested in participating to contact me by any means. Several interview participants were recruited by this means. No non-consent driven contact information for potential participants was requested at any time throughout this study.

A total of 16 respondents from 10 College programs were interviewed. Of these respondents, 10 were faculty [nine full-time (FT), one part-time (PT), all with online teaching experience]; and six program coordinators [five FT, one PT - of which four had online teaching experience].
experience. Of the total number of nursing faculty estimated to be teaching nursing content online (N=60), 14 of the 16 interviewees represented 23.3% of the estimated total population of faculty and coordinators with online teaching experience in the participating colleges. In terms of the sample size, Guest, Brunce and Johnson (2006) pointed out that 12 interviews should be sufficient when the aim is to “understand common perspectives and experiences among a group of relatively homogenous individuals” (p. 79), as in purposive samples. I found that no new information was added as I approached 12 interviews, however, the last three of four remaining scheduled interviews were with two faculty program coordinators (one with and one without online teaching experience), and one faculty who facilitated content in a synchronous environment. Because I had interviewed only four coordinators to this point, I chose to conduct the interviews I had scheduled with the two coordinators, in case new information was forthcoming. While purposive sampling eligibility criteria did not require that participants have experience with both synchronous and asynchronous delivery, I believed that faculty perspectives of teaching content via a synchronous format only would add further insight to understanding teaching experiences, and expand on the perspectives of the one other faculty participant I had interviewed who also facilitated content synchronously. The fourth scheduled interview was with a faculty participant, and while I found that no new data were obtained leading up to 12 interviews, I wanted to be sure, and because I had scheduled the interview, I believed it was appropriate to conduct it.

**Data Collection**

I chose a mixed-methods triangulation strategy guided by a constructivist lens and pragmatic worldview to answer the research questions. Through a constructivist lens, the perspectives gained from faculty, program coordinators, and from document analysis helped
advance a deeper understanding on how best to identify and support successful teaching of relevant online course content in this type of professional program. From a constructivist perspective the researcher seeks to understand and explore meaning through a dialogue with participants (Creswell, 2009; Creswell & Plano Clark, 2007).

My study was guided by a pragmatic worldview in that my research was problem-centred and real-world practice oriented, as described in Chapters One and Two, and consistent with Creswell (2009). To provide the best understanding I drew from both quantitative and qualitative methods to inform about educational practices in online education and the processes needed for effective implementation of those practices. I believed that both methods of inquiry were needed to gain a deeper understanding of the research problem. Creswell and Plano Clark (2007) assert that the central premise of mixed methods research is “the use of quantitative and qualitative approaches in combination provides a better understanding of research problems than either approach alone” (p. 5). Pragmatist researchers use all approaches available to understand the problem and draw from both quantitative and qualitative methods when they engage in research, with emphasis on understanding the problem, not on the methods used (Creswell, 2009). Greene and Caracelli (1997) explained that each method provides a meaningful and legitimate way of knowing and understanding, with the underlying rationale “to understand more fully, to generate deeper and broader insights” (p. 7). Tashakkori and Teddlie (2010) used the term “methodological connoisseur” (p. 275) in describing a mixed methods researcher who selects the best methods available to answer research questions, and Tashakkori and Creswell (2008) highlighted the flexibility of mixed-methods as an asset for many researchers across diverse disciplines.
Data to inform the research questions were collected from three sources: document analysis of policies and related information on online learning from the websites of the 13 colleges selected, an online questionnaire survey completed by faculty (including program coordinators) at the selected 13 colleges, and interviews with 16 respondents.

**Document analysis.** I conducted a document analysis to identify espoused institutional perspectives on online learning and institutional infrastructures and support available to faculty. These documents included mission statements, vision statements, strategic plans, strategic mandate agreements, College web-sites, and collaborative baccalaureate nursing program course descriptions, all publicly available on the websites of the 13 colleges selected. In the analysis of these documents I identified themes relevant to research questions #1(c) and #3.

**Survey questionnaire.** To answer the research questions, I developed an online questionnaire, which consisted of 74 questions (Appendix A) to gather and analyze large amounts of data (as suggested by Creswell, 2009), from participating faculty and program coordinators on their perspectives of educational practices and course content that is suitable for online delivery, or not, in the programs that were the focus of this study.

Effective educational practice implementation requires a learner-centred (constructivist) approach and is reliant on institutional and faculty support - concepts integral to quality in distance or online education (e.g., Billings, 2000; CHEA, 2002; Chickering & Gamson, 1987). Thus, constructivism as a learning theory, and the concepts on which its implementation relies served as the basis of the survey questions. Survey questions were informed by related themes I identified in my review of the quality assurance distance and online learning literature. Additionally, the survey questions were informed by my experiences as an educator and the frameworks that ground this study. Chickering and Gamson’s (1987) principles informed about
educational practices through the lens of constructivism, as did Billings’ (2000) framework, which also informed about the processes needed for effective implementation of these practices - including institutional and faculty supports. The CHEA (2002) standards also informed the institutional and faculty support survey items.

**Instrumentation.** The online survey included both closed and open-ended questions. The eight Best Teaching Practice scales, comprising 38 survey statements, were adapted from the standardized Coates (2006) Student Engagement Questionnaire (SEQ), for use with faculty. According to Coates, the development of the SEQ was informed by decades of scholarly literature, including constructivist learning theory. Coates (2006) discussed engagement of undergraduate students in terms of “activities and conditions that are likely to promote learning” (p. 3). The author advanced a contemporary idea of student engagement in that engagement “is concerned with the point of intersection between individuals and things that are critical for their learning…it is based on the constructivist assumption that learning is influenced by how an individual participates in educationally purposeful activities” (p. 17). In reviewing the scholarly research that informed the SEQ, Coates (2006) highlighted the work of Chickering and Gamson’s (1987) seven principles and the “ideas and substance which underpins them” (p. 23). In its development the draft items and scales were reviewed by a group of subject area and technical experts to establish content, face and criterion validity. The survey was pilot tested with over 1000 students from multiple institutions.

The 38 statements addressed by the Likert-type scale responses were consistent with the constructivist learning literature, the best educational practices, and the theoretical frameworks of my study, on which these practices were grounded. Thus, the survey statements were appropriate against which to measure faculty’s self-selection of their own teaching practices. I
obtained consent from Coates (Appendix I) to use and modify the survey as appropriate for my study.

I adapted eight best teaching practices scales from Coates’ (2006) SEQ, which consisted of 16 scales including nine general engagement and seven online engagement scales. Of the 16 scales, I used seven of the nine general engagement scales, (grounded in the work of Chickering and Gamson (1987) and constructivism), and one of the seven online engagement scales for a total of 38 items representing survey questions 22-59. When the composite score for each scale was computed as a sum across the items, Questions 3 and 40 were included as items in two scales, Teacher Approachability (TA) and Student and Staff Interaction (SSI).

The seven general engagement scales were Constructivist Teaching (CT); Collaborative Work (CW); Teacher Approachability (TA); Supportive Learning Environment (SLE); Student and Staff Interaction (SSI); Active Learning (AL); Academic Challenge (AC); and the one online engagement scale was Online Social Interaction (OSI). Adaptations to the scales were minimal overall. For example, the Collaborative Work (CW) scale item “I worked with other students on difficult tasks” was adapted for use with faculty to, “Students work with other students on difficult tasks”, and the Active Learning (AL) item, “I set high standards for myself”, was changed to “I set high-performance standards for students” to more appropriately reflect the focus of my study. Several questions required more adaptation. For example, on the Active Learning (AL) scale I changed the question, “I tried to make connections between things that I was learning” to “I help students make connections between things that I am teaching online and their clinical nursing practice”. Similarly, I changed, “I thought about ethical issues related to the material that I studied” to “I ask students about how ethical issues of material studied online relate to their clinical nursing practice”. For the online engagement scale, Online Social
Interaction (OSI), I used three of four questions, which required only minimal adaptation. While it is expected that students and faculty have differing perspectives, I accommodated for these differences by using the Subject Matter Expert (SME) content validation Lawshe (1975) index (Appendix M) to establish content validity. Details of how I established both content and face validity are described under the heading, Establishing Credibility, below.

A total of seven items comprised the institutional support component of the survey. I adapted two of the seven items, questions 20, 21, from Coates’ Online Engagement Scale, and developed the remaining five items based on the quality indicators in the online learning literature, specifically Billings (2000) framework and the CHEA standards (2002).

These same sources informed the quality indicators for the faculty support questions. The 10 questions (# 4-14), from Smith’s (2014) researcher-designed survey, aligned with the quality indicators, and were adapted with permission (Appendix J). Three neutral third-party nurse educators with expertise in online teaching then conducted content and face validity testing to confirm the credibility of the data collection instrument.

I developed the remaining quantitative and open-ended, qualitative questions to seek information on relevant concepts, including nursing content and intended learning outcomes that faculty perceived were appropriate for online learning or not.

The response scale for the questionnaire included the Likert-type four-point response scales ranging from strongly negative to strongly positive as appropriate. The questionnaire also included check lists, completion statements, free responses, and yes/no options.

*Best teaching practices scales - Cronbach’s coefficient alpha.* Of the eight best teaching practice scales, Cronbach’s coefficient alpha was .80 and greater for five scales, .73 and greater for two scales, and .69 for the one remaining scale, the Student and Staff Interaction scale (SSI).
For the SSI, Cronbach’s coefficient alpha increased from .58 to .69 with the removal of one item, survey question #47, which was examined separately. Thus, the scales were considered reliable. Cronbach’s coefficient alpha for each of the practice scales is depicted in Table 8.

Table 8.

*Best practice scales depicting Cronbach’s coefficient alpha (internal consistency)*

<table>
<thead>
<tr>
<th>Scales</th>
<th>Cronbach’s coefficient alpha</th>
</tr>
</thead>
<tbody>
<tr>
<td>Constructivist Teaching (CT)</td>
<td>.80</td>
</tr>
<tr>
<td>Collaborative Work (CW)</td>
<td>.81</td>
</tr>
<tr>
<td>Teacher Approachability (TA)</td>
<td>.82</td>
</tr>
<tr>
<td>Supportive Learning Environment (SLE)</td>
<td>.76</td>
</tr>
<tr>
<td>Online Social Interaction (OSI)</td>
<td>.86</td>
</tr>
<tr>
<td>Active Learning (AL)</td>
<td>.82</td>
</tr>
<tr>
<td>Student and Staff Interaction (SSI)</td>
<td>.69 (increased from .58 with removal of SQ# 47)</td>
</tr>
<tr>
<td>Academic Challenge (AC)</td>
<td>.73</td>
</tr>
</tbody>
</table>

*Note. SQ = survey question*

Creswell (2009) suggested that when an instrument is modified, “it becomes important to re-establish validity and reliability during data analysis” (p. 150) because the original validity and reliability may not hold for the new instrument. Cronbach's coefficient alpha, which indicates how well the items on a tool fit together conceptually, is the most frequently used statistic to show internal consistency reliability, and the most widely used by nurse researchers (DeVon et al., 2007). The authors explained that a reliability coefficient of .70 or higher is “acceptable” for new scales. A "high" value for alpha does not imply that the measure is unidimensional.

*Institutional support scale - Cronbach’s coefficient alpha.* Seven questions on the survey elicited data about institutional support. Six questions elicited data about college infrastructure, including the learning management system, and technical support, and one question about the teaching resources that were available at the participants’ colleges. Five items were used to form
a scale, which I titled, the ‘Institutional Support’ (IS) scale. The two remaining questions were examined separately. When combined, five of the seven questions produced a Cronbach’s coefficient alpha of .68, indicating internal consistency of the scales, that the items fit well together conceptually. A coefficient of .70 or higher is acceptable for new scales, however, the Research Analyst whom I consulted said this value of .68 was acceptable.

**Faculty and program coordinator interviews.** In qualitative research the researcher seeks to understand and establish meaning of a phenomena from the views of participants (Creswell, 2009). I chose an exploratory-descriptive research design as the most appropriate to answer my research questions, described by Sandelowski (2000) as “getting the facts and the meanings participants give to those facts” (p. 336). Sandelowski (2010) explained that even though the researcher stays closer to the data and to words and events in this type of research, there is an obligation to analyze and interpret, as “qualitative research, including qualitative descriptive research, always requires moving somewhere” (p. 79). I requested and was granted verbal permission from all interviewees (at the time I conducted the interviews) to contact them after the survey results had been analyzed, should any unexpected findings from the survey data analysis require clarification or depth. I did not need any clarification of the survey findings, so follow-up with the participants was not required.

While online teaching experience was a requirement for faculty participation in the interview, this was not a requirement for program coordinators, thus two interview question guides were necessary - one for faculty/program coordinators with online teaching experience (Appendix K), and one for program coordinators without experience (Appendix L). Five questions (# 3, 9-12) on the faculty interview guide were adapted with permission from Smith’s (2014) interview guide as were two questions (# 9, 12) on the program coordinator guide
(coordinators without online teaching experience). These questions aligned with the quality indicators in the online learning literature, as did the remaining questions, which I developed, informed also by my experience as a nursing educator, and my online teaching experience which included teaching four blended online nursing courses.

I conducted one-on-one semi-structured interviews with a total of 16 faculty and program coordinators to gain in-depth understanding about nursing content that they perceived to be appropriate, or not, for online delivery, semesters in which online nursing content is best offered, faculty and institutional supports, experiential learning, assessment, and about best practices in online teaching. The 10 faculty respondents were coded FE1-FE10 with FE representing a faculty participant. FEC1-FEC4 represented the four program coordinators with online teaching experience and FECO1-FECO2, the two coordinators without online teaching experience.

Of the 16 interviews, one was conducted face-to-face in the interviewee’s college office, one by skype and the remaining interviews by telephone. The average length of the interviews was just over 50 minutes with the shortest being about 30 minutes and the longest slightly longer than 80 minutes. The locations and times of the interviews were determined by the interviewees. There were no interruptions throughout any of the interviews. Each interview followed the same process, and the interview guide was carefully followed. Non-leading probes were used as appropriate to explore a deeper understanding of responses. At the end of each interview, participants were invited to share any additional information that had not been addressed in the interview.

**Establishing Credibility (Content and Face Validity Pilot Testing)**

Pilot testing was conducted to determine content and face validity of the online questionnaire and interview guides. Content validity refers to the extent to which items measure
the content they are intended to measure (Creswell, 2009). Using Lawshe’s (1975) Content Validity Index (Appendix M), three subject matter experts reviewed the survey questionnaire and the interview guides to determine if the content was relevant and whether the items measured the intended content. The three experts were non-participants in this study and had considerable experience in teaching nursing courses online. One subject matter expert suggested minor revisions related to the context rather than the content of several questions on the questionnaire. Suggested revisions were implemented. No changes to the interview guides were recommended.

Face validity pilot testing seeks to determine whether questions are clear or leading in any way to potential respondents. The online questionnaire and interview guides were pilot tested by the same three experts who pilot tested the instruments for content validity. Of the three experts, one recommended one minor change to the response choice for one of the questions on the survey questionnaire, and one expert recommended several editing changes, wording, sequencing, as well as the removal of two or three questions that were repetitive. The recommended changes were implemented including the removal of two questions that were repetitive. No changes to the interview guides were recommended in the pilot testing.

Triangulation as described by Huessein (2015) was also used in this study to cross-validate the data and findings and thus to increase the credibility of the findings. The multiple data sources and methods of data collection and analysis strengthened the reliability and internal validity of the study. Multiple sources of data were used to confirm the findings of the study. Table 9 below identifies the sources of the data that answered each of the research questions.

The interviewees were given the opportunity to revise or validate the interview transcript before data analysis had begun. Of the 16 interviewees, eight accepted the transcripts as transcribed, three requested a few minor editing changes, and one participant requested two
minor wording changes. No one requested changes related to the actual content of the transcripts.

I also requested permission to contact interviewees following survey data analysis should any unexpected findings require clarification. I did not need to follow-up with any of the interviewees.

**Data Analysis**

I used two analytical approaches in this mixed methods research study. I collected data concurrently during the same time frame and analyzed each independently, then merged the data sets at the stages of interpretation and discussion, as suggested by Creswell & Plano Clark (2007). I implemented these authors’ recommended guidelines for merging the data in that the researcher needs to answer the following: the extent to which both data sets converge (including how and why); the extent to which the same data types confirm each other; the extent to which the open-ended themes support the survey results; and the similarities and differences that exist across levels of analysis.

I began with the analysis of the *quantitative* data generated by responses to the statements on the Likert-type survey questionnaire that answered the specific research questions as described in Table 9. For example, I calculated the statistical strength of the relationships between the participants’ self-reported practice responses compared to the relevant Best Teaching Practice scales.

I then analyzed the *qualitative* responses to identify themes and sub-themes related to the variables explored in the quantitative data (e.g., faculty comparisons of their online teaching experiences with those in the traditional classroom environment). The analysis of the qualitative data provided a deep understanding of the meaning of the relationships identified in the analysis of the quantitative data.
Table 9

Research questions and sources of data collection

<table>
<thead>
<tr>
<th>Research Questions</th>
<th>Data Sources</th>
<th>Questions from Identified Sources</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. What are participants’ perceptions about the quality of their online teaching</td>
<td>a) Best practice scales</td>
<td>n/a</td>
</tr>
<tr>
<td>experiences compared with:</td>
<td>Document Analysis</td>
<td>Questions 22-59</td>
</tr>
<tr>
<td>a) best practice scales,</td>
<td>Online Faculty Questionnaire</td>
<td>n/a</td>
</tr>
<tr>
<td>b) traditional classroom teaching, and</td>
<td>Faculty Interviews</td>
<td>n/a</td>
</tr>
<tr>
<td>c) institutional and faculty supports for online teaching?</td>
<td>Program Coordinator Interviews</td>
<td></td>
</tr>
<tr>
<td>b) Traditional classroom teaching</td>
<td>Document Analysis</td>
<td>n/a</td>
</tr>
<tr>
<td>Document Analysis</td>
<td>Online Faculty Questionnaire</td>
<td>Questions 10, 60, 61</td>
</tr>
<tr>
<td>Faculty Interviews</td>
<td>Faculty Interviews</td>
<td>Questions 6, 8, 9, 10, 11, 12, 14</td>
</tr>
<tr>
<td>Program Coordinator Interviews</td>
<td>Program Coordinator Interviews</td>
<td>Questions 8, 9, 10, 12</td>
</tr>
<tr>
<td>c) Institutional and faculty supports for online teaching.</td>
<td>Document Analysis</td>
<td>Yes</td>
</tr>
<tr>
<td>Document Analysis</td>
<td>Online Faculty Questionnaire</td>
<td>Questions 5-21</td>
</tr>
<tr>
<td>Faculty Interviews</td>
<td>Faculty Interviews</td>
<td>Question 5</td>
</tr>
<tr>
<td>Program Coordinator Interviews</td>
<td>Program Coordinator Interviews</td>
<td>Questions 4, 5, 6</td>
</tr>
<tr>
<td>2. How and by whom are decisions made regarding the nature of the content and</td>
<td>Document Analysis</td>
<td>Yes</td>
</tr>
<tr>
<td>learning outcomes that should or should not be developed in the online delivery</td>
<td>Online Faculty Questionnaire</td>
<td>Questions 3, 4</td>
</tr>
<tr>
<td>format?</td>
<td>Faculty Interviews</td>
<td>Question 3</td>
</tr>
<tr>
<td></td>
<td>Program Coordinator Interviews</td>
<td></td>
</tr>
<tr>
<td>3. What a) course content and b) intended</td>
<td>a) Content</td>
<td>n/a</td>
</tr>
<tr>
<td>learning outcomes do participating faculty identify as appropriate or not for online</td>
<td>Document Analysis</td>
<td>Questions 64, 65</td>
</tr>
<tr>
<td>learning? Why or why not?</td>
<td>Online Faculty Questionnaire</td>
<td>Question 13 (a)</td>
</tr>
<tr>
<td></td>
<td>Faculty Interviews</td>
<td>Question 11 (a)</td>
</tr>
<tr>
<td></td>
<td>Program Coordinator Interviews</td>
<td></td>
</tr>
<tr>
<td>b) Intended learning outcomes</td>
<td>Document Analysis</td>
<td>n/a</td>
</tr>
<tr>
<td>Document Analysis</td>
<td>Online Faculty Questionnaire</td>
<td>Questions 63</td>
</tr>
<tr>
<td>Faculty Interviews</td>
<td>Faculty Interviews</td>
<td>Question 13 (b)</td>
</tr>
<tr>
<td>Program Coordinator Interviews</td>
<td>Program Coordinator Interviews</td>
<td>Question 11 (b)</td>
</tr>
<tr>
<td>4. What are the perceptions of faculty regarding the types of assessment strategies</td>
<td>Document Analysis</td>
<td>n/a</td>
</tr>
<tr>
<td>that are appropriate or not in the online format? Why or why not?</td>
<td>Online Faculty Questionnaire</td>
<td>Questions 57-59, 62</td>
</tr>
<tr>
<td></td>
<td>Faculty Interviews</td>
<td>Question 7</td>
</tr>
<tr>
<td></td>
<td>Program Coordinator Interviews</td>
<td>Question 7</td>
</tr>
</tbody>
</table>

Note. Online teaching experience was not a requirement for participation in the interview for program coordinators. Thus, for program coordinators with experience, the faculty interview question guide (Appendix K) was used, and for coordinators without experience, the program coordinator interview question guide (Appendix L) was used.

Quantitative survey data were analyzed using the Statistical Package for the Social Sciences (SPSS). Olesya Falenchuk, the Research Systems Analyst at the University of Toronto,
assisted with this analyses. To address the research questions in this study with the survey data, I used a variety of statistical methods. The methods were selected to fit the properties of the data (nominal, ordinal, or scale) and the questions asked. Specifically, to investigate the relationships between various variables, Pearson correlations were used for pairs of scale variables (composite score for each scale was computed as a sum across the items), Spearman correlations were used to examine relationships between an ordinal and a scale variable, Kendal Tau-B were used for pairs of ordinal variables and Kramer’s V were used for pairs of nominal variables. To examine the differences in the average scores of the scale variables between two groups (such as males vs females), independent samples t-tests were used. To examine the difference on categorical variables between two or more groups, chi-square tests of independence were computed. And to explore the differences between three or more groups on scale variables, one-way ANOVAs were utilized. To investigate the relationships between pairs of binary variables, Cochran’s Q tests were used.

To analyze the qualitative interview data, I used the organizing system informed by Tesch (2013) who recommended it consist of the following sources: “the research questions, and sub-questions; the research instrument (s); concepts or categories used by other authors in previous studies; and the data themselves” (p. 141). I followed protocols advocated by Creswell (2009) as described here. First, following his six-step protocol, I organized and prepared the raw data, including transcripts of the interviews, and my recorded notes. Merriam (2002) asserted that in qualitative research, data analysis is simultaneous with data collection, and that one begins analyzing data with the first interview. I then read over the transcripts, which provided a sense of the information and its overall meaning, Creswell’s second step. Because I had transcribed the data, deeper meaning was gained from this step. Thirdly, I began a detailed
analysis by hand coding the data which involved organizing the material into chunks or segments of text before bringing meaning to information. I examined for patterns in the data, and then counted the responses of participants. Sandelowski (2000) pointed out that codes in qualitative descriptive studies are data-derived and that summarizing the data numerically with descriptive statistics, confirms the patterns or regularities that have been identified in the data. Tesch’s (1990) coding process also informed my approach. Tesch (as cited in Creswell 2000) recommended the following eight steps to coding: read all transcripts carefully, getting a sense of the whole and jotting ideas down as they come to mind; pick one document and, without thinking in advance about what its meaning might be, read through it asking yourself what it is about, then jot down your thoughts; do this for several documents and then cluster together and make a list of similar topics; take the list and go back to the data, abbreviating the topics as codes next to the appropriate text segments; find the most descriptive words and turn them into categories by grouping topics that relate to each other; make a final decision about the abbreviation for each category and alphabetize the codes; assemble data material belonging to each category in one place and perform a preliminary analysis; and Tesch’s eight and final step was to recode the existing data, if necessary.

Following Creswell’s fourth step - I used the coding process to generate a small number of themes. In the fifth step, the description and themes were represented using a narrative passage to convey the findings of the analysis, as presented in Chapters four and five. Merriam (2002) emphasized that it is the “rich, thick descriptions….that persuade the reader of the trustworthiness of the findings” (p. 15). The themes were then analyzed for similarities and differences as Creswell (2009) advised. Finally, I interpreted the data, based on the literature I reviewed on the topic and my own understanding, the sixth and final step (Creswell).
To check for the credibility of the findings I asked three nursing professors with online teaching experience to cross-check the codes for intercoder agreement. One professor did not recommend any changes, accepting all quotes as strongly supporting the themes. The second professor suggested that one quote could fit under the theme in which it was contained or possibly another theme. I kept the quote under the theme where it was located. The third professor recommended the removal of one quote from a theme indicating that it was not fully relevant, and the removal of a block of four quotes from another theme due to lack of alignment with the theme title. Based on this feedback, I removed the suggested quote from the identified theme. And, for the block of four quotes, I adjusted the title of the theme so that it was aligned with the quotes of participants.

**Methodological Assumptions**

I used a self-report approach in the online questionnaire requiring the participants to respond to a series of questions and statements. Although pilot tested for content validity, this approach involved making assumptions about the appropriateness of the questions and the validity of the participants’ responses. The main assumption was that the participants’ responses would be truthful and accurate. Northrup (1996) explained that “it is important to maximize the conditions under which respondents will give honest answers, but there is good reason to believe that dishonesty is not the norm for survey questions” (p. 2).

The survey process was structured to maximize conditions for promotion of truthful responses in that participants were assured that their participation in the study was voluntary, they were free to not respond to any question(s) that they did not wish to answer, and free to withdraw from the study at any time without explanation, and no participants would be identifiable in any reporting of the findings.
Although all study findings were to be presented in aggregate, and not by individual institution, I did not promise total anonymity because of the small number of CAATs in Ontario. This information was shared with participants in the information letters (Appendices C, F) prior to their providing consent for participation.

Lastly, I was not in a power relationship with any of the participants, and participants had nothing to gain or lose personally from the findings of the study. For all these reasons it is reasonable to assume that the responses of participants were as honest as they could be given that some of the questionnaire items required recall.

**Scope and Limitations**

This study included only 13 (65%) of the 20 English language colleges in Ontario that offer collaborative baccalaureate nursing programs. While this study provided insight to the strengths and challenges of online teaching in prelicensure collaborative baccalaureate nursing programs in participating Ontario colleges, and adds to the gap in the literature that I found, it is important to note that every College in which a nursing program is situated is unique. Because of this diversity, a representative sample of Colleges was chosen, and generalizations are not possible beyond the programs studied. In addition, findings are not generalizable beyond the participating programs because participants were purposefully and conveniently selected, and generalizability is only possible with random sampling. However, because of the unique challenges of preparing practitioners charged with the responsibility to serve vulnerable populations, the findings may be of interest to other programs that prepare practitioners with similar applied responsibilities.

The second limitation is the potential for researcher bias because of my experience as a nursing educator in a prelicensure collaborative baccalaureate program. To minimize this
limitation, I consciously attempted to remain as objective as possible throughout the research process. For example, all instruments were pilot tested for content and face validity. When interviewing faculty, I used a consistent approach and non-leading probes as appropriate to explore a deeper understanding of responses. Interview transcripts were also validated by the interview participants prior to analysis. A mixed-methods approach and the use of triangulation to cross-validate the data and findings also helped to address this limitation.

**Ethical Issues and Considerations**

I began data collection at each site only after I received written ethics approval from the University of Toronto Research Ethics Board (REB) (Appendix N) and from the Colleges invited to participate in the study. Participants were informed that participation in any aspect of this study was strictly voluntary and no participants would be identifiable in any reporting or publication of the findings in any appropriate venues; the survey questionnaire was anonymous and only non-identifiable pseudonyms were used for interview participants.

I obtained written consent from each participant prior to the interview. Permission was requested and granted by all participants to follow-up with them, should clarification be required from any unexpected findings of the survey data analysis. With the specific consent of each participant, the interviews were audio-recorded and transcribed. All interviewees granted permission to audio-record the interviews. I transcribed the audio-recordings as soon as possible after the interview and deleted the recordings immediately after transcription. I sent their copy of the transcripts to each participant for validation or revision as they saw fit. Of the sixteen participants 12 responded, none of which requested changes to the actual content.

In the consent forms, participants were informed they were free to decline to answer any question(s) that they did not wish to answer and they were free to withdraw from the study at any
time without explanation or penalty, for survey participants this was by not submitting their responses to the online questionnaire, and none of their data was then included in the study findings. Participants were also informed that because the survey was anonymous, it was not possible to delete any data once responses were submitted online.

Interviewees who wished to withdraw were informed that they could do so simply by stopping the interview or letting me know by any means and information provided in the interview would be deleted if they withdrew before the aggregation of the data was begun, after which it would not be possible to delete their input. None of the interviewees withdrew.

Participants were informed that all the data would be kept confidential and secure, accessible only to my thesis supervisor and me. They were informed that only non-identifiable codes would be used in reporting research findings in publications or presentations at appropriate conferences. Electronic data were encrypted consistent with University of Toronto policies and kept on a private computer secured by password. All data will be kept for a period of five years and then destroyed; digital data will be deleted, and hard copies cross-shredded.

Chapter Three Summary

In Chapter Three the purpose of the study was first re-introduced. Next presented was the design of this exploratory descriptive study along with a description of the research methodology, site selection, participant selection, data collection and analysis and credibility. A discussion of methodological assumptions, limitations and ethical issues then followed. In Chapter Four, the findings and analysis for Research Question one are presented.
Chapter Four: Findings for Research Question #1

The purpose of this study was to explore the perception of participating faculty about the nature and appropriateness of curriculum content that is suited for online delivery (or not), in the prelicensure collaborative baccalaureate nursing programs in a sample of Ontario colleges. In this chapter I present the findings related to Research Question one. In Chapter Five I describe the findings relevant to Research Questions two, three, and four. In the analysis and interpretation of the findings for all research questions, I examine the relationships between the study findings, the literature and grounding theoretical frameworks presented in Chapters One and Two.

Demographic and Background Data

Of the 32 participants who completed the survey, 28 (90.3%) were full-time nursing professors of which 16 (50%) had 16 years or more of teaching experience. Twenty-six (81%) had four or more years of online teaching experience. Not surprisingly, 28 (90.3%), of 31 participants who responded to this question, were female, which is reflective of the female dominated nursing profession. But it is a slightly higher male participation (9.6%; n=3 of 31 responding to the question), when compared to the percentage of practicing Registered Nurse (RN) members who were employed in nursing profession in Ontario for 2016, of which only 7% were male (CNO, 2017c, p. 19). Because of the predominance of female respondents in this study, I don’t differentiate by gender and use female pronouns throughout the paper for the purposes of reporting the findings.

Twenty-four (74%) participants were 47 years of age and older, with 9 (29%) between the ages of 47-55 years, and 14 (45%) aged 56 years and older, which according the Canadian Association of Schools of Nursing (CASN) (2016), is consistent with the ages of nurse educators
in Canada and older than the average age of registered nurses in the Canadian workforce. The Canadian Association of Schools of Nursing (2016) reported that 58.1% of permanent faculty were 50 years of age or older; 39.3% were 55 years or older and 21.6% were 60 years or over, and “the RN faculty are older than the general RN workforce with the percentage of RN permanent faculty in the 50+ age cohort more than 10 percentage points higher than the percentage of 50+ in the RN workforce” (p. 15). The College of Nurses of Ontario (CNO) reported that “the average age of RN General Class members employed in nursing in Ontario for 2016 was 44.8 years” (CNO, 2017c, p. 19).

Twenty-six (81.3%) participants were faculty and six (18.8%) program coordinators. Twenty (62.5%) were academically prepared at a master’s degree level and 23 (71.9%) had more than 12 years of educator experience.

In terms of background information, eight (25%) participants had teaching experience with all online delivery formats, including web-facilitated, hybrid, and fully online and 26 (81.3%) had more than four years of teaching nursing content online. Twenty-five (78.1%) participants had experience with teaching a in hybrid format model.

Research Question #1: asked “What are participants’ perceptions about the quality of their online teaching compared with: a) best practice scales, b) traditional classroom teaching, and c) institutional and faculty supports for online teaching?”

a) Best Practice Scales

The data to answer this question were derived from responses to the online survey questionnaire. First, I first present findings from the eight best practice teaching scales. These scales were Constructivist teaching (CT), Collaborative work (CW), Teacher Approachability (TA), Supportive Learning Environment (SLE), Online Social Interaction (OSI), Active
Learning (AL), Student Staff Interaction (SSI), and Academic Challenge (AC). Then I present findings of relationships between best teaching practice (BTP) scales and the rest of the scales, demographics, and background information.

**Online questionnaire survey.** Of the 32 (100%) participants who responded, the average scores on all Best Teaching Practice (BTP) scales were high. Information on Best Teaching Practice scales descriptive statistics is presented in Table 10.

**Table 10**

*Best Teaching Practice (BTP) scales descriptive statistics - mean, standard deviation, skewness, and kurtosis*

<table>
<thead>
<tr>
<th>Scale</th>
<th>Min</th>
<th>Max</th>
<th>Mean</th>
<th>SD</th>
<th>Skewness Statistic</th>
<th>Skewness SE</th>
<th>Kurtosis Statistic</th>
<th>Kurtosis SE</th>
</tr>
</thead>
<tbody>
<tr>
<td>Constructivist teaching (CT)</td>
<td>8</td>
<td>24</td>
<td>19.47</td>
<td>3.75</td>
<td>-1.00</td>
<td>0.41</td>
<td>1.21</td>
<td>0.81</td>
</tr>
<tr>
<td>Collaborative work (CW)</td>
<td>4</td>
<td>16</td>
<td>10.63</td>
<td>3.34</td>
<td>-0.37</td>
<td>0.41</td>
<td>-0.63</td>
<td>0.81</td>
</tr>
<tr>
<td>Teacher approachability TA)</td>
<td>7</td>
<td>16</td>
<td>14.47</td>
<td>2.06</td>
<td>-1.81</td>
<td>0.41</td>
<td>4.18</td>
<td>0.81</td>
</tr>
<tr>
<td>Supportive learning environment (SLE)</td>
<td>7</td>
<td>16</td>
<td>14.06</td>
<td>2.03</td>
<td>-1.37</td>
<td>0.41</td>
<td>3.19</td>
<td>0.81</td>
</tr>
<tr>
<td>Online social interaction (OSI)</td>
<td>3</td>
<td>12</td>
<td>8.38</td>
<td>2.64</td>
<td>-0.33</td>
<td>0.41</td>
<td>-0.74</td>
<td>0.81</td>
</tr>
<tr>
<td>Active learning scale (AL)</td>
<td>10</td>
<td>24</td>
<td>19.84</td>
<td>3.35</td>
<td>-1.02</td>
<td>0.41</td>
<td>0.86</td>
<td>0.81</td>
</tr>
<tr>
<td>Student staff interaction (SSI)</td>
<td>5</td>
<td>16</td>
<td>13.47</td>
<td>2.23</td>
<td>-2.17</td>
<td>0.41</td>
<td>6.00</td>
<td>0.81</td>
</tr>
<tr>
<td>Academic challenge (AC)</td>
<td>28</td>
<td>62</td>
<td>44.44</td>
<td>8.99</td>
<td>-0.12</td>
<td>0.41</td>
<td>-0.77</td>
<td>0.81</td>
</tr>
<tr>
<td>Institutional support (IS)</td>
<td>8</td>
<td>19</td>
<td>13.22</td>
<td>3.07</td>
<td>-0.21</td>
<td>0.41</td>
<td>-0.53</td>
<td>0.81</td>
</tr>
</tbody>
</table>

*Note.* Mean denotes the arithmetic average of scores. Standard Deviation (SD) measures the distribution of scores from the mean. Skewness and kurtosis are measures of Central Tendency and Shape of the Distribution of responses: negative skewness means that the tail of the distribution extends to the left (below) central tendency (0); Positive skewness means the tail of the distribution extends to the right (more than) central tendency (0). Kurtosis is a measure of the peakedness or heaviness of the tails: 0 = normal tails; <0 = light tail and >0 denotes heavy tails.
The Teacher Approachability (TA), Supportive Learning Environment (SLE), Active Learning (AL), and Student and Staff Interaction (SSI) scale scores were more positively skewed (i.e., more positive than the mean) and the Student and Staff Interaction (SSI) the most positively skewed. Data on the best teaching practice scales are depicted in Appendix O.

**Student and Staff Interaction (SSI).** Five questions elicited data on student and staff interaction. Four of these questions (#s 31, 40, 43, 46) comprised the SSI scale, and one question (# 47) was examined separately. Student Staff Interaction (SSI) scale data, demonstrating the skewness of scores, are displayed in Table 11. In response to questions on the Student Staff Interaction (SSI) scale, 27 (84.4%) faculty made individual contact with students often or very often. The high scores suggested that faculty easily integrated best practices to their online teachings, particularly in those practice areas.

Table 11

**Student and Staff Interaction (SSI) scale data, displayed in percentages of faculty (n=32)**

<table>
<thead>
<tr>
<th>Survey questions # 31, 40, 43, 46</th>
<th>Per cent of response for each response option</th>
</tr>
</thead>
<tbody>
<tr>
<td>In my online course, I feel students can approach me.</td>
<td>Never</td>
</tr>
<tr>
<td>0</td>
<td>9.4</td>
</tr>
<tr>
<td>I interact with students in my online course.</td>
<td>3.1</td>
</tr>
<tr>
<td>I make individual contact with my online students.</td>
<td>3.1</td>
</tr>
<tr>
<td>I seek feedback from my online students on how to improve my performance.</td>
<td>16.1</td>
</tr>
</tbody>
</table>

Data elicited from survey question # 47 are depicted in Table 12. In response to question # 47, 19 (59.4%) faculty met face-to-face with their online students often or very often.
Table 12.

Student and Staff Interaction (SSI) scale data, survey question # 47, displayed in percentages of faculty (n=32)

<table>
<thead>
<tr>
<th>Per Cent of Response for each response option</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Never</td>
</tr>
<tr>
<td>SQ #47. I meet face-to-face with my online students.</td>
<td>6.3</td>
</tr>
</tbody>
</table>

Note. SQ = Survey Question

Best Teaching Practice scale scores in the areas of Collaborative Work (CW), Online Social Interaction (OSI), and Academic Challenge (AC) were more in the mid-high range, indicating practices that were not as easily integrated relative to the other teaching practice areas. For example, in the area of Collaborative Work (CW), 15 (46.9%) faculty ‘never’ or ‘sometimes’ had students work on group projects with other students, and 17 (53.2%) ‘never’ or ‘sometimes’ had students work with other students on difficult tasks. Faculty response data on the CW scale are presented in Table 13.

Table 13

Collaborative Work (CW) scale data, displayed in percentages of faculty (n=32)

<table>
<thead>
<tr>
<th>Per Cent of Response for each response option</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Never</td>
</tr>
<tr>
<td>SQ #28. In my online course, students work on group projects with other students.</td>
<td>25.0</td>
</tr>
<tr>
<td>SQ #29. In my online course, students work with other students on difficult tasks.</td>
<td>21.9</td>
</tr>
<tr>
<td>SQ #30. In my online course, I discuss with students the best ways to work collaboratively.</td>
<td>25.8</td>
</tr>
<tr>
<td>SQ #39. I support students in my online course when they have academic problems.</td>
<td>6.3</td>
</tr>
</tbody>
</table>

Note. SQ = Survey Question
With respect to the best teaching practice scale named Online Social Interaction (OSI), 15 (46.9%) faculty responded ‘never’ or ‘sometimes’ to the statements: “I find it easy to communicate complex ideas in online discussions” and “I have helpful online discussions with my students.” Detailed data on this scale are depicted in Table 14.

Table 14.  

*Online Social Interaction (OSI) scale data, displayed in percentages of faculty (n=32)*

<table>
<thead>
<tr>
<th>Per Cent of Response for each response option</th>
<th>Never</th>
<th>Sometimes</th>
<th>Often</th>
<th>Very Often</th>
</tr>
</thead>
<tbody>
<tr>
<td>SQ #36. As a teacher, I participate in online discussions.</td>
<td>9.4</td>
<td>21.9</td>
<td>18.8</td>
<td>50.0</td>
</tr>
<tr>
<td>SQ #37. I find it easy to communicate complex ideas in online discussions.</td>
<td>12.5</td>
<td>34.4</td>
<td>34.4</td>
<td>18.8</td>
</tr>
<tr>
<td>SQ #38. I have helpful online discussions with my students.</td>
<td>9.4</td>
<td>37.5</td>
<td>28.1</td>
<td>25.0</td>
</tr>
</tbody>
</table>

*Note. SQ = Survey Question*

And, in the teaching practice area of Academic Challenge (AC), while 29 (90.7 %) faculty perceived that the assessments they used in the online environment challenged students to learn, 28 (87.5%) faculty said they ‘often’ or ‘very often’ worked harder than they thought they would to meet the standards, expectations and deadlines.

*Relationships between the Best Teaching Practices scales.* The eight best practice scales showed moderate or strong relationships when tested against each other, with the exception the Teacher Approachability (TA) scale, in which there was no relationship between it and the Active Learning (AL) and Academic Challenge (AC) scales. Not surprising, the strongest relationship was between the Constructivist Teaching (CT) and the Collaborative Work scales, with a of score of .724, since both activities are fundamentally interactive. Data are depicted in Table 15.
Table 15

*Best Teaching Practices (BTP) scales correlations*

<table>
<thead>
<tr>
<th></th>
<th>CW</th>
<th>TA</th>
<th>SLE</th>
<th>OSI</th>
<th>AL</th>
<th>SSI</th>
<th>AC</th>
</tr>
</thead>
<tbody>
<tr>
<td>CT</td>
<td>.724</td>
<td>.390</td>
<td>.682</td>
<td>.427</td>
<td>.457</td>
<td>.549</td>
<td>.546</td>
</tr>
<tr>
<td>CW</td>
<td>.372</td>
<td>.655</td>
<td>.519</td>
<td>.406</td>
<td>.670</td>
<td>.652</td>
<td></td>
</tr>
<tr>
<td>TA</td>
<td>.511</td>
<td>.499</td>
<td>.165</td>
<td>.680</td>
<td>.252</td>
<td></td>
<td></td>
</tr>
<tr>
<td>SLE</td>
<td>.646</td>
<td>.608</td>
<td>.605</td>
<td>.596</td>
<td>.576</td>
<td></td>
<td></td>
</tr>
<tr>
<td>OSI</td>
<td>.605</td>
<td>.596</td>
<td>.576</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>AL</td>
<td>.440</td>
<td>.591</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>SSI</td>
<td>.477</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

*Note.* CT = Constructivist Teaching; CW = Collaborative Work; TA = Teacher Approachability; SLE = Supportive Learning Environment; OSI = Online Social Interaction; AL = Active Learning; SSI = Student Staff Interaction.

Strong relationship between variables = a correlation of > .6; moderate relationship > .3 - .6

**Relationships between Best Teaching Practices scales and demographics.** The independent-samples t-tests showed no difference in the roles of faculty and coordinators, full- and part-time faculty, males and females, and no difference between level of education for any of the BTP scales.

Spearman’s correlation analysis (used when both variables are ordinal, or one ordinal and one scale) showed a moderately sized, positive relationship between the following variables: the greater the number of years of experience as a nurse, the higher the scores on the Constructivist Teaching (CT), Teacher Approachability (TA), Academic Challenge (AC) best practice teaching scales; the greater the number of years of teaching experience, the greater the scores on Constructivist Teaching (CT), Collaborative Work (CW) and Academic Challenge (AC). There was no relationship found between age and best teaching practice scale scores.

