The Relationship Between Teaching Presence and Online Instructor Satisfaction in an Online Teacher Training Program.

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Contents

Abstract

As the number and frequency of online programs being offered in higher education continue to increase, so too does the amount of research dedicated to examining and exploring their impact on learners and learner outcomes. Yet in the literature there is less research dedicated to examining instructor outcomes in online programs, especially with regard to the feelings and perceptions of satisfaction instructors derive from their online teaching.

This thesis reports the results of a case study that examined a cohort of instructors engaged in synchronous, online videoconference instruction in a graduate teacher training program at a mid-sized private university in Seoul, South Korea. Using a mixed methods approach, instructor responses gathered from interviews, the Online Instructor Satisfaction Measure, and observation of videoconference lessons were triangulated to establish whether or not a relationship might exist between teaching presence and instructor satisfaction with the aim of describing that relationship.

Overall, the findings presented in this thesis represent an exploration into the impact of instructor satisfaction on teacher actions in online videoconference contexts. In addition to finding that satisfied instructors show more teaching presence indicators than instructors who are not satisfied, two related issues emerged from the case study that have implications for future research. First, the overall context of the teaching program must be taken into account when describing online teaching and learning. Second, existing indicators of teaching presence based on text-based instances of online teaching may need to be revised to take into account the increased volume of synchronous, videoconference lessons that are quickly becoming mainstream in online teaching and learning.

Keywords: Community of Inquiry Framework, online instructor satisfaction, teaching presence, teacher education, synchronous, videoconferencing, South Korea

Statement of Candidate

I certify that the work in this thesis entitled "The relationship between teaching presence and instructor satisfaction in an online teacher education program" has not previously been submitted for a degree, nor has it been submitted as part of the requirements for a degree to any university or institution other than Macquarie University.

I also certify that the thesis is an original piece of research and it is written by me. Any help and assistance I have received in my research work and the preparation of this thesis is appropriately acknowledged.

In addition, I certify that all information sources and literature used are indicated in the thesis.

The research presented in this thesis was approved by the Macquarie University Faculty of Human Sciences Human Research Ethics Sub-Committee 17 May 2017, reference number: 5201700461.

Stafford Lumsden
9 October 2017

List of Abbreviations, Acronyms, Glossary[1]

A	Affordances of the online environment/online teaching and learning
Asynchronous	When students contribute to an online task at disparate times
Blended	A program incorporating both online and face-to-face instruction
CD ROM	A popular digital storage medium in the late 1990s and early 2000s
CDT	Course design/development and teaching
CoI	The Community of Inquiry Framework
CMC	Computer-Mediated Communication
CU	Central University
DF	Discourse Facilitation
DI	Direct Instruction
IDO	Instructional Design and Organization
iNACOL	The International Association of K-12 Online Learning
IS	Institutional Support
ISI	Instructor-to-student Interaction
Korea	The Republic of Korea, also referred to as South Korea
LMS	Learning Management System
MOOC	Massive Open Online Course
OISM	Online Instructor Satisfaction Measure
OTL	Online Teaching and Learning
RR	Revised Romanization (of Korean)
SSI	Student-to-student interaction
Synchronous	Active exchange of information by people (students/teacher) in real time
SUNY	State University of New York
TEE	Teaching English in English
TESOL	Teaching English to Speakers of Other Languages
Videoconference Lesson	A synchronous lesson delivered via webcam, videoconference software and/or an LMS
YL	Young Learner(s)

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[1] The accepted or common understanding of abbreviations, acronyms and terms derived from the literature is used here. In some instances, working definitions for a term emerging from the research are used.

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Chapter 1 Introduction

The number and frequency of online programs being offered in higher education contexts continues to increase. As a result, research examining the impact of online learning, and on learners and learner outcomes has also increased. Less research, however, has been dedicated to examining instructor outcomes. Research that focuses on the feelings and perceptions of satisfaction that instructors derive from their participation in online teaching seems to be absent. While we have come to understand the impact of online learning on learners and how their perceptions of online learning are shaped, less is known about what effect online teaching and learning (OTL) has on instructors, and whether there is a relationship between their satisfaction with online teaching and their teaching presence during videoconference lessons.

Lichtman (2010) tells us that research and researchers are influenced by their experiences, knowledge, skills and backgrounds. Thus, it shouldn't surprise the reader that the present study is born of my experience as a teacher educator and online instructor, and a desire to better understand online teaching and learning. I consider myself one of the "tinkerers" that Hubbard and Levy (2016) refers to when considering the genesis of computer assisted language learning (CALL) in the early 1980s. In some ways, little has changed since those early years. Now I am just one of many "tinkerers" that continue to push our field forward, attempting to utilize the many practical applications of computers and the Internet in language teaching and applied linguistics. On the other hand, there has been considerable change since the 1980s. This is exemplified most recently by the ability to incorporate live, synchronous videoconference lessons into programs at all levels of education. As access to high speed bandwidth increases, and the cost of hardware like quality microphones and high-definition cameras decreases, videoconference lessons are becoming an important part of online programs offered by institutions.

So, it is important to start building our understanding of how videoconference lessons are being delivered, their influence on instructors' perceptions of satisfaction, and instructor actions during lessons. This study seeks to establish if there is a relationship between teaching presence (Garrison, Anderson & Archer, 2000) and online instructor satisfaction. In Chapter 2, background information is presented, that describes higher education in Korea broadly, and the case of *Central University* specifically, where this study was conducted. Chapter 3 examines the literature on online teaching and learning, the Community of Inquiry Framework and teaching presence, and instructor satisfaction. Chapter 4 considers the methodological underpinnings of this mixed methods case study and describes the survey, interviews, and observations that were operationalized for collecting data. Chapter 5 reports

that data, while Chapter 6 presents an analysis of the key findings, while considering both the limitations of the study and possible avenues for further research. As we will come to see, being able to describe the context in which an instance of online teaching and learning is happening is key to building a clearer understanding of associated phenomena.

Chapter 2 Background

Higher education in the Republic of Korea

The Republic of Korea (South Korea) has the fourth highest level of tertiary-educated adults aged 24-64 in the OECD, some 45.5% (OECD, 2016). There are 339 universities in South Korea, attended in 2016 by 2.9 million undergraduate students, with a further 330,000 students pursuing post graduate degrees (South Korean Ministry of Education, 2017). There is also a burgeoning sector within the education industry in Korea that caters to students engaging in programs which might variously be referred to as *lifelong education* or *continuing education* programs. A diverse range of lifelong education programs is offered by a combination of private providers and higher education institutions in a variety of fields, disciplines and subject areas. These include foreign languages, computer science, and English language teacher (ELT) education. Coombs and Ahmed (1975) categorizes this kind of educational undertaking as *non-formal* - some sort of professional development completed as part of one's job duties, or indeed, in the pursuit of certification as preparation for a job.

Starting in the early 2000s, the Korean Ministry of Education began to place an emphasis on *Teaching English in English* (TEE) whereby English would be the medium of instruction (MoI) in English classrooms (Park, J., 2009; Park, S. & Abelmann, 2004). This had a flow-on effect on a number of different education policy areas including pre-service and in-service teacher education and teacher recruitment (Choi, 2015). In response to this new emphasis on English as the MoI, one area that has seen growth in lifelong and continuing education, beyond traditional English language instruction geared towards increasing proficiency, is ELT education. Graduates of ELT courses go on to find employment as language instructors in both state-run schools and private institutions (so-called *hakwons*[2]) or leverage their newly-minted credentials and skills toward pay rises and promotions. English education can be termed an 'industry' in South Korea, where a considerable percentage of consumer spending is funnelled into private education (of which language education forms a large part) (Chung, 2016). Thus, having a credential or certification can set a candidate for a teaching position apart from other applicants in a saturated and highly competitive education employment market.

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[2] Korean names and terms are represented in English here using the Revised Romanization of Korean (RR) system. Where proper nouns exist in forms not consistent with RR, e.g. family names such as Lee (이) and Park (박), these are used instead.

The case of Central University

It is within this setting that we find *Central University* (CU)[3]. CU is a medium-sized, private women's university in central Seoul, Korea with a student body of 13,020 in 2017[4] and faculty of 470. Although most of the students at CU are women, the university also has undergraduate, graduate-level, and diploma programs that are open to non-Korean (international and exchange) students of both genders, and certificate courses that are open to both genders regardless of nationality. Within the university, the Graduate School of TESOL provides several certificate-level courses that feed into its Master of Arts in TESOL degree. Students that complete the 220-hour adult TESOL or young learner (YL) TESOL certificate programs can transfer credits equal to their first semester of study in either the master's program at CU or several other institutions internationally with whom the graduate school has set up credit transfer agreements. The graduate school additionally offers a TESOL certificate program aimed at those wishing to teach *very* young learners, pre-schoolers aged 3-5 years.

In August 2013, the graduate school decided to start offering a blended option for its adult TESOL and YL TESOL certificates (Rubadeau, 2016), whereby students attend synchronous videoconference lessons for one third of the course (two out of six modules, or four out of twelve class hours per week) and attend face-to-face classes for the rest of their modules. This blended option was first delivered to a group of students in February 2014 and continues to the present. In August 2014, following the first semester of the blended program, a videoconference-based, synchronous, 12-week, 100-hour program was developed in cooperation with a publishing company to complement a commercially-developed teaching knowledge assessment. This agreement has since ended and the graduate school now offers an internally developed, 12-week, 100-hour course.

South Korea is well-known for its Internet infrastructure. Indeed, as early as 2002, Seoul was labelled "the bandwidth capital of the world" (Jordan & Whitney, 2016), while in 2015 the OECD ranked the country first in terms of broadband Internet service (OECD, 2015 in Shin & Suh (2016)). This has meant that South Korea has often been among the first countries to adopt web-based technologies for educational purposes. Indeed, CU features in the literature as one of the first universities in the country to offer teacher training online to over 100 general English, TESOL, and music therapy instructors as early as 1998 (Jung, 2001).