**Relationships between Best Teaching Practices scales and background data.** Between the question, “How many years have you been teaching online?” and the best teaching practice (BTP) scales, Spearman’s correlation test (range across categories) showed a moderately strong
relationship between years of online teaching experience and the Constructivist Teaching (CT), Collaborative Work (CW), Supportive Learning Environment (SLE), Active Learning (AL), Student Staff Interaction (SSI), and Academic Challenge (AC) best teaching practice scales. The more experience faculty had with online teaching the better they implemented teaching practices in those areas. No relationship was found between online experience and teacher approachability and online social interaction.

Examination of the relationship between the question, “I have experience with teaching the following course types” and the best teaching practice (BTP) scales found that of the three online course delivery types (web-facilitated, blended, online); there was no relationship between faculty having experience with web-facilitated or blended delivery and the best practice scales. However, there was a relationship between faculty having experience with delivering content online (80% of content is delivered online) and the Academic Challenge (AC) scale scores. This may be explained by the fact that faculty who were teaching courses that were fully online, also had experience with this form of delivery and were better able to challenge students academically. The relationships between faculty experiences and the best teaching practices scales are presented in Table 16.

Table 16

**Relationships between faculty experiences and Best Teaching Practices scales**

<table>
<thead>
<tr>
<th>Faculty Experiences</th>
<th>Relationship</th>
<th>Best Practice Scales</th>
</tr>
</thead>
<tbody>
<tr>
<td>as a nurse* (SQ#66)</td>
<td>Positive, moderate</td>
<td>CT, TA, AC</td>
</tr>
<tr>
<td>teaching in traditional format* (SQ#67)</td>
<td>Positive, moderate</td>
<td>CT, CW, AC</td>
</tr>
<tr>
<td>teaching online* (SQ#4)</td>
<td>Positive, moderate-strong</td>
<td>CT, CW, SLE, AL, SSI, AC</td>
</tr>
<tr>
<td>delivering fully online content** (SQ#3)</td>
<td>Positive, moderate</td>
<td>AC</td>
</tr>
</tbody>
</table>

*Note: *denotes Spearman’ rho correlation; ** denotes eta-squared. Mod. relationship =.3-.6; Strong =>6
b) Traditional Classroom Teaching

The data to answer this question were derived from the online survey questionnaire and participant interviews. Interviews of all participants informed this question.

Online questionnaire survey. When asked about the type of learning environment preferred when teaching students, the most preferred choice was a hybrid environment following by a traditional face-to-face classroom environment. Fourteen (43.8%) faculty preferred a hybrid, 11 (34.4%) a traditional face-to-face, and 10 (31.3%) a combination of two or more teaching environments. Findings of faculty preferences are displayed in Figure 5.

![Pie chart showing faculty preferences for teaching students](image)

Figure 5. Faculty responses to survey question # 10 that asked, “What Type of Learning Environment do you Prefer when Teaching Students?” are displayed in percentages of faculty (n=32)

Regarding faculty preferences for teaching some online courses, data are displayed in Table 17. Twenty-five (78%) participants agreed or strongly agreed that they preferred teaching some online nursing courses face-to-face, while 29 (90.6%) agreed or strongly agreed that they were satisfied with their online teaching of nursing content.
Table 17

Percentages of faculty who preferred teaching some online courses face-to-face, and satisfaction with teaching nursing content online, responses displayed in percentages of faculty (n=32)

<table>
<thead>
<tr>
<th>Survey Question</th>
<th>Per Cent of response for each response option</th>
</tr>
</thead>
<tbody>
<tr>
<td>SQ # 60. I prefer to teach some online courses face-to-face. (n=32)</td>
<td>Strongly Disagree</td>
</tr>
<tr>
<td></td>
<td>6.3%</td>
</tr>
<tr>
<td>SQ # 61. I am satisfied with my online teaching of nursing courses. (n=32)</td>
<td>3.1%</td>
</tr>
</tbody>
</table>

Note. SQ = Survey Question

Faculty interviews. I identified the following six themes that addressed this question: 1) Differences in the nature of communication between traditional face-to-face classroom delivery and the online format, 2) strategies for engaging students - bridging the physical distance gap, 3) flexibility, 4) tech savviness, 5) student readiness, and 6) online teaching takes more time.

Of the six themes I identified, four consisted of sub-themes. Theme one, ‘differences in the nature of communication between traditional face-to-face classroom delivery and online format’ consisted of six sub-themes: i) I can’t see my students, ii) discussions - comparing online with face-to-face, iii) asynchronous discussions, iv) experiential learning - interaction is needed, v) nursing is relational - it is a person-based profession, and vi) extent of outreach to students. Theme two, ‘strategies for engaging students - bridging the physical distance gap’ consists of five sub-themes: i) online communication must be very clear, ii) key approaches to engaging students, iii) discussion forums, iv) facilitating experiential learning and making theory to practice linkages, and v) hybrid delivery, a desirable option. Theme three, ‘flexibility’ consists of two sub-themes: i) flexibility for faculty and ii) flexibility for students, and theme four, ‘tech
savviness’ consisted of two sub-themes: i) students’ tech savviness and ii) faculty’s tech savviness.

**Theme one: Differences in the nature of communication between traditional face-to-face classroom delivery and the online format.** Under this theme participants’ perspectives are reported under the following six sub-themes: i) I can’t see my students, ii) discussions - comparing online with face-to-face, iii) asynchronous discussions, iv) experiential learning - interaction is needed, v) nursing is relational - it is a person-based profession, and vi) extent of outreach to students.

**Sub-theme i: I can’t see my students.** Sixteen (100%) of 16 participants in 112 comments expressed concerns associated with not being able to see their students. Of these participants, 12 (75%) facilitated in asynchronous and two (12.5%) in synchronous classes, and two (12.5%) were participants without online teaching experience.

The participants who facilitated in asynchronous classes commented on struggles in getting to know students, talking to a disembodied voice, and of not knowing if or how well students were engaging. These participants described their online connections with students in the following comments - FE2-6 said, “It is as if I am talking into thin air; nobody is out there; I wonder if everybody is doing okay?” FEC2-5 commented she found it difficult “Not seeing the expression on a person’s face, if they are rolling their eyes, the nonverbal language.” And, FE9-5 pointed out, “Online, I don’t know who you are; I don’t know anything about you.” FE3-6, 7 commented about the comfort that comes from being physically present with students:

If you see some engagement in the eyes of the students in the classroom, I like to think that I can pick up on that, and maybe have it spread a little bit…[I like to think] if they
are present, they are engaged a lot, so it gives me a sense of, I’m not sure what, but it is positive.

The two participants who facilitated in synchronous classes also discussed the challenges of not being physically present in the same room with their students. FE10-11 explained, “I just can’t touch my students, and [I] worry about engaging them”, and FE1-9.10 said, “They want to see me; although I am on synch, it is not the same; they don’t physically see me in that room…you are in real time but still a second delayed”, adding “I’m not sure if they never see you that they will know how to work with you.”

The two participants without online teaching experience also had similar concerns about student engagement, FECO1-3 questioned, “How engaged are they?” Participant FECO2-5 offered concerns of not getting the full measure of body language, describing an experience with videoconferencing to illustrate:

You have this little face on the corner of your screen and you don’t get the full measure of body language…I am not seeing the whole person, some of the facial expressions, movement of the hands and feet; so, I think that compromised things…there is a disembodiment there.

Sub-theme ii: Discussions - comparing online with face-to-face. Fifteen (93.7%) of 16 participants who made 167 comments shared their perspectives of online discussions in comparison to those they experienced in the face-to-face classroom. Of these participants, 11 (73.3%) facilitated in asynchronous classes, two (13.3%) in synchronous classes, and two (13.3%) were participants without online teaching experience.

The participants who facilitated asynchronous classes described their face-to-face discussions as more dynamic, deeper, richer, more interactive, and difficult to reproduce online.
FEC1-7 said, “I really do miss the dynamic, in the way of being in the classroom with the students…I feel their energy that way.” FE3-14 commented, “If you are trying to connect to an idea and it is broken up in time, you have missed the best moment to deal with that; you have missed the tone of voice or the urgency or frustration or whatever it was that went with that idea.” Furthermore, FE9-8 stated, “There is a richness in discussion about people being together than seeing things in black and white; that I don’t think you can get (online) as well.” Participant FE8-3 elaborated a similar perspective:

I find it really difficult to reproduce in an online environment [what you would do in a face-to-face class]; there is a lot of on the spot things that happen, just because of the physical makeup of your classroom, and maybe what they hear on the news the night before, and you can still create that online, but is it the same? It does not have the same impact because you are not there with one another.

The two participants who facilitated synchronous classes spoke about how much harder it was to engage students and get to the deeper level discussions compared to the traditional classroom, but they were able to do it. FE1-4 said, “You spend a lot more time trying to connect to your students because when you are in the classroom, you are there…” and FE10-6 expressed, “It is much harder to get to the deeper level discussions.”

The two participants without online teaching experience expressed similar perspectives about online (asynchronous) discussions, FECO1-6 was concerned about “Not being able to have clear dialogue so they can get to that point; not being able to experience the in-person collaboration”; and, FECO2-7 said, “You are in class and speaking - and something, an experience, somebody says something - and you draw on that to reach a different depth to the conversation; and you don’t have that with the online, so much so.”
**Sub-theme iii: Asynchronous discussions.** Fourteen (87.5%) of 16 participants in 96 comments offered perspectives on discussions in asynchronous discussion forums. Of these 10 (71.4%) facilitated asynchronous classes, one (7.1%) synchronous classes, and two (14.2%) were participants without online teaching experience.

Participants who facilitated in *asynchronous* classes used the discussion forum feature of the learning management system (LMS) at their colleges to engage students in online discussions. These participants spoke of the difficulties in engaging students in asynchronous discussion forms, and of developing deeper discussions. The challenges related to - the lack of immediacy of a response when trying to connect to an idea; the lack of ebb and flow to discussions; and of students not reading other students’ posts, not participating in re-focused discussions, and not posting, once they had reached the expected number of posts. FE3-14 said, “I did not feel I was interacting with them….you know, it might be days later when they read it [my discussion post response or question], sometimes…it drives me nuts.” FE8-3 explained, “Once they go in and do their posts, that’s it; they don’t go back in – so, they miss those additional questions.” And, FE2-3 provided a similar perspective:

…it is that interactivity, that because my courses are asynchronous, and people are just randomly responding to a discussion or posting, you don’t get to have that nice flow. I mean a lot of times in the classroom our discussions are a lot when we are all together people are interacting, and I can kind of guide the students as to what I need them to talk about where as when you are online and its asynchronous - somebody might be online and post something and nobody responds for a long time, and they might not get back to it so you, that back and forth, that ebb and flow that you have in face-to-face dialogue, is not there.
Participants pointed out the need to designate marks to online discussion to increase student participation. Eight (57.1%) of the 14 participants said that when participation marks were assigned to online discussions, student engagement increased. FE5-4 noted, “I had a discussion board but there no marks allotted to that, and I have to say they were not very active.” While these participants supported marks designation for participation – they shared concerns about the inability to assign marks, due to restrictions of program collaboration agreements (research question #4, theme two).

FECO2-6, a participant without online teaching experience, discussed difficulties associated with asynchronous fora in following long discussion threads. This participant said, “It is difficult to come into a conversation, to read some of those threads that can be very long.”

Sub-theme iv: Experiential learning - interaction is needed. Thirteen (92.8%) of 14 participants in 62 comments offered perspectives on experiential learning in the online environment of which ten (76.9%) stressed that interaction was needed for experiential learning to occur. Of these 13 participants, 11 (84.6%) facilitated in asynchronous classes and two in (15.3%) synchronous classes.

Of the ten participants who perceived that interaction was a necessary component of experiential learning, eight (80%) facilitated in asynchronous classes. FEC1-14 shared about this type of learning online, “I think if you can have this interactive layer, I think students would gain a similar level of understanding….there are opportunities”, while FEC2-5 commented, “I can’t say there are many opportunities online…I have to say that would be the weakest.” Other participants explained that the thinking and application pieces happen while students are together in face-to-face settings. FE5-13 observed, “They (the students) watch the videos at home first and then in the lab is the real practice….where they get right into the scenarios they have to
practice.” And FE6-15 said, “I post some critical thinking questions and discussion activities, but I know that it is when they come together in the classroom and they actually start to talk about situations; that they really start to apply some of the theory.”

The participants who facilitated in synchronous classes discussed the interactive nature of experiential learning – highlighting it in the context of relational pedagogy, involving students, and interaction-based activities. FE10-9, said “We have really moved in our curriculum to be more experiential, to have this underpinning of relational pedagogy, engage students more.”

**Sub-theme v: Nursing is relational - it is a person-based profession.** Seven (43.7%) of 16 participants in 73 comments shared perspectives on the relational aspect of nursing; that nursing is a person-based profession - that it is an art. Of these seven participants, five (71.4%) facilitated content in asynchronous classrooms, one (14.2%) in synchronous, and one (14.2%) was a participant without online teaching experience. These participants spoke about professionalism in terms of communication, relationality, and socialization into the profession - that this learning best occurs when students are in the face-to-face classroom with their peers. Participants commented on the need of students to learn to communicate and of the difficulty in assessing this aspect of learning in the online format. FE10-13 explained the perspective - that nursing is relational in the following comment:

In those undergraduate courses, it is just not about the theory, it is about that relationality because that is what nursing is; it is a practice profession, and so, if we can’t get the nurses to relate well, to be good communicators, then we have not done our job. So, can you do that online? I am not sure we can.

Participants highlighted the value of students communicating with one another in the face-to-face setting. FE6-14 explained about face-to-face communication, “Students can find
their professional voices”, and, FEC2-7 pointed out the value of face-to-face communication -
with students interacting with one another as follows:

I think it is in the reactions and the group learning that you get to experience other things
from everyone else’s learning experiences. I think there is value in having the face-to-
face interactions. I mean that’s what nursing is all about…nursing is people
oriented…there is something about a gentle touch that you cannot do through a computer.

FECO2-11 expressed concern about how students struggle with face-to-face communication, and
how they could benefit from opportunities to practice these skills:

You know students today are young kids coming in and they are so savvy with texting
and being online; I see this myself in my practice; they struggle with face-to-face
communication, and they are very awkward with initiating conversations, starting
conversations, and it is more than just shyness, I think; sometimes, it is just that lack of
exposure to that; and so you are throwing them into the bedside, and here is this strange
person and you need to form a therapeutic relationship and so on, how do you do that if
you are not giving them opportunities to practice some of that...

In terms of challenges in assessing students’ relational practice skills, FE5-12, 14 was
concerned with not being able to “gauge student progress related to attitudes and emotional self,”
commenting, “How are you going to teach a communication course without watching your
students communicate?” FEC1-9 punctuated the concern of colleagues for the need to be able to
assess students’ relational skills, and of the benefits of hybrid delivery in the following comment:

There is always that - people can be very good when it comes to their written work and
assignments, but when it comes to interacting with patients....there are more challenges,
so, I think because of that, I think most people who are involved with nursing, whether
teaching or at the bedside, we all have a strong value in that relational piece, and I think that is why online learning for a lot of nursing faculty is a little intimidating; because I think there is a fear of - what if they can’t be with people?; what if they can’t do those things? And yet they have passed all these courses because they have been able to do the academic end of it; so, I think nursing, in my opinion, will always have to have that [hybrid] blend.

In terms of socializing into the profession, five (71.4%) of the seven participants commented that online content should not be offered early in the academic credential as students need to first socialize into the profession. FEC2-9 said they can run into problems with online communication because “they don’t have any censorship for themselves - sometimes there can be a bit more bullying”, and FECO2-9 spoke about the isolating nature of online learning and of the socialization piece that is so critical,

First year is an introduction to nursing; who nurses are, what nursing is all about; we are starting to professionalize them, socialize them to start thinking from a nursing point of view…. they are isolated and there are silos online.

Sub-theme vi: Extent of outreach to students. Nine (56.2%) of 16 participants in 41 comments shared perspectives of the ability to reach students in the online classroom. Of these participants, six (66.6%) facilitated in asynchronous classes, two (22.2%) in synchronous classes, and one (11.1%) was a participant who had not taught online.

I identified various perspectives of participants who facilitated content in asynchronous classes that ranged from the ability to reach more students online to the hesitancy of students to participate in this environment. FEC1-15 explained how two learning environments can provide students with opportunities to participate, “I try to utilize the learning management system
(LMS) to its maximum ability to enhance that experience so that students who need more than the classroom environment are able to engage in other ways.”

In terms of increased participation, participants spoke about the increased comfort level of some students to participate, particularly shy students. FE4-11 commented, “You see the student you never hear from in class pops in with a chat comment, so, I think you are reaching different students by both methods.” FEC1-11 explained that the traditional classroom is suited to students who are more extroverted, “It gives the students a voice who would not normally have a voice, those introverted students who would never raise their hands in class but would do so in a discussion board.” FE8-7 had a similar perspective:

Being able to express themselves, although even though their names are attached to their posts I find some students, those shy students, produce some incredible work….because they are uninhibited by having to speak in class; so, I think in some ways it can actually be beneficial for those shy, quiet students.

On the other hand, participants perceived that some students were more hesitant to participate online. They commented about students’ hesitancy in terms of not posting, having to field more emails, and of relationship development. FE7-5 explained, “I was finding that students were not developing that relationship…I found them a little hesitant to get involved in online discussions.” Similarly, FEC4-10 shared:

I field a lot of emails from students when I am online, and that goes back to maybe the idea that they don’t feel comfortable enough to post something in the blackboard shell, even though I often get the same question two to three times in one week related to an assignment or something like that.

FEC3-4 explained,
Despite using lots of announcements and discussion boards, I found there was a portion of students who engaged early in assignments, asked questions by email, and would make appointments, but it was probably the smaller number of students, maybe 10% that I engage with.

A participant without online teaching experience shared concerns about students’ level of comfort with participating in an online environment. FECO1-5 said:

You have a lot of students come to the front [in a face-to-face class] and we have done all kinds of things for students who may not be comfortable asking questions in class, such as the ‘add it basket’. I think you can get that from an online class, certainly you can, but I have to wonder – are they going to want to meet with you more face-to-face because they are not getting it? I don’t know.

Participant FE1-12 also expressed concerns with identifying students who may require accommodation and that this may impact student success:

I was teaching medical-surgical (unit) in third year and realized there was a student who was working really hard…she had a learning challenge, and nobody picked it up…she was in third year; she needed to be tested - she was an older woman with children [who said] ‘I was always working as hard as a dog’- and, finally, there were checks and balances put into place and she was very successful; she graduated, wrote her RNs and was 100% successful; that can be missed.

In terms of reaching students who require accommodation, FEC2-5, 6 who facilitated in asynchronous classes, highlighted the need for closed-captioned resources. This participant shared concerns about the availability of these online materials, “…I had to make sure there was a hard copy of the script, so this could impact the type of material that might be selected.”
**Theme two: Strategies for engaging students – bridging the physical distance gap.**

Under this theme participants’ perspectives are highlighted under the following five sub-themes: i) online communication must be very clear, ii) key approaches to engaging students, iii) discussion forums, iv) facilitating experiential learning and making theory to practice linkages, and v) hybrid delivery, a desirable option.

**Sub-theme i: Online communication must be very clear.** Ten (62.5%) of 16 participants in 55 comments discussed the need for clear communication when providing information online. FECO2-4 commented, “If you don’t have the face-to-face, ....you are losing all the body language, so you are seeing the words on a screen....understanding the context [is difficult] ...things can be miscommunicated or misunderstood...that is a big piece.” Of these participants, eight (80%) facilitated asynchronous classes and two (20%) were participants without online teaching experience. None of the participants who facilitated synchronous learning addressed this issue.

The participants who facilitated *asynchronous* classes commented that communication must be very clear when providing information online, particularly related to assignment expectations and submission requirements. This was necessary to promote students’ understanding of information as they were reading or hearing it, as FE7-13 expressed, “I have to make sure that the content I provide is extremely clear because you can’t get somebody in a lecture, putting their hand up and saying, I don’t understand.” FE9-7 explained the need for good directions: “Directions must be good, so they know what is expected of them; you have to have clear, one hundred percent with directions---everyone has to understand those directions.” Two participants highlighted the clear and consistent messaging which technology can provide in that “Everyone is hearing the same message, for consistency” said FEC3-6.
These participants spoke about using a variety of approaches to convey information to ensure clarity and understanding, but, FE8-4 explained that while information was communicated in various ways there were still challenges, due to the nature of online communication:

I have said [to students]...I just answered that in an email, and that is not unique to online...one of the biggest obstacles to assessing online...you can provide direction in many different ways, you can have things written out...I have an extensive guide that students walk through on my blackboard site...but it still amazes me...I still kept getting questions in week five...I throw my hands up...how to get instructions across that people really understand, and that is a huge challenge.

Sub-theme ii: Key approaches to engaging students. Fifteen (93.8%) of 16 participants in 141 comments offered perspectives on approaches to engage students in the online classroom. Of these, 12 (80%) facilitated in asynchronous classes, two (13.3%) in synchronous classes, and one (6.6%) was a participant without online teaching experience.

Participants who facilitated in asynchronous classes emphasized the importance of engaging students and the significance of the teacher-student relationship to student success in the online environment. FEC4-6 said “Engagement with the course on the (faculty’s) end and the students’ end is the quality piece within the course when you take away face-to-face” and FEC1-3 commented, “Communication with the faculty is really at the heart of it [any online course] being successful.” To connect with students, these participants used strategies such as posting pictures, using voice-thread technology, and “getting to know you” activities. About interacting with individuals online, FE3-14 stated “I find it much more difficult; this term I used voice thread in blackboard so that I at least heard their voices; and some of them posted pictures of
themselves.” And, FE8-5 said, “I do my initial activity of getting to know you and I ask them to share what things are going to enhance their learning in this course.”

Participants utilized various audio and visual strategies to engage students such as videotaping their classes, using voice-over power points, and voice thread. FEC3-9 explained “If we do a video cast or a web cast of the lecture, we still then offer these slides with our speaker notes—we try to ensure that it is crisp and in multiple formats.” FE7-5 discussed the effectiveness of using a dual approach to provide information through mini lectures posted online: “I tried two of those [lectures] - one was just me as a talking head and one a talking head with a power-point to go with it, just to see what the student preference was; they liked the dual approach.”

Two (13.3%) participants in asynchronous classes, who used audio and visual strategies, shared concerns about engaging students in terms of their learning styles. FE8-8 said, “Sometimes students who are not auditory learners may not listen to the narrated power-point.”

Furthermore, FE3-7 commented on listening back to videotaped classes:

For me, I would miss something having it played back later versus being in the classroom when it was happening - not everyone participates in the discussion even in the classroom, but I think you hear questions differently because you are in the classroom.

FECO1-3 questioned about learning styles, “I have [taken] online classes, and for me, it is not my thing, because partially I am a visual learner. I would rather be in the classroom.”

These participants also utilized approaches such as email and telephone, including facetime, skype, and the announcement feature of the LMS. FE4-4 spoke about the challenges of providing help to students, particularly with paper assignments:
One challenge of online and papers is giving the students help when they need it; I have been using facetime, skype, and things [e.g., google docs] like that so that people can share documents pretty easily, or get on the phone and talk about papers.

FE10-8 also discussed the challenges of providing help with papers: “I encourage them to call so we can discuss it…I started using facetime…I like to see - are they pondering what you are saying or are they thinking - now I get it?”

In addition to using approaches such as google docs, open discussion forums were also utilized as a way of providing assistance to and connecting with students, through questions and answers. The benefits of information sharing were highlighted - that information was accessible to all and all students had opportunities to participate. FE7-10, in terms of providing help with assignments commented:

They have to ask me the question in an open forum online. I respond, and other students can read it - so, you are not repeating it 50,000 times, which I did before I thought of this open discussion board…the comment is almost always the same from my end; the issue does not sound the same for them, but it is often the same issue.

One participant commented about the ineffectiveness of open forums. FEC4-10, 11 said, “The uptake is spotty at best. You get the really strong students chiming in and saying everything is great…but the majority of the class, unless it’s for marks, do not really bother with it.”

Three (20%) participants advocated the use of synchronous discussions, while two (13.3%) of these participants integrated this as an approach. For example, FE4-4 talked about wanting to get better with these synchronous discussions because of the lack of student participation and level of interaction on asynchronous discussion forums, explaining, “I have been experimenting a bit with google docs and having students working on the same document
…. more so than having them do asynchronous discussions because [of the] discussion board situation.” Other approaches mentioned by individual participants were collaboration places on blackboard, for instance, wikis, where students can share documents, and collaborate, where live communicate is possible via collaboration and conference tools.

Two (13.3%) participants who facilitated synchronous classes stressed the high effort required to connect with students. FE1-4 said, “I get their pictures, I always have them with me; I ask the registrar to release their class pictures to me; sometimes it (the class picture) doesn’t look like they are.” FE10-9 described that the monitor screen is divided into four [for each of the four classes being delivered] and not really clear. She stated that to help her visualize the students she used the following approach:

I have a sheet in front of me which I divide into four, and I have the students’ names there.

I sort of see them; I can’t really see their faces….it is always about making sure they are engaging-using their names, getting them to talk back to me.

These participants who facilitated in synchronous classes also explained that they needed to target students to engage them. FE10-6 said, “….if you ask, what do you think? - you will not get anything back, so, you have to target students; …. I feel like you are standing on your head to keep them engaged.” And, FE1-7 said, “…I make sure every student in every class gets some question asked of them.”

Sub-theme iii: Discussion forums. Thirteen (81.2%) of 16 interviewees in 70 comments offered perspectives of approaches they used to engage students in discussion forums. Of these, nine (69.2%) participants facilitated in asynchronous classes and two (15.3%) in synchronous classes, and two (15.3%) were participants without online teaching experience. Participants who
facilitated in *asynchronous* classes used online forums as their go-to approach for connecting with students and connecting students with one another - through discussion.

Participants engaged students in discussions by posting questions or material to which students were to respond. FEC3-4 commented, “I use multiple types of focused discussion boards - posting a question in one area and having students respond to other students.” And, FE2-1 said “I post things and students respond to the posting - I will post about a nursing issue and have them respond to that. I try to engage them in that way.” These participants also utilized a similar approach to helping students make *theory to practice linkages* - by posing a question to which students were to respond, such as how a personal or clinical experience related to a theoretical concept. FE3-11 explained, “I often ask students to comment on a concept in relation to an experience, whether it be an experience in their personal lives or clinical placements - and try to draw the linkages that way”; and FE8-6 said, “When I ask questions, depending on the content we are talking about, I will ask them to relate it to a practicum experience that they have had.”

Several of these participants pointed out that online discussions needed to be structured so that interaction was occurring, particularly when marks were not assigned, and that discussions should to be mandatory. FE4-7 described an activity to increase student participation and peer interaction,

Sometimes I will do postings over the whole semester and have students look at each other’s postings and pick the best or most complete one; they can see the level of knowledge required before moving into the exam….you have to make [discussions] mandatory.
FE7-7, 8 described the structuring of an activity to increase participation, and of needing a big stick:

I section the class up into 10 groups, I have 10 learning activities, and each group designs and leads a learning activity for a particular week, and so I sit more in the background and watch them, I coach the leadership group, and then get involved in the discussion when I see they are going off track or see that they are not getting deep enough into it, so I tell them I creep, I am an online creeper in the discussion board; I only get involved when I think I need to push the envelope a little further but what I do is, there is a rule in the class, 10 percent of their evaluation is based on their online participation weekly; if they miss one week or they don’t participate substantively, and I can track each person’s participation, if they miss one week they lose all 10 marks….I tell them if you continue not to participate, you can’t pass the course; so, it is a big stick; I needed something that was a big stick.

Participants who facilitated in synchronous classes also used online discussion forums to engage students and determine how they were interacting with content. FE10-8, 9 said, “I break them into smaller groups, have them post, comment on a post…I think [discussion forums] are good whether you are face-to-face or not”. Participant FE1-6 commented about the need to adapt her process to increase student engagement, “I will post a reflective question that really might spark them, and if I don’t get a lot of responses, it has not sparked them; you keep adapting.”

FECO1-4, a participant without online teaching experience, who was preparing to teach an online course in the coming fall semester, drew on her experiences as a student to warn how online discussion activities can become a make-work project and of the need to make activities meaningful:
We had to post a scholarly question each week, and we also had to engage in conversation regarding somebody else’s scholarly question; and, to be quite frank, at the time it was a make-work project because maybe the questions that you had in regards to someone else’s post had already been asked; so you can’t then ask the same question; so now you are just looking for a question - it was not very meaningful but you were graded on it; you were marked; you were marked on how many posts you had, how many times did you ask a question…so, I don’t think we were looking at the content of the question or anything deeper, it was just very, very superficial….I really don’t want to do that; because I didn’t get anything out of it as a student…to be quite frank…I really didn’t; if I am going to do it, I need to find a way to make it meaningful.

Sub-theme iv: Facilitating experiential learning and making theory to practice linkages.

Fourteen (100%) participants in 90 comments offered perspectives of approaches they used to promote experiential learning in the online environment. Of these participants, 12 (85.7%) facilitated in asynchronous classes and two (14.2%) in synchronous classes. Participants without online teaching experience did address this theme.

Of participants who facilitated asynchronous classes, the most frequently used approach was through discussion, utilizing online discussion forums, as previously discussed. The second most frequently utilized strategy was a case study-based approach. Seven (58.3%) participants used case study and scenario-type strategies of various applications including - discussions, paper-based assignments, virtual games, publisher software programs, and simulations. These participants commented about these applications. FEC2-4 found a publisher-based interactive video program effective in that students were able to complete cases on their own time, get immediate feedback and revisit the content for examination preparation. FEC1-14 discussed a
scenario-based application “Virtual gaming”, used by a colleague, in which students were required to use prioritization and assessment skills as they moved through different scenarios. This participant explained that this application was changing her perspective of what was possible in the online environment. She explained, “It is a way of applying those skills that traditionally we assume can only be taught through face-to-face, so that is changing my perspective.”

In terms of case scenario-based simulation, FE9-6 commented about newer simulation video games in the context of experiential learning. This participant pointed out while students get to experience something, they don’t get the benefit of learning that is associated with doing it with others, because you are doing it by yourself online. This participant explained:

There are video games that are new that are nursing focused; for example, students can take on different roles; they can have feelings and all that. I think there is a way to do some of it, but not as much as if you were in the class….in the traditional simulation you have other students watching what you are doing and you debrief based on what you are seeing two students do - so, you get to see it and hear it. When you are online doing that game, you only get to see what you have; so, there is no real interaction; so, in terms of experiencing it, you do get to experience something - but you don’t get the learning that is associated because you are doing it by yourself online. There is a way of doing experiential learning, but, for me, you can get it now from the simulation games that are coming to the forefront. To learn these games takes a lot of time…to think about development, level of the student…; even with human simulators it takes 100 hours from start to finish; so, it is time consuming. The teacher has to be willing to want to do it.
Three (21.4%) participants used experiential type individual presentations. Two of these participants integrated presentations expectations with clinical-based nursing courses. Students taped the presentations which they then shared with peers for viewing and follow-up activities, such as quizzes.

Other approaches infrequently mentioned were reflective writing, synchronous discussions, and one participant used a synchronized class for group work. Single mentions were one-on-one coaching, post-conference discussions, discussions with clinical teachers to help inform preparation of classroom activities and assignments.

The participants who facilitated in synchronous classes discussed experiential learning in the context of students working together, and the need to make learning authentic. FE1-7 stressed that you have to make it authentic, “....it is really important to give them concrete experiences they can use - you’ve got to get them reflective; they have to be active...they have to feel involved”. FE10-10 further elaborated on students working together:

…giving them activities and group work that get them working and thinking and because of the pre-reading they have done before class, then they can pull it all together in class and have those meaningful discussions that we can actually bring that theory into practice.

Sub-theme V: Hybrid delivery, a desirable option. Fifteen (93.7%) participants in 78 comments shared perspectives of hybrid delivery as a desirable option for delivering nursing content, utilizing the benefits of both learning environments. Of these, 11 (73.3%) facilitated content in asynchronous classrooms, two (13.3%) in synchronous, and two (13.3%) were participants without online teaching experience.
These participants discussed the benefits of the face-to-face component including – getting to know students, having deeper discussions, and more effectively judging how students interact with content. They reported that seeing students face-to-face provided opportunities for group work and experiential learning. FE3-14 shared, “A hybrid model would be ideal for me; and if I were dreaming in techno colour, the hybrid would have an introduction, a midpoint, and an end point face-to-face piece.” FEC4-8 spoke about the struggles in getting to know students and the benefits of a hybrid model, in being able to see them face-to-face:

I like to get to know my students on an individual basis; if I wait, then I struggle. I often know their names when I am teaching online but sometimes it takes a whole semester to connect the name to that face, and I am glad for the hybrid model because it gives me time in front of the class to see them and interact with them.

Participants highlighted the benefits to students and the comfort level of faculty with a hybrid delivery format. FEC1-2 explained that colleagues had the greatest comfort with a blended model and that it also worked better for students: “The students who enjoy the classroom will not feel like they are missing out, and students who prefer the online are getting that added benefit as well.” Participant FEC3-8 also highlighted the benefits to students explaining that is why most courses in the program were face-to-face, with online components: “They [students] had a hard time understanding some of the concepts and valued that in-person approach.”

Participants pointed out how each component of a hybrid model can complement the other - that students can learn the more didactic-type content online, armed with the foundational knowledge necessary to engage in more complex face-to-face discussions. The following excerpts highlight the participants’ perspectives. FE6-14 shared:
I can see…a substantial component for the online piece, and the classroom is where we need to be doing more application and discussions….in the classroom is where you can work out your understanding of it, in a case study, in an interactive - you can ask more questions and clarify whether they really heard the content.

FE4-10 expressed a similar perspective about how online learning can enhance face-to-face discussions:

Blended….so I am still going to bring you in for what I need to bring you in for, when you come in for that you are ready to go, because you have already done all the background stuff. You have already watched the boring power points, you’ve done the readings, and you hit the classroom to do the thinking out loud and the planning, assessments – you are ready to go.

FE2-5 who facilitated a hybrid class on relational practice in year four of the program shared how this format worked well for experiential learning, and for assessing how students were interacting with the content:

I pull them in for the last three or four classes; they come in leading, micro leading where they are all having mock discussions…I give them a nursing issue and they have to lead the group…it is at the end of the course, the last three face-to-face classes – so, I can see if they have actually progressed in their learning as far as the principles of leading and all of that.

Participants commented that face-to-face settings were suited to experiential learning including in the face-to-face classroom, the skills lab for psychomotor skill development, the simulation lab, and clinical practicum settings. Seven (63.6%) of the 11 participants who facilitated classes asynchronously said they did more experiential type activities when they were
face-to-face with students. FEC3-5 stated, “[I] utilize seminars in addition to the lecture to help support application…seminars are usually capped at 24, and so it is that small group discussion”, FE6-6 described how a hybrid format would work for delivering clinical-theoretical content:

There are certain components of these courses that can certainly be put online. We can maximize the theory stuff and come together with students with more interactions in the classroom. You need class time and interactive class time with students; you don’t need the traditional [classroom] lecture…. all the discussion stuff that is really important should be much more interactive in the classroom.

Participants also connected with and got-to-know their students by seeing them face-to-face such as in drop-in sessions, seminars, or in hybrid course delivery format. FE5-11, commenting on providing help said,

If I had to teach this course again, I would provide more time for students in a tutoring fashion; probably one hour open during the week when they can drop in and ask questions; I had a feeling that some of them would have liked a bit more of face-to-face contact.

**Theme three: Flexibility.** Participants discussed of the benefits of flexibility that the online format provides, both to students and faculty. Participants perspectives of benefits to students and faculty are presented separately under the following two sub-themes: i) flexibility for faculty and ii) flexibility for students.

**Sub-theme i: Flexibility for faculty.** Seven (50%) of 14 participants in 31 comments shared perspectives on the conveniences with which online teaching affords. Of these participants, six (85.7%) facilitated in asynchronous classes, and one (14.2%) was a participant without online teaching experience. The perspectives of participants who facilitated classes
synchronously did not address this theme as the structure of the deliver model did not provide flexibility.

Participants who facilitated content *asynchronously* commented about the flexibility that online teaching afforded. This flexibility provided conveniences such as the ability to work at a time that best suited them, to work from home, and to better manage aspects of their lives. In terms of being able to work from home, FE2-6 shared, “It is convenient; flexible… I can sit at home and do my work”; and, FEC2-6 commented about being able to work at a preferred time, “If you think it is best in the evening, do it in the evening; I can get the most accomplished in the morning from six to eleven.” Participant FE4-9 enjoyed the benefits of time in editing responses to students. This participant said, “Being able to take my time when I reply, especially when it is a bit more controversial… having time to edit my comments; I might say it differently in the classroom.”

While not the preferred way of interacting with students, participants stressed the conveniences this type of delivery provided was important to them. FE3-12, 13 explained,

> It is flexible for me - not my preferred way of interacting in terms of my comfort zone, but I am willing trade off a bit to have the convenience. I can do my online from home …that is positive for sure.

FE7-12 also commented about the value of having flexibility in aspects of her personal life:

> I find the students really beaten up and need some help on Saturday evening; this format gives me a great deal of flexibility; I put the time in then, and don’t feel guilty when I have my hair done on Monday afternoon.
One interviewee without online experience highlighted the benefits of working from home, “You can sit at home in your jammies, so, again, for us it is that flexibility. I can’t think there is very much more than that because it is very time consuming (FECO2-7).”

Sub-theme ii: Flexibility for students. In 55 comments, 13 (92.8%) of 14 participants shared their perspectives on the flexibility of online learning, as it benefits students. Of these participants, 11 (84.6%) facilitated in asynchronous classes and two (15.3%) were participants without online experience.

The participants who facilitated content asynchronously perceived that online learning was well tailored to diverse students, providing flexibility to those with families, those who need to work, and to mature students. FE8-6 said “Students take [online courses] because ….it frees up their day; they can work; about 60 percent work of my students work, almost every student I talk to works; it is a different student than when I started teaching years ago.” And, FE5-9 provided a similar perspective - that students need to support themselves financially:

Our groups are much more diverse than they used to be; I graduated in 1998 and we were all single, from two parent families, straight from high school; now you have the moms, divorcees, mature students…the mix of students is much more diverse and I have a feeling that online is tailored much better to some of those diverse students; most of my students work; OSAP does not provide a whole lot of support to them so some I know don’t even have access to OSAP, so they work 20 hours a week, so online helps them gain a bit of control on everything.

Reflecting also on the diversity of the student population with many responsibilities outside of being a student, participant FEC1-12 explained:
It gives them [students] an opportunity to fit the learning into their lifestyles, and I think that that can be very valuable and viable. I know our school did a bit of research not that long ago and found that students are most active online between one and three am, and as scary as that is - that students are keeping themselves up that late, there are a lot of reasons for that, in terms of trying to get their work done on top of everything else. I think there is a need to acknowledge that as much as we wish students would focus on school more, we are not going to change that reality.

Participants without online experience highlighted similar perspectives of online being tailored to meet the needs of diverse students. FECO1-1 explained her program’s decision to offer content online: “We got feedback from some of the students who have families and children and parents that they would like more of that [online] because it was difficult for them to get into the classroom.” Participant FECO2-6 explained the benefit for some students who are not able to be in class at a certain time, “Mature learners, students with families or maybe they are working part-time or on shift - they can come and do the work at a time that works for them, so that is a benefit.”

**Theme four: Tech savviness.** Participants discussed technology in the context of tech savviness that is required by faculty and students before they engage in distance education. Participants perspectives are presented the following two sub-themes: i) students’ tech savviness and ii) faculty’s tech savviness and readiness.

*Sub-theme i: Students’ tech savviness.* In 91 comments, nine (56.2%) of the 16 participants shared perspectives on students’ comfort level with technology. Of these participants nine (100%) facilitated in asynchronous cases. Participants commented that students’ comfort level may be over-estimated, and this may impact the types of activities they can do online. FE7-
14 stated, “They are reluctant to learn in that way (i.e., online)”, and “A lot of older students may be new to technology, the younger ones may be fine” said FE9-7. FE6-6 shared, “My ESL students, which is more than half my class, have more challenges [with doing online], and there are different learning needs as well, there are different constraints there.” FE3-15 spoke about how online course offerings can be anxiety producing for students. This participant explained:

I think we make some interesting assumptions about how technically competent our students are and how anxious they are to have online courses. Every term I will have students who are terrified by the online course and will say - I’ve never done this before, or it is not what I like to do, but we assume that they are all happy about it; it is quite fascinating to me; because we have been duped by the notion of convenience and whatever cost savings there may be in it; we use ‘students want it this way’ in order to justify any rationale, is the unofficial version.

These participants highlighted how students’ lack of comfort with technology can impact the types of activities they could do online. FEC1-11 commented, “There are all these applications out there, there are all these opportunities, but we overestimate their comfort level with technology, and I think that is a big challenge with online learning.” Participant FEC4-3 elaborated on a similar perspective:

It really does limit what you can do within the course, because you know that from a functional perspective, you know students are probably not going to be able to complete that task because there are so many steps, so many complex things; it does limit the courses that you teach in first semester because it is the first time that most of the students are looking at the learning management system, so, I have had to keep it fairly straightforward.
These participants also discussed technical savviness in terms of ability to navigate online resources, and the lack of basic skills such as saving work. In terms of students backing up their work, FE4-12 explained, “Many of them have no back-up plan at all…they don’t understand that computers can crash, get stolen.” This participant discussed students’ internet skills further as follows:

They can quickly get on google and look something up but if it becomes any more difficult than that they give up…they seem to just jump when they are looking for a topic - say for a literature review or something - they tell me they have spent hours but they are just jumping from topic to topic, if they don’t find a bunch of stuff right away, they go to the next thing; I am worried about that change. …I also find that students today have a lot of anxiety over everything really and so some of them are going to be ill- suited to a fully online course because of that, and time in your office and virtual office hours are not going to be the same as face-to-face.

Two (22.2%) of these nine participants were concerned about students not having technical resources such as a laptop, tablet or smartphone. They spoke about the need to have technology mandated, with one of these participants, FEC1-11, pointing out how this can be a disadvantage to students:

I know some programs have mandated certain technology; our program doesn’t have that.

So, it is not as if we can say it is part of your enrollment, here is a laptop, there is an expectation that you have this technology. We have some students who primarily use the computers at school still - that number is getting smaller and smaller, but at the same time there is the concern that if we completely go in this direction - are we disadvantaging a certain amount of the population?
Sub-theme ii: Faculty’s tech savviness and readiness. In 38 comments, six (37.5%) of 16 participants shared perspectives of faculty’s technical savviness and readiness for online teaching. Four (25%) of these six participants facilitated content in asynchronous classes, one (50%) in the synchronous classes, and one (50%) was a participant without online teaching experience.

These participants shared various perspectives of technical savviness - of not being as technically savvy as their colleagues; that it is increasingly difficult to adapt to technology as one ages, and that online learning is not suited to a brand-new teacher or one who possesses low technical skills.

In terms of age, FEC2-9 commented “I think students probably adapt quicker than someone my age because they are always twittering, face booking, and posting”, and “I am finding other people my age who are having to do this are struggling” said FE4-2. Participant FE3-12, who described herself as having low technical skills, explained:

I prefer to deconstruct a concept map on a blackboard with a piece of dusty chalk…you can do it in an online environment if you are using some of the white board tools…I just don’t do it. I am a techno door knob - I can learn these things but I don’t go to them naturally, as my colleagues do.

Regarding online teaching not being suited to a teacher with low technical skills, FEC4-11, 13 cautioned that online teaching is not for everyone, “I have certainly met faculty who have trouble attaching a file to an email….I think there is the added technical piece that it is not really well suited to the brand-new teacher.” This participant also pointed out that newly hired faculty should have technical and pedagogical training before being hired to teach online courses.
FECO1-2, 3 shared her own anticipated challenges with course development and technology in terms of moving a face-to-face to the online format:

Even though I’ve taught the course a number of times, so the content is there; it is being able to do it in a different way (that is difficult)...and if you are not technology savvy, as I am not, then there are always those struggles that go along with that.

In terms of exploring new opportunities to engage students online, two participants highlighted the need of faculty to try new things, but this required them to be well-versed with technology. FE9-7 stated, “[Faculty] have to be willing to take a risk”, and FEC3-8 explained that the ability to try new things depends on one’s comfort level with the LMS platform:

From an online perspective it depends on how well-versed you are with the structure of the platform you are using; and trying new things; and that can also be challenged with workload, and other demands, and so, if you are given the time to support your growth and development, that, of course, can be translated into an opportunity for us in the online world and even in the classroom approach.

**Theme five: Student readiness.** In 95 comments, 12 (75%) of 16 participants shared perspectives on student readiness for online learning. Of these participants 10 (83.3%) facilitated in asynchronous classes and two (16.6%) were participants without online teaching experience.

Participants who facilitated in *asynchronous* classes highlighted the need for student self-directness, motivation, and time management – that these skills were needed to address the lack of structure inherent in the online format. Participants commented that students need to possess these aspects of readiness to be successful online and that online learning is not for every student. “Unfortunately, many students do not have the level of self-directness that is needed”
said FEC1-13, and “Online is just not structured for them, so I think this is the hardest part for the students; it is just disciplining themselves and doing it” shared FE7-11.

Participants commented that some students just forget about the course - they need to take responsibility. FEC2-9 explained, “No matter what I tried, they needed to take responsibility.” Participant FEC4-11 elaborated on a similar perspective, that students need structure:

This is probably one of the biggest issues that we come across with students online is that they just forget about the course. I think, you know, it is not on their radar, and they need someone managing them and saying - this is what you need to be doing this week to get ready for next week – when you have them in class they thrive - but are not quite ready yet for that online learning.

These participants commented about time management issues students have in terms of competing priorities, and of the tendency to procrastinate. These competing priorities were, for instance, work, requirements of other courses, and being easily distracted with doing other tasks while on the computer. FE9-9 said, “Some of them [students] are working, they don’t prepare, so it is time management…I think about 75% do some work.” FE5-8 explained why the course was not a priority for them - “I told them, use your three hours [in the afternoon] and you will be okay doing your learning activity; they did not do it because there was a competing demand from an online quiz in another course that night.” FE8-5, 7 commented:

[Students] get pulled in so many directions, and that is a huge, huge variable…and the ability to procrastinate is huge. They have to be organized and motivated. I find they are still posting at 1150 pm when the post closes at 1200 on Sunday night….so, obviously they are not well organized.
Participants without online teaching experience also expressed concerns about student readiness. These participants were concerned about student engagement. FECO1-6 commented about class attendance, “Whether you have the same attendance [online] will be a different story - we have very good attendance in our [face-to-face] class.” And, FECO2-6, “It can very difficult to engage while alone, especially with asynchronous delivery. I think you have to be a self-directed learner to do this well, and I hear that from students…I do hear iterations of that quite a bit.”

**Theme six: Online teaching takes more time.** Fifteen (93.7%) of 16 interviewees in 110 comments offered perspectives on the time required to teach content online. Of these, 11 (73.3%) facilitated in asynchronous classes, two (13.3%) in synchronous classes, and two (13.3%) were participants without online teaching experience.

Participants who facilitated content asynchronously shared their perspectives on the time-consuming nature of online teaching; they worked harder online to connect with and engage students. FE4-4 said, “You have to work a little harder to overcome the [physical] distance.” These participants described various time-intensive responsibilities associated with teaching online content. These responsibilities consisted of - setting up course content each week; facilitating online discussion forums; being constantly connected to the blackboard shell; and, clarifying information - usually related to assignment expectations and submission requirements. Participants described spending a considerable amount of time responding to students who needed help with assignments, as well as with technical issues, for example, when students were not able to post an assignment on time or were locked out. FE6-8 spoke about the lack of technology support available on weekends, “It is always a challenge because students get locked
out of the modules, the quizzes, and there isn’t any tech support, so I end up getting phone calls from people and emails panicking.”

Participants spoke about course development and delivery as being time consuming. FE7-13 shared, “I find there is a lot more development work making sure that the information I am providing is clear and consistently clear” and FEC2 explained, “There is a lot more prep time …just learning the platform and learning how you are going to organize it (p. 4)….having time to set up good basic content” (p. 7).

Participants connected with students through a variety of modes including email, text messaging, blackboard, and telephone. FE7-11, 12 described how managing a message board and responding to students was time consuming:

I make myself available to them seven days a week including mornings, evenings, weekends, afternoons – I am checking my message board from them as well as my emails from them probably every two hours as long as I am awake every day; it is a negative because it is extremely consuming.

Participants commented about always being “on” and accessible to students, and of the importance in setting time parameters. FE8-8 shared, “I feel like I never stop; constantly going in, checking online posts. You have to set really clear time frames…. respond to emails during…hours you are available.” FEC2-7 said, “It is always there at your fingertips”, and FEC4-9 said, “Having to look at [message boards] is time consuming”. FE9-8 talked about programs needing to have online etiquette guidelines, explaining:

We need to have online etiquette, for example, I am a workaholic, but you can’t be on the computer 24/7. There has to be a certain etiquette, so, how do you go about setting up the parameters for doing online - so I don’t go crazy, beyond the expectations.
Two participants who facilitated *synchronous* classes said they worked harder to overcome the physical distance. FE1-4 explained, “You are not with them, so what you have to do is find alternate methods to connect with them and you don’t get credit for that.” And, FE10-4 pointed out:

> It takes more time because you can’t have those side bar conversations in the same way with students, as you can face-to-face. I spend a lot of time emailing, talking on the phone with students outside of class than I do with on-campus students.

Participants *without online experience* had similar perspectives, that is, online teaching is time consuming.

**c) Institutional and Faculty Supports**

The data to answer this question were derived from the document analysis, online survey questionnaire, and participant interviews. For purposes of this study, the questions on institutional support focused on the OLS and the technical supports faculty perceived were available to them to support online teaching while the faculty support questions focused on teaching experience in the online environment, professional development on pedagogy, course development and design, teaching load, and workload acknowledgement.

**Document analysis.** Billings (2000) and CHEA (2002) advised that post-secondary institutions must have the necessary infrastructure prior to offering online content, including institutional and faculty supports. These supports were deemed necessary for the implementation of best teaching practices. Billings and CHEA point out that an institution’s infrastructure and commitment to online education should be reflected in its mission statement. And, Creswell (2009) encouraged qualitative researchers to analyze their data for materials that can address “codes on topics that readers would expect to find, based on past literature and common sense”
(p.186). With the purpose of exploring each institution’s commitment to online learning, as evident in its documentation, I examined key publicly available documents on the websites of the 13 colleges in my study for references to online education. In addition to mission statements - strategic plans, strategic mandate agreements, and college and collaborative nursing program websites were also examined. I found that College mission statements were contained within the strategic mandate agreement documents. My document analysis focused on references made to online education in these documents and on the respective websites.

In my document analysis I identified the following three themes relevant to the research questions: 1) Online education identified as a focus in college documents and home page websites; 2) teaching and learning - technology and pedagogy in online learning, and 3) presence of online education on collaborative baccalaureate nursing program websites.

**Theme one: Online education, identified as focus in College documents and web-sites.**

On the *College websites*, four colleges (30.8%) had a direct link from the home page to information on online learning (OL) program and course options. Seven (53.8%) required a click on the “Programs and Courses” icon to see this option and another click to access the online learning page. Of these seven sites, the OL option was visible when the browser passed over the “Programs and Courses” icon. On three sites the OL option was visible only when the “Programs and Courses” ion was clicked - there was no indication that selecting this icon would lead to online information. Two sites required three to four clicks subsequent to selecting the “Programs and Courses” icon. On one college site I could not locate information on the home page but was able to locate it through Google search using the college name and “online courses” in my word search.
Seven (53.8%) colleges outlined basic requirements of online learning – a computer, good connectivity, and six or more hours of time per course per week. Nine (69.2%) colleges provided information about student readiness, such as the need for self-motivation, dedication, and self-discipline. Of these nine colleges, five (71.4%) provided a readiness quiz for students to complete to determine if online learning was right for them. Three of these quizzes were accessed by pressing a link to ON Learn and two were on the college websites. Two colleges provided information about online learning though a video accessed by pressing a YouTube link. One college highlighted the need for computer proficiency skills and invited prospective students to take a proficiency assessment test, available on the college website.

Of the college *vision* statements, three (23.1%) colleges incorporated online education using language such as digital, technological-enabled learning, and digitally connected. While not specifically highlighting online education, the vision statement of one (7.7%) college contained the term “innovative learning”, and of another two (15.4%) “to be leaders in polytechnic education.” Seven (53.8%) colleges did not allude to online education. None of the *mission* statements incorporated “Online Education” or a related term. Of the thirteen colleges, two (15.4%) statements included “accessible education experiences”, one (7.7%) “through innovative programming”, and three (23.1%) the word “innovation”, however, these terms were not explicitly linked to the online education context.

Twelve (92.3%) colleges included the topic of online learning in their strategic plans (Appendix P), with reference to the following terms - online and flexible options, online learning, flexible learning, flexible programming options, innovative delivery methods with technology, and incorporate technology. Of the 13 college strategic plans, two (15.4%) extended to the year 2018, two to 2019, and eight (61.5%) to the year 2020 and beyond. Of the Strategic
Mandate Agreements (SMA) (Appendix Q), 13 (100%) institutions included online education in their plans. The SMAs addressed the years 2017-2020.

Theme two: Teaching and learning - technology and pedagogy in online learning. In the Strategic Mandate Agreements (SMA), 13 (100%) colleges framed online education around “innovation in teaching and learning excellence”. In this document, online education was predominantly discussed from a teaching-learning, technological viewpoint with references to digital learning, online learning, and tech-enabled learning, and the contemporary student and teacher. This technological perspective was evident in nine (69.2%) of the 13 college strategic plans. These institutions discussed technology in terms of developing technical skills, incorporating technology, delivery methods with technology, and leveraging state-of-the-art technology.

In the SMA 2017-20 documents, ten (76.9%) colleges highlighted professional development for faculty in the area of technology. College initiatives for professional development included, for example, the establishment of a “Teaching and Learning Exchange” (George Brown College, p. 9), “Maker Space Sessions” (Fleming College, p. 10), and an “Online Learning Centre” (Conestoga College, p. 8). Four (30.8%) colleges were involved in a digital initiative, “Bring Your Own Device” (BYOD). Two (15.3%) colleges stressed that technology was used not for tech-sake, but instead to provide enhanced learning outcomes. Four (30.7%) institutions discussed technology in terms of “tech-enabled learning” and the need for thoughtful use of technology tools.

In the College strategic plan documents, two (15.4 %) colleges explicitly emphasized online pedagogy. In the SMA documents, online pedagogy was discussed in various depths by eight (61.5%) colleges, with five (38.5%) of these emphasizing the area of faculty development
related to online pedagogy. These colleges stressed: the integration of course design, investing in faculty development including online and hybrid course delivery, and of having a rigorous hybrid development program. While not specifically referring to online pedagogy, one college emphasized faculty development in the context of advancing the teacher’s understanding of their role as mentor, learning designer and subject matter expert and of supporting the integration of educational technology into all teaching practices.

**Theme three: Presence of online education on program collaborative baccalaureate nursing programs websites.** I reviewed all nursing program websites specifically for evidence/inclusion/discussion of online learning, including program descriptions and course descriptions. Three (23.1%) program websites indicated that courses may be delivered by various teaching methods including online delivery. One (7.7%) program advised that computer proficiency was a requirement for admission, including the ability to use the web search engine.

Courses were not posted on two (15.4%) program sites, and on one (7.7%) other the course names were posted, but not the descriptions. Of the 10 (76.9%) programs with course descriptions available, five (50%) offered online content. Three (30%) of the 10 colleges each offered content in one online course (year one - Introduction to Psychology - fully online; year one - Introduction to Nursing Skills; and year two - Research) respectively; one program offered online content in four courses (year one - A&P; Health and Healing Across the Life Span - one hour online, Introduction to Nursing Skills; year two - Processes of Human Disease); and one offered online content in six courses, of which four indicated multiple delivery sections and delivery modes (year one - Information Literacy; year two - Microbiology - online tutorial activities, Nutrition; year three - Statistics, Interprofessional Health Care Teams; year four - Synthesis of Nursing Practice - hybrid).
Online questionnaire survey. First, I present findings based on the data on institutional and faculty supports - two elements of quality that are identified in the literature on online teaching. While examined separately, these elements intersect with each other. Next, I present the findings on the relationships between institutional and faculty supports and best teaching practice (BTP) scales.

Institutional support. The data were derived from responses to seven questions on the online survey. Five items together formed the ‘Institutional Support’ (IS) scale. Information about mean, standard deviation, skewness, and kurtosis of the scale is depicted in Table 18.

Table 18

Institutional Support (IS) scale - mean, standard deviation, skewness, and kurtosis

<table>
<thead>
<tr>
<th></th>
<th>Min</th>
<th>Max</th>
<th>Mean</th>
<th>SD</th>
<th>Skewness</th>
<th>Kurtosis</th>
</tr>
</thead>
<tbody>
<tr>
<td>Institutional support</td>
<td>8</td>
<td>19</td>
<td>13.22</td>
<td>3.07</td>
<td>-0.21</td>
<td>-0.53</td>
</tr>
</tbody>
</table>

Note. Mean denotes the arithmetic average of scores. Standard Deviation (SD) measures the distribution of scores from the mean. Skewness and kurtosis are measures of Central Tendency and Shape of the Distribution of responses: negative skewness means that the tail of the distribution extends to the left (below) central tendency (0); Positive skewness means the tail of the distribution extends to the right (more than) central tendency (0). Kurtosis is a measure of the peakedness or heaviness of the tails: 0 = normal tails; <0 = light tail and >0 denotes heavy tails.

The two remaining questions (SQ#15 and SQ#16) are examined separately. Of the seven questions, six elicited data about college infrastructure, including the learning management system, and technical support and one question about data on teaching resources available at the participants’ colleges.

Findings from the Institutional Support (IS) scale data are depicted in Table 19. These findings revealed that 28 (87.5%) of the faculty participants perceived that their colleges provided them with the ongoing technical support they needed to teach online ‘fairly’ or ‘very
much’, while 22 (68.8%) of them perceived that students were provided ‘fairly’ or ‘very much’ with the technical support they needed to learn online. Fourteen (45.2%) of the faculty used the online learning system resources ‘quite a bit’ or ‘very much’ to improve how they taught online courses.

Table 19

*Institutional support (IS) scale data, displayed in percentages of faculty responses to response categories*

| SQ #17. How well does the College provide the ongoing technical support you need to teach courses online? (n=32) | Per Cent of response for each response option |
|---|---|---|---|---|
| Not at all | Some what | Fairly | Very Much |
| 0 | 12.5% | 40.6% | 46.9% |

| SQ #18. How well does the College provide students with ongoing technical support to help them learn effectively online? (n=32) | 3.1% | 28.1% | 50.0% | 18.8% |

| SQ #19. How sufficient are the online teaching resources at your College library? (n=31) | 6.5% | 45.2% | 35.5% | 12.9% |

| SQ #20. How often do you use the online learning system resources to improve how you teach your online courses? (n=31) | Per Cent of response for each response option |
|---|---|---|---|---|
| Very little | Some | Quite a bit | Very much |
| 22.6% | 32.3% | 35.5% | 9.7% |

| SQ #21. How well does the online learning system help you interact with the College community? (n=30) | 20.0% | 33.3% | 26.7% | 20.0% |

*Note. Cronbach’s coefficient alpha was .68, indicating internal consistency of the scale, that is that the items fit well together conceptually. Note. SQ = Survey Question*

Findings of the two questions that were analyzed separately from the IS scale identified that 30 (93.5%) of the faculty participants perceived the system to be accessible and reliable, and 28 (87.6%) were confident in their abilities to use it. Institutional support data are presented in Table 20.
Table 20

_Institutional Support data from the two items not part of the Institutional Support (IS) scale, displayed in percentages of faculty responses (n=32)_

| SQ #15. How accessible and reliable is the online learning system college? | Per Cent of Response for each response option |
|---|---|---|---|---|
| | Not at all | Some what | Fairly | Very Much |
| | 0 | 6.3% | 46.6% | 46.9% |

| SQ #16. How confident are you in your ability to use the online learning system to teach online? | Per Cent of Response for each response option |
|---|---|---|---|---|
| | Not at all | Some what | Fairly | Very Much |
| | 3.1% | 9.4% | 31.3% | 56.3% |

_Note. SQ = Survey Question_  

**Relationships between institutional support and Best Teaching Practices scales.**

Spearman’s correlation analyses showed a positive and moderate relationship between the Institutional Support (IS) scale and the Constructivist Teaching (CT), Social Learning Environment (SLE), and Active Learning (AL) best teaching practice scales. Faculty who reported that they were provided with ongoing technical support, had sufficient online teaching resources, used the Online Learning System (OLS) resources to improve their teaching, and perceived that students had the ongoing technical support they needed, were better able to implement best practices in the areas of CT, SLE, and AL.

There was a moderately strong relationship found between accessibility and reliability of the Online Learning System and best teaching practice scores on the Constructivist Teaching (CT) scale. Surprisingly, the more positive the perceptions of faculty about the accessibility and reliability of the Online Learning System at their Colleges, the lower were their scores on the CT scale.

There was a positive and moderately strong relationship found between the confidence of faculty in their ability to use the Online Learning System to teach online and the Constructivist Teaching (CT), Collaborative Work (CW), Teacher Approachability (TA), Student Staff
Interaction (SSI) practice scales. Not surprising, faculty who were more confident in using the Online Learning System (OLS) were better able to implement best practice strategies in those four areas.

**Faculty support.** These data were derived from questions related to initial and ongoing professional development activities, supports available for course development, design, and delivery, teaching load, and class size. Twenty-two (68.8%) of the faculty taught seven or fewer hours online per week and seven (21.9%) between eight and 10 teaching hours. The largest number (n=12; 37.5%) taught between four and seven hours per week. Data on the number of online workload hours assigned on the participants’ Standard Workload Formula (SWF) assignments are displayed in Table 21.

Table 21

*Number of online course workload hours as indicated on the SWF faculty taught per academic year, displayed in percentages of faculty (n=32)*

<table>
<thead>
<tr>
<th>Survey Question # 5</th>
<th>Number of online workload hours taught per week per academic year based on Standard Workload formula assigned</th>
</tr>
</thead>
<tbody>
<tr>
<td>How many online course workload hours as indicated on the SWF do you typically teach per academic year? (n=32)</td>
<td>9.4% 21.9% 37.5% 21.9% 3.1% 6.3%</td>
</tr>
</tbody>
</table>

*Note. The Standard Workload Formula (SWF) maximum contact teaching load per week is 18 hours.*

Interestingly, two (6.3%) faculty taught 16 or more hours online per week. Given the maximum hours per week set by the SWF is 18 teaching contact hours, this means these faculty taught only online. Seventeen (53.1%) faculty were assigned between 10-30%, and eight had (25%) 31-50% of their teaching loads online. Data on the percentages of online teaching load are presented in Table 22.
Table 22

**Percentage of faculty teaching load currently online, displayed in percentages of faculty (n=32)**

<table>
<thead>
<tr>
<th>Survey Question # 6</th>
<th>Percentage of online teaching load per week (responses displayed in percentages of faculty)</th>
</tr>
</thead>
<tbody>
<tr>
<td>What percentage of your teaching load is currently online?</td>
<td>31.3% 21.9% 12.5% 12.5% 3.1% 12.5% 0 0 6.3%</td>
</tr>
</tbody>
</table>

Eleven (34.4%) of the faculty had 40 or fewer students in their online classes. Twenty-one (65.7%) had 41 or more students, of this group 14 (43.8%) had class sizes of 51 or more students.

Data on the number of students in online classes is identified in Table 23.

Table 23

**Number of students in online classrooms, displayed in percentages of faculty (n=32)**

<table>
<thead>
<tr>
<th>Survey Question # 7</th>
<th>Number of students in the online classroom</th>
</tr>
</thead>
<tbody>
<tr>
<td>How many students do you have in online courses you teach?</td>
<td>30 or less 31-40 41-50 51 or more</td>
</tr>
<tr>
<td></td>
<td>18.8% 15.6% 21.9% 43.8%</td>
</tr>
</tbody>
</table>

Eleven (34.4%) of the respondents reported that there was a cap on enrollment in online courses, seven (21.9%) said there was no cap, and 14 (43.8%) of the participants did not know if there was or was not a cap on enrollment. Ten participants commented that the cap ranged from 20-60 students; one faculty indicated there were fewer students for fully online courses and more for hybrid courses; and another that there was variability across courses. One faculty participant said that cap size was determined by “whatever can fit on our SWF”, while another mentioned teaching a multidisciplinary course online with 168 registrants, not all of whom were nursing students.
Regarding initial training received in preparation for teaching online, 21 (65.6%) faculty participants received an orientation to the learning platform, 13 (40.4%) to online pedagogy, and six (18.8%) received no initial training. Responses regarding the nature of the initial training that the faculty participants had received in preparation for online teaching are displayed in Table 24.

Table 24

*Initial training faculty received in preparation for teaching online, responses displayed in percentages of faculty (n=32)*

<table>
<thead>
<tr>
<th>Survey Question # 11</th>
<th>Orientation to learning platform</th>
<th>Orientation to pedagogy for online courses</th>
<th>Individual session with faculty trainer</th>
<th>Individual session with instructional designer</th>
<th>Sought assistance outside the college</th>
<th>No initial training</th>
<th>Other</th>
</tr>
</thead>
<tbody>
<tr>
<td>What initial training did you receive to prepare you to teach online?</td>
<td>65.6%</td>
<td>40.4%</td>
<td>40.4%</td>
<td>21.9%</td>
<td>15.6%</td>
<td>18.8%</td>
<td>12.5%</td>
</tr>
</tbody>
</table>

In terms of related professional development engaged in since teaching online, 15 (46.9%) of the participants had webinar training, 13 (40.6%) had received face-to-face training and individual one-on-one training, 11 (34.4%) self-paced learning activities, and seven (21.9) completed formal coursework.

All (n=32) faculty agreed there were ongoing supports available at the college to support teachers with online course development, design, and delivery. Regarding their participation in professional development activities on online teaching offered at their institutions, nine (28.1%) faculty participated rarely and 18 (56.3%) participated only occasionally. Figure 6 depicts the responses to this question.
Figure 6. Faculty responses to survey question # 14 that asked “How often do you participate in faculty professional development activities that focus on teaching at your College? Displayed in percentages of faculty (n=32).

Relationships between faculty support and Best Teaching Practices scales. Correlations were calculated to determine the relationships between faculty support data and the best teaching practice (BTP) scales. These relationships are depicted in Table 25

Table 25

<table>
<thead>
<tr>
<th>Professional Development</th>
<th>Relationship</th>
<th>Best Practice Scales</th>
</tr>
</thead>
<tbody>
<tr>
<td>Formal course work since teaching online* [SQ#12(a)]</td>
<td>Positive, moderate-strong</td>
<td>CT, CW, TA, SLE, OSI, SSI</td>
</tr>
<tr>
<td>Sought assistance outside the College for initial training* [SQ # 11(e)]</td>
<td>Positive, moderate strong</td>
<td>CT, CW, OSI</td>
</tr>
<tr>
<td>Frequency of PD participation on online teaching at College** (SQ#14)</td>
<td>Positive, moderate</td>
<td>CT, OSI, AL, SSI</td>
</tr>
<tr>
<td>Online course workload hours** (SQ#5)</td>
<td>Positive, moderate-strong</td>
<td>AC</td>
</tr>
</tbody>
</table>

Note. *denotes Pearson’s r correlation; **denotes Spearman’ rho correlation. Moderate relationship = .3-.6; Strong relationship = >.6
Spearman’s rho correlation showed a reliable and moderately strong relationship between online course workload hours and Academic Challenge (AC). The higher the number of faculty online course workload hours, as indicated on the SWF per academic year, the higher the scores on the Academic Challenge (AC) scale. Spearman’s rho correlation also showed a reliably and moderately strong relationship between the percentage of the faculty teaching load that was currently online and the Academic Challenge (AC) practice scale. Faculty who were assigned higher percentages of their teaching load online, scored higher on the Academic Challenge (AC) scale. This finding is not surprising because faculty with higher teaching loads online, were perhaps more experienced with online teaching and thus better able to challenge their students academically.

Pearson’s r correlation showed a positive and moderately strong relationship between faculty who sought assistance outside the college and scores on three best practice scales: Constructivist Teaching (CT), Collaborative Work (CW), and Online Social Interaction (OSI). Faculty who sought initial training outside the College in preparation for teaching online scored higher on these best teaching practice scales. Pearson’s r correlation test also revealed a positive and moderately strong relationship between formal course work and six practice scales. Those who engaged in formal course work as a form of professional development since teaching online scored higher on the Constructivist Teaching (CT), Collaborative Work (CW), Teacher Approachability (TA), Social Learning Environment (SLE), Online Social Interaction (OSI), Student Staff Interaction (SSI) practice scales. These findings indicate the positive impact of formal professional development on best teaching practices.

Spearman’s rho correlation analysis showed a positive and reliable correlation between the frequency with which faculty participated in professional development activities that focused
on online teaching at the College and four best practice scales. The more often faculty participated in those activities at their colleges the higher they scored on the Constructivist Teaching (CT), Online Social Interaction (OSI), Active Learning (AL), Student Staff Interaction (SSI) best practice scales.

**Faculty interviews.** I identified the following three themes in my analysis of the transcripts of the interviews of 16 participating faculty: 1) Impact of technology, 2) pedagogy training, course development, and design - learning how to teach online, and 3) acknowledgement of time.

**Theme one: Impact of technology.** Participants highlighted the impact of technology in the following three areas - the nature of technology, quality of the information technology support, and the challenges related to technical support. Regarding the *nature of the technology*, BlackBoard was the learning management system (LMS) used at the colleges in which fourteen (87.5%) participants were employed. Fifteen (93.7%) participants in 81 comments offered perspectives on the nature of technology at their respective institutions. Of these, eleven (73.3%) facilitated content in asynchronous classrooms, two (13.3%) in synchronous, and two (13.3%) were participants without online teaching experience. Their perspectives are integrated throughout this dissertation.

Of these participants, 13 (86.6%) commented that the LMS was accessible, of which seven (53.8%) expressed that the platform was accessible, reliable, and functional. Interviewee FEC4-3 shared about a recent upgrade, “The upgrade made a big difference; there was more functionality; it seemed a lot less glitchy; you sort of had less issues with it”; and FE7-3 shared, “…I use about every function on it [LMS]”; while FEC3-3 expressed, “I have only positive things to say.... I use web X and zoom.” Two participants made mention of the feature,
‘panopto’, as being very effective for student presentations, and one participant (FE6-3) said that all classrooms in her College were wired for online teaching.

Six (40%) participants discussed bandwidth (maximum rate of data transfer across a given path, which may be characterized as network, data or digital bandwidth) of which three (50%) said it was good, while the three others expressed the need for increases. Two of three participants who identified a need for more bandwidth, facilitated in synchronous classes and were, therefore, reliant on adequate bandwidth to conduct their live classes. One of these participants, FE10-3 expressed, “This summer we are getting more bandwidth for the fall, and hopefully we will not have it [the system] go down.” In contrast, FECO2-2 expressed that when the system goes down it is not an issue for her and her students “because of the asynchronous nature” of course delivery in her program.

Sixteen (100%) participants in 115 comments offered perspectives on the quality of information technology (IT) at their institutions. Fourteen (87.5%) participants spoke positively, of whom seven (50%) spoke highly about the level of support at their institutions. The following comments highlight participants’ perspectives, FE6-5 said, “The tech support is awesome”; FE1-2 spoke about “exceptional IT” support, and FECO2-2 said about IT staff, “We have really excellent support [with information technology (IT) issues].” FE7-3 said, “The college provides an e-learning technical support specialist….he will work one-on-one with me to get the software to do what I want, so that is really strong”; and FE6-5 commented “You can either go down to them [IT] if you have an issue, you can email, or call - they are on top of it.”

Interviewee FE5-2 commented positively on the technical support received with recording a presentation, “I needed tech support in recording [and] to understand how it worked …it is a kind of application they have to load on your computer. I had excellent support with
that.” Five (38.4%) faculty expressed that opportunities were available for in-servicing and professional development, while one faculty participant explained that mentoring occurred on a one-to-one basis by designated college faculty.

Twelve (75%) participants in 115 comments discussed challenges related to technology and technology support. Of these, 10 (83.3%) facilitated content in asynchronous classrooms, and two (16.6%) in synchronous. The two participants without online teaching experience did not comment. First presented are the perspectives of participants who facilitated in asynchronous classes, followed by those who delivered content synchronously.

Of these participants, five (41.6%) expressed the need of more support for faculty and students. FEC4-13 stressed the need of dedicated support that was more campus specific “…making sure that everybody has that go to person on their campus, in terms of dealing with some of the technical issues of online learning.” Two (16.6%) participants were concerned about the timeliness of support and two about the lack of support for part-time faculty.

Four (33.3%) participants discussed the need for more support outside of business hours. FE6-5 expressed concerns about the lack of support in terms of difficulties students have with class preparation and assignments:

Students need to complete [preparation work] for the lab, and the lab is on Monday morning at eight am; I have to tell the students - you need to go online and get it done before four o’clock on Friday to make sure you don’t have any tech issues, because if you get locked out or have other issues there is nobody on the weekend….there is not enough support for students…that does not work well for online.

Three (25%) participants expressed concerns about not having enough technology to be mobile. For example, FE7-12 explained:
I don’t get a laptop or those kinds of toys if I am at home; I am using my data that I pay for….if they would give me a cell phone, I could set up my own personal hot spot…because online does not tie you to your desk…you need broader access, you need a tool to go along with that broader access.

Another participant, FE5-10 explained:

You are supposed to record your presentation online but my desktop at the college does not have a microphone or camera. So, they said, you can rent this adaptive piece that you put in, but it was kind of a drawback. I would have to go in and pick it up and it was not readily available….so, I find for me, it is a bit ironic that we are supposed to go ahead with technology and we don’t have the tools on the campus to do this right.

In terms of synchronous delivery, the two participants spoke about technology concerns in that it was not possible for students to see the teacher and the power point presentations at the same time. FE1-10 commented, “I can see all the sites, but they cannot see me and the power point presentation at the same time; you can have the power points up, or you can have you up, but not at the same time.” These participants were also concerned about sites going down when delivering synchronous classes. FE10-4 shared “There have been some challenges with the sites going down….we are kicked off at the end of three hours - we are not asynchronous, so it is very important that we have our three-hour time block.” And, FE1-3 explained “It needs to be updated, so whenever you do this, it is at a cost.”

**Theme two: Pedagogy training, course development, and design - learning how to teach online.** Fourteen (87.5%) participants in 120 comments offered perspectives on the pedagogical supports at their respective institutions. Of these, eleven (78.5%) facilitated content
in asynchronous classrooms, one (7.1%) in synchronous, and two (14.2%) were participants without online teaching experience.

Of these participants, seven (50%) commented that there were offerings of support on online pedagogy and assistance with course development. FE6-4 expressed, “There is excellent support from the college; educational specialists – [they] are also big on that [pedagogy] part.” Six (42.8%) participants said they accessed professional development opportunities through the teaching-learning centers at their colleges of which four (66.6%) shared that there were course designers in place to assist them. FE3-5 said, “There are course designers [within] a teaching-learning centre. They offer…classroom-based seminars as well as one-on-one help. I feel very supported by that department.” Three (21.4%) participants expressed that they were supported during course delivery. FE8-2 pointed out that there were online pedagogy modules, weekly meetings during the semester, and supports during delivery.

Nine (56.2%) of 16 participants in 60 comments offered perspectives on challenges with support in the areas of pedagogy, course development and design. Of these, six (66.6%) facilitated content in asynchronous classrooms, two (22.2%) in synchronous, and one (11.1%) was a participant without online teaching experience.

In terms of professional development offerings, these participants expressed concerns related to the timeliness of support, sequence of course offerings, and support for part-time faculty. FEC1-4 said, “The resources can only go so far; there are a lot of faculty and a lot of demands, so it is a struggle to necessarily do things in a time that might be ideal.” Regarding timeliness in terms of sequencing and scaffolding of learning, FE9-6 commented:

You have to have multiple sessions repeated throughout the week, for example, you can’t have one topic for the month of June and a different one for July because your faculty
may not be ready in June; (they) need multiple times and multiple repeats from month to month; although this is not cost-effective from an operations perspective.

Three (33.3%) of these participants commented that their colleges did not have teaching-learning centres or offer professional development on online pedagogy. FECO2-2 presented this perspective, “We have very good support (from) our IT people for any issues…. but outside of that everything is the faculty’s responsibility…there is no curriculum designer, content specialist person, and everything falls to faculty”; and FE4-2 commented, “You have to teach yourself how to do it.”

Three participants discussed informal learning and support, a need that was sparked by the lack of onsite supports. FE2-3 commented, “There is no teaching and learning centre….no orientation to pedagogy….we talk amongst ourselves at staff meetings, or just in the hallway at an informal level about what works.” And, in terms of how part-time faculty on a satellite campus accessed help, FEC4-4 explained, “most (part-time teachers) I see come to me, they come to other people they work with, they try to figure it out on their own, then they call IT or someone from the teaching-learning centre [at the main campus].” FE4-2 commented about providing help to colleagues in terms of time and support, “I get asked all the time [by colleagues] show me this, just do this, and sometimes I feel there should be someone else supporting those people.”

**Theme three: Acknowledgement of time.** Thirteen (81.25%) of 16 participants in 228 comments offered perspectives on the level of work required for online teaching and the need for acknowledgement of this work. Of these, ten (76.9%) facilitated content in asynchronous classrooms, two (15.3%) in synchronous, and one (5.9%) was a participant without online teaching experience.
Twelve (92.3%) participants said that online course development and delivery takes a lot more time, and FE7-3 commented - “Faculty that do online certainly understand the amount of time [it requires].” Of these participants, eight (66.6%) expressed the need for acknowledgement of time on the Standard Workload Form (SWF) for either course development or delivery or both, “it is limited to what is available according to the SWF…there is no acknowledgement that online takes more time,” said FE9-4. Four (30.7%) of the 13 participants who responded commented they were supported in time for course development in semester/s prior to the start of the course, and one (5.9%) participant was credited with one hour on the SWF for course delivery. FE10-4 said, “We are given a whole hour extra on our SWFs in recognition of the work that goes into online teaching. It is right in the factor up above.”

Eleven (84.6%) of 13 participants explained that the SWF weighting of online courses was the same or similar to that of face-to-face courses, including the weighting of new courses. Of the thirteen participants who facilitated content online, five (38.4%) perceived that administration was not aware (or they were doubtful they were aware) of the time required for online course development and delivery. FE6-5, 6 shared, “Administration is not going to give you any [extra] time, it is assumed in your course work development…they put money into the people who are going to help you, not faculty who have to roll it out.”

Two (15.3%) participants perceived that administration was aware of the time demands of online teaching but did not/were not able to provide support. FE4-2 commented “Admin might say more time is needed, but it does not show up on the SWF”, and FE1-4, 5 shared:

There is not enough recognition for online course development….you spend a lot more time trying to get connected to your students…you don’t get credit for that.
I think maybe administration recognizes that it takes more time online....but you are also governed by a SWF that gives you the maximum [hours]. [The dean] can put some accommodation in there [but]....some faculty say – I tried [teaching online] and I will stick to my face-to-face class.

Five participants (38.4%) perceived that administration was supportive. These participants shared their perspectives of the ways in which they were supported, for example, “I get some release time in May/June for course development,” said FE9-4; and, FEC3-2 described the supports for designing an online course, “There were dedicated resources and a budget allocated to the individual to help develop the online course”; and FE8-1 shared “I had a download [for course development].” Two of the five participants discussed administrative support in terms of class size, for example, FE7-3, 4 explained that administration assigned two classes on the SWF instead of one big class (60-70 students), giving her double the teaching time credit on paper, “Rather than getting three hours, I get six hours plus the evaluation component.” FE3-5, 6 talked about administration being more aware of the demands of online teaching, and also of the importance of class size:

As more people have begun to teach online, they realize that it is also very time consuming. A section of an online class is given the same weighting as a section of a classroom-based course in our workload and I feel that has been reasonable….as long as the [class] size is appropriately gauged, I am okay with what has been happening.

When participants compared their online class sizes to their face-to-face classes, two participants said they had smaller online classes; two similar size classes; two bigger online classes, of which one had marking support. One participant said that in her College the online class size was capped at 40 students.
In terms of time acknowledgement, five participants (38.4%) commented that faculty will do the work that is required, even when it is not recognized as time on the SWF. Participant FEC1-4 said, “It is a huge amount of time to invest, especially to do it well….What is the point of doing all this if it is not going to offer an experience for students that is useful and meaningful?”; FE9-6 shared, “It is time consuming; the teacher has to be willing to want to do this”; and in referencing time demands FE1-5 stated, “[Faculty] have to be very flexible and willing to do that.” FE6-5 elaborated a similar perspective;

There is no faculty release time…[we do this] on our own time. You have to be an innovator to really want to do this for your students because they [administration] are not going to give you the time…you have [faculty] who are real keeners that will do this no matter what the workload.

The participants without online teaching experience also acknowledged that they believed that online teaching takes more time. FECO2-2, 3, 10 discussed time in terms of recognition on the SWF:

Right now, that is an ongoing battle, a struggle - it is negotiable, it is on an individual basis but, on the whole, there is really no recognition of that….I think there is the perception [of administration] that [online] it is a time saver….When you see somebody do something almost effortlessly and quickly - OMG that was so simple and so easy - you get the sense that anybody can do that and as we know, it’s when it appears that way, it really took a lot of time, detail and planning; faculty who have fine-tuned it; they did it on their own; they did not have the supports.
Summary of Findings for Related to Research Question #1

There were no relationships between the best teaching practice scales and the following demographics - roles as faculty or coordinator, full- and part-time status, gender, age, or level of education. The findings of the positive relationships between the best teaching practice scales and the rest of the scales provided support for the value of each of these dimensions of practice in constructivism as a teaching approach. Faculty were able to easily integrate best teaching practices online as evidenced in the best practice scale scores. However, individual scores on two scale items indicated that approximately half of the faculty had difficulty interacting with students and having students collaborate together. This finding is not consistent with a constructivist teaching approach in which interaction and collaboration are required elements.

Findings indicated the challenges faculty experienced related to communication in the online classroom in contrast to that in the traditional face-to-face delivery. These faculty interviewees highlighted the difficulties associated with not being able to see their students, including difficulty in having deeper discussions and the disembodiment of concepts - particularly with asynchronous delivery. Content perceived as more challenging to facilitate online was in the areas of relational practice and experiential-type learning, as learning this type of content required in-person interaction in which students worked together - and this learning best occurred in face-to-face settings.

Faculty interviewees discussed strategies for connecting with students and connecting students with one another. For example, ‘getting-to-know you’ activities, audio-visual strategies, ensuring clear communication, and structuring online discussions to promote participation. Faculty in the survey highlighted a hybrid format as their most preferred teaching environment - interviewees elaborated that with this approach they could utilize the benefits of both online and
in-class environments such as opportunities for experiential learning and live communication. Faculty also made individual contact with their online students and met face-to-face with them.

The flexibility of online was highlighted as a benefit to both students and faculty. While online provided flexibility, faculty pointed out that both students and faculty must have a level of tech savviness prior to engaging in online education. They perceived that students were not as comfortable with technology as one may think, and this impacted the types of activities they could do online. Online teaching was perceived as not appropriate for new teachers and that teachers should be trained both technically and pedagogically before engaging in online teaching.

Faculty cautioned that students need to have a readiness for online learning, that is - be self-directed, motivated to learn, and have good time-management skills. They stressed that online learning is not for everyone, and many of these students need someone to police them or they just forget about the course.

The elements of institutional support and faculty support together impacted all best teaching practices, indicating the vital role of these elements to quality in distance education. There were relationships between institutional support and seven of the eight practices, and between faculty support and all eight practices, including Academic Challenge. Faculty who engaged in formal online-related training since teaching online and those who had ongoing professional development scored higher on seven of the eight best practice scales.

In terms of Academic Challenge (AC), faculty who had more years of experience with nursing, teaching, and online teaching, were able to Academically Challenge their students. These faculty were better able to provide feedback quickly, give students timely comments on their work, encourage students to go beyond set materials, and use assessments that challenged
students to learn. While I did not find support in the online education literature for this finding, it seems logical that faculty’s nursing and teaching experiences would have enhanced their level of expertise in these areas preparing them to more effectively teach and academically challenge their students.

In addition, faculty who were teaching fully online courses and who had higher online teaching loads scored higher on Academic Challenge. This finding may indicate that faculty who were teaching fully online courses and had higher online teaching loads perhaps - had experience with, were confident with, and enjoyed this form of delivery (and may have requested to teach online courses). Thus, they were able to better challenge their students academically. These faculty may have also built capacity for online teaching within their teams and programs by being utilized as a resource for other faculty, for example, sharing experiences and strategies that were successful in online teaching.

While survey findings indicated that faculty perceived that institutional and faculty supports were available to them and felt supported, particularly from a technological standpoint, several of the interviewees expressed the need for professional development on pedagogy; that professional development opportunities were not available at their institutions. Some participants would have preferred more support with both technology and pedagogy. The document analysis findings indicated that the technological aspect of online teaching-learning was emphasized to a greater extent than the pedagogical aspect.

Survey findings also indicated that online teaching was more time consuming than traditional classroom teaching and faculty perceived their time was not acknowledged. Faculty interviewees punctuated the fact that online teaching required a lot more time than teaching in the traditional classroom – that they worked harder online to connect with and engage students to
overcome the physical distance. They expressed the need to be ‘always on’, and accessible to students, with one participant suggesting that institutions should have guidelines for online etiquette.

While participants preferred to teach some online nursing courses face-to-face, they were satisfied with their online teachings. In terms of preferences for teaching some online courses, 25 (78%) of participants agreed or strongly agreed that they preferred teaching some online nursing courses face-to-face, while 29 (90.6%) agreed or strongly agreed that they were satisfied with their online teaching of nursing content.

**Interpretation of the Findings in Relation to the Literature Reviewed**

The findings of moderate or strong positive relationships between each best teaching practice scale and the rest of the scales, the strongest between the Constructivist Teaching (CT) and the Collaborative Work (CW) supports the belief articulated in the literature (e.g., Ally, 2004; Anderson, 2004; Dewey, 1938) that collaborative work is integral to a constructivist teaching/learning approach in which students work together to construct knowledge and meaning, and that the other dimensions of best teaching practices are integral to this teaching approach.

While faculty scored high on the best teaching practices scales, indicating they were able to integrate these practices in their online teaching with ease, several individual scores on the Collaborative Work (CW) and Online Social Interaction (OSI) scales were lower in comparison to faculty responses to questions on the other scales. These scores showed that approximately half of the faculty had difficulty with communicating complex ideas in discussions and having helpful discussions online. They also experienced difficulties with having students work together on difficult tasks and group projects. The interviewees elaborated on these challenges
highlighting the difficulties in facilitating content that required students to interact, particularly in the areas of relational practice and experiential learning. These challenges were consistent with the findings of Smith et al. (2009) who found that “nursing instructors were most concerned about providing nursing students with online authentic learning experience that relate to real world nursing situations which comprise high-stake medical and interpersonal elements”. For example, these authors found that nursing instructors were concerned about teaching people culturally sensitive care. In terms of teaching practices, Chickering and Ehrmann (1996) and others (Ally, 2004; Barr & Tagg, 1995; Dewey, 1938;) stressed that tasks students do need to relate to real-life situations.