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[3] Pseudonyms have been used for individuals and organizations to maintain confidentiality.
[4] Here, I have avoided citing the source of this statistic to further preserve the anonymity of the university and the participants in the study.

The student population of CU's TESOL certificate programs is largely homogeneous. When looking specifically at the online programs, 100% of students are of Korean ethnicity and female, ranging in age from 25-50 years. Their English language proficiency ranges between B2 and C2 on the Common European Framework of Reference for Languages (with B2 being the minimum proficiency for entrance into the programs). As discussed below, their motivations for joining the programs vary, but are consistent with those espoused in the literature (Hart, 2012; Picciano, 2002). In the following section, each of the modules in CU's programs are described using the Lowenthal-Wilson-Parrish typology (Lowenthal, Wilson & Parrish, 2009) detailed in the literature review (Chapter 3). A breakdown of each module, using the typology, is provided in Appendix 1.

Web-enhanced modules

All of CU's TESOL certificate courses have some element of web enhancement. Upon enrolment, students are assigned a CU email address and login details. CU uses Google's *G Suite for Education*[5], a collection of web-applications for email, word processing, presentations, online cloud storage and videoconferencing. Students also receive unlimited cloud storage for the duration of their enrolment as well as access to the department's learning management system (LMS) Google Classroom. Instructors create an online "classroom" for each cohort of students they teach, posting general announcements, setting up discussion tasks for students to respond to, providing digital versions of documents like course books, reading packets and handouts, and providing links to multimedia and web-based resources. Instructors may also assign written assignments and other assessments through the LMS, which students can complete in-browser and then submit to their instructor. As a result of the various ways in which the LMS is utilized, the department is 90% paperless.

In web-enhanced courses, 100% of instruction occurs in face-to-face settings, yet different instructors utilize the affordances of the LMS and associated tools differently. Some instructors use the LMS as a repository of resources that students access in an ad hoc fashion as the requirements of the course and assessment dictate. Other instructors will more actively utilize the LMS, giving students questions to debate in message board posts, and chances to collaborate with each other on documents using a flipped-classroom model.

With regard to the formality of the courses described here and below, they may be classified as non-formal (optional), which Lowenthal et al., (2009) notes is a kind of education undertaken as some sort of professional development. Students in CU's TESOL

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[5] An overview of G Suite for Education can be found at https://edu.google.com/products/productivity-tools/

certificate programs fall into one of three categories: in-service teachers looking to develop professionally (potentially making the level of formality required non-formal), pre-service teachers who have recently completed an undergraduate degree course, and individuals who are in the process of transitioning careers. The exact motivations of students for enrolling in the CU TESOL certificate courses are sometimes difficult to discern and are not the focus of the present study.

In terms of curriculum fit, each web-enhanced course is part of the overall certificate/credential. In these web-enhanced courses, online work is carried out asynchronously, encompassing tasks and "homework" for students to complete or prepare by their next class. The TESOL programs fit within the typical 19-week semester and each consists of 220 hours of classroom instruction. The development model for these web-enhanced courses is collaborative, with a team of instructors creating content together, but individual instructors have significant latitude to introduce other materials, both online and in face-to-face settings, as required to meet the needs of students. As with all the courses described here, skills development is the focus, though overall there is a move towards higher order thinking and authentic performance as students work towards completing teaching practicum assessments near the end of the semester.

Media integration is variable in these courses depending on the aims of the course and the needs of students. At the very least, students have access to text-based media, but instructors often provide supplementary video content and links to other web-based resources to complement face-to-face instruction. These are provided through the LMS (rather than a 3D world described in the Lowenthal-Wilson-Parrish typology). Again, the amount of instructor engagement is variable, but overall, instructors are probably less engaged in the online aspects of these courses because they see students in face-to-face settings. Communication in the LMS is predominantly student-to-instructor with a variable amount of student-to-student interaction based on the kinds and frequency of collaborative tasks assigned. The instructors in the CU TESOL programs all receive ongoing professional development and training in using G Suite for Education and the LMS, and at the time of this study had all been teaching web-enhanced courses for at least two years (four semesters).

Blended (synchronous) modules

At CU, blended programs follow the same semester timing and curriculum as web-enhanced programs but are offered to students who are unable to take all the classes in person due to scheduling or distance from campus. Instead, students complete two modules online in synchronous videoconference lessons for four hours, one night a week, and attend face-to-face classes for the remaining eight hours of instruction each Saturday. In these blended

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courses, there is a significant increase in the prominence of the LMS as it is the main conduit for instructor-to-student interaction (ISI) as well as communication and collaboration between students. Additionally, students undertake a significantly higher number of asynchronous tasks using the LMS in these courses.

As with the web-enhanced programs, the synchronous courses in the blended programs are modules embedded in a broader credential and fit within the typical 19-week semester of which 80 hours of instruction are undertaken in synchronous videoconference-based lessons and 140 hours are done in face-to-face settings. In terms of curriculum and development, instructors incorporate web and multimedia materials into a course designed in collaboration with other instructors in the department. From a quality control perspective, online instructors in CU's blended courses must create courses that are equal in content and assessment to the face-to-face versions of the course. This is done by regularly meeting with the face-to-face instructors and reviewing and revising content at the end of each semester.

The blended modules target skills development with an eye to authentic performance. For example, students in the Curriculum Design and Lesson Planning course spend time developing lesson plans for English language lessons in their classes, and then deliver those lessons in a practicum or peer-teaching setting elsewhere in the program.

Blended courses feature a variety of audio, video, multimedia and-web based content. In videoconference lessons, instructors are highly engaged and present and attempt to replicate the kinds of classroom interactions used in face-to-face lessons. In the LMS, instructors also are highly engaged and present, providing numerous opportunities for students to collaborate and receive instructor feedback. There is regular communication between instructors and students, both in real-time during videoconference lessons, and by text via the LMS. Students in these courses also collaborate with each other online more frequently than in web-enhanced courses, completing tasks together synchronously and asynchronously in preparation for lessons.

Instructors teaching blended modules are trained and have a significant amount of experience teaching online. For example, one of the instructors has taught the same module online for almost three years (six consecutive academic semesters). Class size in these courses is limited to 14 students due to the technical limitations of the software being used.

Fully online synchronous modules

Fully online synchronous modules at CU are geared towards students that are both unable to come to campus due to scheduling or location, who may want to complete a basic qualification in TESOL as a pathway to further study in one of the other CU TESOL programs. These modules are completed within an accelerated 12-week semester and total 100 hours.

There are no face-to-face components to these programs. In terms of formality, they are categorized as non-formal (optional). In the lessons described in this study, the development model is one where instructors are teaching a course designed and developed by another faculty member. For the most part, the learning target is knowledge formation and text processing.

In these modules, instructors put a premium on replicating the kinds of classroom interactions found in face-to-face settings. Likewise, there is an even larger emphasis put on the use of the LMS since students enrolled in these courses are unlikely to ever be on campus (except perhaps for graduation). Instructors are highly engaged and present in the LMS and students make use of email to communicate with instructors, and the instructors are both trained and experienced in delivering course content. Historically, these fully online synchronous modules have seen the most diverse student population. Compared to the others described above, they have seen a larger number of male and non-Korean students. However, during this study, these courses were made up exclusively of female, Korean students.

Fully online asynchronous modules

CU's fully online asynchronous modules are non-formal (optional) and are one part of a larger credential. They are designed to be completed within an accelerated 12-week semester but are self-paced, with students having to complete the module before the end of the semester. They are 100% online, completed asynchronously and contain no face-to-face instruction. There is much less teacher-student and student-student interaction. Students complete the module by themselves, although collaboration with classmates is encouraged, while the only interactions with instructors come in the form of feedback on mid-semester and final writing tasks. Weekly "self-check" quizzes are automatically marked and returned through the LMS. Targeted learning is solely based on knowledge and memorization of information. In these modules, multimedia content, encompassing video, audio and text-based materials, and self-check quizzes are provided through the LMS. The content of the module is updated and refined at the end of each semester in coordination with the instructors running and teaching the other fully online modules. The age, gender, and ethnicity make-up of the students taking these modules is the same as for the fully online synchronous modules described above.

As Figure 1 below shows, CU is a dynamic context with at least three different modes of online instruction are being utilized (in addition to traditional, face-to-face models): blended (synchronous), fully online (synchronous) and fully online (asynchronous). These employ a combination of LMS and videoconference software to deliver online learning to a mostly homogeneous student population.