The findings of the challenges faculty experienced with Collaborative Work (CW) and Online Social Interaction (OSI) are of import because these teaching practices are foundational to a Constructivist Teaching approach (Ally, 2004; Anderson, 2004; Huang, 2002; Mayes et al., 2011) and approximately half the faculty were ‘never’ or ‘sometimes’ able to integrate these practices in their online teachings. Ally (2004) explained that collaboration and interaction are foundational principles of constructivism and must be applied when designing online educative experiences to promote higher-level learning. And, Anderson (2004) stressed that the values of another person’s perspective, usually gained through interaction, is key to constructivist learning theory. Lewis and Abdul-Hamid (2006) examined the perspectives of faculty on effective online teaching practices and found that “fostering an online atmosphere with vibrant interaction among students and between the instructor and students” (p. 87) as most important to effective practices in this environment.

While there were challenges integrating the more interactive activities that required student to work together, faculty utilized constructivist-based strategies that were consistent with
the online education literature. These strategies included ‘getting-to-know-you’ strategies, such as having students introduce themselves, and activities involving discussion, reflection, and case studies (Ally, 2004; Bates, 2013a; Huang, 2002; Lewis & Abdul-Hamil, 2006; Mayes et al., 2011). These authors also recommended cooperative learning techniques that engaged students in problem solving. Billings and Halstead (2015) suggested that educators establish a purpose and be sure all students are participating, for example, by having students provide peer feedback to postings and lead and summarize discussions. This was consistent with strategies used by participants.

The perception of interviewees of the benefits of flexibility and access that online learning affords were prevalent in the distance education literature - that online education reduces barriers related to geography, class scheduling, work responsibilities, child care, and parking (Potter, 1998; James, 2010), as it “knows no time zones, and location and distance are not an issue” (Ally, 2004, p. 5), thus providing flexibility to students who cannot attend traditional face-to-face classes (Billings, 2000).

The benefit of access was punctuated by participants - this benefit is believed to be the most significant force driving interest in online education (Hartman et al., 2007; Skiba et al., 2008). Whether delivered asynchronously or synchronously, online delivery offers students this benefit. Bates (2013a) explained that “over a very broad range of circumstances, learners will on balance benefit more from asynchronous technologies because of the extent to which they can control the pace and place of learning, and this is of particular significance for distance and/or lifelong learners” (p. 3). The author also explained that - a major use of the web for both e-learning and distance education is asynchronous in that materials can be accessed at any time by learners, and teachers do not have to be present while students are learning (Bates, 2005).
Faculty cautioned that students need to have a readiness for online learning, that is - be self-directed, motivated to learn, and have good time-management skills. They stressed that online learning is not for everyone, and many of these students need someone to police them or they just forget about the course. This is consistent with Allen and Seaman (2013) who reported that the percentage of academic leaders who believe that online students need more discipline increased from just over 80 percent in 2007 to 88.8 percent in 2012. The assessment student readiness for online learning (Hung et al., 2010) and the communication of the expectations of online learning prior to and at the beginning of the course is recommended for the promotion of success (Billings, 2007; Mayes et al., 2011). Billings (2007) explained that students learn in different ways; some prefer a classroom where the instructor guides learning, while others are more self-directed. She warned that self-discipline and good time management skills will help students cope with online work, and “e-learning required a substantial time commitment” and that “it’s not easier than the traditional classroom approach and it requires just as much time” (p. 37).

The elements of institutional support and faculty support related to all best teaching practices. These findings were also consistent with the literature on quality in distance education indicating the significance of these supports in enabling faculty to implement these practices online (Chaney et al., 2009; Meyer, 2002; Phipps & Merisotis, 2000; Shelton, 2011).

My findings of the relationships between institutional support data and seven of the eight best teaching practices underscored the role of institutional supports - ongoing technical support, sufficient online teaching resources, OLS resources, and perception of student support - to the ability of faculty to implement best teaching practices in the online format. For example, The Institute for Higher Education and Policy (IHEP) (2000) in its list of benchmarks for success in
internet-based distance education stressed that “the reliability of the technology delivery system (needs to) be as failsafe as possible” (Phipps & Merisotis, 2000, p. 8), technical assistance needs to be available to faculty, and guidelines, with learning outcomes, need be used for course development design and delivery. And the availability of existing technology should not determine the technology to be used to deliver courses.

Findings of the relationships between faculty support data and the eight best teaching practice scales, including Academic Challenge (AC) showed that formal and ongoing professional development activities and experience with online teaching were important to the ability of faculty to implement all practices. Recent literature has focused on the implementation of best pedagogical practices and the role of faculty. In a new initiative of the Ontario Open Institute (OOI) faculty emphasized the need for implementation strategies and sufficient resources to ensure accepted standards of quality (Harrison, 2016). In the same study, effective pedagogy was prioritized amongst all stakeholders, including students, who voiced the need for faculty to be assisted with the implementation of new methods and in transitioning from classroom teaching to the online format. The significance of supporting faculty with effective online pedagogy was also emphasized by eCampusOntario (2016), as evidenced by its inclusion as a strategic plan priority.

Faculty highlighted the need for more supports, including technical support outside of business hours, support that was timely, and pedagogical support. Baran et al. (2011) found that teachers often felt uncertain and unprepared for the challenges of teaching online and “support and development programs are critical in helping teachers engage in the process of pedagogical inquiry” (p. 436). Hartman et al. (2007) cautioned that faculty who will prepare and deliver online courses require professional development, ongoing opportunities to update about evolving
technologies, their courses and “ongoing efforts to address concerns regarding time commitments, quality, and personal competence” (p. 163). And, Appana (2008) warned that faculty require an adequate amount of time for professional development in order to understand and maximize online teaching, including course development and delivery.

Faculty perceived they worked harder than they thought they would to meet the course standards, expectations and deadlines and wanted to be acknowledged for this time. Interviewees elaborated that they needed to work harder online to connect with and engage students to overcome the physical distance. They discussed about being ‘always on’ and accessible to students. Smith (2014) found that faculty attributed the increased workload to the “amount and type of communication needed to keep students engaged in online classes, class size, number of sections assigned, and receiving assignments early enough to complete course planning and set up” (p. 190). Billings and Halstead (2015) found that faculty spend more time on course preparation and student contact time in comparison to face-to-face delivery. They suggested strategies for managing communication must be set out before the course begins, such as establishing electronic office hours to interact with students, and how quickly to respond to student enquiries.

The finding that online teaching takes a lot more time than teaching in the traditional classroom was consistent with the related literature (Billings & Halstead, 2015; Heubeck, 2008; Lewis & Abdul-Hamid, 2006; Oncu & Cakir, 2011; Smith, 2014; Todd, 2009). In a survey, Allen and Seaman (2012) reported that 44.6 percent of academic leaders believed it required more faculty time and effort to teach an online course when compared to a traditional face-to-face course. In a recent white paper report from The Center for Educational Innovation at the University of Buffalo (2016), the authors shared that post-secondary education administrators
had a more positive opinion regarding a fair reward system than faculty do - and many faculty believe that teaching online courses requires more time and effort and appropriate and fair rewards need to be considered for these faculty.

**Interpretation of the Findings in Relation to the Theoretical Framework**

Findings of the positive relationships between each of the best practice teaching scales and the rest of the scales indicated the important roles of each of these practices in constructivist teaching - the findings are rooted in constructivist learning theory and aligned with the theoretical framework of this study (Barr & Tagg, 1995; Billings, 2000; Chickering and Gamson, 1987). The finding of the difficulty some faculty had with implementing the elements of Collaborative Work (CW) and Online Social Interaction (OSI) in the online environment spoke to the challenge of integrating a constructivist teaching approach. Chickering and Gamson (1987) stressed the need for these elements of practice in the seven principles of good practice, that “learning is enhanced when it is like a team effort rather than a solo race - good learning, like good work, is collaborative and social, not competitive and isolated” (p. 3); and “frequent student-faculty contact in and out of classes is the most important factor in student motivation and involvement” (p.3). Student and Staff Interaction (SSI) data indicated that faculty made individual contact with their online students and 19 (59.4%) met face-to-face with them. Billings (2000) also emphasized the import of collaboration and interaction among peers and student-faculty interaction; she stressed that faculty and students create learning communities to solve problems and they both “assume responsibility for overcoming isolation and other barriers to meaningful student-faculty interaction” (p. 62).

Faculty highlighted communication related challenges associated with teaching online, including the inability to have deeper discussion, particularly in the asynchronous classroom.
Bates (2013a) explained about online discussions, that “a well-managed face-to-face seminar is likely to result in greater learning than a poorly managed online discussion forum” (p. 3).

Billings and Halstead (2015) found that a common concern of faculty is how to facilitate and manage online discussions, particularly for those faculty who were new to teaching online. These authors explained that with asynchronous delivery, real face-to-face interaction becomes more limited and the educator retains responsibility for designing learning activities that promote active student involvement and higher-level learning. The role of faculty as a facilitator and designer of learning activities, that promote best teaching practices, is underscored in the constructivist learning literature and consistent with the theoretical framework of this (Billings, 2000; Chickering & Gamson, 1987; CHEA, 2002). Garrison et al. (2000) stressed that interaction opportunities should be integrated to course design and delivery in forms of student-teacher, student-student, and student-content. Barr and Tagg (1995) explained that the primary role of faculty is as a designer of learning in a constructivist approach. And, Bates (2014a) discussed experiential learning in terms of design models; that “it requires re-structuring of teaching and a great deal of detailed planning if the curriculum is to be fully covered and it usually means extensive re-training of faculty and careful orientation and preparation of students” (p. 7).

The finding that both students and faculty must have a level of tech savviness prior to engaging in distance education was supported in the literature (Billings, 2000; Billings & Halstead, 2015; CHEA, 2002). CHEA stressed that faculty must be adequately trained to instruct in a distance learning environment and institutions must employ faculty who possess the technical skills to teach online. Todd warned that students and faculty must be skilled and comfortable with these methods to enable a successful educational experience. Billings &
Halstead (2015) explained that not all students prefer to learn online, and that faculty should understand the learner’s technology skills and provide learner support and adequate resources.

Faculty highlighted a hybrid format as their most preferred teaching environment in which they could utilize the opportunities from both delivery formats, including teaching more complex content such as relational practice and experiential learning while in the face-to-face settings. The opportunities for learning in this delivery format is supported in the literature (Billings & Halstead, 2015; Friedman & Friedman, 2011). Billings and Halstead explained that the goal of blended learning is to provide opportunities for learners to apply content, practice and receive feedback, and to assume the role of the nurse across all domains of learning.

Regarding institutional and faculty supports, the findings were consistent with the theoretical framework of this study, that is, technology, technical supports, and formal and ongoing professional development activities are required for best teaching practices online, including the recognition of time (Billings, 2000, CHEA, 2002). Institutional support and infrastructure impacted all practice areas, except academic challenge. Faculty support impacted all practices, including academic challenge, which was related to faculty experience. Faculty who engaged in formal online-related training since teaching online and those who had ongoing professional development in that area scored higher on seven of the eight best practice scales. The document analysis findings indicated that Colleges focused on technological and pedagogical aspects of teaching and learning in their strategic mandate agreements. CHEA (2000) guidelines stressed the need for institutional and faculty support in terms of academic support and the financial capacity of institutions to provide programs, so that faculty workload is not affected. Billings (2000) highlighted the following areas of quality as important - faculty development, orientation to technology, ongoing technical support, and workload recognition.
In this chapter I presented the findings and analysis for research question one from the document analysis, online questionnaire, and faculty interviews. I then presented a summary of the findings. Next, I presented my interpretation of the findings related to the literature reviewed and then my interpretation of the findings related to the theoretical frameworks. Findings of research questions two, three, and four will be presented and analyzed in Chapter Five. In Chapter Six the conclusions, implications for policy and practice, and recommendations for further research and theory development related to this topic are presented.
Chapter Five: Findings for Research Questions # 2, 3, & 4

In this chapter I present the findings for Research Questions two, three and four. In the analysis and interpretation of the findings for all research questions, I examine the relationships between the study findings, the literature and grounding theoretical frameworks presented in chapters one and two.

Research Question #2: asked “How and by whom are decisions made regarding the nature of the content and learning outcomes that should or should not be developed in the online delivery format?” The data to answer this question were derived from my document analysis, and participant interviews.

Document analysis. In the analysis of documents, I identified the following two themes relevant to this research question: 1) Institutional perspectives on ‘why online learning’? and 2) providing online education, a college strategy.

Theme one: Institutional perspectives on ‘why online learning’ is essential? All thirteen colleges included online education in their Strategic Mandate Agreements (SMA). In this document, institutions pointed out that students need to be digitally literate and fluent, have digital competency (Northern), digital citizenship (Centennial), and that the student experience needs to be digitalized. Two (15.4%) institutions commented that digital fluency will provide students with skills to adapt to a rapidly changing world. For example, about digital fluency, St. Lawrence College stressed that it “leverages advances in technology to provide flexible delivery options to enhance learning and provide students with the skills to adapt to a rapidly changing world” (SMA 2017-20, p. 5). One (7.7%) institution discussed a contemporary learner and educator, describing the educator as one who uses customized digital teaching tools to advance technology-based teaching and learning.
In addition to digital fluency, institutions discussed online learning in relation to student access and the student experience. These perspectives included the need to ensure that learners are well positioned to “access programming and achieve their learning and life goals … through the cultivation of a flexible learning environment” (Confederation College, SMA 2017-20, p. 5), including online programs that are attainable and “available for all students” (Conestoga College, SMA 2017-20, p. 11). Six (46.2%) colleges highlighted student access and equity in terms of flexible programming, flexible delivery options, and commitment to lifelong learning offering a range of delivery modalities including online. George Brown aspired to be the College of choice for “adult learners who are seeking flexible options to upgrade skills or re-train for new employment opportunities” (SMA 2017-20, p. 5).

Five (38.5%) colleges discussed the student experience in terms of providing flexible and tech-enabled learning, with all colleges declaring the benefits of a flexible learning environment. For example, Seneca College emphasized “delivering flexible programming….with an emphasis on online delivery and hybrid courses” (SMA 2017-20, p. 7). The benefits of convenience and flexibility were also highlighted on 12 (92.3%) college websites including for example:

“[college] can help you achieve your dreams through a digital classroom” (St. Lawrence, 2018);
“freedom to achieve personal or business educational goals in ways that are accessible and convenient” (Centennial, 2018); “courses can be taken from the comfort of your own home” (Algonquin, 2018); “gives people the option to study in their chosen environment” (George Brown, 2018); and “convenient and flexible scheduling suits the lifestyle of many individuals” (Conestoga, 2018).

**Theme two: Providing online education, a college strategy.** Twelve (92.3%) colleges discussed the topic of online learning in their strategic plans. In the Strategic Mandate
Agreement (SMA) documents, seven (53.8%) institutions included online learning as an institutional aspiration including – graduating digitally-fluent students, connecting learners through innovative applications of educational technology, leveraging advances in technology to provide flexible delivery options, and continuing to be a leader for online learning in Ontario colleges.

All 13 of the colleges discussed online education under Innovation in Teaching and Learning Excellence in the SMA document. Institutional plans consisted of expanding “personalized and digitized learning” (Fleming College, p. 9), extending “blended learning into new areas” (Algonquin College, p. 9), providing “more flexible delivery options” to “assure access for learners and more competitive employment opportunities” (Northern College, p. 8), using technology “to provide enhanced learning outcomes and flexibility for its students” (St. Lawrence College, p. 6), and delivering a “variety of learning experiences that leverage technology to provide flexible programming options for all students (e.g., daytime, part-time) including online and technology-enabled learning” (Conestoga College, SMA 2017-20, p. 7). St. Clair College planned to increase online course offerings by three per cent (Strategic Directions 2016-19, p. 1), Georgian College “committed to a goal of offering 30% of all courses online by 2020” (SMA 2017-20, p. 6), and Centennial College to advance and accelerate hybrid offerings.

Five (38.5%) institutions discussed plans to address infrastructure and build capacity (e.g., Centennial, Conestoga, Confederation, Northern). Confederation College discussed its commitment to serving the needs of a large geographic region of northwestern Ontario with a sparse population, through a broad range of programs and pathways, “accomplished through technology-enabled learning that uses a variety of learning solutions and delivers synchronous and asynchronous program across multiple sites” (SMA 2017-20, p. 8). This included investing
in technology and training faculty on different delivery modes. For example, Northern College stressed that technology infrastructure is a critical element to innovation in teaching and has a digital strategy which “allows Northern to continue to grow activities in virtual learning environments…. recognizing the need to build capacity within the college to maximize technology-enabled learning” (SMA 2017-20, p. 7). Fleming College is “building course design and technology training into faculty development programs and increasing the number of hybrid and online courses” (SMA 2017-20, p. 9). And, Confederation College plans to open a TEC (technology, education, collaboration) hub operational in the fall of 2018 (SMA 2017-20).

**Faculty interviews.** I identified the following five themes that addressed this question: 1) Faculty participation, 2) institutional pressure, 3) collaboration, 4) student feedback, and 5) publisher resources. Theme one, ‘faculty participation’, consists of two sub-themes: i) faculty are involved in decisions, and ii) it was my choice to teach online. Theme three ‘collaboration’, consists of two sub-themes: i) influence of the collaboration, and ii) collaboration models - accommodating students in year four who are consolidating in placements.

**Theme one: Faculty participation.** I identified the following two sub-themes in the data related to this theme: i) faculty are involved in decisions, and ii) it was my choice to teach online.

*Sub-theme i: Faculty are involved in decisions.* Thirteen (81%) of 16 participants in 56 comments expressed that they had input into the decision-making process about the nature of the content that should or should not be developed in the online format. Of these participants, nine (69.2%) facilitated content in asynchronous classrooms, one (7.6%) in synchronous, and two (15%) were participants without online teaching experience.

These participants discussed various ways and levels in which faculty were involved which ranged from the participation in discussions to the making of final decisions and as being
resisters to online content delivery. Participant perspectives are highlighted in the following comments. FE9-3 stated, “Faculty who are more involved are those with online experience”; FEC2-2 said “The lead teacher decides”; and FEC1-3 pointed out that “Faculty might say [a course] would be too heavy to cram into an online format without having a blended model.” Four (44.4%) of nine participants who facilitated asynchronous classes described their faculty colleagues as being resistant and a barrier to online delivery. FE7-2,3 said “Resistant faculty feel they can do a better job. Their argument is that they need that face-to-face to have the discussions, have the body language. They also tend to be older faculty….teaching for 20-25 years”, and FEC1-9 expressed:

We are going through that unfreezing process with our nursing curriculum renewal. It is scary because you are opening up a whole new process. You can see the division between the new guard and the old guard…because you see the traditional thinkers going in one direction and you have others who are maybe more willing to think outside of traditional models.

Eight (61.5%) participants explained that discussions take place across collaborative partner sites and faculty are involved in these discussions. For instance, FECO2-1 described the involvement of faculty, coordinators, and the collaborative team in the decision-making process as follows:

Each of our courses have course teams, so someone is representing each of the sites on the team, so for example, if you are teaching professional growth, you would have representation from each of the sites, and the university is included in there, when I say sites; so, those discussions occur on the team level, and in addition to that, annually we meet [as a collaboration] for face-to-face meetings, so, any overarching decisions of that
nature would be discussed as a whole at those meetings; so, faculty and coordinators are involved in the decision making.

Sub-theme ii: It was my choice to teach online. Fourteen (100%) of the 16 participants in 30 comments offered their perspectives on faculty involvement in decisions to teach content online. Of these participants 12 facilitated content in asynchronous classrooms, and two in synchronous classes. The participants without online experience did not comment.

Of the 14 participants who were teaching online, 12 (85.7%) chose to teach content in this delivery format, one (7.1%) was assigned, and one (7.1%) was teaching on contract, which, in part, included an online course. Six (50%) of the 12 participants who chose to teach online strongly articulated similar perspectives that it was their choice to teach content online. They commented they were drawn to online teaching for a variety of reasons, including the desire to try something new. “I was given….the option of doing it [course] online and I said yes, I would like to try it because it was new for me; it was a personal choice” declared FE1-1. Participant FE8-1 explained “I did my masters online and saw that it was a good way to learn, so I was interested.” And, FE5-1, 2 commented:

We have a hub here at the College and they have a program where if you wanted to try online teaching, they would support you. And, so, I saw that, and because I have been teaching for so long, I needed a bit of a change. It was [I] who decided to give the course a shot.

Theme two: Institutional pressure. Thirteen (81.2%) of the 16 participants in 84 comments offered perspectives on the influence of the institution regarding decisions to deliver content online. Of these participants, 11 (84.6%) facilitated content in asynchronous classes and two (14.2%) in synchronous classes.
Seven (53.8%) participants described an increasing institutional pressure to put courses online, of which two (28.5%) shared that this pressure did not apply to the nursing program. Four of the 13 participants (30.7%) shared that there was no college-wide pressure to put courses online.

Participants provided a variety of reasons as to why colleges wanted to increase online learning offerings. FEC2-1 pointed to the institution’s “requirement for space and scheduling,” while FE7-2 explained, “The goal of the College is that every student who goes through the College will have at least one online course before they graduate.” FE8-1 clarified that while it was her choice to teach online, “it was [also influenced by] the College’s mandate to have a certain number of courses online by this point.” Two participants said that the program wanted to increase the number of faculty comfortable with online teaching, as FE4-3 explained, “Administratively, there is a push to get faculty comfortable with that sort of delivery, not so much nursing courses online”.

Two (15.3%) participants who facilitated courses synchronously described the purpose of this type of delivery as fulfilling the needs of communities by providing access to rural remote areas.

**Theme three: Collaboration.** I identified the following two sub-themes in the data related to this theme: i) influence of the collaboration, and ii) collaboration models - accommodating students in year four who are consolidating in placements.

**Sub-theme i: Influence of the collaboration.** The perspectives of participants who facilitated in integrated collaborative nursing program models in which all years of the program were offered at each collaborative site, and content was delivered asynchronously, are
represented in this theme. Seven (77.7%) of the nine participants in 45 comments offered perspectives on the influence of the collaboration regarding decisions to deliver content online.

These participants described the decision-making process that occurred at the collaboration level. The first step involved discussions across collaborative partner sites about nursing content that was appropriate or not to deliver online. Following this discussion, approaches to how final decisions were made varied across collaborations. Approaches ranged from the collaborative partners jointly making the decision, each partner site making the decision, or the university making the final decision. For instance, in terms of the university making the final decision, FE7-2 commented, “A discussion takes place across the collaborative partners, but the university makes the final decision; and FE4-2 said “We are part of a collaboration and have sort of taken the lead from the university partner.” One (14.2%) of seven participants, FEC2-2 shared, “The lead teacher decides what goes online.”

Six (85.7%) of the seven participants said that while the learning outcomes must remain the same, how the learning outcomes were met in terms of delivery format was up to each individual partner site; “Some [faculty].... may want to see their students face-to-face everyday - the (collaboration) leaves it up to us to decide” said FE1-2.

Two (28.5%) of the seven participants referred to ‘curriculum renewal’ that was upcoming and shared the hope for more online offerings. One of the two participants described the university collaborative partner as a barrier to offering content online, due to the lack of support for this form of delivery. This participant (FE6-2) explained that the only way around this was offering a course as a ‘pilot’; “We have done a little bit of online stuff without the university and we always call it a pilot every time we do”, and the second participant (FE9-3) commented that,
if a course is offered as a pilot project, the approval of the collaboration is not required, only the approval of the program chair.

**Sub-theme ii: Collaboration models - accommodating students in year four who are consolidating in placements.** In 44 comments, eight (88.8%) of nine participants who worked in collaborative models (in which year four was delivered at each collaborative partner site), shared a common perspective - that content was delivered online in year four of the program. These participants explained that online delivery in this final year allowed students more flexibility in their choices of clinical placement locations; in this consolidation year. Online delivery made it possible for students to complete their consolidation placements across various locations, both inside and outside the province and then come together in online classroom discussions.

The following comments highlighted participant perspectives of offering online content in year four. FE3-1, 2 said “All our fourth-year courses are fully online, for those students doing consolidation and pre-consolidation terms, who could be anywhere in the province or outside the country.” FE4-1 said, “In fourth year, most of our stuff is completely online. That just evolved more naturally as more and more students wanted to be away, and when they are out on placements we don’t want to bring them back to classes.” And, “Our last semester of the program is mostly online…because (the students) are in consolidation and pretty much everywhere” said FE5-13. Participant FE7-1 shared about the benefits of online providing equitable access:

The move to online developed through a natural process, clinical placements are scattered, they are across all sorts of different cities - it was to give the students equitable access so that some were not taking it in person while some could not, so we did it totally online.
A program coordinator (FECO2-9) further elaborated why online content was offered in year four, and of benefit to students:

In year four students can do their clinical placements everywhere, they could be elsewhere in the province, across Canada, and so you kind of have to have some content online at that point…it is really helping them sift through some of the praxis pieces that they are seeing in practice.

**Theme four: Student feedback.** In 14 comments, five (31.2%) of 16 participants offered perspectives of how student feedback influenced decisions about content to be delivered online. Of these, four (80%) facilitated in asynchronous classes and one (20%) was a participant without online teaching experience.

Three (60%) of these participants discussed how online content had moved from fully online to face-to-face or hybrid delivery. One (20%) participant commented about moving a course that was fully online back to the traditional classroom based on “some of the feedback that we received….and this is why we are moving this one course back to the classroom; [the students] had a hard time understanding some of the concepts and really valued the in-person approach” (FEC3-8). Another participant, FE7-1 said “They (the students) don’t feel a connection with the professor when the [course] is all online” - the pull back from online to face-to-face delivery was based on student feedback.

FEC1-2 described how feedback from students influenced course delivery format as follows:

The feedback we got from students when [the course] went fully online, was that they wanted more of a hybrid model where they felt they needed more support from the
Clause faculty in terms of interaction. This year it will be more hybrid…this was a first semester course…so, to be honest, they just weren’t ready for a fully online course.

Theme five: Publisher resources. In 18 comments, five (31.2%) participants shared the perspective that publisher resources influenced decisions about online content offerings. These participants facilitated content asynchronously. FEC2-2 remarked how a textbook influenced her course content, “The textbook I was using had a lot of material; there were different ways your course could be designed, and you could pick one that worked for your course and content.” FE3-1-2 explained, “Often [online course delivery decisions are] informed by different resources that are available through the different publishers that we use…We have presentations by publishers showing us what is available, and we compare amongst them.” And, FEC4-2 elaborated a similar perspective while also cautioning about the missteps that can occur with the use of such products:

There are so many resources now from publishers, different resources like the nursing council of learning examination (NCLEX); that many elements are online and have been implemented in various courses; that necessarily has not been the focus of online learning; but has been the platform in which those courses have been available. I think there are a lot of missteps along the way in terms of products, how good they are, how they are utilized – courses that went online that maybe should have stayed in the classroom; so, we are kind of in that ‘testing the waters phase.

Summary of Findings Related to Research Question #2

Faculty perceived they were involved in decisions regarding content to be delivered online. This level of involvement ranged from their contributions at collaboration partner meetings to faculty course leads at the partner sites making the final decisions. They perceived it
was their choice to teach online and were not pressured to do so – some said they needed a change, and online provided an opportunity to try something new. These faculty perceived that there were several drivers of online education at their institutions including institutional pressure, influence of the collaboration, student preferences, and publisher resources.

Institutional pressures included - mandates to have certain percentages of courses online, the goal of increasing the comfort level of faculty with online teaching, and of having students take at least one online course before graduating. Other pressures were the need for space and scheduling. While some interviewees spoke about being pressured by the program to offer online courses others said there was college-wide pressure, but no pressure exerted by the program level. Student feedback also influenced decisions about offering content online. Students wanted more offering because of the conveniences of access and flexibility with which online education afforded, however some students wanted less online and more face-to-face delivery for certain courses. Faculty perspectives of existing institutional pressures were consistent with findings in the document analysis, of the need to have students be digitally literate - to have those skills to adapt to a rapidly changing world. Student access and the student experience were also highlighted in terms of flexible programming, convenience and flexibility with the goal of meeting the needs of all learners.

In terms of collaborations and online offerings, there were several perspectives about how decisions were made– that there be agreement across all collaborative baccalaureate nursing program partners about the content that was appropriate; that the university partner make the final decision; or that each partner site make the decision. One participant explained that the university program partner was the biggest barrier to online learning as it was not supportive of nursing content being delivered in the online format. Collaboration models also influenced
decisions to offer content online - programs with integrative type models, in which all four years were offered at each site, delivered nursing content online during the fourth year of the program. Offering content in this final year provided flexibility to both institutions and students with student placement locations and scheduling.

The availability of online friendly publisher resources also influenced decisions. One participant discussed missteps in using these products in that some courses went online which should have stayed in the classroom. I did not find any relevant literature to support this finding, but it is logical to reason that because these resources were packaged for online delivery with much of the development work done they were more attractive to faculty because of the considerable amount of time they would have saved with course development and design.

**Interpretation of the Findings in Relation to the Literature Reviewed**

Faculty perceived they were involved in decisions about the type of content to be delivered online and most did not feel pressured to teach content in this format. Puzziferro and Shelton (2008) stressed the importance of faculty as key players and decision makers in the course production and delivery process - utilizing core lead faculty. Chaney et al. (2009) explained that “institutional culture and core values will either drive or hinder distance education in traditional higher education systems” (p. 8).

While some faculty spoke about being pressured by the program to offer online courses others said there was college-wide pressure but not at the program level. Student feedback was also perceived as an influencer. These influencers were consistent with the document analysis findings in which all colleges highlighted online learning in their strategic mandate agreements, and 12 of 13 in their strategic plans. In a survey by the USA-based Babson Research group 61 percent of administrators in US based institutions shared that online learning was critical to the
long-term strategy of their institutions (Allen & Seaman, 2013). And, in 2010, 14 universities had specific eLearning plans, and eLearning was part of the overall strategic plans of 18 institutions the province of Ontario (Harrison, 2016). These findings are consistent with those I found in the online education literature - institutional motives driving the interest in online learning stem from several interests, including the need to respond to student demands of increased access and flexibility (eCampusOntario, 2016; Hartman et al., 2007; Skiba et al, 2008), and the desire to the capture the online learning market (Allen & Seaman, 2013; Friedman & Friedman, 2011; Hartman et al.).

Regarding the collaboration as an influencer in decisions about delivering nursing content online, faculty expressed different perspectives about how and by whom decisions were made. Thompson (2007) found that effective collaboration required time and effort of participants to work through these differing perspectives, both initially and ongoing and this building of understanding and trust is essential. And the considerable time and effort it takes is an ongoing challenge. Regarding collaboration type models and online offerings (e.g., integrative type collaborations offering online nursing content in the fourth year) – again, this finding is indicative of the benefits of online education to both post-secondary institutions and students. Skiba et al. (2008) explained that web-based programs provide campuses with a means of accessing “different populations, transcending barriers of time, geography, and physical space” (p. 4).

**Interpretation of the Findings in Relation to the Theoretical Framework**

Billings and Halstead (2015) cautioned that when making decisions about content to be delivered online, institutions and programs must consider how offering online courses fits with the mission of the institution, and that administrators and faculty should be clear about the forces
that are driving online education. The authors stressed the importance of faculty involvement in decisions related to online education, that some of the most strategic marketing of distance education can occur internally, within the institution. They pointed out that online education is still new to many faculty and faculty who are early adopters will need to communicate the potential advantages to faculty who are more skeptical. Billings (2000) highlighted the benefits of access and convenience with which online education provides, that is consistent with the distance education literature - that access was the primary reason for nursing schools offering distance education, and that students can participate in these courses at any time and place.

Research Question # 3: asked “What a) course content and b) intended learning outcomes do participating faculty identify as appropriate or not for online learning? Why or why not?

a) Course Content

The data to answer the question about the appropriateness of course content for online delivery were derived from the online survey questionnaire and participant interviews. The document analysis did not address this issue. The perspectives of all interview participants informed this question, including those who facilitated content in asynchronous and synchronous classes, and participants without online teaching experience.

Online questionnaire survey. In response to Survey Q # 64 that asked for a response to the following statement: “I think content in the following course types is better suited to online delivery”, faculty perceived that content in four of 12 (nine nursing and three science) course options provided was better suited to online delivery when compared to face-to-face delivery. Of these four courses, two were science-based and two were nursing core courses. Of the five courses perceived as least suited to online delivery, four were clinical-theoretical courses, of
which three were perceived as least suited: care of clients with complex health challenges, care of clients with complex health challenges, and care of clients in maternal/infant settings. Eleven (34.4%) participants who selected the open-ended option ‘other’ of this question commented that content in the following courses was suited to online delivery - leadership and management, research, politics, and content in elective courses. They also suggested that this content could be delivered using a blended approach. Table 26 includes a depiction of participants’ comments.

Table 26

Participants’ responses to survey question # 64, ‘other’ option. “I think content in the following course types is better suited to online delivery. If you select ‘other’ as an option, please explain

<table>
<thead>
<tr>
<th>Participants’ comments of content better suited to online delivery</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Leadership &amp; management</td>
</tr>
<tr>
<td>• Psychology</td>
</tr>
<tr>
<td>• Research methods</td>
</tr>
<tr>
<td>• Research, communication, scholarship, ethics</td>
</tr>
<tr>
<td>• Humanities, psychology</td>
</tr>
<tr>
<td>• Leadership change management, health system issues (organizational theory, resource management, power &amp; politics)</td>
</tr>
<tr>
<td>• Consolidation theory, electives, growth &amp; development, family health</td>
</tr>
<tr>
<td>• Almost any course could; the instructor needs to look beyond the traditional</td>
</tr>
<tr>
<td>• Politics, community health</td>
</tr>
<tr>
<td>• All theory courses could benefit from some online component</td>
</tr>
<tr>
<td>• Need to be compensated for the work to truly deliver online component</td>
</tr>
<tr>
<td>• For nursing we have class sizes of 120-140…how can we find time to facilitate discussions?</td>
</tr>
<tr>
<td>• Most courses could likely be best with a blend of approaches</td>
</tr>
<tr>
<td>• Electives are well suited</td>
</tr>
</tbody>
</table>

In response to Survey Q # 65 which asked for a response to the following statement “I think content in the following courses is better suited to face-to-face delivery”, of the 12 course
options, seven of the nine nursing courses were perceived as better suited to face-to-face delivery, and two of the three science courses, of which the third, ‘processes of human disease’ was selected equally by participants. The most frequently selected courses were complex nursing skills (theory), introductory nursing skills, and health assessment, which likely speaks to the psychomotor component of the courses, in which demonstration of skill mastery is required. Four (12.5%) faculty selected the open-ended ‘other’ option of this question and shared the following about content they perceived as appropriate for face-to-face delivery: therapeutic communication; laboratory practice and clinical practice (simulation); and “as nursing is a relational practice, the more interactions the better…is face-to-face the gold standard?”

*Relationships between course content and preferences for online or face-to-face delivery.* Participants perspectives of course preferences for online delivery when compared with face-to-face are displayed in Figure 7. Cochran’s Q tests were used to compare the proportion of

<table>
<thead>
<tr>
<th>Courses</th>
<th>Face-to-face</th>
<th>Online</th>
</tr>
</thead>
<tbody>
<tr>
<td>Care of Clients with Complex Health Challenges...</td>
<td>43.8</td>
<td>25</td>
</tr>
<tr>
<td>Care of Clients with Common Health Challenges...</td>
<td>46.9</td>
<td>28.1</td>
</tr>
<tr>
<td>Care of Clients in Maternal/Infant Settings</td>
<td>46.9</td>
<td>28.1</td>
</tr>
<tr>
<td>Care of Clients in Gerontology Settings</td>
<td>37.5</td>
<td>31.3</td>
</tr>
<tr>
<td>Ethical Ways of Knowing and Caring in Nursing</td>
<td>40.6</td>
<td>50</td>
</tr>
<tr>
<td>Professionhood and Knowledge of Nursing</td>
<td>31.3</td>
<td>59.4</td>
</tr>
<tr>
<td>Complex Nursing Skills</td>
<td>59.4</td>
<td>21.9</td>
</tr>
<tr>
<td>Introductory Nursing Skills</td>
<td>56.3</td>
<td>37.5</td>
</tr>
<tr>
<td>Health Assessment</td>
<td>53.1</td>
<td>34.4</td>
</tr>
<tr>
<td>Processes of Human Disease</td>
<td>46.9</td>
<td>46.9</td>
</tr>
<tr>
<td>Pharmacology</td>
<td>25</td>
<td>56.3</td>
</tr>
<tr>
<td>Anatomy and Physiology</td>
<td>40.6</td>
<td>53.1</td>
</tr>
</tbody>
</table>

*Figure 7:* Courses faculty perceived as better suited to online delivery when compared with face-to-face delivery, responses displayed in percentages of faculty survey questions # 64 and # 65 (n=32).
respondents for each course against their preference for online or face-to-face delivery. This test showed a significant relationship between “Pharmacology” and preference for online delivery, and “Complex Nursing Skills (theory)” and preference for face-to-face delivery. Participants preferred to teach pharmacology content in online format, and complex nursing skills face-to-face. Because the sample size was small, faculty preferences for other courses could not be confidently established, thus findings for these preferences are based on frequencies with which faculty selected these courses.

Faculty interviews. I identified the following four themes that addressed this question:

1) didactic, linear type content is more suited to the online format, 2) content that is complex, requires high levels of interactivity and deeper levels of discussion is more difficult to deliver online, 3) clinical-theoretical content is more challenging to deliver online, and 4) perspectives to consider when deciding on content that is suitable or not to online delivery, and content that is suitable.

Theme one: Didactic, linear type content is more suited to the online format. Eleven (68.7%) participants in 56 comments shared the perspective that didactic content is more suited to the online format. Of these, nine eleven (81.8%) facilitated content in asynchronous classrooms, one (50%) in synchronous, and one (50%) was a participant without online teaching experience.

These participants described the type of content suited to online delivery as that which was didactic, black and white, linear, paper-based, and with right and wrong answers. FE2-7 discussed content in terms of it being reading and paper based, with fewer variables as being more suited to online delivery. FE5-11,12 said, “Didactic courses [are more appropriate]…[and then] bring them to class for the real learning.” These participants also explained that content that
was less challenging for students — that would not require them to be as self-directed is better suited for online learning. For example, FEC1-10 shared, “Content that is more linear…content that would not be challenging…that would not require [the students] to be so self-directed in learning that content.” FE3-15,16 elaborated a similar perspective while emphasizing the type of content in which there are right answers:

I think that if we assume that the right answers are always rooted in a medical model, then we could look for the right answer in terms of critical thinking, and the right priority related to decisions, and that is what the NCLEX does….those kinds of more complex, often existential explorations are not easy to have, ever, but are particularly difficult in an online environment; but that is what makes nursing an art; is that ability to say…what if, or that is one way, or are there others, or there is just so much more to nursing than the pat answers, the right answers, that come from a medical model, and I think technology [used in the online learning environment] as least as I have used it in nursing education; works best if there is a definite right answer that everybody is going to be happy with at the end.

**Theme two: Content that is complex, requires high levels of interactivity, and deeper levels of discussion is more difficult to deliver online.** Fourteen (87.5%) participants in 75 comments shared the perspective that the type of content that is complex, abstract, difficult to grasp and which requires high levels of interactivity as more difficult to deliver in the online format. Of these participants, eleven (91.6%) facilitated content in asynchronous classrooms, one (50%) in synchronous, and two (100%) were participants without online teaching experience.

Of these participants, eight (57.1%) shared the perspective that complex and abstract type-content was more difficult to deliver online. FEC3-10 commented, “Content that is harder
to grasp, that is more abstract” is difficult to deliver online; and FEC1-14 suggested that in online delivery, “You really hope that something is not lost in translation.” FEC4-13 cautioned about content heavy courses, “Students would struggle [with]….what is the most important content?” Participant FE1-8 said, “When it is not in black and white and students need to make and prioritize decisions, even (evaluating that) is a challenge.”

Ten (71.4%) participants expressed difficulty with being able to have rich discussions online in which students come together, explaining that content that required higher levels of interactivity and deeper discussion was more difficult to deliver in this format. FEC3-10 shared, “For groups coming together…based on discussion of topics, that might be harder to do”; and FE9-8 said, “I think there is a richness in discussion about people being together….that I don’t think that you can do that as well online”, and FE6-16 suggested asynchronous learning is difficult “where depth of discussion [is required].” FE10-13 who facilitated content synchronously shared, “It is harder to get to deeper level discussions - synchronized is much harder than face-to-face.”

**Theme three: Clinical-theoretical content is more challenging to deliver online.** Fifteen (93.7%) participants in 68 comments offered perspectives about the appropriateness of teaching clinical-theoretical content in the online format. Of these, 12 (100%) facilitated content in asynchronous classrooms, one (50%) in synchronous, and two (100%) were participants without online teaching experience.

Of these participants 11(73%) perceived that clinical-theoretical content was better suited to the face-to-face classroom or in the hybrid format, of which six (54.5%) supported delivery in the face-to-face, traditional classroom format. Five (45.4%) of the 11 participants, were program coordinators, of whom four (80%) supported traditional face-to-face delivery. FEC4-13
explained, “There is a sense that we really need to hold on to that three hours in class to make sure they (the students) are progressing the way they should be”.

Three (20%) of the 15 participants said they did not teach this type of content, so they were unsure about delivery format of this content; one (FE4-6): shared the views of fellow colleagues, “We have had some heated discussions [about clinical theory content]….for the nursing theory courses] they are still sitting in chairs.” This participant felt “we have a long way to go before we can assess them for clinical preparedness, fully online.” Participants commented about the complex nature of clinical-theoretical content and of the need for high levels of interactivity when learning these concepts. FE3-11 explained that while some of this content type could be delivered online, “You have to have a lot of interaction; you have to (give) feedback quickly; and, you need ways of recreating clinical situations that are realistic for students.”

Other participants also commented about the challenges with delivering clinical content online. FE2-7 shared, “Anything [content] like that - I really think needs to be in the classroom; there are too many variables and situations [to consider]”, and FE1-8 said, “When it is not black and white, and students need to make and prioritize decisions, even (the) students evaluated that as a challenge [online].” Participant FECO2-8 clarified how these complex concepts can become disembodied when you do not see the students and the body language of the entire class:

I think clinical theory courses, such as medical-surgical, should never go online …. because, in my opinion, that’s where you lose what nursing is….most of those concepts become disembodied. We can learn concepts and we can talk about them, but how do you fit all those pieces together and the complexity and layering…how do you combine all of that with the perspective that this is for that patient [who is] in the middle of everything that we are doing? Going online we would lose that whole piece. When students start to
talk about a concept in isolation, you can bring them back to that central piece and you can do that in the moment in a class. If you are asynchronous you are not going to be able to do that….you are not seeing this embodied body language of your entire class that you are teaching to in that moment. You are losing that teaching moment ability.

Six (50%) participants pointed out that theory to practice linkages are made while students are in practice settings, and the assessment of this learning is reliant on clinical mentors; it is the mentors’ responsibility and not that of the online course teachers. FEC2-5 shared why students’ preparation for clinical was not a concern for the online teachers, “Clinical instructors…[use] an extensive practicum evaluation [where] students….demonstrate they are meeting the entry to practice competencies.” FE7-14 agreed: “That is the work of the clinical preceptor.” Participants explained that whether students are making these linkages is almost immediately evident in practice settings. FEC4-11 explained:

It is not until they go out to clinical that you get that kind of feedback, yes, did they have enough knowledge, skill and judgment, and were they able to perform well in clinical, or no, they didn’t and they required a referral back?

**Theme four: Perspectives on offering content online, and content that is suitable or not to this format.** Sixteen (100%) participants in 111 comments shared perspectives on offering nursing content online, including 12 participants who facilitated in asynchronous classroom, two who facilitated content asynchronously and two who were participants without online experience.