Figure 1: Summary of Online courses at Central University
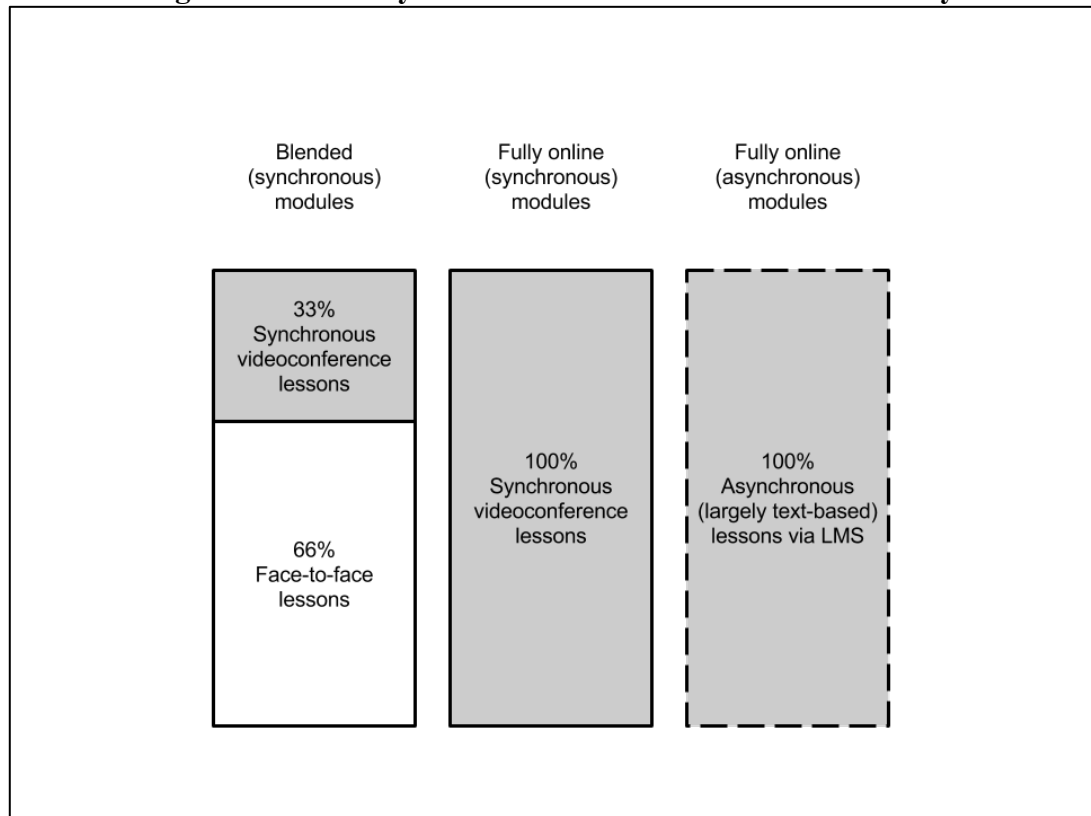
Summary

At CU, there exists a cohort of instructors then, who are engaging in synchronous videoconferencing instruction in a way that is not yet mainstream among practitioners in Korea, and perhaps more widely, and that is not described in any depth in the literature. In conducting this study now, we are afforded a unique opportunity to discern whether there is a relationship between teaching presence and online instructor satisfaction.

Chapter 3 Literature Review

In Chapter 2, I describe the background and context within which this study is to take place, outlining a fairly developed instance of online teaching and learning (OTL) at CU. In this chapter, the literature relating to OTL is explored in order to lay the foundation for the examination of teaching presence and online instructor satisfaction. Relevant research on the Community of Inquiry Framework (CoI), the conceptual framework in which OTL is to be evaluated in this study, is introduced. Online instructor satisfaction is considered, beginning with early research into job satisfaction, before focusing specifically on satisfaction as it applies to online instructors. Finally, in this chapter I consider the importance of the CoI, the importance of online instructor satisfaction, and ultimately the importance of a potential relationship between the two. By considering whether there is a relationship, we are presented with the opportunity to inform future researchers, instructors, and administrators, at a time when synchronous videoconferencing is becoming more mainstream, not only in the fields of TESOL and applied linguistics, but in the field of education as a whole.

The CoI (Garrison, Anderson & Archer, 2000; 2010) encompasses three so-called "presences": social presence, cognitive presence, and teaching presence. CoI encourages the development of deep understanding in students through the development of practical inquiry and critical thinking skills in computer-based OTL contexts (Ibid.). The keystone of CoI is Teaching Presence since it influences the other elements of the framework and how they play out in practice. Teaching presence is characterized by an instructor's actions in relation to the instructional design and organization of a course, discourse facilitation between students and between instructor and students, and by direct instruction. In sum, teaching presence describes the traditional roles and responsibilities of instructors, with their importance and complexity being potentially amplified by the differences inherent to the online medium, such as dealing with the vagaries of computer technology, connection issues, and the feeling of distance and isolation experienced by students.

In terms of scholarly investigation, research into teaching presence occupies a very small amount of the literature, just 3% of articles in an applied meta-analysis of CoI research performed in 2014 (Befus, Cleveland-Innes, Garrison, Koole & Stenbom, 2014). In a breakdown of geographic contexts, some 74% of studies addressing CoI primarily occurred in North American contexts; Australian contexts made up 3%, and Asian contexts are not mentioned. "Other" and "Not stated" made up 11% of the studies analysed, but the composition of these two categories were not explicitly stated (Ibid.). Since teaching presence concerns the roles and responsibilities of instructors, it is surprising that a connection between

teacher presence and online instructor satisfaction appears not to have been explored in the literature.

Instructor satisfaction cannot be ignored, and indeed, relative to teaching presence, has been subjected to a greater amount of investigation drawing on the research of psychologists who have been researching job satisfaction since the middle of the 20th Century (see for example Vroom (1982); Maslow, Frager, Fadiman, McReynolds & Cox (1970); Herzberg, Snyderman & Mausner (1966)). More specifically, online instructor satisfaction has received attention from scholars such as Bolliger & Wasilik (2009), Pollicino (1996) and Rosser and Townsend (2006). The Online Instructor Satisfaction Measure (OISM), validated by Bolliger, Inan & Wasilik (2014), provides researchers with a compelling tool to measure online instructor satisfaction. The measure includes instructor perceptions of interaction in their online lessons, overlapping with the discourse facilitation and direct instruction aspects of teaching presence in CoI. It takes into consideration how instructors feel about the design and implementation of their courses, overlapping with the instructional design and organization and direct instruction elements of teaching presence. It also factors in instructor satisfaction with the affordances of online technology in providing educational experiences to students, overlapping with not only teaching presence, but CoI in its entirety.

To begin a discussion of the literature related to teaching presence and online instructor satisfaction, it is necessary to first attempt to define online teaching and learning (OTL). This is no easy task, considering the amount of debate and lack of consensus on the actual terms used to describe OTL. In addition to definitions present in the literature, some of the issues with defining OTL are discussed below, as well as how favouring a context-driven approach to describing online learning may be advantageous for researchers.

Defining online teaching and learning

Defining what constitutes OTL is problematic. This is due to the different terms, often used interchangeably, that administrators, practitioners, institutions of higher learning, students and the media use to describe what might variously be called *distance learning, e-learning,* or *online learning.* J. L. Moore, Dickson-Deane & Galyen (2011) points to researchers and practitioners such as Lowenthal & Wilson (2010) and Volery & Lord (2000) who have yet to agree on a common definition and nomenclature for describing OTL.

Distance learning

Distance learning in its modern form can be traced back to the mid-19th century, first with the work of Sir Isaac Pitman (M.G. Moore & Kearsley, 2011) in establishing a

correspondence school teaching shorthand, and then the University of London (now University College London) with the establishment of its external program in 1858 (Rothblatt, Muller, Ringer, Simon, Bryant, Roach, Harte, Smith, Symonds, 1988). In its simplest form, the term 'distance learning' refers to the provision of, or access to, educational materials for students, by teachers, who are separated by distance. Neither party is in a brick-and-mortar classroom at the same time engaged in the practice of teaching and learning. With the advent of personal computers in the 1980s and the spread of the Internet in the 1990s, a refinement of this definition was proposed by M. G. Moore (1990) to include the delivery of instructional materials using both print and electronic media (J. L. Moore et al., 2011, p.129). This definition included the possibility of instruction not only being provided with the teacher and learners in disparate locations, but also occurring at disparate times.

In defining distance learning, Keegan (1996) starts his description of the field by stating "the need to clarify terminology in this field is urgent" (p. 33) yet describes distance education as a generic term that "includes the range of teaching/learning strategies used by correspondence colleges, open universities, [and] distance departments of conventional colleges" (Ibid.). As a generic term, distance learning has come to encompass e-learning, online collaborative learning, virtual learning, web-based learning and more. A succinct and useful definition of distance learning as it applies to the current context then is "some form of instruction occurring between two parties (a teacher and student) held at different times, and in different places using different media" (J. L. Moore et al., 2011, p. 130).

E-learning

E-learning as a term is most likely to have been coined during the 1980s, at or around the same time as online learning (J. L. Moore et al., 2011, p. 130). Of the three terms discussed in this section, it seems to attract the greatest amount of disagreement when it comes to what exactly the characteristics of e-learning are. Nichols (2003) argues that e-learning must involve the accessing of educational materials using tools that are web-based, web-capable or otherwise connected to the Internet. Ellis (2004) expands a definition of e-learning to include media and materials such as audio and videotape, television CDs and CD ROMs, that are not necessarily connected to the web. In addition, there is considerable disagreement as to whether the technologies being utilized are the sole determiner of what might be termed e-learning. Tavangarian, Leypold, Nölting, Röser, and Voigt (2004) draws on Piaget (1950) and subsequent constructivist scholars to attach an experiential element to e-learning: "learning has a procedural and active character, which must lead to construction of knowledge by the learner on the background of the learner's individual experience and knowledge" (Tavangarian et al., 2004, p. 273). This suggests that a learner-centred point of

view is needed for the discussion of e-learning. This is of great import to the context to be discussed here, given the connections between constructivism and CoI (Garrison, et al., 2000; 2010). Despite these contrasting opinions, J. L. Moore et al. (2011) concludes their discussion of e-learning thus: "No matter the form it takes; whether application, website […] e-learning can be seen to provide learning and/or educational opportunities for learners" (p. 130).

Online learning

One last term, often used interchangeably, that needs to be considered here is *online learning*. Does online learning describe the context and/or medium that is being used to deliver learning experiences to students, as advocated by Lowenthal et al., (2009)? Or is the use of online learning a descriptor for something that occurs in its entirety "online" as suggested by Oblinger, Oblinger, and Lippincott (2005)? With this question in mind, it is online learning that might prove to be the most difficult to define. Perhaps the best solution then is to turn full circle and come back to distance learning. Online learning, according to Benson (2002), is a continuation of distance learning, albeit with improved access for learners. It is characterized by the same access to materials and learning experiences via different media irrespective of distance or time. Online learning is also characterized by using connected technologies, such as the Internet, and provides opportunities for teachers and learners to interact, share experiences, and ultimately form a community wherein an educational experience occurs.

Given the lack of consensus on terms and definitions discussed above, a more useful way to think about what constitutes OTL might be to consider the proportion of content delivered online in programs and courses at institutes of higher learning. Allen, Seaman, Poulin, and Straut (2016) uses proportionality of online content to describe OTL. Based on the Sloan Consortium's (J. C. Moore, 2002) definitions of online learning that have been used since 2002, Table 1 outlines the proportionality used by Allen et al. (2016).

Table 1: Description of online learning types by proportion of online content

Proportion delivered online	Type	Description
0%	Traditional	No online technology is used. Content is delivered for the most part orally or in written form, and lessons take place in a classroom.
1-29%	Web-facilitated	Web-based technology is used to facilitate what is still essentially a face-to-face course. Instructors use either web pages or a LMS for posting course content and assignments, etc. A place for students to submit work online may also be provided.
30-79%	Blended/hybrid	A blend of online and face-to-face delivery of the course(s) where a substantial component of the course is delivered online. In the early years of OTL, this constituted mostly text-based conferencing, but could now also include various multimedia

Proportion delivered online	Type	Description
		materials. Web pages and/or an LMS is used to post course content and assignments, and to provide a place for students to submit their work.
80+%	Online	Most or all the course content is delivered online via a website or LMS. Typically, there is no face-to-face delivery in the course.

Adapted from Allen et al. (2016)

The benefit of this categorization of online courses is that it has been consistently applied by Allen et al. (2016) for the last ten years in a series of reports commissioned by The Sloan Consortium (now the Online Learning Consortium) on the state of online education in U.S. institutions of higher education.[6] Yet the terminology we use to describe OTL still causes problems for researchers and practitioners, especially when the learning environment in which it is taking place is not described sufficiently (J. L. Moore et al., 2011, p. 34). Online learning cannot be thought of as a single entity (Lowenthal et al., 2009); instead we need to examine OTL through the context in which it is happening. This starts with the categorization by proportion of learning undertaken online proposed by Allen et al. (2016), but the broader context must also be considered.

While more and more emphasis has been put on the importance of context in qualitative research over the last decade, especially in the human sciences (Dellinger & Leech, 2007), Lowenthal et al. (2009) argues that this hasn't held true for examinations of OTL. They note that as an umbrella term, online learning lacks specificity (para. 2). This may be because the characteristics that make up OTL change depending on the context. Lowenthal et al. (Ibid.) provides us with reasons to stay away from what they call "undifferentiated constructs" (para. 4) of online learning: the (negative) impact on research results, the confusion it creates among practitioners, and the (perhaps undue?) influence these undifferentiated constructs have on course implementation. When undifferentiated, or when generic descriptions of online learning (or distance learning or e-learning) are used, it has the effect of influencing administration and educational managers, causing them to hold unrealistic expectations of instructors in terms of process, design and implementation, as well as unrealistic perceptions of success in online program delivery.

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[6] From 2007-2016, the Online Learning Consortium has tracked online learning in the United States with surveys conducted by the Babson Survey Research Group and data collected in partnership with the College Board and sponsored by Pearson. cf. https://onlinelearningconsortium.org/read/survey-reports/

Towards a context-driven typology of online teaching and learning

The difficulty in reaching a consensus in defining OTL discussed above is compounded by the variety of diverse ways in which OTL manifests (J. L. Moore et al., 2011) Instances of OTL can range in diversity from blended courses, and synchronous videoconference lessons discussed in this study, to vocabulary learning via students' mobile phones, as discussed in Stockwell (2015, 2016). Approaching the description of a specific instance therefore necessitates examining the specific context within which it happens. Context here encompasses setting, pacing, curriculum fit, course development, and the kind of learning being targeted in addition to the media utilized. A context-less examination will only serve to confound the attempts of researchers, and confuse practitioners and administrators (Lowenthal et al., 2009)!

To ensure that an accurate description of an instance of OTL is created, the use of a typology can be employed. Harasim (2000; 2006) classifies OTL into three types as seen in Table 2:

Table 2: Harasim's three types of online learning and teaching

Type	Description
Online collaborative learning.	Perhaps the most common form of OTL in higher education settings, this can involve either synchronous or asynchronous instruction, or a combination of the two, with a focus on using these to help students and teachers communicate with each other.
Online distance education.	Harkening back to the correspondence-based study of the mid-19th century, online distance education is the use of technologies for self-study where essentially there is a one-to-one relationship between instructor and student, or at least a one-to-many relationship.
Online computer-based training.	By far the most complex of Harasim's types, online computer-based training refers to the provision of content to students through courseware or individualized learning modules, such as through a massive open online course (MOOC). Yet this is not a collaborative model in which collaboration or communication occurs between instructor and student (p. 63). The advantages of this type of learning are its flexibility, its suitability for on-the-job training and the delivery of just-in-time training (p. 64).

Adapted from Harasim (2006)

Yet these distinctions still prove to be too broad, not providing the detail that allows the researcher insight into specific contexts.

Another typology of online learning comes from the International Association of K-12 Online Learning, and details six characteristics of OTL: instructional pacing, course design, delivery technology, instructor role, communication between teacher and students, and teacher

requirement (Ferdig, Cavanaugh, DiPietro, Black, & Dawson, 2009). These constructs provide a considerably higher level of detail for describing an instance of OTL and underlie the typology described below.

Rather than seeking to define OTL, Lowenthal et al. (2009) provides a typology for describing OTL as it occurs in individual contexts. This typology allows the researcher to pay attention to the 'big picture', in addition to the media being utilized, and examine the instructors and learners in their specific situation. By using this typology, a context-driven description of OTL can be derived, and a much more thorough examination of instructor satisfaction can be undertaken. The typology categorizes the characteristics of OTL into three themes: context, media, and teachers and learners. The table in Appendix 1 summarizes the Lowenthal-Wilson-Parrish typology and provides a critique of some of the components in the notes section.

Since it provides researchers with the opportunity to examine any instance of OTL and describe it in detail, the Lowenthal-Wilson-Parrish typology underlies the description of CU's online modules described in Chapter 1. Detailed descriptions of each module, using the typology, are provided in Appendix 1.

As noted in Appendix 1, the use of 3D worlds such as *Second Life* has not been realized in a way that their proponents expected. In 2012, we might have replaced this section with one on so-called Massive Open Online Courses or *MOOCs*. There are very successful MOOCs, for example Coursera, but as they relate to describing an instance of online learning, MOOCs may have more of a connection to the context (formality, class size, curriculum fit, etc.) than multimedia. Likewise, social networks such as *Twitter* and *Facebook* have added a new dimension to OTL[7] and could alternatively replace 3D worlds.

The Community of Inquiry Framework (CoI) and teaching presence

CoI (Garrison et al. 2000; 2010) is a conceptual model and tool for the use of computer-mediated communication (CMC) in an educational experience. OTL provides practitioners with innovative ways of addressing student needs, but the potential provided by OTL does not equal the eventual obsolescence of traditional educational values and practices. Indeed, the realization of the potential of OTL has actually led to a resurgence in these traditional educational values (Garrison, 2017). In creating deep and meaningful educational

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[7] Ergün and Usluel (2016) provides a useful example of how social networking can be used in online teaching and learning. Of interest to the current study are the affordances provided by social networking in terms of social and (especially) teaching presence presented here.

experiences for students, the establishment of community is fundamental, regardless of whether it is online or in a face-to-face setting. Almost two decades into the 21st century, the development of the *knowledge economy* has led to the expectation that students will matriculate from higher education being able to think independently and critically, while also being able to work and learn collaboratively (Ibid, p. 22). OTL seems uniquely suited to creating and sustaining spaces where a convergence of deep private reflection and meaningful public discourse can occur (Cecez-Kecmanovic & Webb, 2000; Garrison & Akyol, 2015; Johnson & Johnson, 2009).

CoI builds on fundamental earlier work by constructivists like Dewey (1933) and Piaget (1950) that sees education as a shared experience dealing with problems through reflexive and critical thinking and resulting in knowledge formation. Within CoI, critical thinking is seen as a holistic, multi-phased process connected to a triggering event (Garrison et al., 2000, p. 98), followed by group deliberation, thinking and reflection, and then taking some sort of action. Garrison (1997) notes that "computer conferencing" (as he called it in the late 1990s) represented "a new age of distance education, due to its ability to create a collaborative community of learners asynchronously and in a cost-effective manner" (p. 3).

Cognitive presence

The CoI model developed by Garrison et al. (2000) is made up of three so-called *presences*: cognitive presence, social presence, and teaching presence. These work in concert to create an online community of inquiry. *Cognitive presence* in CoI is understood in the context of critical thinking as outlined by Dewey (1933), and represented by three stages: pre-reflection, reflection, and post-reflection. In this process, reflection is key. In a practical sense, cognitive presence is about members of the community of inquiry participating in online or distance education, working together to solve problems. Understanding and knowledge arise from participation in that process. Figure 2 below provides a visualization of CoI that shows the relationship between the three presences.