Ten (62.5%) participants stressed that - there must be a mindfulness with regard to content that can go online, that not all content is suited to this format. FE1-11 warned of the need to question aspects of every course, “You can’t just take a course and put it online …sometimes
people make decisions because it may be financially better or easier, but it might not be for the students.” FEC2-5 stated, “There are only so many things you can do online”; and FECO1-2 said, “Our goal is to offer some content online, but not completely online; I don’t know if it will ever be that.” FEC1-3, 4 explained, “At our school there is an acknowledgement …that you just can’t throw every piece of content online”; and FE5-14 pointed out, “If you are strategic in terms of the courses you are picking and which would go fully online, which would go hybrid, and even the face-to-face courses, there is always a component that could go online”, adding, “online (delivery) could work well for certain courses, if it is done well.” FE10-11, in reference to synchronized delivery said, “I don’t think there is anything better in doing it this way [i.e., online].”

These ten participants offered perspectives to ponder when thinking about the appropriateness of content for the online format. They advised questioning - whether course learning outcomes could be achieved in this format, the amount of consultation and collaboration required by faculty and students, and the amount of group work needed to develop a concept further. FEC4-9 said it would be prudent to first consider the learning outcomes and then the delivery format, including online delivery models, in which these outcomes can best be achieved: This participant explained:

I think when you are deciding whether a course is a suitable course to put online, [ask yourself] what is the goal of the course? - and, if the goal of the course is a lot of collaboration and a lot of, you know, face-to-face, and being comfortable getting up in front of a group and speaking, perhaps you are going to have to think about - can I replicate that enough within the online environment? or am I going to do sort of a hybrid and leave some of those activities for that.
Regarding the amount of consultation, collaboration and discussion required by faculty and students to develop a concept that occurs, FECO2-8 shared an example of a concept that was better developed in the face-to-face classroom:

I think the ethics of care and of practice comes into those discussions, empathy, and starting to learn about different perspectives and different points of view, and I think some of those discussions are …heated, and I think that is so invaluable for students to start to open up their own perspectives and to start to gain some insight…[into] the theory of that…I think that is important for them to come to class and learn.

Participants perceived content of a didactic nature was appropriate for online, for example content in the course, “Professionhood and Knowledge of Nursing”. FE5-11 explained, “The very didactic [content] could easily be online…where you learn about [the roles of] the Registered Nurses Association of Ontario (RNAO), and the Canadian Nurses Association (CNA)… it doesn’t need to be very interactive.” FE6-13,14 commented similarly that large amounts of didactic content were appropriate for online delivery where students learn about the Canadian health care system, “the roles and settings that nurses are working in….and then they come to class to work out their understanding of it.” The more complex content which required higher levels of collaboration was perceived as better delivered in the traditional face-to-face classroom, for example, content in clinical-theoretical courses. Relational practice content and experiential type learning was perceived as difficult to assess in the online format and better suited to the face-to-face classroom.

Participants supported online delivery of content in consolidating courses in the fourth year of the program. Participants commented that content delivered in this year focused on concepts such as leadership, including administration and management. FE2-7 explained, “they
are learning to be leaders, you talk about nursing issues…they are in fourth year, so they can do it.” Participants’ perspectives are presented under theme four of research question three.

Three (18.7%) participants reported that psychomotor skills (theory) was suited to asynchronous delivery. Regarding science-based courses, nine (56.2%) participants commented that this type of content could be delivered in a hybrid format or completely online. Three (33.3%) of these participants explained that with the improvements to technology content as in pathophysiology and anatomy and physiology courses could be effectively delivered online.

FEC2-7 explained, “There are great visuals out there, for example, that show blood flow through the heart”, and FEC1-14 “I have certainly seen many interactive modules for teaching pathophysiology, you could use in a similar way as when you are teaching in the classroom.” On the other hand, FE8-11 did not view pathophysiology as a course that could be effectively delivered online, explaining that it is such a visual course, and in helping students look at a diagram of the heart, for example, it is better to be there to point out different things versus putting in on blackboard, adding, “…science courses are pretty much they are what they are, and maybe that lends nicely to online; but I still find it a challenge because those are very often the courses and concepts that students struggle with.”

b) Intended Learning Outcomes

The data to answer the question about appropriate learning outcomes for online courses were derived from the online survey questionnaire and participant interviews. The document analysis did not address this issue.

Online questionnaire survey. Faculty perceived that online course offerings were least appropriate for first semester/first-year students and most appropriate for students in semester two/year four. The data are depicted in Table 27. Seventeen (54.8%) participants ‘disagreed’ or
‘strongly disagreed’ that content should be offered during semester one/year one and 14 (45.2%) ‘agreed’ or ‘strongly agreed’ that content should be offered during the first year. Semester two/year four was considered the most appropriate, with 30 (93.8%) of faculty ‘agreeing’ or ‘strongly agreeing’ that online offerings were appropriate at this point of the program.

Table 27

*Years and semesters of the nursing program in which faculty perceived that nursing content should be offered, displayed in percentages of faculty responding to each option (n=31)*

<table>
<thead>
<tr>
<th></th>
<th>Per Cent of faculty selecting each of the response categories (n=31)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Strongly Disagree</td>
</tr>
<tr>
<td>Semester 1/Year One</td>
<td>25.8</td>
</tr>
<tr>
<td>Semester 2/Year One</td>
<td>22.6</td>
</tr>
<tr>
<td>Semester 1/Year Two</td>
<td>6.5</td>
</tr>
<tr>
<td>Semester 2/Year Two</td>
<td>6.5</td>
</tr>
<tr>
<td>Semester 1/Year Three</td>
<td>3.2</td>
</tr>
<tr>
<td>Semester 2/Year Three</td>
<td>3.2</td>
</tr>
<tr>
<td>Semester 1/Year Four</td>
<td>0</td>
</tr>
<tr>
<td>Semester 2/Year Four</td>
<td>0</td>
</tr>
<tr>
<td>Total responses</td>
<td>67.8</td>
</tr>
</tbody>
</table>

In response to the question that asked, “I think online nursing course content should be offered in the semesters/years of the nursing program”, participants were invited at the end of the question to feel free to add (anonymously) any comments. Participants’ comments are displayed in Table 28. The eleven (34.3%) participants who commented spoke about the advantages of online learning in that it provides students with - flexibility in clinical placement locations, access from remote areas, and opportunities to utilize skills in organization and time management. One participant said it was underutilized, while another expressed that face-to-face
delivery was far better in all subject areas. While participants were concerned about introducing online early in the academic credential, these participants supported the introduction in some way, several mentioning the use of a blended format.

Table 28

Survey question # 63 asked faculty to respond to the statement “I think online nursing course content should be offered in the semesters/years of the nursing program” If you include ‘other’, please explain”. Comments of faculty who selected ‘other’ as an option

<table>
<thead>
<tr>
<th>Participants’ comments of course content offerings in semesters of the nursing program</th>
</tr>
</thead>
<tbody>
<tr>
<td>• We teach to rural and remote areas to reach students that otherwise may not revive post-secondary education</td>
</tr>
<tr>
<td>• Year four has a heavy clinical component and having courses online at this level would allow the flexibility that the classroom would not.</td>
</tr>
<tr>
<td>• I feel that although online can do an adequate job it is far better face-to-face in all subject areas.</td>
</tr>
<tr>
<td>• I think some online course work is appropriate in the initial years but in a blended format. I have tried in a class now and then to have a week or two online. My experience is that students do not access the content and then expect me to go over it in person the following week. This occurs despite me clearly indicating (verbally and via announcement) that this will not occur.</td>
</tr>
<tr>
<td>• We have a program where theory is entirely online and has been successful (synchronous).</td>
</tr>
<tr>
<td>• They struggle in the first term of the program, but also need to build the skill of online learning to help them in future terms. And many of the skills of online learning (time management, organization, prioritization) are necessary in other courses and clinical settings.</td>
</tr>
<tr>
<td>• Online learning requires student/s to be quite sophisticated in identifying and managing their learning processes.</td>
</tr>
<tr>
<td>• It also requires faculty familiarity with the needs of the student group and the needs of individual students who are identified as being ‘at risk’.</td>
</tr>
<tr>
<td>• It is helpful to have an established academic relationship between the students and the faculty teaching the online course as this establishes a degree of trust and a basis from which students can feel comfortable reaching out to faculty with questions or for assistance.</td>
</tr>
<tr>
<td>• There are missed opportunities to engage students in self-paced online course content in all years.</td>
</tr>
<tr>
<td>• Students need an introduction to it. Courses that are hybrid are not always set up for it.</td>
</tr>
</tbody>
</table>

**Faculty interviews.** I identified three themes and four sub-themes that addressed this question. The themes are: 1) year one: students are not ready - no online content, or offerings in smaller amounts, 2) scaffold online content into the program-ease students into the process, and 3) year four - students are ready. Theme one: ‘year one: students are not ready - no online content, or offerings in smaller amounts’, consists of three sub-themes: i) students need to first
transition from high school to post-secondary education, ii) questioning academic readiness, and iii) don’t want to lose students to attrition.

**Theme one: Year one: Students are not ready - no online content, or offerings in smaller amounts.** Fifteen participants (93.7%) offered their perspectives on introducing nursing content in year one. Of these, 12 (100%) facilitated content in asynchronous classes, one (50%) in synchronous, and two (100%) were participants without online teaching experience.

Of these participants, 11 (73.3%) perceived that online content should not be offered in first semester, of which six (54.5%) said that content should not be offered in the first year of the program. Four (25%) participants supported the introduction to students to online in a smaller way, for example, becoming familiar with the learning management system (LMS) - learning how to log on, and maybe having a few classes. Four (25%) participants said that some content could perhaps be introduced in semester two of year one.

Participant perspectives of their lack of support for online content in the first semester and first year of the program are highlighted in the following comments, FE7-15 stated adamantly, “No online content should be offered in first semester. They are just lost in the complexity.” Similarly, FEC2-9 commented, “Not so much online in first year, sometimes they are not ready for it in second year.” “I would like to see students in first semester in class [for nursing content],” shared FE1-6; and FECO2-9 said that online learning should not take place “in first year or second year.” Conversely, participant FE4-11 favoured introducing students to online learning in first year, “They (the students) should have at least an introduction to a handful of classes so they learn the skill of logging on and getting themselves organized, and by second year there could be course work.” FEC4-14 highlighted the perspective of introducing content during the second semester of first year, advocating for a hybrid approach, as did three
other participants, “I do think they struggle, but they are going to struggle anyway; it is just part of the transition...better to get started with it, and particularly in a hybrid course.”

Participant perspectives of their lack of support for online content in the first semester or first year of the program are highlighted under the following three sub-themes: i) students need to first transition from high school to post-secondary education, ii) questioning academic readiness, and iii) don’t want to lose students to attrition.

Sub-theme i: Students need to first transition from high school to post-secondary education. Eleven (68.7%) participants in 39 comments shared perspectives on the advantages of students first getting to know their institutions and the expectations of the program, before taking online courses. Of these seven (58.3%) facilitated content in asynchronous classrooms, one (50%) in synchronous, and two (100%) were participants without online teaching experience.

These participants highlighted that high school is different from post-secondary and students need to get to know the program expectations and the resources that are available to them. They stressed the need for students to connect with peers and faculty before taking online courses. FE8-11 said, “A post-secondary environment is very different from a high school environment”, and, FE9-8 commented:

I would be hesitant to offer courses online to first year - first semester students coming from high school. I would probably say that years two, three, and four would be better. I think there is something about students first getting to know the school that they are at, the type of bonding that they need to go through with peers, colleagues, and so on, and of understanding the expectations of the school and program before doing anything online.

FE1-11 also highlighted the value of students being on campus during their first semester:
For nursing content, ideally, I would like to see students in the first semester in the classroom. I would like to see them, so they can get connected to you, get connected the program, get connected the institution, they get connected to all that is available to them - bursaries, student union, and all those kinds of things. Because, I am not sure if they never see you that they don’t know how to work with you.

Furthermore, these participants commented that at times students needed hand-holding as many were away from home for the first time, and that online learning could be challenging. FEC2-8, 9 elaborated this perspective:

Some students may be excellent, whereas others in year one, in some cases, we are still holding their hands. They are going through being away from home for the first time; all of a sudden, they have more liberties than they have ever had before; mom and dad aren’t around; and sometimes they need some boundaries – when, all of a sudden, they do not have any boundaries, they may not be as disciplined.

Sub-theme ii: Questioning academic readiness. Seven (43%) participants in 29 comments questioned students’ academic preparation for post-secondary education. Of these, six (50%) facilitated content in asynchronous classrooms, and one (50%) had no online teaching experience. These participants commented about students’ levels of reading and writing, of students not knowing how to learn, and of being lost in the complex nature and large amounts of content in the online format. Participant FE7-14 commented about academic preparation:

They are not coming out of high school prepared…not knowing even how to learn. They are just lost in the complexity; the depth and breadth of the information that they are having to bring on…they are not ready; oh, they are so not ready, they are like deer in the headlights - what have I got myself into?
Participant FE3-16 shared concerns about students’ reading and writing, and ability to do arithmetic:

The other part too that is contingent on the preparedness of the students, I guess, how ready we are assuming they are ready for that [online learning]. I find it interesting that the students; this is a big generalization, but students often come to university not being able to read and write as we thought they would be able to in a program with an entry average over 85, and they can’t do arithmetic as well as we thought they could. I have a feeling that they cannot do technology as well as we think; and it has been interesting how much time we have had to spend with students in the first year of the program getting them up to speed with these things we thought they would be able to do.

FEC4-14 shared concerns about difficulties students have with content heavy courses, particularly in the earlier semesters:

I think some of those courses that are seen as very content heavy.... I think they really need that direction from the faculty, and particularly when we are talking about courses earlier in their academic credential, as opposed to later.

Sub-theme iii: Don’t want to lose students to attrition. Five (31.2%) participants in seven comments expressed the perspective that online learning may be too overwhelming for students - that students may be unsuccessful or drop out. Of these, four (41%) participants facilitated content in asynchronous and one (50%) in the synchronous classrooms.

Participant perspectives were rooted in the rationale that students need to transition from high school and be academically ready to meet the expectations of post-secondary education prior to taking online courses. In terms of attrition, FE7-8 shared, “We have a lot more students failing out; most of the mature students that are coming back to school could probably do it; our
17-year-olds - they are just out of high school - they are not ready.” With respect to engaging students in online learning too early, participant FE4-12 expressed, “You would lose a handful of kids, and you don’t want to lose them because they got overwhelmed with the LMS.” Participant FE1-12 expressed concern about attrition and success in terms of the difficulty in picking up learning challenges that students may have, “What happens when someone has a learning challenge?”, adding that students should be in the classroom in the first semester/first year of the program.

**Theme two: Need to scaffold online content through the years of the program - ease students into the process.** Twelve (75%) participants offered 33 comments supporting the scaffolding of content into the nursing program. Of these participants 10 (83.3%) facilitated content in asynchronous classrooms and two (100%) were participants without online teaching experience.

These participants shared the perspective that students would be increasingly ready to learn online as they progressed through the program. They pointed out that introducing content gradually would prepare students for learning in this format during the upper years of the program, when more courses were offered online. This level of preparation was highlighted by participants who facilitated in programs where year four was delivered at the college sites, and year four course were offered online.

While 11 (68.7%) participants commented that online content should not be offered in the first semester, six (54.5%) of these participants did not support online content offerings even during the first year. Four (25%) participants supported the introduction of online learning to students, such as logging on - with the intention of increasing their familiarity with the LMS. In addition to these four participants, four (25%) others supported the scaffolding (gradual
introduction) of content into the program beginning in the first year. Five (31.2%) participants supported introducing online content beginning in year two, while three (18.7%) participants said it should be introduced in year three of the program.

The following comments highlight participants’ perspectives of scaffolding online content through each year of the program. Participant FE4-11 commented, “I don’t have any concerns with second year and on. Around here, it is generally fourth year, a couple of faculty do a class here and there in third year, so that they are more prepared for that.” FE3-16 described the preparation of students for online offering in the later years:

To some extent, [you should offer online content] at the very beginning; if you are going to start it late; you need to have introduced it earlier; so that students develop skills and comfort in using it, so I think perhaps a small/smaller component in first year and building so that by the time they get to fourth year they feel quite comfortable with our fully online courses that we offer.

Participant FEC3-10, 11 talked about introducing content earlier in terms of building student confidence and self-efficacy with this format:

I know that we certainly look at our fourth-year courses, I mentioned, as being offered online to really support the student needs who may be doing placements off site or out of province; it enables them to stay on the path within their program and graduate according to their plan; I think there is probably an opportunity to be introducing some more online learning earlier on in the program to help fill that confidence and self-efficacy of the new students.

FEC4-14 shared a similar perspective of the need for students to be prepared for learning online as they progress in the program:
They need to have those skills and that knowledge scaffolded in, so they are not getting to fourth semester and they have never had an online course; and now they have two or three - because I don’t think they would manage that very well.

**Theme three: Year four - students are ready.** In 22 comments, nine (100%) participants who facilitated in programs in which college and university faculty delivered online content in year four, shared the perspective that students were ready for online learning in this year of the program. Of these participants, eight (66.6%) facilitated content in asynchronous classrooms and one (50%) had no online teaching experience.

Participant FE7-14 commented, “Students in year four should be able to learn independently in a guided way, they are ready to learn in that way.” One of these participants pointed out that online content should be introduced in year four only, “I believe fourth year is the year they can handle online [learning], and the rest should stay in the classroom”, said FE2-8. Of the nine participants, eight (88.8%) explained that online course offerings in year four provided flexibility in terms of student placement location options and scheduling.

**Summary of Findings for Research Question #3**

Faculty perceived that nursing courses were better suited to face-to-face delivery and science courses more suited to the online format, for example, nursing skills-based courses were perceived as most suited to face-to-face delivery. While several of the faculty elaborated in the interviews that the theoretical portion of these courses could be delivered online, all interviewees shared the common perspective - that in the practical components of these courses, students required face-to-face guidance for skill mastery.

The four courses perceived as least suited to online delivery were theoretical-clinical courses, for instance, “Care of Clients with Complex Health Challenges’, in which content was
more complex. Faculty elaborated in the interviews that content that was more complex required greater levels of interaction and deeper discussions to enhance understanding, and this was difficult to attain in the online format. Courses faculty perceived as better suited to online delivery were “Anatomy and Physiology”, “Pharmacology”, and “Professionhood and Knowledge of Nursing”. Interviewees described the content in these courses as information focused, linear, and not requiring a lot of interaction, and thus, was well suited to the online format.

In terms of meeting learning outcomes online, faculty perceived that online learning was least appropriate for students in the first semester/first-year of the nursing program and most appropriate for student in semester two/year four. Interviewees elaborated that students in first year needed to transition from high school to post-secondary education before taking online courses. This included connecting with faculty and peers, learning the expectations of the program, and the resources available to them as online learning can be very isolating. Some faculty questioned the academic readiness of students. Faculty explained that students in the last semester of the program (semester two/year four) were ready to learn online; that they were consolidating their learning at this point of the program and were ready to learn more independently. Faculty highlighted the advantages of online delivery during the final year - that it provided more options for student clinical placement locations as students could access the online classroom from any location, and it addressed scheduling needs of institutions.

**Interpretation of the Findings in Relation to the Literature Reviewed**

The finding that skills-based Nursing theoretical content, was better suited to face-to-face traditional delivery likely speaks to the psychomotor component of these courses in which skill mastery was required. Smith et al. (2009) warned that in a practice-oriented field such as nursing,
students need to be able to apply the theory to the patient in that particular situation. Faculty perceived science courses were better suited to online delivery and theoretical-clinical courses were least suited to this format. They elaborated that in the theoretical-clinical courses the content is more complex and that learning the complex concepts requires higher levels of interactivity, making it difficult to facilitate this content in the online format. While I found limited research on approaches to learning in specific disciplines, findings of a study by Smith et al. (2008) revealed that in soft-applied disciplines, such as nursing, “knowledge is constructed, and assessment tasks emphasize knowledge application and integration” (p. 158), whereas in pure hard disciplines knowledge is more linear and thus scalable in online format. Their finding provides support to the perspective that a constructivist approach is needed to learn these concepts, in which high levels of interactivity would be necessary.

The belief that higher-level learning is promoted when learning is interactive is a principle supported in the distance education literature (Ally, 2004; Barr & Tagg, 1995; Huang, 2002; Mayes et al., 2011). Findings by Smith et al. (2008) also provided support to the perspective of the appropriateness of science courses to the online format because content in these courses is more linear. Billings & Halstead (2015) explained that typically the courses that are fully online are those in which the content is primarily didactic.

Findings indicated that faculty were challenged to facilitate the construction of knowledge at the higher cognitive domain levels of learning that were required for the more complex concepts due to the high levels of interaction needed to learn these concepts. Faculty were better able to facilitate content that was more linear and straightforward; in which learning was required at lower cognitive domain levels (Bloom et al., 1956). According to Bloom’s (1956) taxonomy, learning in upper cognitive domains levels requires that students analyze,
synthesize (organize) and evaluate (make judgments about), and these higher levels of learning are promoted through interaction.

Carey and Trick (2013) suggested that a key to emerging developments in online learning lies in the potential to “deploy faculty away from activities where high value can be generated by scalable online resources or tools toward activities where interpersonal interaction between instructors and students generates the most value” (p. 26). However, Billings and Halstead (2015) stressed, “regardless of the type of online course the faculty is teaching, it is important to remember that it is the use of educational practices…that ultimately determine students’ satisfaction with the learning experience and the attainment of intended outcomes” (p.360).

In terms of meeting learning outcomes online, faculty perceived that online learning was least appropriate for students in the first semester/first-year of the nursing program and most appropriate in semester two/year four as students were consolidating their knowledge and ready to learn more independently in their final year of study. Carey and Trick (2013) pointed out that students who are most likely to benefit from online learning are those who are academically prepared and highly motivated to learn independently, adding that many students who are taking online courses “may be most in need of the academic and personal supports that traditional campuses provide” (p. 45).

Interpretation of the Findings in Relation to the Theoretical Framework

Chickering and Gamson (1987) and Billings (2000) stressed that interaction and collaborative work are foundational to a constructivist teaching approach, and integral to teaching in a distance environment. Faculty in this study found it difficult to implement these best teaching practices for the more complex concepts. However, in terms of meeting course learning outcomes, CHEA (2002) cautioned that the learning outcomes must be “of such a nature
that they can be achieved through distance study” and “the delivery method must be appropriate for the students and the curriculum” (p. 10).

**Research Question # 4:** asked “What are the perceptions of faculty regarding the types of assessment strategies that are appropriate, or not, in the online format? Why or why not?”

The data to answer this question were derived from the online survey questionnaire and participant interviews.

**Online questionnaire survey.** Twenty-nine (90.7%) participants perceived that assessments they used in their online courses challenged student to learn ‘often’ or ‘very often’, The response data are depicted in Table 29.

Table 29

*Percentage of participants who reported their online assessments challenged students to learn (n=32)*

<table>
<thead>
<tr>
<th>Survey Question # 57</th>
<th>Per Cent of Responses by Response Scale</th>
</tr>
</thead>
<tbody>
<tr>
<td>Assessments I use in my online course/s challenge students to learn.</td>
<td>Never  Some times Often  Very Often</td>
</tr>
<tr>
<td></td>
<td>3.1%  6.3%  43.8%  46.9%</td>
</tr>
</tbody>
</table>

Twenty-two (68.8%) participants indicated that their online course activities prepared students for clinical practice ‘quite a bit’ or ‘very much’. In Table 30 is a presentation of the response data.

Table 30

*Percentages of participants who perceived their online course activities prepared students for clinical practice (n=32)*

<table>
<thead>
<tr>
<th>Survey Question # 62</th>
<th>Per Cent of Responses by Response Scale</th>
</tr>
</thead>
<tbody>
<tr>
<td>My online course activities prepare students for clinical practice.</td>
<td>Very little Some Quite a bit Very much</td>
</tr>
<tr>
<td></td>
<td>0  31.3%  43.8%  25.0%</td>
</tr>
</tbody>
</table>
Of the eight online assessment options provided, assessments faculty used with the highest frequency, beginning with the highest, were (a) written assignments of fewer than 500 words - used by seven (28%) faculty more than six times for at least 42 usages, and (b) multiple-choice questions, used by six (19.4%) faculty 3-6 times, for between 18-36 usages. Group assignments and written assignments of more than 1000 words were the third most frequently used assessments, used 1-2 times by 14 (51.7%) 14 (50%) faculty respectively for between 14-28 usages. These assessments also had the highest frequency of usage in these categories. Figure 8 depicts the number of faculty who reported using these types of assessments in their online courses.

![Assessments Usage by Faculty in Online Courses](image)

**Figure 8.** Participants’ responses to survey question # 58, “My online courses include which of the following assessments.” Select all that apply. Responses displayed in number and percent of faculty reporting use of these types of assessments.

The assessments used with the least frequency were presentations, used by two (7.1%) faculty 3-6 times for 6-12 usages, a combination of short-answer and multiple-choice questions
used by two (7.1%) faculty 3-6 times for 6-12 usages, and short-answer questions used by two (7.4%) faculty 3-6 times for 6-12 usages. These assessments were also used with the lowest frequency in the 1-2 category. In terms of assessments used the most (across all frequency categories), more faculty used multiple-choice questions, group assignments, and written assignments of fewer than 500 words. Twenty (64.6%) faculty used multiple-choice assessment, 20 (68.9) used group assignments, and 18 (72%) written assignments of fewer than 500 words.

The data in percentages of cognitive domain learning levels which faculty emphasized in their online assessments is depicted in Table 31.

Table 31

Academic Challenge (AC) scale data (Item 8): Percentages of cognitive domain learning levels faculty emphasized in their online assessments, responses displayed in percentages of faculty.

<table>
<thead>
<tr>
<th>Survey Question # 59 (a-e)</th>
<th>Per Cent of responses for each response option</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Percentages of cognitive domain learning levels emphasized in assessments</td>
</tr>
<tr>
<td></td>
<td>Less than 25%</td>
</tr>
<tr>
<td>Memorizing facts, ideas or methods for the purpose of repetition in the same form. (n=31)</td>
<td>71.0</td>
</tr>
<tr>
<td>Analyzing the basic elements of an idea, experience or theory, such as a particular case or situation in depth and considering its components. (n=31)</td>
<td>6.5</td>
</tr>
<tr>
<td>Synthesizing and organizing ideas, information or experience into new, more complex interpretations and relationships. (n=31)</td>
<td>16.1</td>
</tr>
<tr>
<td>Making judgments about the value of information, arguments or methods such as examining how others gather and interpret data and assessing the soundness of conclusions. (n=31)</td>
<td>22.6</td>
</tr>
<tr>
<td>Applying theories or concepts to practical or in new situations. (n=31)</td>
<td>9.7</td>
</tr>
</tbody>
</table>
Of the percentages of cognitive domain learning levels faculty emphasized in their assessments, twenty-two (71%) faculty used assessments of which fewer than 25% consisted of memorizing facts, ideas or methods for the purpose of repetition. Fifteen (48.4%) used assessments of which 25-50% consisted of analyzing the basic elements of an idea, the highest percentage in all cognitive domain learning levels. When the 25-50% and 50-75% categories were combined, 25 (80.7%) faculty used assessments that consisted analyzing the basic elements of an idea; 17 (54.9%) synthesizing and organizing information, 18 (58%) making judgments, and 19 (61.3%) applying theories or concepts to practical or new situations.

Figure 9 displays the data in percentages of cognitive domain learning levels which faculty emphasized in their online assessments.

Figure 9. Academic challenge (AC) data: Percentages of cognitive domain learning levels faculty emphasized in their online assessments, responses displayed in percentages of faculty.

When the three upper level percentages were combined, 29 (93.6%) faculty emphasized the cognitive domain level - analyzing the basic elements of an idea, experience or theory, such as a
particular case or situation in depth and considering its components – the most when compared
with the same percentages across all other domain levels.

*Relationships between assessment and Best Teaching Practices scales data.* Correlation
analyses revealed the presence of relationships between the assessment data and best practice
scales. Spearman’s rho analysis test showed there was a strong positive relationship between the
statement “Assessments in my online course challenge students to learn” and all best teaching
practices (BTP) scales, except Teacher Approachability (TA), for which there a moderate
relationship. Faculty who perceived that their online assessments challenged students to learn
scored higher on all BTP scales. Spearman’s rho correlation test also showed there was a
moderate relationship between the statement, “My online course activities prepare students for
clinical practice”, and five BTPs. Faculty who perceived that their online course activities
prepared students for clinical practice scored higher on the Collaborative Work (CW), Social
Learning Environment (SLE), Active Learning (AL), Student Staff Interaction (SSI), and
Academic Challenge (AC) scales.

There was no relationship found between any of the three types of written assignments
and the best teaching practices (BTP) scales. There was a moderate relationship between
presentations and the Collaborative Work (CW), Constructivist Teaching (CT), Social Learning
Environment (SLE), and Academic Challenge (AC) best teaching practice scales. In addition,
there was a strong relationship between group assignments and Collaborative Work (CW), and a
moderate relationship between group work and the Academic Challenge (AC) scale.

There was a moderately positive relationship between the cognitive domain learning
level, analyzing the basic elements of an idea and the Academic Challenge (AC) scale; a strong
positive relationship between synthesizing and organizing information and the Academic
Challenge (AC) scale; a strong positive relationship between making judgments and the
Academic Challenge (AC) scale and a moderately positive relationship with Active Learning
(AL) scale; and a strong positive relationship between applying theories or concepts to practical
or in new situations and Academic Challenge (AC), and a moderately positive relationship with
Active Learning (AL) and Collaborative Work (CW).

**Relationships between assessment data and learning environment preferences.** Chi-
square tests and Kramer’s V analysis showed a relationship between the types of assessments
faculty used and the learning environments they preferred when teaching students. There was a
relationship between written assignments of fewer than 500 words and traditional face-to-face
delivery and between presentations and a combination of two or more environments.

**Relationships between assessment data and content data.** Chi-square tests and Kramer’s
V revealed several positive and reliable relationships between the types of assessments faculty
used and their preferences of content for online or face-to-face delivery. There was a relationship
between assessments based on: “Written assignments of more than 1000 words” and
“presentations” and pharmacology in the online format. There were also relationships between
“presentations” and online delivery of the following courses: complex nursing skills, care of
individuals in maternal-infant settings, care of individuals with common health challenges, and
care of individuals with complex health challenges. There was a positive relationship between
the use of “multiple-choice questions only” and care of individuals with common health
challenges in both the online and face-to-face formats. A positive relationship was also present
between “multiple-choice and short-answer questions” and online delivery of ethical ways of
knowing and caring in nursing, and “group presentations” and complex nursing skills in the face-
to-face format.
There were several positive relationships between cognitive domain learning levels of learning assessment and course content. These relationships were between the cognitive levels and courses: “memorizing facts, ideas or methods” and professionhood and knowledge of nursing in the online format; “analyzing” with anatomy and physiology, and pathophysiology in the face-to-face format; and “synthesizing and organizing” with online delivery of pathophysiology and professionhood and knowledge of nursing, and face-to-face delivery of care of individuals with complex health challenges. There was also a positive relationship between “making judgments” and online pharmacology as well as pharmacology and pathophysiology in face-to-face format.

There was a positive moderately strong relationship between the question that asked, “my online course activities prepare students for clinical practice” and the course, complex nursing skills (theory). Faculty perceived that the online course activities they used in this course better prepared students for clinical practice.

**Relationships between assessment data and semesters in which online courses are offered.** Kendall’s Tau-B showed a moderately strong and reliable relationship between the cognitive domain learning level “synthesizing and organizing information” and semester two/year four. Faculty perceived that students in semester two/year four of the program better synthesized and organized information.

Kendall’s Tau-B showed a moderately strong relationship between the question “my online courses prepare students for clinical practice” and semester two/year three. Faculty perceived the online course activities they used better prepared students who were in this semester two/year four for clinical practice. There was a moderately strong relationship between the question that asked, “my online courses prepare students for clinical practice” and semester two/year four for clinical practice. There was also a positive relationship between the question “my online course activities prepare students for clinical practice” and semester two/year three.
two /year four. Faculty perceived the online course activities they used better prepared students who were in this semester and year for clinical practice.

In summary, there were positive relationships between the following - assessment data (assessment types and cognitive domain levels of assessment) and best teaching practices, assessment types and learning environment preferences, assessment data (types of assessments, cognitive domain learning levels) and content suited or not to online delivery; and assessment data and semesters in which content was suited or not.

**Faculty interviews.** I identified seven themes and six sub-themes that addressed this question. The themes were: 1) understanding where the gaps are, getting a sense of the pulse of the class, and having teachable moments - comparing online and face-to-face formats, 2) online and face-to-face - evaluations are the same in both delivery formats, 3) online assessments-approaches and opportunities, 4) academic integrity, 5) providing student feedback online, 6) workload, quality, and assessment choices, and 7) learning online - students underestimate expectations and quality of the course. Theme two ‘online and face-to-face - evaluations are the same in both delivery formats’ consists of two sub-themes: i) collaboration agreements, course evaluations and discussion forums, and ii) online and face-to-face course evaluations are the same. Theme three ‘online assessments - approaches and opportunities’ consists of four sub-themes: i) discussion forums and other interaction-based assessments – activities and assignments, ii) tests, quizzes, and multiple-choice questions, iii) written work; and iv) other approaches to facilitating student interaction with content - activities and technology.

**Theme one: Understanding where the gaps are, getting a sense of the pulse of the class, and having teachable moments - comparing online and face-to-face formats.** Sixteen (100%) of 16 participants in 193 comments shared perspectives of online teaching – of not
knowing how students were interacting with the content and of the inability to have teachable moments that occur in real time. Of these, 12 (75%) facilitated in asynchronous classes, two (12.5%) in synchronous class, and two (12.5%) were participants without online teaching experience.

Participants who facilitated content asynchronously shared a common perspective – that it was difficult to read the class and get a sense of whether students were understanding the content. For instance, participants described this difficulty in the following comments: FE5-5, said:

You would not be able to really assess how they are reacting to certain topics…..if I only met with them for half an hour, I was able to pinpoint who was in trouble or who had not done a learning activity, or who was progressing.

“In the face-to-face class I could pick up little threads that got lost” said FE4-4. And, participant FE3-14 stated, “You get a sense of where the hot spots are, or where the cold spots are [in face-to-face].”

These participants perceived these difficulties were associated with the absence of non-verbal feedback, the inability of students to ask questions to which they could respond in real time, and of missing those teachable moments when they and the students are together in the same room. And, FE9-5 stated, “I can get to know your name, see your face, take a look and say …you got those skills.” Participant FEC1-8 spoke about the advantage of being together with students in the same room:

I get a good sense of where they are at with the content as I am teaching it….you watch your classroom sort of expressions and have a good idea if they are feeling overwhelmed, whether they are feeling lost, whether they know exactly what you are talking about with
your examples; you see heads nodding. It is all that sort of thing that might seem in the moment, it might seem minor, but as someone who is trying to convey this information, these are huge cues.

Twelve (75%) of the participants commented about the inability of students to ask questions to which they could respond in the moment, or of the teacher to ask probing questions. This left participants uncertain as to whether students were understanding the content as they were teaching it. FE6-14 said, “In the classroom…you [students] can ask more questions and clarify whether they really heard the content”; and FEC2-4 commented, “(In) face-to-face they can ask you questions directly”, and, FEC1-6 explained, “Students need individual attention from faculty in terms of being able to answer questions.” FE3-14 commented on the difficulty of not being able to ask questions of students in the moment in the online classroom, “You really could not ask them a question while they were speaking, while they were involved in the thought that they were generating.” FEC4-8 described an efficient strategy used in the face-to-face format to understand the gaps for students. This participant explained:

I think it can be somewhat difficult to determine [online] how they are engaging with the content and whether it is really making it through or whether you [students] are skimming the surface of what is going on; whereas in the classroom….I find I am able to go around to students when they are working in small groups and have conversations with them and that really helps me understand where the gaps are for them, and I don’t always get to when I am teaching them online.

The participants who facilitated synchronous classes highlighted challenges associated with not knowing how students were interacting with content, emphasizing absence of body language feedback [online]. FE10-10 said, “It is harder online to make sure they get it; to do
those check ins - yes, they understand. Facial expressions and body language say so much. I sort of see them on my computer, but they are not clear”;

and FE1-7 shared:

Sometimes you feel they are out there in left field and you have to bring them in, so they know that they can call you, that you will connect with them and deal with the situation. You can do it in the traditional classroom, it’s easier, but you have to work harder online and with synchronous - but you can do it.

The participants without online teaching experience expressed similar perspectives about the importance of nonverbal feedback and ability to respond in the moment. FECO1-5 explained:

Getting that real feedback, that personal face-to-face is missing.…[in traditional delivery] you can see the students; can see they are getting it or not getting it, or will say, let’s talk about this in a safe environment, have a good conversation about it.

And, FECO2-8 commented “You are not seeing this embodied body language of your entire class that you are teaching to in that moment; you are losing that teaching moment ability.”

Theme two: Online and face-to-face - evaluations are the same in both delivery formats. I identified the following two sub-themes in the data related to this theme: i) collaboration agreements, course evaluations and discussion forums, and ii) online and face-to-face course evaluations are the same.

Sub-theme i: Impact of Collaboration agreements, course evaluations and discussion forums. In 62 comments, seven (43.7%) of 16 participants offered perspectives of program collaboration agreements in terms of course evaluations, assignment weightings, and discussion forums. Of these participants, six (85.7%) facilitated in asynchronous classes, and one (14.2%) was a participant without online teaching experience.
These participants commented that when a course was moved from face-to-face to the online format, the collaboration agreements required that they use the same evaluations and marking designations, as their collaboration partners. Participants shared that this posed complications for online teaching regarding online discussion forum participation, as student participation decreases when marks are not designated assigned to these forums. FE5-4 said, “because we are in a collaboration, I can’t really change the way grades are given, so I could not give five or ten percent to discussion; so, they did not participate a whole lot in discussion.” In the context of the collaboration memo of understanding, participant FE4-6 discussed the impact of not being able to assign marks to online forums. This participant explained:

The weighting of assessments has been same as the university, our university does not like to award grades for online; they think it will happen organically…. Students really see the discussion board as - I handed something in and want personal feedback. I didn’t get any marks for it - it is a bit of a struggle. They feel that they don’t get feedback.

Four (57.1%) of these seven participants commented that their MOA was either due to be signed or coming up for renewal, and this meant they might be able to negotiate more freedoms at each site, to make decisions independently about evaluation strategies and how marks are designated. For instance, FECO2-1 said, “To date all evaluations are the same for all sites – our MOA is being reviewed right now and that may change”; and FE7-8 stated:

Based on our new (Memorandum of Agreement) MOA that is coming out, nobody can be forced to use any particular evaluation approach; at the end of this month faculty can do what they want; until now it has been cooperative and collaborative, but not everybody has felt comfortable with it.
Sub-theme ii: Online and face-to-face course evaluations are the same. Twelve (75%) of 16 participants in 50 comments shared that the assessments they used in their online classes were the same as those used to teach the same content in the face-to-face traditional classes. Of these participants, eight (66.6%) facilitated in asynchronous classes, two (16.6%) in synchronous, and two (16.6%) were participants without online teaching experience.

Of the eight participants who facilitated in asynchronous classes, six (75%) were required to use the same assessments no matter what the delivery format, as required by their collaboration agreements. In terms of collaboration agreements, FE9-9 shared, “It is a limitation of the collaboration that I cannot use any testing that is different without the other sites being on board.” FE3-7 who did not comment about collaboration agreement restrictions also used the same assessments as in the traditional format. This participant shared, “I tend to stick to the same sorts of assessment I use in the classroom.”

The participants who facilitated in synchronous classes used the same assessments in both delivery formats. FE1-8 expressed, “We have a standard curriculum with a standard testing method, no matter if you are synchronized or not.” And, FE10-8, 9 explained that assessment strategies were not adapted to the online format at her college either:

Our assessment strategies are exactly the same…we have not changed or adapted them….now, I think part of that was probably our lack of expertise at the time, and the thought that we are doing the same course [online]. …as we develop our curriculum, we have changed the way we teach…to have this underpinning of relational pedagogy; to engage students more.

Of the participants without online experience, FECO2 stated that assessments were the same in both delivery formats, as per the program’s collaboration agreement. Participant,
FECO1-4, who was preparing to teach a face-to-face course in the online format course said that the course assessments would likely remain the same. This participant explained, “We will have a paper (assignment)…be able to evaluate that way, we will stay with our exam format, that will be the same, so I am not quite sure if we will move that quickly towards something different.”

**Theme three: Online assessments – approaches and opportunities.** Fourteen (100%) participants shared their perspectives of assessment in the online classroom. Ten (71.4%) of these participants used the same assessments as in the traditional classroom, and six (42.8%) highlighted the need for a multi-approach to assessment. Of the 14 participants who shared their perspectives, 12 (85.7%) facilitated in asynchronous and two (14.2%) in synchronous classes. The perspectives of participants without online experience did not inform this theme. I identified the following four sub-themes in the data related to this theme: i) discussion forums and other interaction-based assessments – activities and assignments, ii) tests, quizzes, and multiple-choice questions, iii) written work; and iv) other approaches to facilitating student interaction with content - activities and technology.

In terms of interaction-based activities, participants who facilitated in *asynchronous* classes shared the difficulties of students collaborating and the challenges of having meaningful interactions online, FE9 said it was harder to have groups come together online, while FE3-14 stated, “Interacting with the individual - I find it much more difficult.” And FE5-9 commented about the advantages of seeing students face-to-face in a hybrid format, “Because (the course) was hybrid, I could see them in small groups.” Participants who facilitated in *synchronous* classrooms integrated group activities in their online classes. Participants highlighted that written work and quiz-based type assessments were well-suited to the online format.
**Sub-theme i: Discussion forums and other interaction-based assessments – activities and assignments.** Ten (71.4%) of 14 participants in 60 comments shared perspectives of interaction-based learning activities and assignments in the online classroom. Of these eight (80%) facilitated in asynchronous classes, and two (20%) in synchronous classes.

Participants who facilitated content *asynchronously* used asynchronous discussion forums as the primary approach to connect with students, connecting students with one another, and connecting them to the content. These forums also provided information to faculty on how students were interacting with the content. Participant FE6-11 explained, “You have to be able to have the interactive piece online…the discussion forum and smaller assignments; you have to have some of that to know that your online students are actually engaging in the content and getting there.” Two (16.6%) of these participants used synchronous discussions to supplement their asynchronous discussions.

Three (37.5%) participants who facilitated *asynchronous* classes used individual presentations as an assignment approach, in which students recorded live presentations. These presentations were shared with peers for viewing and follow-up activities, with the purpose of promoting ‘cross-fertilization’. FE3-8 described an online poster presentation activity: “I have students do posters on particular topics within a small group….and then do an online poster fair within that group… group members comment on a number of posters…to promote some cross-fertilization within that group.” FE5-3 commented about doing individual presentations, in which the students record live and then share for peer viewing and follow-up activities, “Instead of seeing the presentations in class, they had to watch them online, so they had little quizzes on that.”
Two (20%) participants who facilitated *synchronous* classes also used asynchronous discussion forums. Both these participants and one (12.5%) who facilitated in an asynchronous classroom facilitated smaller group activities in their classes. They randomized groups using break out rooms in which students worked on different topics and then presented their work to the larger class. FE1-8 who facilitated a synchronous class, but also did group work, expressed her concern that, “Group work is a challenge, you have to be really comfortable with it and figure out how to do it.”

*Sub-theme ii: Tests, quizzes and multiple-choice questions.* Eleven (78.5%) of 14 participants in 37 comments shared perspectives of the usage of tests and quizzes in the online classroom. Of these ten (90.9%) facilitated in asynchronous classes, and one (9.1%) in synchronous classes.