Figure 2: The Community of Inquiry Framework
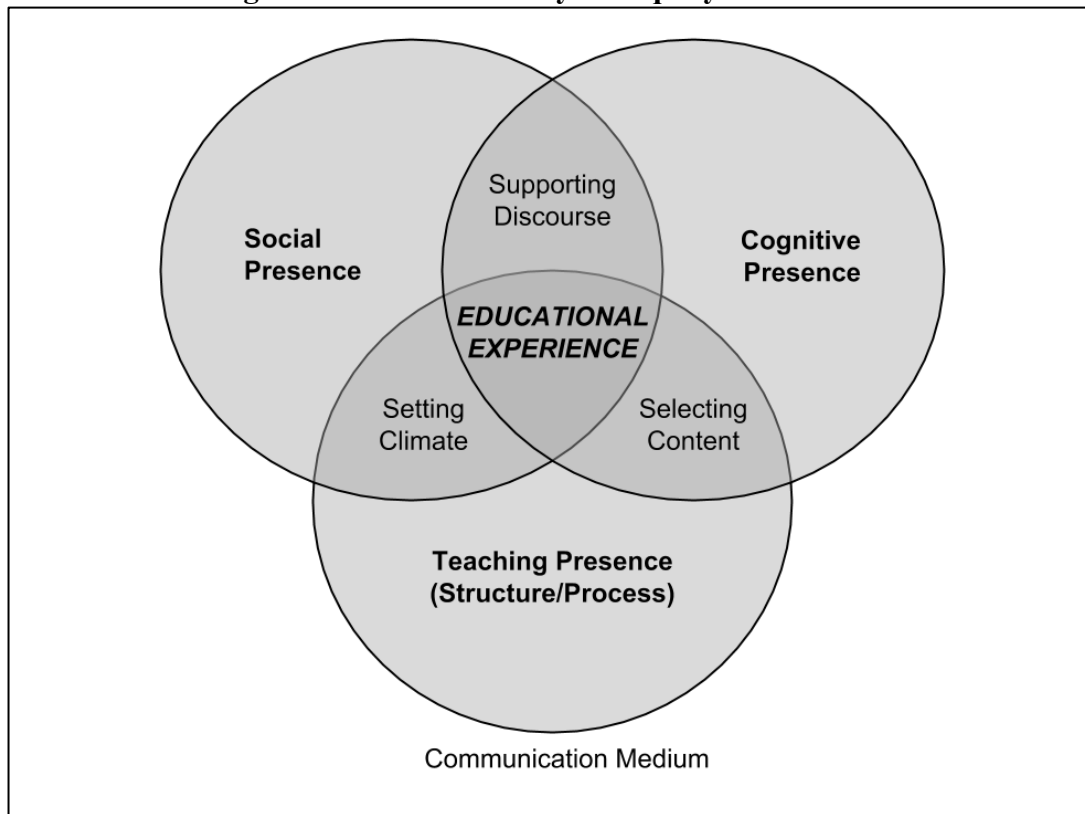
<div align="right">(Garrison et al. 2000)</div>

Social presence

Social presence is characterized by three categories: emotional expression, open communication, and group cohesion within the community. Examples of the kinds of emotional expression that occur within a community of inquiry might include the use of humour and self-disclosure. Open communication refers to reciprocal and respectful exchanges within the community of inquiry, represented by some sort of online exchange. Group cohesion speaks to the sense of belonging to a group. Kucuk and Sahin (2013) finds that, compared to the face-to-face control group in their study, an experimental online group created more group cohesion overall, but that, unlike the control group, the cohesion experienced by the experimental online group took more time to develop. Social presence, therefore, is created by the existence of a safe context in which emotional expression can happen through open communication in the service of creating a cohesive group.

Teaching presence

The third presence is *teaching presence*, described by Garrison et al. (2000) as being "essential in balancing cognitive and social issues consistent with intended educational outcomes" (p. 101). It is important to note that teaching presence is not restricted to the actions of a formally designated "teacher" or "instructor," but, consistent with Vygotsky (1987) and the Zone of Proximal Development (ZPD), any member of the community of

inquiry can take on the role of teacher. That said, the three components of teaching presence identified by Garrison et al. (2000) relate to teachers or instructors in a more formal or even traditional sense.

In the literature, teaching presence is looked at through the lens of a transactional approach to teaching. Critical thinking and practical inquiry occur through interaction between students and instructor (Shea, Hayes, & Vickers, 2010). According to Anderson, Rourke, Garrison & Archer (2001), the online instructor plays three distinct roles: designing and organizing the course (IDO), discourse facilitation (DF) during lessons (p. 3), and providing direct instruction (DI) during online teaching.

The model of teaching presence within CoI has been compared to models by Paulsen (1995) and Mason (1991), both of whom also divide the instructor's roles into three responsibilities. These correspond to Anderson et al. (2001), with the only point of difference being the definition and construction of the social role of the instructor. The social role constitutes a completely separate element in CoI (social presence). Berge (1995) adds a fourth responsibility, that of a "technical" support role, but this role is seen as diminishing over time in CoI as students become more and more adept at using the tools deployed (Anderson et al., 2001). The pedagogical function in the Bergean framework is perhaps a little too broad, and could refer to anything the teacher does, while the "intellectual" functions described by Paulsen and Mason could relate to things other than lesson delivery (Anderson et al., 2001) such as an instructor's personal philosophy on teaching. As such, we can see a progressive refinement over time in the literature of the models of teaching, culminating in teaching presence. This refinement is summarized in Table 3 below.

Table 3: Models of teaching roles in computer conferencing

Anderson et al. (2001)	Berge (1995)	Paulsen (1995)	Mason (1991)
Instructional design and organization	Managerial	Organizational	Organizational
Facilitating discourse	Social	Social	Social
Direct instruction	Pedagogical	Intellectual	Intellectual
	Technical		

(Anderson et al., 2001, p. 4)

Instructional design and organization

This component is related to the planning and delivery elements of designing a course: setting a curriculum, designing the methods that will be used in the lessons, establishing time parameters for tasks, utilizing the online medium effectively, establishing *netiquette*, and making macro level comments about the course. Many practitioners would consider this

"planning" and part of their jobs, relevant to what they do before, during and after the delivery of lessons. The taxonomy of indicators of instructional design and organization (IDO) used in this study are described in Table 4.

Table 4: Indicators of instructional design and organization

Indicators	Example
Setting a curriculum	"This week we will be discussing…"
Design methods	"I am going to divide you into groups, and you will debate…"
Establish time parameters	"Please post a message by Friday…"
Utilize medium effectively	"Try to address issues that others have raised when you post…"
Establish netiquette	"Keep your messages short…"
Make macro-level comments about course content	"This discussion is intended to give you a broad set of tools/skills which you will be able to use in deciding when and how to use different research techniques."

(Garrison, 2017)

Discourse facilitation

According to Garrison et al. (2000), a process that is "challenging and stimulating is crucial to creating and maintaining a community of inquiry" (p. 101). As such the instructor needs to be able to foster group consciousness for the purposes of identifying shared meaning and establishing points of agreement and disagreement between participants in the community, and to be able to identify consensus. The instructor does this through the second component of teaching presence: discourse facilitation (DF). Facilitating discourse is a key component in keeping students involved and engaged in CoI (Garrison et al., 2000; Anderson et al., 2001; Garrison, 2017). In addressing this second part of teaching presence, Anderson et al. (2001) is emphatic in the distinction between establishing and facilitating discourse on the one hand and discussion on the other. The former is characteristic of sustained deliberation in aid of critical thinking, while the latter is a student-centred monologue that seldom moves beyond the exploratory stage of thinking. Through active DF, the instructor can draw in shyer students to make contributions, acknowledge and moderate contributions, reinforce the dialogic rules established thanks to social presence, and "generally facilitate an educational transaction" (p. 101). Table 5 below describes the taxonomy for identifying indicators of DF used in this study.

Table 5: Indicators of Discourse Facilitation

Indicators	Examples
Identify areas of agreement/disagreement	"Joe, Mary has provided a compelling counter-example to your hypothesis. Would you care to respond?"
Seek to reach consensus/understanding	"I think Joe and Mary are saying essentially the same thing"
Encourage, acknowledge, or reinforce student contributions	"Thank you for your insightful comments"
Set a climate for learning	"Don't feel self-conscious about 'thinking out-loud' on the forum. This is a place to try out ideas after all."
Draw in participants, prompting discussion	"Any thoughts on this issue?" "Anyone care to comment?"
Assess the efficacy of the process	"I think we're getting a little off track here…"

(Garrison, 2017)

Direct instruction

Finally, the third component of teaching presence is direct instruction (DI), concerned with the teacher in the classroom (albeit a virtual one) engaged in the practice of teaching. In applied linguistics and TESOL contexts, this is exemplified by providing students with knowledge of form, meaning, and use of target language, appropriate use of guiding and focusing questions to introduce content, summarizing and paraphrasing student contributions and utterances, and providing feedback and error correction. But there is more to DI than just subject knowledge. There is a shared expectation that an instructor's sharing of subject matter knowledge is "enhanced by the teacher's personal interest, excitement, and in-depth understanding of the content" (Anderson et al., 2001, p. 8). The instructor acts as a facilitator in the finest Vygotskian (1987) tradition, and Anderson et al. vehemently rejects the idea of "the guide on the side" when addressing teaching presence, labelling it *"laissez faire,"* and notes that it is not very useful in the promotion of cognition (p. 8), nor does it promote the construction and confirmation of meaning through sustained reflection and discourse. Teaching and feedback mechanisms need to be couched in high levels of social presence and have to be backed up by considerable content knowledge on the part of the instructor as well as pedagogical (or andragogical) understanding. Instructors also need to be able to draw links and connections between disparate sources, from textbooks to multimedia and Internet-based resources, or information from sources beyond texts and readings, including personal

knowledge derived from the instructor's experience (Garrison et al., 2000, p.102). Table 6 describes the taxonomy of DI indicators used in this study.

Table 6: Indicators of direct instruction

Indicators	Examples
Present content/questions	"Bates says _____. What do you think?"
Focus the discussion on specific issues	"I think that's a dead end. I would ask you to consider…"
Summarizing the discussion	"The original question was…" "Joe said…" "Mary said…" "We concluded that…" "We still haven't addressed…"
Confirm understanding through assessment and explanatory feedback.	"You're close, but you didn't account for _____. This is important because…"
Diagnose misconceptions	"Remember, Bates is speaking from an administrative perspective, so be careful when you say…"
Inject knowledge from diverse sources, e.g. textbook, articles, internet, personal experiences (includes pointers to resources)	"I was at a conference with Bates once, and he said _____. You can find the proceedings from the conference at http://www...."
Responding to technical concerns	"If you want to include a link in your message, you have to…"

(Garrison, 2017)

Notwithstanding the potential cost-effectiveness of distance education alluded to by Garrison, one might ask whether or not CoI is any different from an experiential philosophy implemented in face-to-face instruction. The answer to this proposition, in short, is no. The influence of Dewey and practical inquiry sit at its foundation. Kucuk and Sahin (2013) employs a mixed methods approach in a study of 109 learners in online blended and face-to-face courses and found that the only differences between online and face-to-face instruction occur in terms of social presence, and that students in online courses experience greater group cohesion. With regard to cognitive presence, the level of exploration occurring in the online course was significantly higher than in the face-to-face course (p. 149) while no statistical difference was found between the two courses in terms of teaching presence.

Why is teaching presence important?

First, teaching presence is the keystone of CoI, allowing the "simultaneous management of social and cognitive presence, facilitating learning objectives, and inclusion of members in a work group" (Gallego-Arrufat, Gutiérrez-Santiuste, & Campaña-Jiménez, 2015,

p. 84). Garrison, Cleveland-Innes, and Fung (2010) points to teaching presence as having a "significant perceived influence on cognitive presence and social presence" (p. 31). Joo, Lim, and Kim (2011) also provides evidence (from the Korean context) that teaching presence has a significant impact on social and cognitive presence. They state that, instructors and instructional designers need to organize course content and curricula to try and facilitate participation between learners so that they gain a sense of inclusion in their classes, leading to the generation of meaningful learning.

Second, student perception of academic performance is influenced by teaching presence. In discussing academic performance, Yang, Quadir, Chen, and Miao (2016) finds that teaching presence "plays a significant role in predicting learners' learning performance" (p. 17). There is a considerable amount of research that provides evidence for the assertion that teaching presence correlates positively with student satisfaction and perceived learning. Overviews are provided by M. G. Moore (2013), Picciano (2002), and Swan (2001). A study at the SUNY Learning Network (Fredericksen, Pickett, Shea & Pelz, 2003; Shea, Pickett, & Pelz, 2003) shows an important link between student satisfaction and teaching presence. Using end-of-semester survey instruments, the researchers in the SUNY study found that there is a relationship between teaching presence and student satisfaction and perceived learning. Moreover, student perceptions of teaching presence were not only connected to their instructors, but also to their classmates' teaching presence. This is shown by Garrison & Akyol (2015), which provides that teaching presence is not confined to the domain of "teachers." All participants in the community of inquiry can take on a teaching presence role because "each participant not only constructs personal meaning, but also dynamically directs the way in which collaborative meanings are negotiated and constructed in the community" (Yang et al., 2016, p. 13).

Third, teaching presence is important for its role in directing discourse within a community of inquiry. Research showing the importance of teaching presence in ensuring participation and quality of responses is plentiful (Akyol & Garrison, 2008; Garrison et al., 2010; Gašević, Adesope, Joksimović, & Kovanović, 2015; Marks, Sibley, & Arbaugh, 2005; Pawan, Paulus, Yalcin, & Chang, 2003; Richardson, Besser, Koehler, Lim, & Strait, 2016; Shea, Li, & Pickett, 2006; Wu & Hiltz, 2004). Gorsky, Caspi, Antonovsky, Blau, and Mansur (2010) examined forum posts at the Open University and found that in terms of teaching presence, without explicit guidance from an instructor, student contributions were simply "serial monologues" rather than meaningful interactions via posting (p. 53). Meanwhile, An, Shin, and Lim (2009) simply concludes that "appropriate instructor facilitation is necessary" (p. 758) in order to promote knowledge construction.

Fourth, teaching presence is important because of its impact on the development of critical thinking skills in the members of a community of inquiry. Through design decisions, DI, and feedback, instructors foster critical thinking within their students, an important factor in cognitive presence. Consistent with the findings of Gorsky et al. (2010), Stein, Wanstreet, Slagle, Trinko, and Lutz (2013) states that discussion led by learners will engender some critical thinking, but only if done so in combination with the facilitation and feedback that come from strong teaching and social presences (p. 83). Teaching presence is central to the creation of purposeful, deep, and meaningful educational experiences in online and blended environments (Garrison, 2017, p. 77).

Finally, one of the biggest challenges facing OTL is the feeling of isolation that students (and teachers) feel. For example, Bowers & Kumar (2017) cites isolation as one of the factors leading to learners withdrawing from online courses. Given the connection between teaching presence and social presence, and its importance to group cohesion (Garrison, 2017, p. 46), it shouldn't be surprising to find that "instructors who support and moderate communication were also found to support community development" (Brooke & Oliver, 2007, in Garrison & Arbaugh, 2007, p. 77). At roughly the same time, Shea et al. (2006) finds that teaching presence is important because it "is related to students' sense of connectedness and learning" (p. 85).

Teaching presence and videoconferencing

While there have been considerable advances in infrastructure in the last five to ten years that have meant that videoconferencing has begun to enter the lexicon of researchers examining OTL (see for example Lai & Pratt (2009); Roberts (2011); and Pratt & Puller (2013) in the New Zealand context), research in the area of videoconferencing remains underdeveloped (Lawson et al., 2010). However, there has been a handful of studies that have focused on different issues related to the provision of educational content via videoconference. Karal, Cebi, & Turgut (2011) examines student satisfaction while Barbour (2015) and Koeber and Wright (2008) consider the success of videoconferencing at the program level. Yet throughout these studies, any discussion of presence, and especially teaching presence, is absent. Rehn (2017) contains examples of instructors delivering content in live, synchronous, videoconferencing settings, but both she and Murphy (2009) describe teach_er_ presence (as distinct from teach_ing_ presence) in terms of closing the psychological distance gap experienced by teachers and students.

Teaching presence places at the feet of the instructor much of the responsibility for creating the conditions for positive student outcomes in videoconference lessons– a far more complex process than simply compiling a list of Web sites or computer-based resources (Levy

& Stockwell, 2006) and then talking about them on camera. Yet little of the literature sheds light on what happens in these contexts as it relates to teaching presence, let alone instructor satisfaction. Indeed, Murphy (2009), Rehn, Maor, and McConney (2016), and Rehn (2017) stand out as being some of the only research to encompass both the delivery of synchronous online videoconferencing, *and* the unique skills that instructors in these settings need, but not with reference specifically to teaching presence.

Instructor satisfaction

Instructor satisfaction is one of the key components outlined in the Quality Framework for Online Education (J. C. Moore, 2005), which consists of five pillars representing the quality of an institution's online learning offerings. The *Learning Effectiveness Pillar* holds that online students' learning should be at least equivalent to that of students in face-to-face settings (termed "traditional students" according to the framework), although these experiences needn't replicate a traditional classroom necessarily. The *Scale Pillar* relates to an institution's ability to balance costs so that tuition is affordable, yet sufficient to meet ongoing research and development costs and commitments, including those of infrastructure and resources. It is also concerned with leadership, methodologies, and faculty salary. The *Access Pillar* speaks to an institution's provision of meaningful access to courses, degrees, and programs in the students' choice of discipline. This begins with making students aware that there are online options available before they enrol, and continue with academic support (tutoring, advising), administrative support (financial aid and disability support), and technical support (hardware/software) during a course of study. The *Student Satisfaction Pillar* reflects the aspects of the educational experience, and that students are given the opportunity to discuss their satisfaction during and at the end of a course of study with reference to rigor and fairness, professor and peer interaction, and support services. Finally, and most relevant to the present discussion, the *Faculty Satisfaction Pillar* provides that instructors should find the online teaching experience personally rewarding and of professional benefit (Online Learning Consortium, 2017). The Quality Framework for Online Education is useful in providing a list of the personal factors, and contrasting those with institutional factors, that contribute to instructor satisfaction so that instructors "find the online teaching experience personally rewarding and professionally beneficial" (para. 1). It goes further, explaining that there are personal factors and institutional factors that influence instructor satisfaction. Personal factors include "opportunities to extend interactive learning communities to new populations of students" and "to conduct and publish research related to OTL" (para. 2). Institutional factors relate to the amount of support (faculty training and

ongoing technical support), rewards (institutional systems that "recognize the rigor and value of online teaching" (para 2.)), and institutional study/research, provided to the instructor by the institution.

In developing the Online Faculty Satisfaction Survey (OFSS), Bolliger & Wasilik (2009) and Wasilik & Bolliger (2009) describe three areas as influencing instructor satisfaction: student-related factors, instructor-related factors, and institution-related factors. Bolliger et al. (2014) builds on this earlier work as well as J. C. Moore's (2005) definition of instructor satisfaction and concludes that instructor satisfaction is the "perception that the process of teaching in the online environment is efficient, effective and beneficial for the individual" (Bolliger et al., 2014, p. 184). They identify four elements that are important influences on instructor satisfaction: instructor-to-student (ISI) and student-to-student interactions (SSI), affordances (A), institutional support (IS), and course design/development/teaching (CDT). These four elements are expanded upon in Table 7 below.