The perspectives of participants who facilitated in *asynchronous* classes were that quiz-based testing was well-suited to the online format. Quiz-based tests were those that consisted of one or more question types such as multiple-choice, short-answer, or alternative type questions. Participants commented that these tests were helpful in informing about how students were interacting with content at various points, and of similarly informing students. For instance, FEC4-11 commented, “You never really know how well they are engaging with it [the content] unless you give them a test”, FEC3-6 also said, “I’ve done multiple-choice questions in a midterm, and that can give a good sense of where they are at as a checking point.” FE5-9 commented that tests can also be helpful to alerting students to how they are doing, explaining “Maybe eight or nine [students] failed the midterm, and that kind of woke them up to say - I really have to pay attention to this course.”
Participants also described the benefits to students of the quick or immediate feedback that is possible with this assessment - particularly with quizzes that are integrated into the course shell. FEC2-4 discussed the effectiveness of a publisher program “They can work through it and immediately get a grade and that grade is worth 5% of their total grade…and the students can do that at their own pace and time.” In terms of question development, three participants (25%) described the upfront development work as time-consuming, but once that was done, the tests were easy to mark. FEC4-8 explained:

The online really lends itself to multiple-choice question testing, that is fairly easy to mark, and it is really nice when blackboard marks it for you. The set up to a lot of those quizzes and tests is very time consuming, but once they are set up and you continue to add to a pool of questions, you have got a good sort of base.

A participant who facilitated synchronous classes had a similar perspective about suitability of tests and quizzes to the online format. FE1-8 commented, “Giving them a test is not a problem.”

Sub-theme iii: Written work. Eleven (78.5%) of 14 participants in 61 comments shared perspectives of written work in the online classroom. Of these nine (81.8%) facilitated in asynchronous classes, and two (18.1%) in synchronous classes.

Eleven (78.5%) participants commented that they used written work to assess students’ learning online. Participants used the term ‘written work’ in reference to, for example, scholarly papers, smaller assignments, and online discussion posts in which students used evidence-based literature to support their discussions. These participants commented that this type of approach was suited to the assessment of learning in the online format. FEC1-9 said, “[the] online [format]
can be very good when it comes to written work and assignments”; and FE2-5 explained that “paper-writing” was well suited to online.

Participants discussed the benefits of written work in terms of the discipline of writing and of students seeing other students writing. In terms of written work on discussion posts FE10-9 expressed, “One of the greatest things…is that students get to see other students’ writing …it lifts the other person’s ability to write”; and FE3-9, “I like to see how students write. I think there is something about the discipline of writing in having to the ability to organize and present it coherently that is really important in the professional work place.”

Three (27.2%) participants shared concerns about the risk of confidentiality breeches when students are trying to recreate practicum situations in their online writings, as in clinical-theoretical course content. FEC3-10 explained, “I think confidentiality is key to keeping and ensuring de-identifying information online - I am currently doing online reflections for students who are out in placements, and they have to do learning plans.”

Sub-theme iv: Other approaches to facilitating student interaction with content - activities and technology. Seven (58.3%) of 12 participants who facilitated asynchronous classes used case-study based activities/assignments to facilitate student interaction with content. One participant used publisher case-studies that were integrated to software in which students worked at their own pace. Three participants commented about the effectiveness of simulation exercises. Two of these participants mentioned ‘virtual gaming’ in which students worked through case study scenarios - one of these participants had tried this approach. One participant made mention of newer simulation video games.
Participants also connected students with content through videos, providing material in different formats for example, web casts of their lectures, and using voice over on power-point slides.

**Theme four: Academic integrity.** Ten (62.5%) of 16 participants in 106 comments expressed concerns about academic integrity in the online format. Of these, eight (80%) delivered content asynchronously, and two (20%) were participants without online teaching experience. Participants who facilitated content synchronously did not provide comments.

Participants who facilitated in *asynchronous* classes were concerned about cheating and plagiarism in the online format. They highlighted concerns of - not knowing the person behind the computer who is doing the test; students sharing answers, students working as a group; and students using textbooks and other resources when doing non-open book test or assignments. FE9-4 said, “We don’t really know that the person behind the computer is the student who is doing the test; this is a challenge with online assessments”, and “It is quite evident by the time you get to the last 25 percent, they are getting perfect on everything” stated FE6-7 about cheating on an online test. FE5-4 discussed the potential for academic dishonesty when an online exam was completed from home. This participant elaborated:

We can track how much time it takes a student to complete an exam and some had completed the exam in thirty seconds and they had all the answers, which means that they had the answers somewhere, from somebody; and just plugged them in; they did not even read the questions, right.

These participants spoke about the various ways in which academic integrity can be breeched. FEC1-7 expressed, “Even though we say to students, this is an online quiz, but we prefer you do it by yourself….we know that students are going to work on those things together.”
In terms of clinical, FEC4-11 explained that there is a lag in feedback about knowing when a student has been dishonest, “You don’t know if they did it [assignment] with a friend; it is not until they go out to clinical that you get that kind of feedback….so there is a bit of a lag.” This same participant described ways in which students are academically dishonest and spoke about issues in addressing dishonesty:

One of the challenges is that we know students are collaborating on those tests and quizzes; we know they are taking pictures of their screens, they are sending those to friends; so, the test security is not something that any faculty would say is comparable to an in class test, and that puts some limitations; we have seen that in this course in particular because it is paired with a lab section, they don’t end up with a mark, but with a pass or fail; and so, we have seen some mark inflation where we see students’ knowledge and comprehension of the subject matter does not equate with the actual earned mark that they have in the course; that is certainly one of my bigger challenges with online courses, the testing piece. [Scheduling exams] - you know to be able to say this week and this week we need to be able to have a computer lab to run this midterm and this final; our scheduling system cannot accommodate for that, so we are choosing to have them write in a classroom, or they all bring devices or writing at really off hours because that is when the computer labs are available; or trying our best to work with what we have within blackboard to try and limit the ability to cheat.

Participants shared various strategies to promote academic integrity such as bringing students on site for examinations, using locked down browsers, having time-sensitive quizzes, and randomizing quizzes. A frequently used strategy was having student write tests in person. FE4-5 shared, “They come in and write the test in person; but it is an online exam, it is live in a
classroom with me there with a locked down browser.” And, FE7-9 said “I do an online 
examination for my research course, but I do it in a computer lab….I really require the securing 
of a locked down computer lab to do it in.”

Other strategies suggested were scenario- and oral communication-based testing - FE9-4 suggested applying a time limit to quizzes, adding, “Potentially doing an oral type of 
communication and recording it may work.” Participant FE5-5 used scenario-based exams to test 
judgment, “We do more testing of judgment in scenario testing, the kind of stuff [they do] in the 
clinical setting, because, they are so well connected, you don’t know the integrity of what they 
are telling you.”

**Theme five: Providing student feedback online.** Twelve (85.7%) of 14 participants in 66 
comments offered perspectives about providing feedback to students in online courses. Of these 
participants, ten (83.3%) facilitated in asynchronous classes and two (16.6%) in synchronous 
classes. The perspectives of participants without online experience did not inform this theme.

Participants highlighted the importance monitoring discussions and providing feedback; 
that students expect individual feedback on their posts. They highlighted the quality of their 
feedback. For example, FE8-8, 9 commented, “I give them a lot of feedback not only on their 
posts and content, but also on their APA….starting in week five, you are going to lose marks 
[APA]”. And, FE2-4 said, “When I am looking at posts, I am looking at the quality, the scholarly 
references.”

Participants stressed the importance of monitoring discussions so that timely feedback 
can be provided to correct wrong information quickly. FE1-5 commented, “They were posting 
information but the information they were giving was wrong - so you have to be able to respond
to that, to correct that before responses go out.” FE7-7 said, “I get involved in the discussion when I see they are going off track, or they are not getting deep enough into it.”

Participants discussed the time-consuming nature of providing feedback on discussion posts. FE8-8 said, “It takes a lot of time, but you really get good at picking out key words”, and “Having to respond to 150-250 discussion posts; it sort….makes your head spin” stated FEC4-9. And FE4-6, 7 elaborated on students’ expectations for individual feedback and how this can be time consuming:

I get in there several times a week and comment on every third or fourth post, but I struggle, because what happens, I find then the students I did not comment to say ‘I did not get any feedback’….it takes time for the teacher, and you don’t want to reply to everything - if you are replying to every student you might as well have them hand in an individual assignment.

Regarding software in which it is possible for students to get quick or immediate feedback, such as scenario type learning activities and tests - participants highlighted the benefits of timely feedback and less time consuming to grade. FEC2-4 said, “They can do at their own pace and time…repeat it; get it on the first attempt. I like it because they can go back if they choose to do so and refresh themselves or study from it.” FEC1-7 expressed a similar perspective of the benefits to students of getting quick feedback as these test types were less time-intensive to mark once the upfront work was completed “Students get immediate feedback…and there is no additional time to mark unless you build in short answer questions, which have to be evaluated individually.”

In terms of paper-based assignments and presentations, four (33.3%) participants offered perspectives, highlighting the value of rubrics. FEC3-3 discussed how development of an online
rubric increased efficiency in marking online, “[It is] more efficient than (what) I have historically done…marking of papers…I found [face-to-face] to be more a lengthy process.” FE5-4 discussed rubrics and marking papers, “All my rubrics are online. I find with a bigger group that helps me mark a little faster because I don’t have to handle all the papers; I mark a lot online”; and FE7-6 about marking presentations, “It is easy to mark presentations online. I provide them with a marking guideline; I change the marking guideline into a rubric…. [it is] not as much [time] as if were marking an essay. It is very doable.” FE4-5 used a feature on the LMS to grade by questions, “I can look at a particular short-answer question across the cohort and I go on to the next question. I grade all my essays online, even in my last class. Students get enough comments.”

**Theme six: Workload, quality, and assessment choices.** Seven (43.7%) of 16 participants in 41 comments shared perspectives about workload, quality, and assessment choices. Of these six (85.7%) facilitated in asynchronous classes and one (14.2%) was a program coordinator without online experience.

These participants shared the perspective that high workloads may be impactful to quality and assessment choices maybe used as a strategy to balance workload. Their comments highlighted the need to consider what is in the best interests of the students and the need of faculty to have time for evaluation development. They emphasized that usage of less-time intensive assessment approaches, for example, multiple-choice question tests, that would be less time consuming to grade, would not be different than in face-to-face traditional classroom delivery. FE3-8 “I think assessment choices are influenced by time constraints; this is the same as in the face-to-face classroom as well.” FE9-5 shared a similar perspective, while also pointing out differences in assessing students in both environments:
There is a big difference in assessing online and face-to-face. In the traditional class, I can get to know you, your name, your face, take a look and say, for instance, (in testing skills in) health assessments – yes, you got those skills, but now, you have a little more leeway; you have the personal side; that human side; online I don’t know who you are; I don’t know anything about you.

Participants highlighted the need of faculty to consider the best interests of students when trying to balance workload in test assessments choices. FEC3-7 explained that while workload is a point of consideration, “I also hope they [faculty] would consider the best needs of the student.” With respect to balancing workload, FECO2-4 echoed a similar sentiment:

It absolutely impacts quality. It is a way of managing workload…the professor has to be mindful of that balance; at what point is the quality compromised; and that is a very difficult thing to balance, and ethically it is difficult because you want what is best for your students, and you want them to have quality education…but realistically, you have to be mindful of what you can balance as one person.

Participants discussed workload management in terms of using less-time intensive assessment approaches. Three (42.8%) of these participants highlighted tests such as multiple-choice question (MCQ) based quizzes, which required less marking time and on which students receive quick or immediate feedback. These participants pointed out while these test types were not time-consuming to grade, there was a lot of upfront development work. FEC1-7 explained, “Students get an automatic grade, and faculty don’t have to worry about scantrons….it takes time to integrate the quiz into the learning platform, but no additional time is required unless you build in short answer questions (SAQ).” FE3-8, 9 elaborated a similar perspective in the context of quality:
I know that decisions are made for less-time consuming strategies, sometimes when we know or suspect that it is not the best strategy for the type of learning that we are hoping is happening. Multiple choice questions tests are so nice because you can mark electronically and upload the marls and it is done, and they are suitable for some kinds of knowledge. I am not a fan, so when I have input to a test, for example, I would always include some SAQs (short answer questions).

Participant FE6-7 said, “We need support on faculty’s workload, so they can [have time to develop] the right evaluation techniques, so they are valid.” Furthermore, FEC4-10 cautioned that faculty need to question the value of every assignment because time is not recognized on the Standard Workload Formula (SWF) assignment:

If it is a high value assignment with high work, that is okay, but if it is a low value assignment with high work, we really need to adjust because the workload is not adequately captured on a contract and people are just sort of getting really burnt out and very tired, with all the marking and assessing, coaching, and all the rest of it.

**Theme seven: Learning online - students underestimate expectations and quality of the course.** Ten (62.5%) of 16 participants in 76 comments offered perspectives about the quality of learning in online courses. Of these participants, eight (80%) facilitated in asynchronous classes, one (10%) in synchronous classes, and one (10%) was a participant without online teaching experience.

Participants who facilitated in asynchronous classes perceived that students underestimated the expectations of online courses and were fooled by the informality of this format. They were concerned about the way in which students learned online and that online learning does not lend itself to deeper learning. FE5-9 talked about students who failed a
midterm test, “Students perceive it is easier online….they put it off; this is going to be easy and just skimmed the surface.” FE2-5 who facilitated a year four course was also concerned about students doing the minimum, “They just want to be done, just let me get my papers in, let me get that bare minimum done.” FEC4-12 elaborated on her perception of the way in which students perceived online courses:

    Even in the first two years, a fair number of the complaints [about online] have settled down. …I think it is becoming more of an expectation, that students will engage with content online. Having said that, you know, I have had students say to me, ‘I have paid thousands of dollars, and I don’t feel like I am getting taught anything; I feel like I am teaching myself’, so they perceive some difference in the quality of the instruction or the amount of instruction that they are getting between the traditional face-to-face course and an online or hybrid course.

Participants questioned students’ understanding of the meaning of quality and of how they learn. FE3-7 said,

        We are told that this generation is good at multitasking, I think that is a myth, there is research to support that the depth of learning is not as good when we are multitasking as compared to when we are not; that concerns me a whole lot.

Participant FE4-8 was also concerned about students not producing quality work:

        We see it every year, the strong students get into that environment and they suddenly just start falling down… I see their quality going down, suddenly they are sending me some reference they grabbed online that is five years old….they know me [my expectations] …. so they just get fooled by the informality of it.
Two participants commented that online and face-to-face course grades were comparable. For instance, FE8-6 said, “By enlarge, the marks correlate fairly well, probably within plus or minus three.” Neither participants provided any support for these claims.

A participant who facilitated in synchronous classes spoke about student success based on a 100% pass rate on nursing registration exams for her program and on feedback from community agencies that stated graduates were practice ready. FE10-3 in sharing perspectives of what contributed to this success, shared reflections of discussions with colleagues:

We talked about - the class size is smaller, we try so hard to engage students online that we create a really good relational culture that promotes development of those learning opportunities, and those learning groups that allows the students success.

A participant, FECO2-6 without online teaching experience also shared her perspectives of quality of learning in the online format:

I think you can certainly participate and pass, but I don’t know that people [students] all necessarily get the level of depth of learning that we would have liked to have occurred, and I realize that that can happen in a face-to-face classroom as well, but I do tend to hear more of that from my online students. So, I think that is a big challenge…it comes back to not being able see your classmates and be able to respond in the moment, especially for asynchronous learning.

Summary of Findings for Research Questions #4

Interviewees indicated difficulties they experienced with not knowing how students were engaging with the content and of not getting a sense of the pulse of the class, as they would in real time - when they and the students were together face-to-face with one another. These difficulties arose from not having the physical cues of students to indicate their understanding;
and with asynchronous delivery, of students not being able to ask questions to which they could respond in real time.

Faculty used the same course assessments regardless of the delivery format, as shared by interview participants. For some faculty, collaboration agreements restricted them from using different assignments or changing pre-designated marks. These faculty discussed the negative impact of this (not being able to award marks for discussions) on student participation in online discussion forums.

Survey data showed that the two assessments most frequently used when all assessment frequency categories were combined were “written assignments of fewer than 500 words” and “multiple-choice questions” and the least frequency used were “short answer questions only” and “presentations”. The greatest number of faculty used “multiple-choice questions only” and “group assignments” and the fewest number used “short answer questions only” and “both short answer questions and multiple-choice questions”. Interviewees elaborated that written assignments and tests and quizzes were well suited to the online format, and interactive-based opportunities more challenging online. Faculty highlighted the need for rubrics and spoke about the benefits to students and faculty of quizzes and activities in which immediate or quick feedback were possible.

Survey findings indicated that faculty preferred specific assessments depending on the environment in which they were teaching and the courses they were facilitating - and the types of assessment they used related to best teaching practices. For instance, “written assignments of fewer than 500 words”, was preferred in traditional face-to-face delivery, and “presentations” in a combination of two or more environments. The assessment, “group assignments” was preferred in face-to-face delivery of the course, Complex Nursing Skills (theory). Assessments also related
to best teaching practices, for example, there were relationships between “presentations” and “group assignments” and best practices, including Academic Challenge. However, no relationships existed between the three types of written assignments and best teaching practices.

Less than half of the faculty emphasized the cognitive domain learning level ‘analyzing’ in 25-50 per cent of their assessments, the greatest number in this and across all other domain level percentage categories. Less than one-third of the faculty emphasized the other cognitive domain learning levels - “applying”, “analyzing”, “synthesizing”, and “making judgments about” in 50-75 per cent of their assessments. Twenty-two (71%) faculty said that less than 25% of their assessments emphasized memorization, the lowest cognitive domain learning level.

Positive relationships existed between all cognitive domain learning levels and Academic Challenge - with the exception of “memorizing”, the lowest learning level. There were relationships between cognitive domain learning levels faculty emphasized in assessments and courses and course delivery formats, for example, the level, “memorizing” related to the course, Professionhood and Knowledge of Nursing, in the online format. Faculty perceived that students in the later years of the program learned at higher cognitive domain levels, for example - that students in semester two/year four better “synthesized” information. I did not find support in the literature for this finding, but this finding is logical given the foundational knowledge, experience, and reflective and critical thinking abilities students would have acquired in the previous semesters/years in the program, that would have prepared them for learning at higher cognitive domain levels.

Over 90 per cent of the faculty perceived the assessments they used in their online courses challenged students to learn ‘often’ or ‘very often’ - and faculty who held this perception scored higher on best teaching practices, as did faculty who perceived their online activities
prepared students for clinical practice. While I did not find literature to support this finding, it is reasonable to consider that these faculty may have had experience with online teaching, were comfortable with this delivery format, and were therefore able to implement best teaching practices.

Faculty perceived that their course activities better prepared students for clinical practice who were in semester two/year three and semester two/year four of the program. Again, this finding seems logical given these students’ foundational knowledge, experience, and critical thinking skills development at this point in the program; that they were better able utilize course activities in preparation for clinical practice. Faculty perceived the online activities they used in the course, Complex Nursing Skills (theory), prepared students for clinical practice. This may speak to a hybrid format of this course, as the practical component would have been delivered face-to-face, and a previous finding indicated that faculty preferred to use “group assignments” in face-to-face aspect of this course.

Faculty perceived that students underestimated the expectations of online courses and the quality of their work decreased. They also expressed that choosing less-time consuming assessments to evaluate student learning, such as multiple-choice-question examinations, could be used as a strategy to balance workload and this could impact quality. They were strongly concerned about academic integrity issues in the online format. The Council of Ontario Universities (COU, 2014) recognized this as a major concern - that assessment systems provide the kind of environment which enables cheating, as do badly designed assessments, including single assessments such as multiple-choice test items. Their report suggested that while a shift has occurred to a greater emphasis on formative assessments with a de-emphasis on high stakes summative assessments, “there will continue to be a need for end of course examinations in
online programs” (p. 44). The Ontario Undergraduate Student Alliance (OUSA, 2016) explained that academic integrity concerns can be alleviated through deliberate and accommodating design and taking advantage of emerging technologies such as Respondus Lockdown software and recommended that “the provincial government provide targeted investments to develop secure online examination software” (p. 10).

**Interpretation of the Findings in Relation to the Literature Reviewed**

I found one study to partially support the finding related to the difficulties faculty experienced in understanding how students were engaging with content. In the study by Smith et al. (2009) nursing faculty were concerned about not having student feedback “you don’t have the feedback that is useful from seeing them face-to-face” (p. 101). However, the literature highlighted difficulties from students’ perspectives of the lack of real time contact with the instructor “they were not able to get answers to questions or enough help from the instructor as they could in a face-to-face class” (Doherty, 2006, p. 253). Appana (2008) explained that asynchronous classes prelude getting immediate feedback and students may feel the need for more immediate responses to their questions and submissions.

To the finding that faculty used the same course assessments regardless of the delivery format, Bates (2014a) suggested that - online teaching needs to be done well following best practices associated with design models, not just based on the same assessments as for traditional methods, which often have a heavy bias toward memorization and comprehension. The COU (2014) discussed the emergence of alternate forms of assessments including peer assessment, e-portfolios, and rubrics and cited Crisp (2011) in highlighting authentic e-assessments such as “role play, scenario-based learning, gaming, artefact construction, and virtual world” (p. 42). The Ontario Undergraduate Student Alliance (2016) reported that students “believe online courses
should have online forms of assessment” and “educators should create online assessments that replicate the same learning outcomes as in-person alternatives (p. 10).” One participant in my study expressed a move toward more relational, experiential approaches to online teaching, as the curriculum was being renewed, with a move away from traditional assessment approaches. The two assessments most frequently used when all assessment frequency categories were combined were “written assignments of fewer than 500 words” and “multiple-choice questions” respectively. While written work was the most frequently used assessment, no relationship existed between written work and the best teaching practice Academic Challenge. Smith et al. (2009) found that written work was the assessment nursing instructors used the most.

Faculty spoke about the benefits of assessments, such as multiple-choice question tests, in which immediate or quick student feedback were possible, highlighting the value of rubrics in both communicating expectations to students and expediting the marking process of papers and other assignments. The benefits of rubrics (Billings & Halstead, 2015), of timely student feedback, and of communicating high expectations are well documented in the literature (Chickering & Gamson, 1987; Billings 2000; Coates, 2006). The finding that “multiple-choice questions only” tests could be used as a strategy for managing workload was consistent with findings in the literature (Appana, 2008; Carey & Trick, 2013; Smith et al., 2009). However, Appana stressed that relying too heavily on multiple choice questions, true/false and other click the answer responses may not be sufficient to judge students’ depth of knowledge. In discussing summative assessments, Carey and Trick (2013) explained that online summative assessment has been criticized for encouraging superficial learning such as recall of facts and basic applications (p. 15).
The finding that less than half of the faculty emphasized the cognitive domain learning level ‘analyzing’ in 25-50 per cent of their assessments, and less that one-third emphasized the cognitive levels - “applying”, “analyzing”, “synthesizing”, and “making judgments” in 50-75 per cent - can be explained in the context of Bloom’s taxonomy of learning. Bloom’s taxonomy explains learning “as a progression from simple learning to the higher levels of critical thinking” (Puzziferro & Shelton, 2008, p. 123). Appana (2008) in discussing learning in the cognitive domain stressed the need of instructors to be aware of encompassing the Bloom’s (1956) taxonomy while “assessing learners online and the skills their students need to demonstrate from each category to reveal genuine learning” (p. 12). Frydenburg (2002) discussed Bloom’s taxonomy in terms of alignment of learning levels - that analysis, synthesis, and evaluation are the learning levels expected in post-secondary university education. Findings of this study indicated that in this university program more than two thirds of the faculty did not emphasize these learning levels in their assessments across the individual percentage categories for each domain.

The findings of positive relationships between cognitive domain learning levels faculty emphasized in assessments and courses and course delivery formats indicated that faculty were able to achieve higher levels of learning with the more didactic type course content, for instance content in science courses. Smith et al. (2008) explained that the linear-cumulative nature of hard-pure knowledge makes teaching relatively straightforward.

The finding that students underestimated the expectations of online courses is supported in the online education literature - that students have unrealistic expectations about the time required to take an online course and find the new pedagogy a difficult transition from the traditional classroom environment (Alexander et al., 2003; Mayes et al., 2011). Billings (2007)
warned that online learning “requires a substantial time commitment and it is not easier than the traditional classroom approach” (p. 37). Faculty concerns regarding academic integrity issues were consistent with those in the literature (Mayes, et al., 2011; Smith et al., 2009; Smith, 2014).

Regarding collaboration agreements and restrictions with use of assignments and designation of marks, Boggs and Trick (2009) were of the opinion that barriers inherent in formal partnerships, such as collaborative baccalaureate nursing programs, related to difficulties in negotiating agreements and the lack of support from major stakeholders within the institution.

**Interpretation of the Findings in Relation to the Theoretical Framework**

The finding of the positive relationships between the assessments “presentations” and “group assignments” and best teaching practices, including Academic Challenge, provided support to the belief that using assessments in which students were required to interact and work together, as with these assessments, was effective in promoting knowledge construction and in keeping with best teaching practices (Barr & Tagg, 1995; Billings, 2000; Chickering & Gamson, 1987; Meyer, 2002; Phipps & Merisotis, 2000).

The largest number of faculty used “group assignments” in their online courses while “presentations” were used less frequently. Faculty preferred “presentations” in a combination of two or more environments, and “group assignments” in the face-to-face format. While the types of assessments faculty used promoted best teaching practices, the positive relationships between the use of “presentations” and five online nursing courses, indicated that these courses may have been delivered using a hybrid format, with “presentations” reserved for the face-to-face component. The positive relationship between “group assignments” and face-to-face delivery the course, Complex Nursing Skills (theory) indicated that students likely worked together during the face-to-face, practical component of the course.
These findings perhaps indicated the difficulties faculty experienced in utilizing interactive assessments in courses that were completely online - interviewees elaborated on the difficulties of collaborating and interacting in the online environment. These findings were not consistent with best teaching practices for fully online courses in which active learning and collaboration are required elements, perhaps indicative of faculty preferences for a hybrid delivery format (Billings, 2000; CHEA, 2002; Chickering & Gamson, 1987). Billings and Halstead (2015) suggested that the content in fully online courses is largely of a didactic nature. Interview participants discussed the benefits of hybrid delivery for reasons that are consistent with Billings and Halstead, who discussed blended learning in the context of “just-in time learning” which provides learners with opportunities to learn and apply content, practice and receive feedback, and think critically.

In terms of meeting course learning outcomes, Chickering and Ehrmann (1996), in discussing learning in the cognitive domain, explained that learning outcomes should be integrated in activities at the levels of analysis, synthesis, and evaluation - with applications to real-life situations. Billings and Halstead (2015) in describing the goal of blended learning expressed that it provides students with opportunities to assume the role of the nurse across all domains of learning.

In this chapter I presented the findings and analysis for research questions two, three, and four. I then presented a summary of the findings. Presented next was my interpretation of the findings related to the literature reviewed and lastly my interpretation of the findings related to the theoretical framework. Presented in Chapter Six are the conclusions, implications for policy and practice, and recommendations for further research and theory development related to this topic.
Chapter Six: Discussion and Implications

In this chapter I present a discussion based on the aggregated findings from the multiple data sources that informed this study. I then present implications for practice and policy followed by my suggestions for future research.

Discussion of Findings

The overarching goal of this study was to understand the nature, challenges and strengths of teaching online course content in prelicensure collaborative baccalaureate nursing programs in participating Ontario colleges as perceived by the faculty who have taught or are teaching online courses, and the implications for online course delivery.

Based on my findings, participating faculty perceived they were involved in decisions about nursing content that should or should not be developed in the online format and did not feel pressured to teach content online. Final decisions were made in various ways, including by course lead faculty at collaborative sites, jointly by the collaborating faculty, or by the university partner. Involving faculty in decisions is a good practice to ensure that appropriate content is being developed online and that learning outcomes are attainable. Faculty insights are key to understanding and making decisions about whether expected standards and outcomes of courses in this discipline can be met online (Koch, 2014). Puzziferro and Shelton (2008) stressed the key role of core faculty as players and decision makers in course production and delivery.

Faculty perceived that the drivers of distance education were institutional, collaboration related, student focused, and to a lesser degree influenced by publisher resources. Their stance was that students needed to be digitally literate - to have these skills so they could adapt to a rapidly changing world. In their respective SMAs, Colleges emphasized the need to address the student experience and student access. They planned to address these areas through convenient
and flexible programming and delivery options - with the goal of meeting the needs of all learners. Online learning was heavily promoted on the college websites as a “convenient” and “flexible” way of learning and meeting the needs of diverse learners. While these findings were consistent with the interviewees’ perspectives, some of the participants added that online education addressed their institutions’ need for space and scheduling issues.

Regarding the perception of the institution as a driver, all colleges in my sample included online learning in their strategic mandate agreements (SMA), indicative of its significance to these institutions. The importance of online learning to post-secondary institutions in the province of Ontario was also emphasized in a recent study by Harrison (2016). In discussing the changing attitudes of academic leaders, Harrison referenced a white paper published by Ontario North in which there was widespread agreement by presidents of Ontario post-secondary institutions that online learning played an increasingly important role in Ontario’s colleges and universities. In the U.S., findings of Allen and Seaman (2016) reported that 77.1% of institutions who were already offering content online said it was critical for their long-term strategy.

In several ways the collaborations in which the nursing programs were involved influenced decisions about content to be developed online. The first influence was the type of collaboration model. Colleges that were part of integrated model agreements in which year four was offered at all collaborative sites, offered nursing content online in the fourth year. This strategy provided students with more placement options and helped institutions with scheduling and space. The second influence, as shared by some interviewees, was that the final decision about online content offerings was made by the consensus of all partners, or that the university partner made the final decision. In addition to influencing decisions about content to be developed online, the collaboration also influenced how content was delivered. For example,
collaboration agreements did not allow for changes to evaluations when a course that was
delivered traditionally was moved to the online format. Interviewees discussed the negative
impact of not being able to adapt course evaluations to the online format, particularly in terms of
the ability to designate marks for online discussion participation. This was perceived as an issue
because student participation and quality of discussions on forums decreased when marks were
not given for participation.

A major finding of this study was that institutional support and faculty support together
impacted all best teaching practices, underscoring the integral role of these elements in distance
education quality, consistent with the theoretical framework of this study (Billings, 2000; CHEA,
2002; Chickering & Ehrmann, 1996). Faculty who engaged in formal online-related training
since teaching online and those who had ongoing professional development scored higher on
seven teaching scales. The teaching practice scale, Academic Challenge, only related to two
questions, both of which were on faculty support. Those faculty who were teaching fully online
courses and who had higher online teaching loads scored higher on this scale.

The Academic Challenge scale also related to various experiences faculty had – those
who had more years of experience with nursing, teaching, and online teaching, were able to
better challenge students academically. It is reasonable to conclude that these experiences would
have enhanced the faculty’s level of expertise in these areas, preparing them to more effectively
teach and academically challenge students. And, faculty who were teaching fully online courses
and had higher online teaching loads, perhaps, also had experience with, were confident with,
and enjoyed this form of delivery (and may have requested to teach online courses), thus, were
able to better challenge students academically. These faculty may have also built capacity for
online teaching within their teams and programs by being utilized as a resource for other faculty,
for example, by sharing experiences and strategies that were successful in online teaching. I found no relationships between the following demographics and best practices: roles as faculty or coordinator, full- and part-time status, gender, age, or level of education.

Faculty interviewees perceived that institutional and faculty supports were available at their respective institutions and they felt supported, particularly from a technological perspective. However, they also reported that they would have liked more support both technologically and pedagogically. Regarding technology support, some participants would have preferred tools that enabled greater mobility and help beyond business hours for both themselves and students.

Participants who delivered content synchronously emphasized the need for enough bandwidth to ensure consistently reliable online connections during their live classes. For instance, FE10-4 said, “There have been some challenges with sites going down. We just have this three-hour time block and we can’t go over. ….we are not asynchronous - so it is very important that we get that three-hour time block”. These faculty also highlighted the need for technology enhancements to improve communication, for example, better computer image quality and ability to have both the teacher’s image and power point slide on the screen at the same time when using the video-conference modality.

While many faculty felt supported pedagogically, several interviewees had received no professional development in this area and expressed the need for available opportunities at their institutions. FECO2-2 said “We have very good support (from) our IT people for any issues…. but outside of that everything is the faculty’s responsibility…there is no curriculum designer, content specialist person, and everything falls to faculty.” And, FE4-2 commented, “You have to teach yourself how to do it.” In my document analysis, I found that the technology aspect of online education was emphasized to a greater extent than the pedagogical aspect. However, the
pedagogy of online learning has become an increasingly prominent focus in discussion from various stakeholders, including students and faculty, in terms of its significance to the quality in online learning (Carey, 2014; COU, 2011; eCampusOntario, 2016; Harrison, 2016). The Ministry of Training, Colleges and Universities (MTCU) underscored this aspect of online teaching in their strategic mandate agreement framework. In discussing faculty supports, Carey (2014) emphasized pedagogy in terms of the need for more discipline-specific pedagogical support for online teaching and learning.

A key finding of my study was that online teaching required more time than did traditional classroom teaching and participating faculty felt this time was not acknowledged in their workload assignments (SWF). They worked harder in their efforts to connect with and engage students to overcome the physical distance. They commented that they were ‘always on’, and accessible to students. This finding is supported in the literature (Allen & Seaman, 2012; Billings & Halstead, 2015; Smith, 2014; University of Buffalo, 2016). Allen and Seaman reported that online instruction takes considerable more time and effort (than face-to-face instruction) to be done correctly “and not all higher education institutions or faculty are taking this time and effort” (p. 16). These authors found that only 30% of faculty believed their institutions had a fair system of paying for online instruction. Faculty interviewees in my study shared a similar perspective, FEC1-4 said, “It is a huge amount of time to invest, especially to do it well”, and FE9-6 said, “It is time consuming; the teacher has to be willing to want to do this”. My findings indicated that some faculty were open to using less-time consuming assessments, such as multiple-choice-question examinations, to manage the heavy workload. Quality benchmarks for online learning (e.g., as identified by Billings, 2000; CHEA, 2002; Phipps &
Merisotis, 2000) stress that institutions must have the financial capacity to offer online content and faculty workload should not be impacted.

Approximately half of the faculty in my study had difficulty with communicating complex ideas in online discussions, having helpful discussions online, and having students work together on difficult tasks. Interviewees elaborated on the challenges of engaging in deeper discussions with students, particularly with *asynchronous* delivery. They highlighted difficulties associated with not being able to see students, of not connecting with them, and of speaking to a disembodied voice. Those who facilitated *synchronous* classes also highlighted the greater effort required to connect with students and have meaningful discussions. According to my theoretical framework (Billings, 2000; Chickering & Gamson, 1987) online social interaction and collaboration are necessary elements of constructivist teaching and my findings indicated these faculty were not able to implement these elements.

Billings and Halstead (2015) advised that these best practice elements are increasingly important, particularly with *asynchronous* delivery, as real face-to-face interaction becomes more limited. To overcome the barriers of physical distance, faculty have a key role as facilitators and designers of content in which these elements are integrated. Bates (2014b) and Ally (2004) cautioned that online teachers need to be trained pedagogically prior to developing and designing content for delivery online. Lopes (2008) found in her study that over half of the students in a hybrid business program did not find online student-faculty discussions helpful, and 25 percent said that teachers did not use them. Faculty also expressed similar difficulties with online discussions. Lopes also found that faculty’s use of the learning management system (LMS) was basic and not related to teaching, rather they delivered information through email, and that much work was needed to enhance online discussions and collaboration.
Best teaching practices online include the elements - collaborative work, online social interaction and student and faculty interaction (Billings 2000; Chickering & Gamson, 1987; Coates, 2006). My findings question that these practices were consistently attainable at the levels required to learn more complex content because approximately half of the faculty experienced difficulty with having deeper discussions, and with teachers and students, and peers collaborating together. This was particularly emphasized with *asynchronous* delivery. While it is logical to reason, as participants pointed out, that these difficulties related to - issues of not being able to see students physically, the disembodiment of concepts, and the lack of ability to have spontaneous discussions as they would in real time when they and the students were together, there may be other contributing factors to these perceived limitations. These may include the need for - pedagogical training and support with content development and course design; technological training and support, and an adequate amount of time for course development and delivery, all of which were identified by the participants.

A strong finding based on the interview data was the participants’ identified difficulties in not knowing how students were engaging with the *content* and how deeply they understood the content, and of not having a sense of the pulse of the class, as they would in real time –when they and the students were together face-to-face with one another. These difficulties arose from not receiving the physical cues of students’ understanding and of students not being able to ask questions to which they could respond in real time. These challenges were emphasized more particularly with *asynchronous* delivery. I found one study in which nursing faculty had similar concerns (Smith et al., 2009). And, several studies I reviewed in the literature reported that students preferred more immediate feedback. For example, Lopes (2008) found that students did not like having to wait for a response after posting their comments, and Appana (2008) that
students felt the need for more immediate responses to their questions. Furthermore, Koch (2014) pointed out that in the traditional classroom the instructor can clear up misunderstandings as they occur.

A major finding related to the type of content that was suited and not suited for the online format. Participating faculty felt that science-based content was most suited to online delivery and nursing theoretical-clinical content was least suited. Interviewees elaborated that more linear content, content in which there were right or wrong answers, was better suited than complex content, as in nursing-theoretical course content. Complex content was perceived as requiring higher level thinking, high levels of interaction and collaboration among students. Staton emphasized that the “more complex the human task, the more qualitative the feedback needs to be, and the more important interpersonal communication becomes as a part of the feedback cycle to approach mastery” (as cited in Carey & Trick, 2013, p. 47). A few participants explained that more complex concepts could be delivered online but because of the high levels of interaction and the amount of time required to develop and deliver these concepts, it made more sense to teach the content in a traditional setting. Concepts involving relational practice and experiential-type learning, including psychomotor skill mastery, were perceived as better suited to face-to-face delivery because of the high levels of interaction required to learn these concepts.

A topic not highlighted by faculty interviewees was how they made theory to practice connections online. This lack of discussion by interviewees likely unscored their perceptions of the inappropriateness of this content for online development. Several participants expressed that theory to practice linkages were made in clinical settings and it was the clinical teacher’s responsibility to make these connections for the students.
Regarding relational-type content, some participants stressed the need for students to be together physically in face-to-face settings as they learned to interact and socialize into the nursing profession. For instance, in speaking of relationship content, FE10-13 stated, “It is not just about the theory, it is about that relationality because that is what nursing is; it is a practice profession, and so, if we can’t get the nurses to relate well, to be good communicators, then we have not done our job.” A coordinator (FECO2-11) spoke about how students struggle with face-to-face communication at the bedside because of their lack of exposure to that context, but are expected to form therapeutic relationships:

…they [students] are so savvy with texting and being online….they struggle with face-to-face communication, and they are very awkward with initiating conversations, starting conversations, and it is more than just shyness….it is just that lack of exposure to that...and here is this strange person [patient] and you need to form a therapeutic relationship….how do they do that if you are not giving them opportunities to practice...

Regarding experiential learning, many interviewees perceived that this type of learning required a lot of interaction and it occurred best in face-to-face settings. Some promoted this type of learning through the use of a discussion forum strategy - posing a question in which students were required to relate an experience. However, many participants experienced difficulty with attaining deeper levels of discussions in online forums. While several participants perceived that the theoretical aspect of a psychomotor concept (learning in the cognitive domain) could be learned online, all participants acknowledged that psychomotor skill mastery required face-to-face teaching environments.

These findings provide a deeper understanding of the challenges faculty experienced with delivering more complex content online. My study findings strongly indicated that faculty
perspectives of content that was appropriate for development online was shaped by the level of interaction needed to learn a concept; the domain in which learning was required, for instance, the need for face-to-face interaction for relational practice content, and the time available to them for the development and delivery of concepts to meet course learning outcomes.

These findings are indicative of the discipline-specific challenges associated with delivering content online in people and practice-based professions in which learning is not only required in the cognitive domain but also within affective and psychomotor domains (Koch, 2014; Smith et al., 2009). Professions, such as nursing, prepare students to develop the competencies required for entry to practice. For example, the College of Nurses of Ontario (CNO) Standards for Nursing Practice, the governing body for registered nurses in Ontario that is responsible for establishing requirements for entry to practice (CNO, 2017a), defines a competency as the “knowledge, skill, ability, and judgment required for safe and ethical nursing practice” (2014, p. 4). The CNO Standards for Nursing Practice further define individual competence as “the nurse’s independent ability to use her/his knowledge, skill, judgment, attitudes, values and beliefs to perform in a given role, situation and practice setting” (p. 11).

While I found limited research on approaches to learning in specific disciplines, my findings indicated that the faculty’s perceptions of their ability to meet learning outcomes in content that was discipline-specific, influenced their perceptions of its appropriateness for online delivery - in a high-stakes people and practice-based profession such as nursing in which the safety and well-being of patients is an overriding principle. In a study by Smith et al. (2009), nursing instructors warned that students need to be able to “apply the theory to the patient in that particular situation as they are dealing with people who are having illnesses, health care crises, and so on” (p. 101). Smith et al. (2008) found that content in soft-applied disciplines such as
nursing required a constructivist approach whereas linear type content, as in hard-applied disciplines, was more scalable online. Billings and Halstead (2015) suggested that content in fully online courses is largely of a didactic nature. Carey (2014) underscored the discipline as a focal point for knowledge about teaching and learning, and the key role of faculty within disciplines, including their assumptions about standards of effective performance. Based on my findings, it is logical to conclude that faculty are the experts in their disciplines about content that is appropriate or not for online development and the standards that should be met – and their input should be highly valued and sought out.

Participants emphasized that online learning was least appropriate for students in the first semester/first year and most appropriate for students in semester two/year four of the program, and that it should be introduced gradually across years of the program. Faculty perceived that students first needed to transition from high school to the post-secondary environment, learn the expectations of the program, connect with peers, and be academically ready for the required learning. Furthermore, they pointed out that students in year four were ready for online learning because at that point in the program they were consolidating their knowledge and were ready to learn independently. Also, supporting the finding regarding the appropriateness of sequencing content online in the later years of the program, were faculty perspectives that students in year four better synthesized information and students in semester two of years three and four used course activities to better prepare for clinical practice.

While interviewees perceived that students were not ready for online learning earlier in the academic credential, they also cautioned about the level of readiness required for any student taking an online course - that students need to possess self-direction, good time management skills, and be motivated to be successful online, and that the online delivery format is not
appropriate for everyone, which is consistent with the literature (Appana, 2008; Doherty, 2006). Faculty participants stressed that a “tech savviness” is also needed as poor technical skills limit the types of activities they can do online. This is consistent with Billings (2000) and CHEA (2002) who pointed out the need for good technical skills. Participants were also concerned that students (even the stronger ones) underestimate course expectations and their work is of a lesser quality when compared to what they produce in the traditional face-to-face classroom format. Several faculty warned about potential attrition of students due to the isolating nature of online learning, which can be overwhelming, particularly for first-year students. Carey and Trick (2013) found that students who were most likely to benefit from online learning were those who were academically prepared and highly motivated to learn independently. Furthermore, Doherty (2006) found that online courses were more attractive to busy students, who were also more likely to drop out or fail the course.

A key finding was that faculty used the same assessments for courses delivered in the online format as they used for the same courses delivered traditionally. This was in part due to restrictions imposed by collaboration agreements, which did not permit adaptations to course evaluations when a course was moved from traditional to online delivery. Bates (2014a) advised that for online teaching to be done well, best practices must be followed with design models, not just based on the same assessments as for traditional methods, which he believed were frequently based on memorization and comprehension. The significance of course development and design in ensuring online teaching quality is heavily supported in the online education literature (Ally, 2004; Chaney et al., 2009; CHEA, 2002; Chickering & Ehrmann, 1996). The most frequently used assessments were “written assignments of fewer than 500 words”, “group assignments”, and “MCQs” respectively. Interviewees stressed that written work and MCQ tests were well
suited to the online format, consistent with the findings of Smith et al. (2009) and interactive based activities were more challenging to assess in the online context. Rubrics were considered key to communicating assignment expectations and providing feedback (Billings & Halstead, 2015) and quizzes and tests in which immediate or quick feedback were possible were highlighted as beneficial for students. The importance of timely feedback is well supported in the literature (Billings, 2000; Chickering & Gamson, 1987; Coates, 2006). Furthermore, consistent with the literature (Smith et al, 2009), interviewees were very concerned about academic integrity issues in the online format.