Table 7: Definition of constructs in online instructor satisfaction

Construct	*Definition*
1. Instructor-to-student interaction (ISI)	Instructor satisfaction derived from the format, type, frequency and quality of two-way communication and interaction with online students in order to facilitate student engagement and learning.
2. Affordances (A)	Instructor satisfaction derived from functionary and potential benefits of the online learning environment in regard to convenience, flexibility, and potential value of providing accessible learning opportunities
3. Institutional support (IS)	Instructor satisfaction derived from the amount, quality, and timeliness of support provided by their institutions to assist them in the effective and efficient design and delivery of online courses
4. Student-to-student interaction (SSI)	Instructor satisfaction gained from the quality and quantity of active communication, interaction, and collaboration among online students that supports and facilitates student learning
5. Course design/development/ teaching (CDT)	Instructor satisfaction derived from the teaching process that involves online course design, development, delivery, and student assessment

(Bolliger et al., 2014, p. 187)

Why is online instructor satisfaction important?

Online instructor satisfaction has not received nearly as much attention and research emphasis as other topics in OTL (Dietrich, 2015), and research into online instructor satisfaction is "extremely limited in the field of higher education" (McLawhon & Cutright,

2012, p. 341). Thus, from a research point of view, online instructor satisfaction is important since it is an area of OTL that needs further investigation. Beyond scholarship, the importance of online instructor satisfaction becomes even greater when viewed in relation to the increasing and rapid growth of OTL. As traditional higher education institutions continue augmenting their brick-and-mortar offerings with online and blended courses, there is an increased number of faculty moving into online teaching (Mandernach, Dailey-Hebert, & Donnelli-Sallee, 2007). The satisfaction of these faculty members needs to be taken into account as the focus of research and also in terms of faculty retention. Online instructor satisfaction is important because of the impact it has on students, as instructors have expressed satisfaction with online learning because it gives greater access to higher education and meaningful educational experiences to a diverse range of students (Bolliger & Wasilik, 2009; Wasilik & Bolliger, 2009; Bolliger et al., 2014).

The study of online instructor satisfaction is complex, difficult to describe and difficult to predict (Bolliger & Wasilik, 2009), which may contribute to the dearth of research on the topic. Yet it is possible to more adequately describe its importance in terms of student-related factors, instructor-related factors, and institutional factors (Bolliger & Wasilik, 2009; Dietrich, 2015; Hogan & McKnight, 2007; Pollicino, 1996).

To understand the importance of online instructor satisfaction necessitates first understanding more general literature on job satisfaction. Maslow et al. (1970) posits that satisfaction in one's job is achieved when the job and the environment in which it occurs meet the needs of the individual. Vroom (1982) builds on the importance of the individual in job satisfaction, and notes that individuals are likely to make decisions about their work that take into account their perceived ability to complete their work to a satisfactory standard and receive some sort of reward for their efforts. When this perception is high, and an individual can make a connection between success and reward, and that reward is valued, the individual's motivation increases, as does their performance, and satisfaction is attained. Hagedorn (2000) incorporates both of these ideas and takes into account the work of Herzberg et al. (1966), which characterizes satisfaction in terms of *triggers* (changes in lifestyle), *mediators* (motivators and conditions in the environment that influence other variables), and so-called *hygienes* (things that demotivate the individual). It is these three factors that Bolliger and Wasilik (2009) looks to when concluding that satisfaction for online instructors is characterized as "the perception that teaching in the online environment is effective and professionally beneficial" (p. 105).

Despite expressing some reservations about the lack of face-to-face communication (Bower, 2001), instructors like the fact that online education allows for high levels of ISI and

SSI. Student performance correlates positively with instructor satisfaction and the level of instructor satisfaction is high where student performance is better (Fredericksen et al., 2000; Hartman, Dziuban, & Moskal, 2000). Instructor satisfaction is also positively influenced when instructors believe that they can have a positive impact on student outcomes (J. C. Moore, 2005). Thus, we see a reciprocal relationship between instructor satisfaction and student satisfaction and outcomes.

Satisfaction can also be evaluated in terms of the relationship instructors have with their institution. While self-gratification, intellectual challenge, and interest in using technology all contribute to satisfaction, professional development opportunities and opportunities for research collaboration have also been identified as factors that influence instructor satisfaction (Al-Zahrani, 2015; Bolliger & Wasilik, 2009). However, these factors are also institution-dependent. Instructors are satisfied only when the institution provides a climate ensuring professional autonomy and activity commensurate to specialized expertise (Pollicino, 1996). Instructor loyalty to their employer then is predicated on perceptions that it is the institution's responsibility to foster a "climate that is conducive to faculty satisfaction" (Ibid., p.3). This climate might be fostered by an acceptance among administrators that online instruction is a normal, albeit specialized, practice. Levy & Stockwell (2006) refers to normalization of Computer Assisted Language Learning (CALL). Here, this is expanded to encompass all contexts where OTL is occurring. Institutions must provide access to working hardware and software (and recognize that OTL has specific hardware and software requirements), technical support, the opportunity for collaboration, faculty training, and accept that activity by faculty and students is *normal practice* (emphasis added) (Ibid., p. 234). Instructors are likely to be more satisfied with their institution when they perceive administration as considering OTL a normal and valid form of teaching, instead of something conducted in addition to, or on the side-lines of "proper teaching", or that simply involves "cutting and pasting" something into an LMS.

From the institution's point of view, instructor satisfaction is crucial for instructor retention, with job dissatisfaction contributing to an instructor's intent to leave (Kim, 2016; Rosser & Townsend, 2006). Institutions desire a high level of retention, especially when instructors are capable of producing the desired high level of work. This relationship between the instructor and the institution is a potential source of conflict and dissatisfaction, and so understanding of satisfaction is crucial in terms of quality of work because of its effect on student persistence and retention (Rosser & Townsend, 2006, p.334). Instructors are responsible for delivering the university's *product* (Bean, 2005), and levels of instructor

satisfaction are often used as a measure of program effectiveness (Lock Haven University, 2004).

Highly satisfied instructors are likely to be more motivated to perform their role as course designers, facilitators of discourse and in the provision of instruction. Katzell, Thompson, and Guzzo (1992) finds that this motivation correlates positively to job performance as evaluated by superiors. It also finds that job satisfaction leads to more job involvement, in turn, involvement influences the level of effort, and that leads to a higher self-assessment of performance by instructors (p. 215).

Online instructor satisfaction is important because it affects instructor motivation (Bolliger & Wasilik, 2009), a fact of crucial importance as instructors are instrumental to the success of programs. As online instruction becomes the norm in higher education, the investigation of satisfaction is important for avoiding instructor burnout (Bolliger & Wasilik, 2009; Hartman et al., 2000; Hogan & McKnight, 2007). Of specific import to the present study is the fact that online instructor satisfaction overlaps with aspects of teaching presence. Specifically, the following constructs are important aspects of both instructor satisfaction and teaching presence: interaction, course design, development and teaching, and the affordances offered by technology in the online environment.

Why is the relationship between Online Instructor Satisfaction and Teaching Presence Important?

Within the literature, the identification of a relationship between online instructor satisfaction and teaching presence is absent. As such, identifying and describing the nature of that relationship is important from the perspective of adding to our understanding of both constructs. Furthermore, by examining the relationship between online instructor satisfaction and teaching presence there is an opportunity to add to a growing body of literature concerned with videoconference-based teaching, the experiences of instructors in these kinds of learning environments, and more general areas of interest like Computer Assisted Language Learning (CALL), and the field of applied linguistics. In order to do so, rather than looking at satisfaction or teaching presence independently, this study uses both constructs and the relationship between them, as Levy and Stockwell (2006) suggest, to capture a range of perspectives that would not otherwise be possible if only one, or the other, was considered in isolation.

Bolliger et al. (2014) defines online instructor satisfaction as the "perception that the **process** of teaching in the online environment is **efficient**, **effective** and beneficial to the individual" (p.184). (Emphasis added). Meanwhile, teaching presence directly relates to the

process of teaching in the online environment in the service of creating efficient and effective educational experiences (Garrison et al., 2000). Figure 3 illustrates the relationship between the constructs of online instructor satisfaction and teaching presence.