In terms of assessing learning in the cognitive domain, fewer than half the faculty emphasized the learning level “analyzing” in 25-50% of their assessments, which was the greatest number of faculty in this and across all other domain percentage categories. And, fewer than one-third emphasized the learning levels, “applying”, “analyzing”, “synthesizing”, and “making judgments about” in 50-75% of their assessments. With reference to Bloom’s taxonomy of learning, Frydenberg (2002) advised that the levels of analysis, synthesis, and evaluation are expected at university post-secondary education, as is assessment at these levels.

Regarding assessments and learning environments, survey findings indicated that faculty preferred using assessments specific to environments in which they were teaching and courses they were facilitating in these environments. For instance, the assessment “presentations” was preferred in a combination of two or more environments, and “group assignments” in face-to-face traditional delivery of the course on “Complex Nursing Skills”. Survey findings also indicated that specific assessments related to best teaching practices. For example, there was a positive relationship between Academic Challenge (AC) and the assessments, “presentations” and “group assignments”. This finding supported the use of a constructivist learning theory as
these assessments require student interaction and collaboration, which is believed by constructivists to produce higher level thinking (Billings, 2000; Chickering & Gamson, 1987). Based on these findings, it seems likely that faculty may have used these assessments (i.e., presentations and group assignments) when they were face-to-face with their students, such as in a hybrid delivery format, because of the higher levels of interaction involved with these assessments; they identified their preference for using these assessments in a face-to-face traditional format, or in a combination of two or more environments. Smith et al. (2009) found that nursing instructors who were officially teaching fully online courses, created blended courses by adding one or two face-to-face classes at the end of a semester for final presentations, such as papers and projects. It is reasonable to consider that faculty were able to adapt their assessment choices to fit with their preferred learning environments, perhaps due to a hybrid model in which they were teaching. These findings suggest that we ought to be cautious about the assessment of online learning because when assessment choices are reliant on learning environments and the content that is being delivered in these environments - that when assessments are utilized inappropriately, due to unsuitable learning environments in which the content is being delivered, learning and attainment of intended course outcomes may be negatively impacted.

Faculty highlighted the benefits of flexibility and convenience that online teaching afforded them. Twenty-five (78%) participants agreed or strongly agreed that they preferred teaching some online nursing courses face-to-face rather than online, while 29 (90.6%) agreed or strongly agreed that they were satisfied with their online teachings. However, a strong finding of this study related to faculty preferences for hybrid delivery. My survey findings indicated that faculty most preferred a hybrid teaching environment when compared with other delivery
formats. The interviewees explained that in a hybrid model, they were able to draw on opportunities from both online and face-to-face delivery formats - including teaching the more complex concepts - that required higher levels of collaboration and interactivity - while in the face-to-face settings. This finding provided greater insight into the difficulty faculty experienced with teaching the more complex content online as well as content that was relational and experiential based - and of their preferences for a hybrid model of delivery. Billing and Halstead (2015) discussed blended learning as “just in time learning” which provides learners with opportunities to learn and apply content, practice and receive feedback and think critically – as well as with opportunities to assume the role of the nurse across all domains of learning.

The findings of this study provided insight into faculty perspectives of best teaching practices online and content that should and should not be taught in the online format. Many of my findings were consistent with the theoretical frameworks and the online education literature that informed this study. Most importantly, the findings of this study have implications for policy and practice in the preparation of nursing graduates and may be of interest to other professional programs that person-and practice-based.

Implications of Findings for Policy

The findings suggest several implications for policy, namely: acknowledgement of time, involving faculty and building capacity, and collaborations and partnerships.

Acknowledgement of time. A key finding of my study was that online teaching required more time and this time was generally not acknowledged. These findings have implications for policy because providing a fair reward system could help address possible quality issues related to high workloads. Providing fair compensation for work may also communicate to faculty and other stakeholders that online learning is valued by senior administration and the college. This
valuing may also positively influence the perceptions of faculty who are pessimistic about the outcomes that are possible in this delivery format. CHEA (2002) warned that online delivery should be reflected in the institution’s mission statement. Of the colleges included in my study, only three alluded to online learning in their mission statements.

While acknowledgement of time for online teaching was a bargaining issue in the Ontario Public Service Employees Union (OPSEU) faculty strike agenda, the most recent CAAT Academic Collective Agreement (2017-2021) does not reflect OPSEU’s (2017) stance during the negotiation – that is, to have online and hybrid courses placed in separate categories on the Standard Workload Form (SWF), with higher time factors compared to courses delivered traditionally. In the new Academic Collective Agreement, the only reference to delivery modes in terms of the SWF relates to a “teaching contract hour” which states, “regardless of the delivery mode, courses shall be deemed to have the same number of teaching hours as they would if taught entirely in the classroom or laboratory” (OPSEU, 2018, p. 12).

Another policy implication based on my findings is the need for institutional guidelines for online teaching, such as an online etiquette that would include standards on specific times when teachers would be required to be accessible. Several participants advised that this would also help them better manage their time, as many felt they were always on and available to students at any time, which interfered with their work-life balance.

**Involving faculty and building capacity.** All faculty participants in my study perceived that they were involved in some way about content that should or should not be developed in the online format, and they did not feel pressured to teach online content. While many said that pressure to offer online content did not exist at the program level, there was pressure at the college level. This finding was consistent with findings of the document analysis in which the
thirteen colleges in my study included, in some way, a commitment to online education in their Strategic Mandate Agreements.

The finding of Allan and Seaman (2012) that nearly two-thirds of faculty participating in their study believed that the learning outcomes for an online course were inferior or somewhat inferior to those for a comparable face-to-face course is consistent with findings of this study. Several faculty interviewees perceived that their colleagues were resistant and a barrier to online learning because they could do a better job with the traditional format. For example, FE7-2, 3 expressed “Resistant faculty feel….they need that face-to-face to have the discussions, have the body language. They also tend to be older faculty….who have been teaching for 20-25 years”, and FE6-1 expressed “They [faculty] are not wanting online….there have been a lot of older faculty there [at the university partner site] for many years.” Several participants expressed the need for more technological and pedagogical supports, particularly related to pedagogy.

Providing faculty with professional development on online education and opportunities to try online teaching may expand their perspectives about online learning. Allen and Seaman (2012) found that faculty were teaching fully online or hybrid courses had a more favourable view of learning outcome attainment with this form of delivery than faculty who did not teach online content. Seventy-five percent of faculty in their study who had no online teaching experience were pessimistic that outcomes could be met online, this dropped to 49 percent for those who taught a blended course, and to 39 percent for faculty who taught a fully online course in the current academic year. This has implications for policy because utilizing experienced faculty as mentors and resources to teachers who are new to online or who may want to try it will help to build capacity in those programs. Also, a policy requiring faculty who teach online
content have training in pedagogy and use of technology was a need identified by the participants.

In efforts to improve teaching and learning, MacFarlane & Brumwell (2016) recommended staff resources and more professional development activities for faculty. Supporting faculty is a priority recognized by key stakeholders (eCampusOntario, 2016; Harrison, 2016; Little, 2009; OUSA, 2016). Little advised that instructional effectiveness could be improved by incorporating it into each instructor’s faculty development plan. And, “deans and program directors need to provide faculty with education, mentoring, and resources for developing online andragogy skills” (p. 387). Institutional and program policies should require the involvement of faculty in decisions about content that is appropriate for development online; this would also send a positive message to faculty that their contributions are valued. Billings and Halstead (2015) underscored the important role of faculty in decisions and suggested that the most strategic marketing can occur inside an institution.

Collaborations and partnerships. The college-university collaboration itself influenced decisions about content development and delivery in the online format. Collaboration agreements negatively influenced how content was delivered, for example, participants were required to use the same evaluations and marks regardless of the delivery format. This has implications for policy at a time when collaborations between post-secondary institutions are encouraged by the MTCU. Thompson (2007) found in her research of collaborative baccalaureate nursing programs that the time and effort required of participants to work through differing perspectives, both initially and ongoing could be barriers to effective collaboration. Boggs and Trick (2009) believed challenges institutions face in forming and maintaining college-university partnerships
are difficulties in negotiating agreements, lack of support from major stakeholders within the institution, disincentives to share gains, and potential irreversibility of agreements.

**Implications of Findings for Practice**

The findings of this study also had implications at the ground practice level. These are related to pedagogy and technology, discipline-specific needs and content, and student readiness for online learning.

**Pedagogy and technology.** Institutional and faculty support impacted all best teaching practices and interviewees perceived they were well supported in these areas, particularly from a technological standpoint. However, my findings have implications related to pedagogy, hiring new faculty, and dedicated support. Regarding pedagogical development and support, several of the faculty interviewees who were teaching online did not have pedagogical training and stated that professional development opportunities specific to their needs were not available at their colleges. In my document analysis, I found that some colleges focused more on technology than on pedagogy related to online learning. The topic of pedagogy as integral to online education quality has increasingly been discussed by key stakeholders, including faculty and students (eCampusOntario, 2016; Harrison, 2016; Koch, 2014; OUSA, 2016). Koch stressed the important distinction between mere technical competency - in the sense of being able to utilize technology in teaching - and competency for teaching in a virtual environment.

The findings in this study suggest that colleges concentrate efforts on supports faculty need to effectively teach online and have these supports be available at their institutions - this includes both pedagogy and technology training and ongoing supports, as both are integral to online education quality. The findings of Lopes and Dion (2015) in a study funded by the Higher Education Quality Council of Ontario (HEQCO) on technology-enhanced instruction indicated
that the simple presence of technology will rarely enhance a classroom, and that some thought must go into integrating it effectively—that it should be integrated with a specific goal or learning outcome in mind, not simply for the sake of using technology.

All faculty, including part-time, should also have appropriate online credentials that include pedagogical and technological training prior to teaching online; including faculty who are hired to teach online content. Credentials may include, for example, a certificate indicating successful completion of required professional development. A coordinator participant FEC4-13 advised that faculty “should have the credentials for teaching online…. [that it is not the same] as being a classroom teacher.” Other implications for practice suggested by the findings are the need for more dedicated, campus-specific training and support, so that all faculty, particularly part-time faculty, have professional development opportunities, as well as a go to person on their campuses who will support them. Also, an implication for practice is time acknowledgement for professional development for part-time faculty.

**Discipline-specific needs and content.** Participating faculty in the collaborative baccalaureate nursing program preferred to teach certain nursing content face-to-face, which may have implications for this and other similar programs that are person-focused and practice-based. Content that faculty found challenging to deliver online was relationship-based, experiential, and conceptually complex. While these content areas, at the very least, required learning across all three domains (affective, cognitive and psychomotor), a common thread in the data collected was of the high levels of interaction and face-to-face collaboration with peers needed to meet the learning outcomes for entry to practice. Koch (2014) explained that nursing as a discipline places specific demands upon the nurse educator since nursing is a clinical profession, “instructors must teach more than just knowledge, they must also guide students toward achieving objectives
within the affective and psychomotor domains” (p. 1384). Koch further stressed the important role nursing faculty play in the professional development of students, including serving as role models, and online learning may challenge their role concept. Smith et al. (2009) stressed that in this people-practice oriented field, students need to be able to apply theory when working with people who are consumed by illnesses and in health care crises, which makes online learning in this discipline different with its own unique challenges.

While faculty identified the challenges of learning online related to the physical distance barrier, such as, inability to have deeper discussions and the disembodiment of concepts, other challenges may have contributed to these difficulties. For instance, the lack of pedagogical and technical supports and the time allotted for course development and delivery contributed to these challenges.

However, there is perhaps a larger more complex factor to consider - that is the unique challenges related to the needs of a particular discipline. This has implications for practice because, in efforts to meet pre-set online course quotas - colleges, administrators, and deans should consider discipline-specific challenges that may be related to appropriateness of content for online development and the impact on quality when courses developed online are not suited to this format. In his recommendations, Carey (2014) underscored the discipline as a focal point for knowledge about teaching and learning, proposing disciplinary-oriented faculty learning networks as being effective for knowledge sharing and support. While Billings (2000) and Chickering and Gamson (1987) advised that knowledge construction occurs when all elements of best teaching practices are in place, my findings indicated that this was not always possible - that the type of content for online learning is also an important factor to consider. It is not always possible (or scalable) to implement best practices for certain content so that learning outcomes
can be met. CHEA (2002) advised that learning outcomes must be of a nature that they can be achieved in this format and the delivery method must be appropriate for students and the curriculum. These are curriculum implications that must be considered in decisions of what and how to present essential learning for nursing students.

With the rapid expansion of online and hybrid learning and “perhaps more significantly, [that] online learning is becoming a core function and competency of nearly all public post-secondary institutions in the province” (Bates, 2013b, p. 2), the findings of my study may be of interest to other health professions charged with the responsibility of preparing practitioners with similar applied responsibilities. In my analysis of publicly available documents, online learning was discussed in all 13 College SMAs. With the rapid expansion of online and hybrid learning across all programs, the findings of my study may raise important new questions around the implications for the curriculum and pedagogy for other health professions charged with the responsibility of preparing practitioners who care for at risk and vulnerable populations. Health professions may want to look at these possible implications for their own programs.

**Student readiness for online learning.** My findings have implications for practice in academic and professional programs in terms of student readiness for online learning. A student readiness quiz early in the program would help students self-assess their level of readiness, such as their self-directness, time management skills, and comfort level with technology, prior to enrolling in online courses. A suggested weekly time commitment for the course should be communicated so that students do not underestimate the course expectations in terms of the time they need to dedicate each week. In my document analysis I found that nine of 13 (69%) colleges provided information about student readiness including the need for self-motivation, dedication, and self-discipline. Of these nine colleges, five (59%) posted a readiness quiz for students to
self-assess if online learning was right for them. Three of these quizzes were accessed from the Ontario Learn link and two were on the college web-sites. Only one (11%) nursing program discussed online learning expectations, which focused on proficiency with computers, and invited prospective students to take a proficiency assessment test. Taking steps to assess student readiness to ensure that students are ready for online learning, and not introducing it too early in the academic credential would help promote student success and retention.

Colleges, program deans, and coordinators should question whether online learning is appropriate during the first year, particularly learning core program content, and instead provide opportunities for students to connect with peers and with faculty (as online learning can be isolating), learn the expectations of the program, and the resources that are available to them. When students feel connected and satisfied they are more likely to be successful and retained in the program as reported by the Council of Ontario Universities (COU, 2014). They should also be academically ready. In discussing academic readiness for non-traditional students, Carey and Trick (2013) explained the literature should make us “cautious about assuming that these students will be the primary beneficiaries of fully online education…most of these students may be most in need of the academic and personal supports that traditional campuses provide (p. 45)."

Implications of Findings for Further Research

While assessment of student learning outcomes is integral to understanding quality in online education, this was not the focus of my study. Instead, the evidence acquired from a review of the assessment and evaluation literature, and the data elicited by one of my research questions was intended to serve the purpose of informing the concepts of focus of my study, which too are elements of quality - best teaching practices, institutional and faculty supports, and content faculty perceived as appropriate or not for the online format. However, several findings
related to assessment indicated the need for further research, for example, many faculty utilized the same assessments in their online courses as they did for the same courses delivered traditionally. Further research including evidence-based information about the issues, challenges and best practices for the assessment of student learning in online courses is needed.

Some faculty who used the same assessments in their online and face-to-face courses were restricted by collaboration agreements while others were not. It would be helpful to explore why faculty did not adapt their assessments to the online format, as this is not consistent with online pedagogy and course design (Bates, 2014a). The Ontario Undergraduate Student Alliance (OUSA, 2016) reported that students “believe online courses should have online forms of assessment” (p. 10) for convenience and flexibility and educators “should create online assessments that replicate the same learning outcomes as in-person alternatives” (p. 10). The Council of Ontario Universities (COU, 2014) found a shift occurring in the use of alternate forms of assessment including peer assessment, e-portfolios, and rubrics and highlighted Crisp’s (2011) work in discussing authentic e-assessments such as “role play, scenario-based learning, gaming, artefact construction, and virtual world” (p. 42). In terms of alternate assessments, the COU suggested a de-emphasis on summative high-stakes assessments and a move to these alternate type formal assessments. This de-emphasis on summative assessments would also help address the need for faculty to do on-campus testing due to issues of concern regarding academic integrity. The OUSA (2016) suggested that “students should not be burdened with unnecessary physical obligations such as in-classroom examinations” (p. 9) for online courses designed to be entirely online.

Faculty also preferred using assessments based on the environment in which they facilitated and the content they delivered in that environment. Most faculty interviewees
delivered courses using a hybrid model format. It is possible that they were able to utilize the advantage of this delivery model to adjust their assessment strategies appropriate to their preferred environments - did they use more multiple-choice question (MCQ) tests and written work in the online format? Findings showed that “written assessments of fewer than 500 words” and “MCQ” tests were two of the three most frequently used assessments. Were more interactive-based assessments, group work, and projects, such as presentations, reserved for the face-to-face components? My findings suggest that this may have been the case. Further research would be helpful related to assessment choices of faculty in specific environments, and particularly the assessments they used for fully online courses in which flexibility was not an option.

Over 90 per cent of faculty perceived the assessments they used in their online courses challenged students “often” or “very often”. Faculty who had this perception scored higher on the best teaching practice scales, as did faculty who perceived their online activities prepared students for clinical practice. My study findings indicated that experienced faculty were able to challenge their students academically, as well as those who had higher online teaching loads, which may provide an explanation for this finding, as these respondents may have developed strong skills in online pedagogy. In terms of evaluating cognitive domain levels of learning in their assessments - when the 50-75 and greater than 75 per cent categories were combined - 18 (58%) faculty respondents surveyed focused on application; 14 (45.2%) on analysis; 19 (61.3%) synthesis; and 16 (51.7%) on making judgments. Based on these findings, with the exception of synthesizing, only half of the faculty evaluated learning in the three upper cognitive domain learning levels in 50 per cent or more of their assessments. Are these percentages sufficient enough to evaluate learning at higher levels? Supporting the finding of sequencing of online
content across years of the program with increasing student readiness for online learning is supported by the findings of faculty perspectives that students in year four were better able to synthesize information and the course activities they used better prepared those students for clinical practice who were in semester two of years three and four; indicating higher level learning in these years.

Further evidence would be helpful to inform about the ways in which these faculty challenged their students and the ways in which they used activities to prepare students for clinical practice. Russell (2015) explained there is a need for future research within online nursing education to move from perceptions of outcomes toward examining outcomes evaluations and this should be done based on well-established criteria on which to “evaluate student learning and guide faculty in course redesign through integration of activities based on knowledge, skills and attitudes” (p. 19). Findings indicated that some faculty preferred more interactive based activities in the traditional learning environment. Did these faculty have the pedagogical training, assistance with course development and design and related supports for course delivery? Were faculty assigned adequate time to develop their online courses? Cuellar (as cited in Little, 2015) reported that it takes six to 12 months to develop a quality online course.

Assessment of student learning keeps climbing upward on the national higher education agenda (Kuh et al., 2014). The recent online learning literature highlights the need to legitimize the learning outcomes that can be achieved in online learning (HECQO, 2017; OUSA, 2013). Learning outcomes are identified in collaborative baccalaureate nursing programs in Ontario and aligned with the College of Nurses entry to practice standards requirements (CNO, 2017). Future research would helpful to evaluate specifically how these outcomes are met, or not met, in the online format. Faculty involvement is integral to this work. Findings of a U.S National Institute
for Learning Outcomes Assessment (NILOA) survey by Kuh et al. (2014), and an adapted version of the same survey conducted in Canada by MacFarlane & Brumwell (2016) revealed that faculty were key to moving assessment work forward, and faculty involvement in assessment was essential to improve teaching and learning and to enhance institutional effectiveness.

Another implication for further research is the need to develop research instruments that will more accurately assess other key factors related to the issues explored. This complex statistical procedure was beyond the scope of my mixed-methods study.

Based on the findings of my study, another area that may warrant further research relates to faculty teaching experiences in various environments and best teaching practices. There was a moderately positive relationship between faculty experience with delivering *fully online content* but only with the Academic Challenge (AC) scale, BUT perhaps surprisingly, there was No relationship between experience with hybrid or web-facilitated delivery and the best teaching practice scales. These findings indicate that faculty who were experienced with teaching content *fully online* were better able to academically challenge their students using this environment *only* compared to utilizing a combination of online and face-to-face traditional formats associated with hybrid or web-facilitated delivery. Whereas it seems reasonable that faculty who were experienced with teaching content fully online were better able to challenge their students academically, further research may provide deeper insights into these findings. For example, Allen and Seaman (2012) found that faculty who taught fully online or hybrid courses had a more favourable view of learning outcome attainment than faculty who did not teach online content, with faculty teaching fully online having the most favourable view.
Finally, further research may be warranted to explore more deeply the perspectives of part-time faculty about their teaching practices in various online environments, as only four participants completed the survey and two the interview. The participation response rate may have been related to their availability at the time of data collection, as part-time teaching contracts would have been completed during the May-June period, when data were collected.

**Overall Conclusions**

The purpose of this study was to explore and understand best practice implementation and the nature and appropriateness of curriculum content in online courses in prelicensure collaborative baccalaureate nursing programs in participating Ontario colleges to gain a deeper understanding of the challenges and strengths with this form of delivery, as perceived by the faculty who have taught or are teaching in online courses. The theoretical framework of my study, rooted in constructivism, informed about best teaching practices in the online environment. And, the quality guidelines from the online education literature informed about the institutional and faculty supports required for best teaching practices implementation.

Findings of data elicited from participating nursing faculty, program coordinators, as well as from document analysis informed about best teaching practices implementation, institutional and faculty supports, and the nursing content faculty perceived as appropriate or not for development in the online format. Based on the findings I can conclude that online education has a place in the nursing program when the content for development, the delivery format, and semester/year of introduction in the program are appropriate. Content containing complex concepts and that which required experiential-type learning, relational practice and psychomotor skill mastery, was perceived as better delivered in face-to-face settings. A hybrid delivery format was the faculty’s most preferred teaching environment in which they were able to utilize the
advantages of several environments. Findings revealed the challenges of teaching online including the need for acknowledgement of time, having students collaborate together, and of having higher level online discussions. Insights gained provide guidance to decision-makers in participating colleges regarding support of online learning, to what extent and how to ensure successful online course delivery in prelicensure collaborative baccalaureate nursing programs. Though the findings are not directly generalizable, given that the colleges selected for this study are representative of the Ontario CAATs, the findings will be of interest to them and other academic programs who wish to assess their own use of online learning, particularly in people- and practice-based professional programs.
References


for formal to acknowledge and promote the informal. Paper presented at the Annual
Conference of the Universities Association for Continuing Education, University of
Glamorgan, UK.

Harrison, L. (2016). *eLearning in Ontario: Responding to the Winds of Change*


Smith, Y. M. (2014). *Using a qualitative approach to explore nursing faculty perceptions of teaching online* (Doctoral dissertation). Kent State University, OH.


Appendix A

Online Questionnaire Survey

Title of Study: What are the Strengths and Challenges of Online Teaching in a Sample of Prelicensure Collaborative Baccalaureate Nursing Programs in Ontario Colleges?

Researcher: Micki Puksa

Thank-you for your interest in participating in this important research study. Your participation in this study is entirely voluntary and you are free to decline to answer any question(s) you do not wish to answer, or withdraw from the study simply by not submitting your information and all the data previously entered will be fully deleted, or if you consent to name your institution, by letting me know by any means until data aggregation, and all data submitted will be deleted. No individual, institution or program will be identifiable in any reporting of these findings in appropriate professional journals and/or presentations without specific consent to do so. All data submitted will be kept confidential and secure, accessible only to my thesis supervisor and me.

1. Please indicate your willingness below selecting one of the following:

O I agree to participate (selecting this option takes the respondent to the following online questionnaire)

O I DO NOT agree (selecting this option closes the questionnaire)

2. Do you have experience with teaching nursing course/s online in the collaborative baccalaureate nursing program? Online courses include those with any the following portions of content delivered online: web-facilitated (up to 29%); blended or hybrid (30-79%); and fully online (more than 80%).

Yes  No

Note: Experience with teaching online courses in the prelicensure collaborative baccalaureate nursing program in the last two years is required for your participation. If you answer NO to this question, the questionnaire will close.
Part A: Background Information

*Please select your most appropriate responses.*

3. I have experience with teaching the following online course types. (Select all that apply)

   - Web-facilitated (up to 29% of content online)
   - Blended or Hybrid (between 30-79% of content online)
   - Fully Online (80% or more content online)

4. How many years have you been teaching online?

   | 1 or less | 2-3 | 4-7 | 8-10 | 11 or more |

5. How many online course workload hours, as indicated on your Standard Workload Form (SWF), do you typically teach per academic year? If this number is variable, please focus on the current academic year.

   | 1 or less | 2-3 | 4-7 | 8-10 | 11-15 | 16 or more |

6. What percentage of your teaching load is currently online?

   | 10-20 | 21-30 | 31-40 | 41-50 | 51-60 | 61-70 | 71-80 | 81-90 | 91-100 |

7. How many students do you have in each online course you teach? (Select one of the following)

   | 30 or less | 31-40 | 41-50 | 51 or more |

8. Does your institution have a cap on enrollment in online courses? (Select one of the following)

   Yes    No

9. If yes, what is the cap? ________
10. Which type of learning environment do you prefer when teaching students?

<table>
<thead>
<tr>
<th>Traditional face-to-face classroom</th>
<th>Asynchronous online</th>
<th>Hybrid web</th>
</tr>
</thead>
<tbody>
<tr>
<td>A combination of two or more environments</td>
<td>Synchronous online</td>
<td>Other</td>
</tr>
</tbody>
</table>

11. What initial training did you receive to prepare you to teach online? (Select all that apply)

- Orientation to learning platform
- Orientation to pedagogy for online courses
- Individual session with faculty trainer
- Individual session with instructional designer
- Sought assistance outside the college
- No initial training
- Other

12. What related professional development have you engaged in since teaching online? (Select all that apply)

- Formal coursework
- Face-to-face seminar training
- Webinar training
- Individual (one-to-one) training
- Self-paced learning activities
- Other

13. Are there ongoing supports available at your College to support teachers with online course development, design, and delivery? (Select one of the following)

- Yes
- No

14. How often do you participate in faculty professional development activities that focus on online teaching at your College?

<table>
<thead>
<tr>
<th>Never</th>
<th>Rarely</th>
<th>Occasionally</th>
<th>Frequently</th>
</tr>
</thead>
</table>
In responding to some of the following questions, please note that an Online Learning System refers to the learning platform used at your College such as Blackboard, Desire2Learn, WebCT, Moodle.

Please select your most appropriate response to the statement provided:

15. How accessible and reliable is the online learning system at your College?
   Not at all     Somewhat     Fairly     Very much

16. How confident are you in your ability to use the online learning system to teach online?
   Not at all     Somewhat     Fairly     Very much

17. How well does your College provide the ongoing technical support you need to teach courses online?
   Not at all     Somewhat     Fairly     Very much

18. How well does your College provide students with ongoing technical support to help them learn effectively online?
   Not at all     Somewhat     Fairly     Very much

19. How sufficient are online teaching resources at your College library?
   Not at all     Somewhat     Fairly     Very much

20. How often do you use the online learning system resources to improve how you teach your online courses?
   Very little     Some     Quite a bit     Very much

21. How well does the online learning system help you interact with the College community?
   Very little     Some     Quite a bit     Very much

Part B: The intent of the following questions is to explore your perspectives about teaching Nursing Courses Online.

22. I present online materials in a way that students can understand.
   Never     Sometimes     Often     Very Often

23. In my online course, I value students’ ideas and questions.
   Never     Sometimes     Often     Very Often

24. In my online course, I encourage students to question what is being taught.
   Never     Sometimes     Often     Very Often

25. I use online teaching approaches that suit my students’ needs.
   Never     Sometimes     Often     Very Often

26. I encourage students to creatively explore ideas online.
   Never     Sometimes     Often     Very Often
27. I share research in ways that inspire students to learn.
   Never  Sometimes  Often  Very Often
28. In my online course, students work on group projects with other students.
   Never  Sometimes  Often  Very Often
29. In my online course, students work with other students on difficult tasks.
   Never  Sometimes  Often  Very Often
30. In my online course, I discuss with students the best ways to work collaboratively.
   Never  Sometimes  Often  Very Often
31. In my online course, I feel students can approach me.
   Never  Sometimes  Often  Very Often
32. I am interested in helping my online students.
   Never  Sometimes  Often  Very Often
33. I am accessible to students in my online course.
   Never  Sometimes  Often  Very Often
34. In my online course, I respect students’ backgrounds, perspectives, and needs.
   Never  Sometimes  Often  Very Often
35. I create an online course environment that is supportive of student learning.
   Never  Sometimes  Often  Very Often
36. As a teacher, I participate in online discussions.
   Never  Sometimes  Often  Very Often
37. I find it easy to communicate complex ideas in online discussions.
   Never  Sometimes  Often  Very Often
38. I have helpful online discussions with students.
   Never  Sometimes  Often  Very Often
39. I support students in my online course when they have academic problems.
   Never  Sometimes  Often  Very Often
40. I interact with students in my online course.
   Never  Sometimes  Often  Very Often
41. I respond to feedback from my online students.
   Never  Sometimes  Often  Very Often
42. My online nursing course/s are designed so that students feel part of a learning community.
   Never  Sometimes  Often  Very Often
43. I make individual contact with my online students.
   Never  Sometimes  Often  Very Often
44. I push students to understand things they find challenging.
   Never  Sometimes  Often  Very Often

45. I ask students about how ethical issues of material studied online relate to their
    clinical nursing practice.
   Never  Sometimes  Often  Very Often

46. I seek feedback from my students on how to improve my performance.
   Never  Sometimes  Often  Very Often

47. I meet face-to-face with my online students.
   Never  Sometimes  Often  Very Often

48. I set high-performance standards for online students.
   Never  Sometimes  Often  Very Often

49. I help students make connections between things that I am teaching online and
    their clinical nursing practice.
   Never  Sometimes  Often  Very Often

50. I encourage students to seek out resources that would help them understand
    topics.
   Never  Sometimes  Often  Very Often

51. I encourage students to raise questions about the material they study online and
    its application to their clinical nursing practice.
   Never  Sometimes  Often  Very Often

52. I give my online students enough relevant work to keep their interest.
   Never  Sometimes  Often  Very Often

53. I encourage my online students to go beyond set materials.
   Never  Sometimes  Often  Very Often

54. I give students comments on their work that help them learn online.
   Never  Sometimes  Often  Very Often

55. I provide online feedback quickly enough for students to improve subsequent
    work.
   Never  Sometimes  Often  Very Often

56. I work harder than I thought I would in teaching online nursing course/s so that I
    can meet standards. Expectations and deadlines.
   Never  Sometimes  Often  Very Often

57. Assessments I use in my online course/s challenge students to learn.
   Never  Sometimes  Often  Very Often
58. My online courses include which of the following assessments? (Select all that apply)

<table>
<thead>
<tr>
<th></th>
<th>None</th>
<th>1-2</th>
<th>3-6</th>
<th>More than 6</th>
</tr>
</thead>
<tbody>
<tr>
<td>Written assignments of fewer than 500 words</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Written assignments of between 500-1000 words</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Written assignments of more than 1000 words</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Presentations</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Group Assignments</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Multiple Choice Questions Only</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Short Answer Questions Only</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Both Short Answer and Multiple Choice Questions</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

59. What per cent of your online course assessments emphasize the following:

(a) **Memorizing** facts, ideas or methods for the purpose of repetition in the same form.

<table>
<thead>
<tr>
<th></th>
<th>Less than 25%</th>
<th>25-50%</th>
<th>50-75%</th>
<th>Greater than 75%</th>
</tr>
</thead>
</table>

(b) **Analyzing** the basic elements of an idea, experience or theory, such as examining a particular case or situation in depth and considering its components.

<table>
<thead>
<tr>
<th></th>
<th>Less than 25%</th>
<th>25-50%</th>
<th>50-75%</th>
<th>Greater than 75%</th>
</tr>
</thead>
</table>

(c) **Synthesizing** and organizing ideas, information or experience into new, more complex interpretations and relationships.

<table>
<thead>
<tr>
<th></th>
<th>Less than 25%</th>
<th>25-50%</th>
<th>50-75%</th>
<th>Greater than 75%</th>
</tr>
</thead>
</table>
(d) Making judgements about the value of information, arguments or methods such as examining how others gather and interpret data and assessing the soundness of their conclusions.

<table>
<thead>
<tr>
<th>Less than 25%</th>
<th>25-50%</th>
<th>50-75%</th>
<th>Greater than 75%</th>
</tr>
</thead>
</table>

(e) Applying theories or concepts to practical problems or in new situations:

<table>
<thead>
<tr>
<th>Less than 25%</th>
<th>25-50%</th>
<th>50-75%</th>
<th>Greater than 75%</th>
</tr>
</thead>
</table>

60. I prefer to teach some online nursing courses face-to-face.
   Strongly Disagree   Agree   Strongly Agree

61. I am satisfied with my online teaching of nursing courses.
   Strongly Disagree   Agree   Strongly Agree

62. My online course activities prepare students for clinical nursing practice.
   Very little   Some   Quite a bit   Very much

63. I think online nursing content should be offered in the following years/semesters of the nursing program. (Select all that apply)

   **Semester 1/Year One:**
   Strongly Disagree   Disagree   Agree   Strongly Agree

   **Semester 2/Year One:**
   Strongly Disagree   Disagree   Agree   Strongly Agree

   **Semester 1/Year Two:**
   Strongly Disagree   Disagree   Agree   Strongly Agree

   **Semester 2/Year Two:**
   Strongly Disagree   Disagree   Agree   Strongly Agree

64. I think content in the following courses is better suited to online delivery.
   (Select all that apply)

<table>
<thead>
<tr>
<th>Pharmacology</th>
<th>Profession Hood and Knowledge of Nursing</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pathophysiology</td>
<td>Ethical Ways of Knowing and Caring in Nursing</td>
</tr>
<tr>
<td>Anatomy &amp; Physiology</td>
<td>Care of Individuals in Gerontology Settings (Theory)</td>
</tr>
<tr>
<td>Health Assessment (Theory)</td>
<td>Care of Individuals in Maternal-Infant Settings (Theory)</td>
</tr>
<tr>
<td>Complex Nursing Skills (Theory)</td>
<td>Care of Individuals with Common Health Challenges in Acute Care Settings (Theory)</td>
</tr>
<tr>
<td>Introductory Nursing Skills (Theory)</td>
<td>Care of Individuals with Complex Health Challenges in Acute Care Settings (Theory)</td>
</tr>
<tr>
<td>Other (please include type of content in the space below)</td>
<td></td>
</tr>
</tbody>
</table>
If you included ‘other’, please explain.

65. I think content in the following courses is better suited to face-to-face delivery. (Select all that apply)

<table>
<thead>
<tr>
<th>Pharmacology</th>
<th>Professional and Knowledge of Nursing</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pathophysiology</td>
<td>Ethical Ways of Knowing and Caring in Nursing</td>
</tr>
<tr>
<td>Anatomy &amp; Physiology</td>
<td>Care of Individuals in Gerontology Settings (Theory)</td>
</tr>
<tr>
<td>Health Assessment (Theory)</td>
<td>Care of Individuals in Maternal-Infant Settings (Theory)</td>
</tr>
<tr>
<td>Complex Nursing Skills (Theory)</td>
<td>Care of Individuals with Common Health Challenges in Acute Care Settings (Theory)</td>
</tr>
<tr>
<td>Introductory Nursing Skills (Theory)</td>
<td>Care of Individuals with Complex Health Challenges in Acute Care Settings (Theory)</td>
</tr>
<tr>
<td>Other (please include type of content in the space below)</td>
<td></td>
</tr>
</tbody>
</table>

If you included ‘other’, please explain.

Demographic Information

66. How many years have you been a nurse?

<table>
<thead>
<tr>
<th>1-3</th>
<th>4-7</th>
<th>8-11</th>
<th>12-15</th>
<th>16-20</th>
<th>21-25</th>
<th>More than 25</th>
</tr>
</thead>
</table>

67. How many years have you been teaching?

<table>
<thead>
<tr>
<th>1-3</th>
<th>4-7</th>
<th>8-11</th>
<th>12-15</th>
<th>16-20</th>
<th>21-25</th>
<th>More than 25</th>
</tr>
</thead>
</table>

68. What is your role in the Nursing program?

<table>
<thead>
<tr>
<th>Faculty</th>
<th>Coordinator</th>
<th>Other</th>
</tr>
</thead>
</table>

69. What is your employment status?

<table>
<thead>
<tr>
<th>Full-time</th>
<th>Part-time</th>
</tr>
</thead>
</table>

70. What is your gender?
71. What is your age?

| 25-30 | 31-35 | 36-40 | 41-46 | 47-55 | 56-63 | 64 or over |

72. What is your highest level of academic degree that is directly related to Nursing or Education?

Baccalaureate    Master’s    PhD    Other

73. Please feel free to share any comments about any of the survey questions or about anything that I may not have asked.

74. Please indicate the name of your College if you wish the College to be named in the reporting of the findings.

If you are willing to participate in a follow-up interview (if selected) in person or by telephone anticipated to take about 45-60 minutes, please send me a separate email to micki.puksa@mail.utoronto.ca

END OF SURVEY!

Please click the ‘save and continue’ button to submit your responses.

Thank you so much for completing this survey. Your participation and time are very much appreciated!

Gentle reminder, if you are willing to participate in a follow-up interview, please send me a separate email to micki.puksa@mail.utoronto.ca
Appendix B

Participant Recruitment Email for Participation in the Online Questionnaire Survey

Email Script requesting HR staff or suggested contact in the thirteen colleges to forward my invitation to participate in this study to all full and part-time faculty (including program coordinators) who are or have taught online courses in the Nursing Program in the past two years.

From: Micki Puksa@mail.utoronto.ca

To: HR Directors

Re: Exploration of Online Teaching in Eight Prelicensure Collaborative Baccalaureate Nursing Programs in Ontario Colleges.

Dear Colleagues:

I am a PhD candidate at the Ontario Institute for Studies in Education/University of Toronto. I am conducting the research study identified above in partial fulfilment of the requirements for a PhD degree. My thesis supervisor is Dr. Katharine Janzen, in the Higher Education program/Leadership, Higher and Adult Education Department. I seek to explore the perceptions of faculty teaching in selected prelicensure nursing programs in Ontario regarding course content that is, and that is not, appropriate for online delivery in the preparation of Registered Nurses who will be responsible for the care of vulnerable populations.

I am asking for your assistance in recruiting potential participants on my behalf, please. Could you please forward the attached invitation to complete an anonymous online questionnaire survey (Appendix A) and Consent form (Appendix C) to all full and part-time nursing teachers (including Program Coordinators) who are or have taught online courses in the Nursing program in the last two years. Online courses include those with any the following portions of content delivered online: web-facilitated (up to 29%); blended or hybrid (30-79%); and fully online (more than 80%). The implications for participating in this study are described fully in the attached documents. The Research Ethics Board of the University of Toronto and Your College have approved of this study.

Please let me or my Thesis Supervisor know if you have any questions. Our contact information is:

Micki Puksa
Researcher
e-mail: micki.puksa@mail.utoronto.ca
Phone number: 705-329-3399

Dr. Katharine Janzen
Thesis Supervisor
e-mail: katharine.janzen@utoronto.ca
Phone number: 416-978-1232
Appendix C

Information Letter and Request for Consent to Participate in an Online Questionnaire Survey

Study Title: Exploration of Online Teaching in Eight Prelicensure Collaborative Baccalaureate Nursing Programs in Ontario Colleges

Researcher: Micki Puksa
PhD Candidate
Department of Leadership, Higher and Adult Education
Ontario Institute for Studies in Education (OISE), University of Toronto
micki.puksa@mail.utoronto.ca 705-329-3399

Thesis Supervisor: Dr. Katharine Janzen
Department of Leadership, Higher and Adult Education
Ontario Institute for Studies in Education (OISE), University of Toronto
katharine.janzen@utoronto.ca 416-978-1232

Purpose of the Study
I am a PhD candidate at the Ontario Institute for Studies in Education/University of Toronto. I am conducting the research study identified above, in partial fulfilment of the requirements for a PhD degree. My Thesis Supervisor is Dr. Katharine Janzen, in the Higher Education program/Leadership, Higher and Adult Education Department. I seek to explore the perceptions of faculty teaching in selected prelicensure nursing programs in Ontario regarding course content that is, and that is not, appropriate for online delivery in the preparation of Registered nurses who will be responsible for the care of vulnerable populations.

Study Procedures
I am inviting all full and part-time faculty in your College, who are teaching or have taught online nursing courses to participate, in this study. This includes nursing program coordinators who meet this criterion.

Faculty participation involves the completion of an anonymous online survey of Faculty Perceptions of the Quality of Online Learning survey which is anticipated to take 25-35 minutes to complete. The survey includes both qualitative and quantitative questions to gather
information about your experiences and perceptions of content and teaching practices in online courses and variables, such as institutional and faculty support.

At the end of the survey, you will be invited to send me a separate email if you are willing to participate in a follow-up interview anticipated to take approximately 45 to 60 minutes, if selected.

**Conditions for Participating**
Your participation in this study is completely voluntary. You are free to decline to answer any question(s) that you do not wish to answer. You are free to withdraw from the study at any time without explanation. Simply close the online survey before submitting your responses in the survey and none of the data you entered will be included in the study. However, since this survey is anonymous it is not possible to delete any data once you submit your responses.

If you agree to participate in the follow up interview, you will be assigned a non-identifiable pseudonym. With your specific consent the interview will be audio-recorded, and then erased immediately after the interview is transcribed. You will have an opportunity to review and revise the transcript if you wish. You will be free to decline to answer and question(s) and withdraw from the study by terminating the interview or letting me know after the interview simply by informing me by any means. If you withdraw before data aggregation is begun, all information provided will be deleted and not included in the study findings. However, after data aggregation is begun, it will not be possible to delete your data.

**Risks**
There are no reasonably foreseeable risks, harms or inconveniences associated with participation in this study beyond those encountered in daily living activities.

**Benefits**
The study findings will add to our understanding of course content and strategies for online teaching that are and are not appropriate for teaching in prelicensure nursing program and may be of interest to other similar professions that prepare practitioners for working with vulnerable populations.

**Access to Information**
The online questionnaire is hosted on a secure University of Toronto server. All digital data will be encrypted consistent with UT’s data security and encryption standards and stored on my personal password-protected computer. Because the online questionnaire resides on the internet, there is a slight possibility that the website administrator could identify the participants, but this is highly unlikely. All data collected will be kept confidential and secure at all times, accessible only to me and my Thesis Supervisor.

Within one year of the successful completion of the requirements of my doctoral program, I will destroy all confidential data; paper records will be shredded, and electronic records will be permanently deleted. De-identified data will be kept for five years following the successful completion of all of the requirements of my doctoral program in case any secondary analysis is necessary, and will then be destroyed.
Confidentiality
Only non-identifiable pseudonyms will be used for participants, colleges and course codes in any reporting of the findings in my thesis or presentation in relevant professional meetings, conferences or publications. Findings will be presented in aggregate, and not by individual or institution.

The research study you will be participating in may be reviewed for quality assurance to make sure that the required laws and guidelines are followed. If chosen, (a) representative(s) of the Human Research Ethics Program (HREP) may access study-related data and/or consent materials as part of the review. All information accessed by the HREP will be upheld to the same level of confidentiality that has been stated by the research team.

Dissemination of Findings
The findings of this study may be published or used in appropriate public presentations. If you would like to receive a summary of the findings, please send me an email (micki.puksa@mail.utoronto.ca) to request a copy.

Questions
If you have any questions about the study itself, please contact me at micki.puksa@mail.utoronto.ca or by phone at 705-329-3399 or my Thesis Supervisor, Dr. Katharine Janzen at katharine.janzen@utoronto.ca or by phone 416-978-1232.

If you have any questions regarding your rights as a research participant, please contact The Office of Research Ethics, University of Toronto (ethics.review@utoronto.ca; 416-978-5585; or the Research Ethics Board of your College (insert contact information for the specific College as appropriate)

If you are interested in participating in this study, please go to: …. (URL)

Thank-you.

Micki Puksa
Appendix D

Participant Recruitment Email for Participation in the Online Questionnaire Survey
First Reminder

Thesis Research: Gentle Reminder to Complete Online Questionnaire Survey

Dear Full and Part-time Nursing Faculty and Program Coordinators,

I hope you received my invitation to participate in my Ph.D. research study, An Exploration of Online Teaching in a Sample of Pre-licensure Collaborative Baccalaureate Nursing Programs in Ontario Colleges, that was sent out two weeks ago (see below). Sincere thanks to those of you who have already completed the online survey questionnaire.

This is a gentle reminder to those who have not had the opportunity to respond as yet. To complete the survey, please click the following link or copy and paste the URL into your web browser: https://surveys.oise.utoronto.ca/surveyviewer2/index.php?surveyID=9YAAN.

To help you respond, I have extended the completion date to June 16.

Please note: Online teaching may include delivery of any portion of course content online including: web-facilitated (up to 29%); blended or hybrid (30-79%); and fully online (80% or more).

If you have any questions about the study please contact me Micki Puksa (micki.puksa@mail.utoronto.ca; 705-329-3399), or my thesis supervisor Dr. Katharine Janzen (katharine.janzen@utoronto.ca; 416-978-1232).

Thank you very much for your time.

Sincerely,

Micki Puksa
Ph.D. candidate, Department of Leadership, Higher and Adult Education
Ontario Institute for Studies in Education (OISE), University of Toronto
micki.puksa@mail.utoronto.ca
Phone number: 705-329-3399
Appendix E

Participant Recruitment Email for Participation in the Interview

Email Script requesting HR staff or suggested contact in a sample of selected colleges to forward my invitation to participate in this study to all full and part-time faculty who are Program Coordinators but who ARE NOT now teaching and HAVE NOT taught online courses in the Nursing Program in the past two years.

From: Micki Puksa@mail.utoronto.ca

To: HR Directors (identified on college websites) or suggested designates in selected colleges

Re: Exploration of Online Teaching in a Sample of Prelicensure Collaborative Baccalaureate Nursing Programs in Ontario Colleges.

Dear Colleagues:

I am a PhD candidate at the Ontario Institute for Studies in Education/University of Toronto. I am conducting the research study identified above in partial fulfilment of the requirements for a PhD degree. My thesis supervisor is Dr. Katharine Janzen, in the Higher Education program/Leadership, Higher and Adult Education Department. I seek to explore the perceptions of faculty in selected prelicensure nursing programs in Ontario regarding course content that is, and that is not, appropriate for online delivery in the preparation of Registered Nurses who will be responsible for the care of vulnerable populations.

I am asking for your assistance in recruiting potential participants on my behalf, please. Could you please forward the attached invitation to Nursing Program Coordinators who are not now, and have not taught in online nursing courses in the past two years, to participate in an interview.

The implications for participating in this study are described fully in the attached document (Appendix F). The Consent to Participate is also attached (Appendix G). The Research Ethics Board of the University of Toronto and your College have approved of this study.

Please let me or my Thesis Supervisor know if you have any questions. Our contact information is:

Micki Puksa                                                                                      Dr. Katharine Janzen
Researcher                                                                                        Thesis Supervisor
micki.puksa@mail.utoronto.ca                                                                      katharine.janzen@utoronto.ca
705-329-3399                                                                                        416-978-1232
Appendix F

Information Letter and Request for Consent to Participate in the Interview

Study Title: Exploration of Online Teaching in Eight Prelicensure Collaborative Baccalaureate Nursing Programs in Ontario Colleges

Researcher: Micki Puksa  
PhD Candidate  
Department of Leadership, Higher and Adult Education  
Ontario Institute for Studies in Education (OISE), University of Toronto  
micki.puksa@mail.utoronto.ca  705-329-3399

Thesis Supervisor: Dr. Katharine Janzen  
Department of Leadership, Higher and Adult Education  
Ontario Institute for Studies in Education (OISE), University of Toronto  
katharine.janzen@utoronto.ca  416-978-1232

Purpose of the Study
I am a PhD candidate at the Ontario Institute for Studies in Education/University of Toronto. I am conducting the research study identified above, in partial fulfilment of the requirements for a PhD degree. My Thesis Supervisor is Dr. Katharine Janzen, in the Higher Education program/Leadership, Higher and Adult Education Department. I seek to explore the perceptions of faculty teaching in selected prelicensure nursing programs in Ontario regarding course content that is, and that is not, appropriate for online delivery in the preparation of Registered Nurses who will be responsible for the care of vulnerable populations.

Study Procedures
I am inviting all full and part-time Program Coordinators in the nursing program in your College, who are NOT teaching and have NOT taught online nursing courses to participate, in an interview for this study that is anticipated to take 45-60 minutes. If you agree to participate in the follow up interview, you will be assigned a non-identifiable pseudonym. With your specific consent the interview will be audio-recorded, and then erased immediately after the interview is transcribed. You will have an opportunity to review and revise the transcript if you wish.
Conditions for Participating
Your participation in this study is completely voluntary. If you agree to participate in the interview you will be assigned a non-identifiable pseudonym. With your specific consent the interview will be audio-recorded, and then erased immediately after the interview is transcribed. You will have an opportunity to review and revise the transcript if you wish. You will be free to decline to answer any question(s) and withdraw from the study by terminating the interview or letting me know after the interview simply by informing me by any means. If you withdraw before data aggregation is begun, all information provided will be deleted and not included in the study findings. However, after data aggregation is begun, it will not be possible to delete your data.

Risks
There are no reasonably foreseeable risks, harms or inconveniences associated with participation in this study beyond those encountered in daily living activities.

Benefits
The study findings will add to our understanding of course content and strategies for online teaching that are and are not appropriate for teaching in prelicense nursing program and may be of interest to other similar professions that prepare practitioners for working with vulnerable populations.

Access to Information
All digital data will be encrypted consistent with UT’s data security and encryption standards and stored on my personal password-protected computer. All data collected will be kept confidential and secure at all times, accessible only to me and my Thesis Supervisor.

Within one year of the successful completion of the requirements of my doctoral program, I will destroy all confidential data; paper records will be shredded, and electronic records will be permanently deleted. De-identified data will be kept for five years following the successful completion of all of the requirements of my doctoral program in case any secondary analysis is necessary, and will then be destroyed.

Confidentiality
Only non-identifiable pseudonyms will be used for participants, colleges and course codes in any reporting of the findings in my thesis or presentation in relevant professional meetings, conferences or publications. Findings will be presented in aggregate, and not by individual or institution.

The research study you will be participating in may be reviewed for quality assurance to make sure that the required laws and guidelines are followed. If chosen, (a) representative(s) of the Human Research Ethics Program (HREP) may access study-related data and/or consent materials as part of the review. All information accessed by the HREP will be upheld to the same level of confidentiality that has been stated by the research team.
**Dissemination of Findings**

The findings of this study may be published or used in appropriate public presentations. If you would like to receive a summary of the findings, please send me an email (micki.puksa@mail.utoronto.ca) to request a copy.

**Questions**

If you have any questions about the study itself, please contact me at micki.puksa@mail.utoronto.ca or by phone at 705-329-3399 or my Thesis Supervisor, Dr. Katharine Janzen at katharine.janzen@utoronto.ca or by phone 416 -978-1232.

If you have any questions regarding your rights as a research participant, please contact The Office of Research Ethics, University of Toronto (ethics.review@utoronto.ca; 416-978-5585; or the Research Ethics Board of your College..... (insert contact information for the specific as appropriate)

If you are interested in participating in this study, please send me a separate email and I will negotiate with you the time and place of our meeting. At the beginning of our meeting and before I ask you any questions, I will review your rights as a research participant and ask you to sign the attached consent form.

Sincerely,

Micki Puksa
Appendix G

Consent to Participate in the Interview

Thank-you for your interest in participating in this important research study and willingness to participate in this follow-up interview. Your participation in this study is entirely voluntary and you are free to decline to answer any question(s) you do not wish to answer, or withdraw from the study without any explanation simply by telling me during the interview or letting me know by any means until data aggregation has begun and all the information you shared previously will be fully deleted and not included in this study. With your specific consent the interview will the audio-recorded and you will have an opportunity to review and revise the transcript as you see fit.

No individual, institution or program will be identifiable in any reporting of these findings in appropriate professional journals and/or presentations. All data submitted will be kept confidential and secure, accessible only to my thesis supervisor and me.

Please indicate your willingness to participate in this interview or not:

O Yes

O No – if no then the interview will not continue

If Yes, please indicate your willingness to have the interview audio-recorded.

O Yes

O No - if NO, permission will be sought to take field notes

Signature

___________________________________________________________

Date _____________________________

Please keep a copy of this consent form for your records.
Appendix H

Participant Recruitment Email for Participation in the Interview: First Reminder

Thesis Research: Gentle Reminder to Participate in an Interview

From: Micki Puksa@mail.utoronto.ca

To: HR Directors (identified on college websites)

Re: Exploration of Online Teaching in a Sample of Prelicensure Collaborative Baccalaureate Nursing Programs in Ontario Colleges.

Dear Full and Part-time Nursing Program Coordinators,

I hope you received my invitation to participate in the interview portion of my Ph.D. research study, An Exploration of Online Teaching in a Sample of Pre-licensure Collaborative Baccalaureate Nursing Programs in Ontario Colleges, that was sent out two weeks ago (see below).

This is a gentle reminder to those who have not had the opportunity to respond as yet. Please note that online teaching experience is not a requirement for participation.

If you are willing to participate, please reply to this email or call me at 705-329-3399 so we can arrange for a mutually agreed upon time and location for the interview. If you have any questions about the study please contact me, Micki Puksa (micki.puksa@mail.utoronto.ca; 705-329-3399), or my thesis supervisor, Dr. Katharine Janzen (katharine.janzen@utoronto.ca; 416-978-1232).

Thank you very much for your time.

Sincerely,

Micki Puksa
Ph.D. candidate, Department of Leadership, Higher and Adult Education
Ontario Institute for Studies in Education (OISE), University of Toronto
micki.puksa@mail.utoronto.ca
Phone number: 705-329-3399
Appendix I

Coates’ Letter of Permission to Adapt and Use Survey

On Nov 17, 2016, at 3:05 PM, Hamish Coates <h.coates@unimelb.edu.au> wrote:

Dear Micki

Thanks for your email and good to hear of your work.

This book provides a full overview -- should be copy in OISE library

http://www.tandfebooks.com/isbn/9780203969465

Attached prepared a decade back which may be of use.

Use with attribution as you wish.

Look forward to hearing more of your work.

Hamish

Professor Hamish Coates | Professor of Higher Education Melbourne Centre for the Study of Higher Education

Elisabeth Murdoch Building (Building 134), Spencer Road The University of Melbourne, Victoria 3010 Australia
T: +61 3 9035 4928 | M: +61 423 475 605 | E: hamishc@unimelb.edu.au
melbourne-cshe.unimelb.edu.au | Subscribe to our newsletter| My profile

This email and any attachments may contain personal information or information that is otherwise confidential or the subject of copyright. Any use, disclosure or copying of any part of it is prohibited. The University does not warrant that this email or any attachments are free from viruses or defects. Please check any attachments for viruses and defects before opening them. If this email is received in error please delete it and notify us by return email.

-----Original Message-----
From: Micki Puksa [mailto:mickipuksa25@gmail.com]
Sent: Friday, 18 November 2016 3:30 AM
To: Hamish Coates <h.coates@unimelb.edu.au>
Subject: Student Engagement Questionnaire (SEQ) request
Greetings Harnish,

I am a PhD candidate in Higher Education at OISE, Toronto, Canada, and in the process of completing my research proposal. My topic is on quality of online learning with a focus on effective educational practices (rooted in constructivism and using Chickering & Gamson’s seven principles as a general frame). I plan to survey students and am interested in examining the SEQ for use as a potential survey. I noticed that it provides six important outcome measures which align very nicely with constructivism and the seven principles (academic challenge, active learning, ...).

Is it possible to forward a copy with the scale included so I may examine it more closely?

In addition, If it is appropriate for use in my research, I would like to obtain your permission to use it as is or potentially adapt it.

Many thanks, and I look forward to hearing from you.

Micki Puksa
Appendix J

Smith’s Letter of Permission to Adapt and Use Survey and Interview Questions

On Mar 21, 2017, at 4:16 PM, SMITH, YVONNE <ysmith@kent.edu> wrote:

Hello Micki,

Congratulations on your candidacy! Thank you for contacting me. It is exciting to hear from others who have a similar research interests. Yes, you have my permission to adapt my survey and interview questions for your use. I would be interested in your findings when you have completed your study.

I have a recent publication from the dissertation work that you may find helpful. I have attached a copy for your convenience. Lee F. Koch, a faculty member in Germany, is doing similar work and has adapted the survey and translated into German for his research.

Let me know if there is anything else I can do to support your work.

~Yvonne

Yvonne Smith PhD APRN CNS
Coordinator, MSN-MBA Dual Degree and MSN in Nursing and Healthcare Management Programs
Kent State University College of Nursing
ysmith@kent.edu
330-672-7796

On 3/21/17, 12:18 PM, "Micki Puksa" <mickipuksa25@gmail.com> wrote:

Greetings Yvonne,

I am a PhD candidate in Higher Education at OISE, Toronto, Canada, and am further along in my thesis research journey. In my research on the “Exploration of Online Teaching in Eight Prelicensure Collaborative Baccalaureate Nursing Programs in Ontario Colleges”, I want to explore the perspectives of faculty in this program to gain a deeper understanding of best practices with this form of delivery, including the development of course curricula, and content that is appropriate for development in this format.

I enjoyed reading your dissertation work and have referenced it in my research. I find that several questions from your survey questionnaire and interview guide would be appropriate for use in my data collection instruments. I would like your permission to use/adapt those questions for use…which would comprise part of my survey and interview guide.

Many thanks!

Micki Puksa
Appendix K

Interview Guide for Faculty and Program Coordinators with Online Teaching Experience

Before I begin the interview, I will review the following:

Thank-you for your interest in participating in this important research study and willingness to participate in this follow-up interview. Your participation in this study is entirely voluntary and you are free to decline to answer any question(s) you do not wish to answer, or withdraw from the study without any explanation simply by telling me during the interview or letting me know by any means until data aggregation has begun and all the information you shared previously will be fully deleted and not included in this study. With your specific consent the interview will the audio-recorded and you will have an opportunity to review and revise the transcript as you see fit.

No individual, institution or program will be identifiable in any reporting of these findings in appropriate professional journals and/or presentations. All data submitted will be kept confidential and secure, accessible only to my thesis supervisor and me.

Please indicate your willingness to participate in this interview or not:

O Yes
O No – if no then the interview will not continue

If Yes, please indicate your willingness to have the interview audio-recorded.

O Yes
O No – if NO, permission will be sought to take field notes

Signature _______________________________________________________

Date _____________________________

Please keep a copy of this consent form for your records.
Non-leading probes will be used as appropriate to explore a deeper understanding of responses

1. Welcome. Thank you for participating.

2. Follow up on demographic information in survey. Years a nurse_________; Years teaching _________; Years teaching online _________; Highest academic education degree _________; Full time/part-time _________; Age _________.

3. Please share your thoughts about what brought you to online teaching?
   - Course taught online;
   - Web-facilitated, blended or fully online format

4. How and by whom are decisions made at your college and in your nursing program about the nature of the content and learning outcomes that should or should not be developed in online delivery format?
   a. Are faculty involved in the decision making?

5. Tell me about how your College and nursing program support you with online teaching.
   a. How well do/did you feel prepared to teach online?
   b. What are your thoughts about infrastructure at the College to support online learning?
      i. LMS (access & reliability); initial and ongoing support
      ii. Supports available for course development, design, and delivery (teaching and learning centre, course designer, peer support)
      iii. Online pedagogy training
      iv. Technology training
      v. Professional development
   c. What about supports at the nursing program level?
      i. Support received for course development, design, delivery
      ii. Received training & professional development
      iii. Recognition of time (SWF) required for course development, design, delivery; training and PD
      iv. Scalability of class size
      v. Recognition of work
   d. How well do you think your dean, and administration at college recognizes that teaching courses online requires more time?
      i. Elaborate

6. Share your thoughts about the difference in your experience of teaching online compared with the traditional classroom?
7. Share your thoughts about strengths and challenges of assessing students’ learning in the nursing courses you teach online.
   a. Formative and summative
      i. Types of assessment strategies you use (essay, presentations, MCQ)
   b. Types of Learning Activities you use
      i. Use of Discussion boards, case studies, MCQ, …
      ii. Testing knowledge, skill, judgment (and attitude)
   c. Are your assessment strategies/choices influenced by your workload (time on SWF), for example, some assessments require more time (discussion boards, papers…) and other assessments less time (MCQs)?
   d. What if any concerns do you have about assessing students’ preparedness for clinical practice in the online format?
   e. What type of teaching/assessment strategies do you think are appropriate or challenging in the online format?
   f. What do you perceive to be the difference in your experiences of assessing students online compared with in the traditional classroom?

8. Tell me about how you promote experiential learning in the NURSING courses you teach online?
   a. What are the Opportunities?
      i. Types of strategies, activities, approaches
   b. What are the challenges?
      i. Authenticity
         1. Being able to apply situations to the real care of patients in clinical nursing practice
         2. Safe patient care

9. Share your thoughts about the challenges you perceive students have with online learning.
   - What do you see as challenges and opportunities?
   - What are the challenges students share with you?
   - Other

10. What do you see as positive or rewarding aspects of teaching nursing courses online?

11. What do you see as negative or challenging aspects of teaching nursing courses online?

12. What would you change about teaching nursing courses online, if you could?

13. This question is about online nursing course content and has two parts:
   a. Share your thoughts about the type of course content that is appropriate or not for online learning.
i. For example, courses with complex concepts (outcomes that require integration of knowledge from all courses for the purpose of making and prioritizing decisions about nursing care)

b. Share your thoughts about what intended outcomes are suitable or not for online learning.

c. Share your thoughts about semesters in which you think online courses should be offered…first semester, second, third, fourth….?
   i. Scaffolding
   ii. Isolation of students in first semester, when have not had a chance to socialize face-to-face

14. Please feel free to share your thoughts about anything that I may not have asked.

15. Could I have your permission to follow-up with any additional questions resulting from the survey analysis.

Thank you for your time and participation!!
Appendix L

Interview Guide for Program Coordinators without Online Teaching Experience

Before I begin the interview, I will review the following:

Thank-you for your interest in participating in this important research study and willingness to participate in this follow-up interview. Your participation in this study is entirely voluntary and you are free to decline to answer any question(s) you do not wish to answer, or withdraw from the study without any explanation simply by telling me during the interview or letting me know by any means until data aggregation has begun and all the information you shared previously will be fully deleted and not included in this study. With your specific consent the interview will the audio-recorded and you will have an opportunity to review and revise the transcript as you see fit.

No individual, institution or program will be identifiable in any reporting of these findings in appropriate professional journals and/or presentations. All data submitted will be kept confidential and secure, accessible only to my thesis supervisor and me.

Please indicate your willingness to participate in this interview or not:

   O   Yes
   O   No – if no then the interview will not continue

If Yes, please indicate your willingness to have the interview audio-recorded.

   O   Yes
   O   No – if NO, permission will be sought to take field notes

Signature __________________________________________________________

Date ____________________________

Please keep a copy of this consent form for your records.
Non-leading probes will be used as appropriate to explore a deeper understanding of responses

1. What are your responsibilities as a program coordinator?
   a. experience with teaching online courses
   b. brief overview of work with faculty, students, administration (focus re online learning)

2. Tell me about online nursing course offerings in your program.

3. How and by whom are decisions made at your college and in the nursing program about
   the nature of the content and learning outcomes that should or should not be developed in
   online delivery format?
   a. Are coordinators/ faculty involved in the decision-making process?

4. Share your thoughts about how the College supports or does not support online learning?
   i. LMS (access & reliability); initial and ongoing support
   ii. Supports available for course development, design, and delivery (teaching
       and learning centre, course designer, peer support)
   iii. Online pedagogy training
   iv. Technology training
   v. Professional development
   vi. College mission statement; vision; academic plan

5. Tell me about how the nursing program supports faculty with online course delivery?
   a. Time recognized on SWF for course development, design, and delivery
      i. Course download for course development
   b. Professional development
      i. Online pedagogy; technology
      ii. Scalability of class size
      iii. Program mission statement, vision, academic plan

6. What are your thoughts about the time required for online course development, design,
   and delivery?
   a. What do you think are the perspectives of your dean, and college administrators
      regarding the amount of time required?

7. Share your thoughts about the practice of assessment in the online environment.
   a. Formative and summative
      i. Types of assessment strategies you see as appropriate (essay,
         presentations, MCQ)
   b. Types of Learning Activities
      i. Use of Discussion boards, case studies, MCQ, …
      ii. Testing knowledge, skill, judgment (and attitude)
c. Do you think that assessment strategies/choices faculty use are influenced by workload (time on SWF), for example, assessments that require more time (discussion boards, papers...) versus assessments that require less time (MCQs)?
d. Do you have concerns about students’ preparedness for clinical practice in content delivered online?
e. What type of teaching/assessment strategies do you think are appropriate or challenging in the online format?
f. What do you perceive as differences in assessing students online compared with in the traditional classroom?

8. Share your thoughts about the promotion or not of experiential learning in NURSING courses delivered online?
   a. What are the Opportunities?
      i. Types of strategies, activities, approaches
   b. What are the challenges?
      i. Authenticity
         1. Being able to apply situations to the real care of patients in clinical nursing practice
         2. Safe patient care

9. Share your thoughts about the challenges you perceive students have with online learning.
   a. What do you see as the challenges and opportunities?
   b. What are the challenges that students share with you?
   c. Other

10. What challenges do you perceive that faculty face with online NURSING course delivery?

11. This question is about online nursing course content and has two parts:
   a. Share your thoughts about the type of course content that is appropriate or not for online learning.
      i. For example, courses with complex concepts that require integration of learning from multiple courses for the purpose of making and prioritizing decisions about nursing care
      ii. Share your thoughts about the intended outcomes you think are suitable or not for online learning.
   b. Share your thoughts about semesters in which you think online courses should be offered…first semester, second, third, fourth?
      i. Scaffolding
      ii. Isolation of students in first semester, when have not had a chance to socialize face-to-face

12. What would you change about online course delivery, if you could?

13. Please feel free to share your thoughts about anything that I may not have asked.

Thank you for your time and participation!
Appendix M

Content Validity Index – Online Questionnaire Survey

Please review the attached questionnaire and then complete the following Content Validity Index (CVI). The CVI was developed by C. H. Lawshe for the purpose of validating the reliability of a research instrument among subject matter experts to determine whether each survey question is relevant to the research question(s) being investigated.

Overarching Research Question: What are the perceptions of participating faculty regarding the nature, challenges and strengths of teaching online course content in prelicensure collaborative baccalaureate nursing programs, and what are the implications for online course delivery?

1. The knowledge measured by this item is ________________________ to the research question.
   □ essential □ useful but not essential □ not necessary

2. The knowledge measured by this item is ________________________ to the research question.
   □ essential □ useful but not essential □ not necessary

3. The knowledge measured by this item is ________________________ to the research question.
   □ essential □ useful but not essential □ not necessary

4. The knowledge measured by this item is ________________________ to the research question.
   □ essential □ useful but not essential □ not necessary

5. The knowledge measured by this item is ________________________ to the research question.
   □ essential □ useful but not essential □ not necessary

6. The knowledge measured by this item is ________________________ to the research question.
   □ essential □ useful but not essential □ not necessary

7. The knowledge measured by this item is ________________________ to the research question.
   □ essential □ useful but not essential □ not necessary

8. The knowledge measured by this item is ________________________ to the research question.
   □ essential □ useful but not essential □ not necessary

© Micki Puksa 2017
9. The knowledge measured by this item is ____________________ to the research question.
   □ essential          □ useful but not essential          □ not necessary

10. The knowledge measured by this item is ____________________ to the research question.
    □ essential          □ useful but not essential          □ not necessary

11. The knowledge measured by this item is ____________________ to the research question.
    □ essential          □ useful but not essential          □ not necessary

12. The knowledge measured by this item is ____________________ to the research question.
    □ essential          □ useful but not essential          □ not necessary

13. The knowledge measured by this item is ____________________ to the research question.
    □ essential          □ useful but not essential          □ not necessary

14. The knowledge measured by this item is ____________________ to the research question.
    □ essential          □ useful but not essential          □ not necessary

15. The knowledge measured by this item is ____________________ to the research question.
    □ essential          □ useful but not essential          □ not necessary

16. The knowledge measured by this item is ____________________ to the research question.
    □ essential          □ useful but not essential          □ not necessary

17. The knowledge measured by this item is ____________________ to the research question.
    □ essential          □ useful but not essential          □ not necessary

18. The knowledge measured by this item is ____________________ to the research question.
    □ essential          □ useful but not essential          □ not necessary

19. The knowledge measured by this item is ____________________ to the research question.
    □ essential          □ useful but not essential          □ not necessary

20. The knowledge measured by this item is ____________________ to the research question.
    □ essential          □ useful but not essential          □ not necessary

© Micki Puksa 2017
21. The knowledge measured by this item is _____________________ to the research question.
   □ essential  □ useful but not essential  □ not necessary

22. The knowledge measured by this item is _____________________ to the research question.
   □ essential  □ useful but not essential  □ not necessary

23. The knowledge measured by this item is _____________________ to the research question.
   □ essential  □ useful but not essential  □ not necessary

24. The knowledge measured by this item is _____________________ to the research question.
   □ essential  □ useful but not essential  □ not necessary

25. The knowledge measured by this item is _____________________ to the research question.
   □ essential  □ useful but not essential  □ not necessary

26. The knowledge measured by this item is _____________________ to the research question.
   □ essential  □ useful but not essential  □ not necessary

27. The knowledge measured by this item is _____________________ to the research question.
   □ essential  □ useful but not essential  □ not necessary

28. The knowledge measured by this item is _____________________ to the research question.
   □ essential  □ useful but not essential  □ not necessary

29. The knowledge measured by this item is _____________________ to the research question.
   □ essential  □ useful but not essential  □ not necessary

30. The knowledge measured by this item is _____________________ to the research question.
   □ essential  □ useful but not essential  □ not necessary

31. The knowledge measured by this item is _____________________ to the research question.
   □ essential  □ useful but not essential  □ not necessary

32. The knowledge measured by this item is _____________________ to the research question.
   □ essential  □ useful but not essential  □ not necessary

© Micki Puksa 2017
33. The knowledge measured by this item is ___________________ to the research question.
   □ essential □ useful but not essential □ not necessary

34. The knowledge measured by this item is ___________________ to the research question.
   □ essential □ useful but not essential □ not necessary

35. The knowledge measured by this item is ___________________ to the research question.
   □ essential □ useful but not essential □ not necessary

36. The knowledge measured by this item is ___________________ to the research question.
   □ essential □ useful but not essential □ not necessary

37. The knowledge measured by this item is ___________________ to the research question.
   □ essential □ useful but not essential □ not necessary

38. The knowledge measured by this item is ___________________ to the research question.
   □ essential □ useful but not essential □ not necessary

39. The knowledge measured by this item is ___________________ to the research question.
   □ essential □ useful but not essential □ not necessary

40. The knowledge measured by this item is ___________________ to the research question.
   □ essential □ useful but not essential □ not necessary

41. The knowledge measured by this item is ___________________ to the research question.
   □ essential □ useful but not essential □ not necessary

42. The knowledge measured by this item is ___________________ to the research question.
   □ essential □ useful but not essential □ not necessary

43. The knowledge measured by this item is ___________________ to the research question.
   □ essential □ useful but not essential □ not necessary

44. The knowledge measured by this item is ___________________ to the research question.
   □ essential □ useful but not essential □ not necessary

© Micki Puksa 2017
<table>
<thead>
<tr>
<th></th>
<th>The knowledge measured by this item is ___________________ to the research question.</th>
</tr>
</thead>
<tbody>
<tr>
<td>45.</td>
<td>☐ essential ☐ useful but not essential ☐ not necessary</td>
</tr>
<tr>
<td>46.</td>
<td>☐ essential ☐ useful but not essential ☐ not necessary</td>
</tr>
<tr>
<td>47.</td>
<td>☐ essential ☐ useful but not essential ☐ not necessary</td>
</tr>
<tr>
<td>48.</td>
<td>☐ essential ☐ useful but not essential ☐ not necessary</td>
</tr>
<tr>
<td>49.</td>
<td>☐ essential ☐ useful but not essential ☐ not necessary</td>
</tr>
<tr>
<td>50.</td>
<td>☐ essential ☐ useful but not essential ☐ not necessary</td>
</tr>
<tr>
<td>51.</td>
<td>☐ essential ☐ useful but not essential ☐ not necessary</td>
</tr>
<tr>
<td>52.</td>
<td>☐ essential ☐ useful but not essential ☐ not necessary</td>
</tr>
<tr>
<td>53.</td>
<td>☐ essential ☐ useful but not essential ☐ not necessary</td>
</tr>
<tr>
<td>54.</td>
<td>☐ essential ☐ useful but not essential ☐ not necessary</td>
</tr>
<tr>
<td>55.</td>
<td>☐ essential ☐ useful but not essential ☐ not necessary</td>
</tr>
<tr>
<td>56.</td>
<td>☐ essential ☐ useful but not essential ☐ not necessary</td>
</tr>
</tbody>
</table>

© Micki Puksa 2017
57. The knowledge measured by this item is ________________ to the research question.
   □ essential     □ useful but not essential  □ not necessary

58. The knowledge measured by this item is ________________ to the research question.
   □ essential     □ useful but not essential  □ not necessary

59. The knowledge measured by this item is ________________ to the research question.
   □ essential     □ useful but not essential  □ not necessary

60. The knowledge measured by this item is ________________ to the research question.
   □ essential     □ useful but not essential  □ not necessary

61. The knowledge measured by this item is ________________ to the research question.
   □ essential     □ useful but not essential  □ not necessary

62. The knowledge measured by this item is ________________ to the research question.
   □ essential     □ useful but not essential  □ not necessary

63. The knowledge measured by this item is ________________ to the research question.
   □ essential     □ useful but not essential  □ not necessary

64. The knowledge measured by this item is ________________ to the research question.
   □ essential     □ useful but not essential  □ not necessary

65. The knowledge measured by this item is ________________ to the research question.
   □ essential     □ useful but not essential  □ not necessary

66. The knowledge measured by this item is ________________ to the research question.
   □ essential     □ useful but not essential  □ not necessary

67. The knowledge measured by this item is ________________ to the research question.
   □ essential     □ useful but not essential  □ not necessary

68. The knowledge measured by this item is ________________ to the research question.
   □ essential     □ useful but not essential  □ not necessary
69. The knowledge measured by this item is ____________________ to the research question.
□ essential □ useful but not essential □ not necessary

70. The knowledge measured by this item is ____________________ to the research question.
□ essential □ useful but not essential □ not necessary

71. The knowledge measured by this item is ____________________ to the research question.
□ essential □ useful but not essential □ not necessary

72. The knowledge measured by this item is ____________________ to the research question.
□ essential □ useful but not essential □ not necessary

73. The knowledge measured by this item is ____________________ to the research question.
□ essential □ useful but not essential □ not necessary

74. The knowledge measured by this item is ____________________ to the research question.
□ essential □ useful but not essential □ not necessary

Additional Comments:

Subject Matter Expert Rater Information – This will be kept confidential in all reporting of this study.

Name: _________________________________

Job Title: ________________________________

Department: ________________________________

Place of Employment: ________________________________

________________________________________ ________________
Signature Date

© Micki Puksa 2017
Appendix N

University of Toronto REB Approval

April 10, 2017

Dr. Katharine Janzen
OISE/UT: LEADERSHIP, HIGHER AND ADULT EDUCATION

Mrs. Micki Puksa
OISE/UT: LEADERSHIP, HIGHER AND ADULT EDUCATION

Dear Dr. Janzen and Mrs. Micki Puksa,

Re: Your research protocol entitled, “Exploration of online teaching in eight prelicensure collaborative baccalaureate nursing programs in Ontario colleges”

---

ETHICS APPROVAL

Original Approval Date: April 10, 2017
Expiry Date: April 9, 2018
Continuing Review Level: 1

We are writing to advise you that the Social Sciences, Humanities, and Education Research Ethics Board (REB) has granted approval to the above-named research protocol under the REB’s delegated review process. Your protocol has been approved for a period of one year and ongoing research under this protocol must be renewed prior to the expiry date.

Any changes to the approved protocol or consent materials must be reviewed and approved through the amendment process prior to its implementation. Any adverse or unanticipated events in the research should be reported to the Research Oversight and Compliance Office - Human Research Ethics Program as soon as possible.

Please ensure that you submit an Ethics Renewal Form or a Study Completion/Closure Report 15 to 30 days prior to the expiry date of your current ethics approval. Note that ethics renewals for studies cannot be accepted more than 30 days prior to the date of expiry.

If your research is funded by a third party, please contact the assigned Research Funding Officer in Research Services to ensure that your funds are released.

Please note, all approved research studies are eligible for a routine Post-Approval Review (PAR) site visit. If chosen, you will receive a notification letter from our office. For information on PAR, please see http://www.research.toronto.ca/wp-content/uploads/documents/2014/09/PAR-Program-Description-f.pdf.

Best wishes for the successful completion of your research.

Yours sincerely,

Matthew Brower, Ph.D.
REB Chair
Appendix O

Best Teaching Practice Scales Data

**Constructivist teaching (CT) scale data**

<table>
<thead>
<tr>
<th></th>
<th>Never</th>
<th>Some times</th>
<th>Often</th>
<th>Very Often</th>
</tr>
</thead>
<tbody>
<tr>
<td>I present online materials in a way that students can understand. (q.22)</td>
<td>-</td>
<td>3.1</td>
<td>43.8</td>
<td>53.1</td>
</tr>
<tr>
<td>In my online course, I value students’ ideas and questions. (q.23)</td>
<td>-</td>
<td>3.2</td>
<td>35.5</td>
<td>61.3</td>
</tr>
<tr>
<td>In my online course, I encourage students to question what is being taught. (q.24)</td>
<td>3.1</td>
<td>15.6</td>
<td>25.0</td>
<td>63.3</td>
</tr>
<tr>
<td>I use online teaching approaches that suit my students’ needs (q.25)</td>
<td>-</td>
<td>18.8</td>
<td>34.4</td>
<td>46.9</td>
</tr>
<tr>
<td>I encourage students to creatively explore ideas online. (q.26)</td>
<td>6.3</td>
<td>18.8</td>
<td>31.3</td>
<td>43.8</td>
</tr>
<tr>
<td>I share research in ways that inspire students to learn. (q.27)</td>
<td>3.2</td>
<td>32.3</td>
<td>41.9</td>
<td>22.6</td>
</tr>
</tbody>
</table>

**Collaborative work (CW) scale data**

<table>
<thead>
<tr>
<th></th>
<th>Never</th>
<th>Some times</th>
<th>Often</th>
<th>Very Often</th>
</tr>
</thead>
<tbody>
<tr>
<td>In my online course, students work on group projects with other students. (q.28)</td>
<td>25.0</td>
<td>21.9</td>
<td>25.0</td>
<td>28.1</td>
</tr>
<tr>
<td>In my online course, students work with other students on difficult tasks. (q.29)</td>
<td>21.9</td>
<td>31.3</td>
<td>25.0</td>
<td>21.9</td>
</tr>
<tr>
<td>In my online course, I discuss with students the best ways to work collaboratively. (q.30)</td>
<td>25.8</td>
<td>32.3</td>
<td>25.8</td>
<td>16.1</td>
</tr>
<tr>
<td>I support students in my online course when they have academic problems. (q.39)</td>
<td>6.3</td>
<td>9.4</td>
<td>28.1</td>
<td>56.3</td>
</tr>
</tbody>
</table>

**Teacher approachability (TA) scale data**

<table>
<thead>
<tr>
<th></th>
<th>Never</th>
<th>Some times</th>
<th>Often</th>
<th>Very Often</th>
</tr>
</thead>
<tbody>
<tr>
<td>In my online course, I feel students can approach me. (q.31)</td>
<td>-</td>
<td>9.4</td>
<td>31.3</td>
<td>59.4</td>
</tr>
<tr>
<td>I am interested in helping my online students. (q.32)</td>
<td>-</td>
<td>3.1</td>
<td>18.8</td>
<td>78.1</td>
</tr>
<tr>
<td>I am accessible to students in my online course. (q.33)</td>
<td>-</td>
<td>3.1</td>
<td>21.9</td>
<td>75.0</td>
</tr>
<tr>
<td>I interact with students in my online course. (q.40)</td>
<td>-</td>
<td>9.4</td>
<td>21.9</td>
<td>65.6</td>
</tr>
</tbody>
</table>
**Supportive learning environment (SLE) scale data**

<table>
<thead>
<tr>
<th>Statement</th>
<th>Never</th>
<th>Some times</th>
<th>Often</th>
<th>Very Often</th>
</tr>
</thead>
<tbody>
<tr>
<td>In my online course, I respect students’ backgrounds, perspectives, and needs. (q.34)</td>
<td>-</td>
<td>3.1</td>
<td>25.0</td>
<td>71.9</td>
</tr>
<tr>
<td>I create an online course environment that is supportive of student learning. (q.35)</td>
<td>-</td>
<td>6.3</td>
<td>37.5</td>
<td>56.3</td>
</tr>
<tr>
<td>I respond to feedback from my online students. (q.41)</td>
<td>-</td>
<td>3.1</td>
<td>15.6</td>
<td>81.3</td>
</tr>
<tr>
<td>My online nursing course/s are designed so that students feel part of a learning community. (q.42)</td>
<td>6.3</td>
<td>18.8</td>
<td>34.3</td>
<td>40.6</td>
</tr>
</tbody>
</table>

**Online social interaction (OSI) scale data**

<table>
<thead>
<tr>
<th>Statement</th>
<th>Never</th>
<th>Some times</th>
<th>Often</th>
<th>Very Often</th>
</tr>
</thead>
<tbody>
<tr>
<td>As a teacher, I participate in online discussions. (q.36)</td>
<td>9.4</td>
<td>21.9</td>
<td>18.8</td>
<td>50.0</td>
</tr>
<tr>
<td>I find it easy to communicate complex ideas in online discussions. (q.37)</td>
<td>12.5</td>
<td>34.4</td>
<td>34.4</td>
<td>18.8</td>
</tr>
<tr>
<td>I have helpful online discussions with my students. (q.38)</td>
<td>9.4</td>
<td>37.5</td>
<td>28.1</td>
<td>25.0</td>
</tr>
</tbody>
</table>

**Active learning (AL) scale data**

<table>
<thead>
<tr>
<th>Statement</th>
<th>Never</th>
<th>Some times</th>
<th>Often</th>
<th>Very Often</th>
</tr>
</thead>
<tbody>
<tr>
<td>I push my online students to understand things they find challenging. (q.44)</td>
<td>3.1</td>
<td>6.3</td>
<td>62.5</td>
<td>28.1</td>
</tr>
<tr>
<td>I ask students about how ethical issues of material studied online relate to their clinical nursing practice. (q.45)</td>
<td>16.1</td>
<td>25.8</td>
<td>32.3</td>
<td>25.8</td>
</tr>
<tr>
<td>I set high-performance standards for online students. (q.48)</td>
<td>-</td>
<td>6.3</td>
<td>37.5</td>
<td>56.3</td>
</tr>
<tr>
<td>I help students make connections between things that I am teaching online and their clinical nursing practice. (q.49)</td>
<td>3.1</td>
<td>3.1</td>
<td>28.1</td>
<td>65.6</td>
</tr>
<tr>
<td>I encourage my online students to seek out resources that would help them understand topics. (q.50)</td>
<td>3.1</td>
<td>6.3</td>
<td>28.1</td>
<td>62.5</td>
</tr>
<tr>
<td>I encourage students to raise questions about the material they study online and its application to their clinical nursing practice. (q.51)</td>
<td>3.1</td>
<td>6.3</td>
<td>25.0</td>
<td>65.6</td>
</tr>
</tbody>
</table>
### Student and staff interaction (SSI) scale data

<table>
<thead>
<tr>
<th></th>
<th>Never</th>
<th>Sometimes</th>
<th>Often</th>
<th>Very Often</th>
</tr>
</thead>
<tbody>
<tr>
<td>In my online course, I feel students can approach me. (q.31)</td>
<td>-</td>
<td>9.4</td>
<td>31.3</td>
<td>59.4</td>
</tr>
<tr>
<td>I interact with students in my online course. (q.40)</td>
<td>3.1</td>
<td>9.4</td>
<td>21.9</td>
<td>65.6</td>
</tr>
<tr>
<td>I make individual contact with my online students. (q.43)</td>
<td>3.1</td>
<td>12.5</td>
<td>31.3</td>
<td>53.1</td>
</tr>
<tr>
<td>I seek feedback from my online students on how to improve my performance. (q.46)</td>
<td>16.1</td>
<td>25.8</td>
<td>32.3</td>
<td>25.8</td>
</tr>
</tbody>
</table>

### Student and staff interaction (SSI) data: Survey Question # 47

<table>
<thead>
<tr>
<th></th>
<th>Never</th>
<th>Sometimes</th>
<th>Often</th>
<th>Very Often</th>
</tr>
</thead>
<tbody>
<tr>
<td>I meet face-to-face with my online students. (q. 47)</td>
<td>6.3</td>
<td>34.4</td>
<td>21.9</td>
<td>37.5</td>
</tr>
</tbody>
</table>

### Academic challenge (AC) scale data

<table>
<thead>
<tr>
<th></th>
<th>Never</th>
<th>Sometimes</th>
<th>Often</th>
<th>Very Often</th>
</tr>
</thead>
<tbody>
<tr>
<td>I give my online students enough relevant work to keep their interest. (q.52)</td>
<td>-</td>
<td>9.4</td>
<td>34.4</td>
<td>56.3</td>
</tr>
<tr>
<td>I encourage my online students to go beyond set materials. (q.53)</td>
<td>6.3</td>
<td>12.5</td>
<td>28.1</td>
<td>53.1</td>
</tr>
<tr>
<td>I give students comments on their work that help them learn online. (q.54)</td>
<td>6.3</td>
<td>12.5</td>
<td>31.3</td>
<td>50.0</td>
</tr>
<tr>
<td>I provide online feedback quickly enough for my online students to improve subsequent work. (q.55)</td>
<td>6.3</td>
<td>6.3</td>
<td>34.4</td>
<td>53.1</td>
</tr>
<tr>
<td>I work harder than I thought I would in teaching online nursing course/s so that I can meet standards, expectations, and deadlines. (q.56)</td>
<td>6.3</td>
<td>6.3</td>
<td>34.4</td>
<td>53.1</td>
</tr>
<tr>
<td>Assessments I use in my online course/s challenge students to learn. (q.57)</td>
<td>3.1</td>
<td>6.3</td>
<td>43.8</td>
<td>46.9</td>
</tr>
</tbody>
</table>
Appendix P

References for College Strategic Plan Document Sources


Appendix Q

References for College Strategic Mandate Agreement Document Sources - 2017


Retrieved from https://www.ontario.ca/page/2017-20-strategic-mandate-agreement-georgian-college-applied-arts-and-technology