Figure 3: Relationship between Online Instructor Satisfaction and Teaching Presence[8]
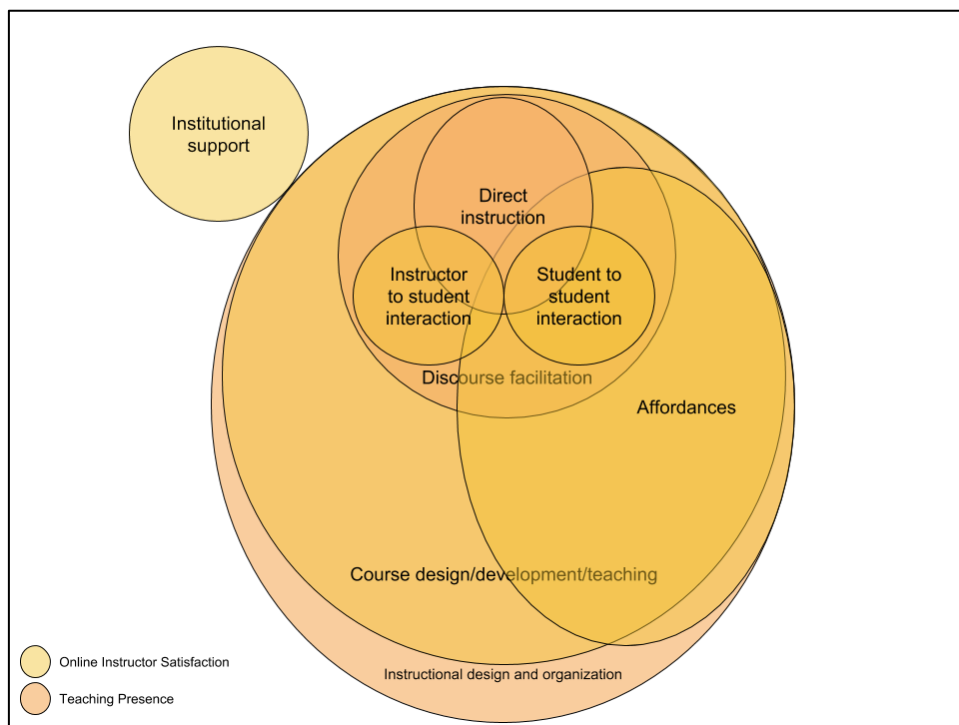
Instructional design and organization (IDO), a constituent part of teaching presence, is synonymous with the Course design/development and teaching (CDT) satisfaction construct. Both encompass what Gallego-Arrufat et al. (2015) refers to as "[…] facilitating learning objectives". The affordances (A) of the online medium influences (and sometimes limits) the design and organizational choices instructors make. This is especially true for instructors as they implement strategies for direct instruction (DI) and facilitating discourse (FD) in their lessons. In turn, discourse facilitation encompasses DI as well as both instructor-to-student (ISI) and student-to-student (SSI) interaction. Here, the plentiful, quality interactions described by Akyol & Garrison (2008), Garrison et al. (2010), Gašević et al. (2015), and Richardson et al. (2016) when referring to teaching presence are exactly those described by Bolliger & Wasilik (2009) and Bolliger et al. (2014) when referring to the satisfactions derived from the format, type, frequency and quality of two-way communication and interaction with online students in order to facilitate student engagement and learning (ISI), and gained from the quality and quantity of active communication, interaction, and

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[8] The Online Instructor Satisfaction and Teaching Presence constructs are not represented to scale in Fig. 3, instead they are organized for legibility.

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collaboration among online students that supports and facilitates student learning (SSI) (p. 187).

Adjacent to the other constructs is institutional support (IS). IS has, as we will see in the following chapters, an important impact on instructor's perceptions of efficacy and efficiency of the process of online teaching and learning. In the literature it is described in terms of an instructor's loyalty to their employer (Pollicino, 1996), and an institution's desire to retain qualified and experienced instructors (Kim, 2016). Institutional support is seen as a precursor to being able to plan and deliver lessons (IDO/CDT) through the provision of physical supports such as hardware and software (A). Instructional design and organization, direct instruction, and discourse facilitation are unlikely to happen without adequate institutional support.

Summary

This chapter has considered the lack of consensus that surrounds the definition of OTL and concludes that a context-driven approach to defining instances of online instruction better serves researchers over the application of generic definitions of variously, distance learning, e-learning and online learning. The Community of Inquiry Framework was introduced, specifically teaching presence, as the conceptual framework that is used to evaluate OTL in the present study. Online instructor satisfaction, and the five satisfaction constructs, were described as a dynamic process arising from earlier work on psychology and job satisfaction. Finally, the nature and importance of a potential relationship between the CoI and Satisfaction was explored.

Chapter 4 Methodology

Introduction

In the previous chapter, the literature related to online teaching and learning (OTL), the Community of Inquiry Framework (CoI) (with particular reference to teaching presence), and online instructor satisfaction was examined. In this chapter, the underlying methodological approach to the study is presented followed by a discussion of the methods used to collect and analyse data.

From late May until early August 2017, a mixed methods case study was undertaken in the Graduate School of TESOL at CU with the aim of answering two research questions:

RQ1. Is there a relationship between teaching presence and online instructor satisfaction?

And if so,

RQ2. What is the nature of that relationship?

To examine the relationship between teaching presence and instructor satisfaction, the case study encompassed three methods: a survey in which the participants completed the Online Instructor Satisfaction Measure (OISM) (Bolliger et al., 2014), interviews with the researcher, and observations of participants in their online videoconference lessons. These three data sets were triangulated to produce a holistic picture, or snapshot, of teaching presence and instructor satisfaction among the participants in their context at CU.

After deciding to undertake a case study, it was tempting to use a model that Stake (1995) refers to as *intrinsic* – where, because the researcher has a genuine interest in the case, the only intent is to understand it better. While this in itself is a worthy, academic endeavour, a *descriptive* case study is a better approach because, in addition to understanding, there is the opportunity to develop a fuller description of the relationship between teaching presence and instructor satisfaction with regard to the context in which it is occurring. In so doing, the researcher is also able to more readily identify their own connection to the phenomenon being studied.

It is no coincidence that Yin (2013) and Stake (1995) have influenced the choice of approach here, since they both consider the development of a case study through a constructivist paradigm that "recognizes the importance of… creation of meaning" (Baxter & Jack, 2008, p. 545). The case study is a social process which seeks to create meaning and understanding through examining the experience of participants and indeed the researcher, and thus holds at its core many of the same epistemological and constructivist tenets central to CoI.

Case design

In developing this case study, four design criteria were considered (Yin, 2013): construct validity, internal validity, external validity, and reliability. In examining the relationship between satisfaction and teaching presence, this study attends to validity and reliability thus:

1. *Construct validity* – accepted definitions from the literature are identified for CoI and teaching presence and are operationalized using a survey (the OISM), interviews, and participant observations. The discussion of online instructor satisfaction benefits from the use of an already externally validated measure along with accepted interviewing methods and coding.

2. *Internal validity* – findings here are clearly and transparently derived from the data, with the relationship between online instructor satisfaction and teaching presence supported by evidence. Where appropriate, rival explanations and inferences about the relationship are put forward or discounted as being less acceptable based on the evidence from the data (Cohen, Manion, & Morrison, 2013, p. 295)

Both construct validity and internal validity are important for being able to describe the nature of the relationship between online instructor satisfaction and teaching presence detailed in RQ2.

3. *External validity* – external validity relates to the researcher's ability to clearly identify the domain in which the results of the study can be applied and otherwise generalized (Yin, 2013). While generalizability cannot be claimed due to the small size of the case study and the impossibility of sampling a larger population of participants, the results of this study may have application to a number of fields (including education) but have specific application to the fields of applied linguistics and the training of English language teachers in computer-mediated contexts.

4. *Reliability* – The results of this study are derived from appropriately operationalized measures and criteria. The goal of reliability is to minimize error and bias in a study (Yin, 2013). Reliability here is buttressed by the use of the OISM, which produced results in this study consistent with those seen in the literature. Finally, double-coding of observations was performed employing a second coder, and a reliability coefficient calculated to further establish reliability.

Regarding bias, especially in interviews, Cohen et al. (2013) notes that "interviewers and interviewees alike bring their own, often unconscious, experiential, and biographical knowledge with them into an interview situation" (p. 204). Of some concern, at least initially,

was the fact that the researcher holds a nominal management/supervisory role within the department leading to potential issues of bias which could negatively impact reliability. The impact could be characterized by participants being less forthcoming if the results from the study might be used in evaluating them (Cohen et al. points to the possibility of the interviewer being regarded as someone who can impose sanctions on the interviewee for example (Ibid.)). This was mitigated by clearly explaining the role of the researcher, the boundaries of the researcher as manager, and how the privacy of the data being gathered would be maintained. As noted below, this was incorporated into the discussion and explanation of the study with the participants prior to them giving informed consent. Issues of researcher roles aside, bias in questioning was also of potential concern. Awareness of bias can contribute to its mitigation, but in order to reduce bias in the interview, a semi-structured interview schedule was designed on the basis of the responses to the OISM. An attempt to keep to the sequence of questions during interviews was made while seeking to allow for some fluidity in interview technique.

Baxter and Jack (2008) notes that "rigorous qualitative case studies afford researchers opportunities to explore or describe a phenomenon in context" (p. 544), especially where a variety of data can be examined. The benefit of this descriptive case study is that it allows the complex interrelationships between teaching presence and online instructor satisfaction as phenomena to be fully revealed. Crabtree and Miller (1999) notes that one of the advantages of a case study approach to research is the close collaboration between researcher and participant. Here, because of the possibility of providing participants with a chance to tell their stories (Crabtree and Miller 1999), and because of the closeness of the researcher to the context, this study attempts to establish what relationship exists between teaching presence and instructor satisfaction and the contextual conditions in which phenomena exist by using appropriately operationalized methods (a survey, interviews, and observations).

As a single case design, this study strives to be clear and unambiguous in describing the circumstances and considering the outcomes of the three operationalized measures it employs (Robson [2002] in Cohen et al. [2013]). It is limited in terms of the number of participants, but it is the hope of this researcher that, as Adelman, Kemmis, & Jenkins (1980). notes, the results can be interpreted and put to use by practitioners and researchers. A larger sample size would increase the breadth of understanding of the phenomena being examined by creating greater diversity among the pool of participants. However, this study still provides a useful snapshot of the phenomena in a specific context. While case studies are sometimes limited in the generalizability of their results, some analytic generalizations are possible (Yin, 2013). These are discussed in Chapter 5. By examining a specific teaching context, this case

study is able to add to and expand upon existing theory and practice, helping researchers to understand other similar cases, phenomena, and situations, and build logical connections between similar cases (Cohen et al., 2013, p. 294).

This case study serves as a first step towards generalizing a broader theory (that of OTL) which can later be tested in an empirical setting, using an experiment, intervention or other appropriate instrument. In the planning, operationalization, and analysis of the data presented, it is clear that there are some issues in attempting to generalize and extrapolate on the typicality and representativeness of the phenomena observed, but we can extrapolate the data with reference to CoI and instructor satisfaction, and by extension test that theory (MacPherson, Brooker, & Ainsworth, 2000, p. 52).

Mixed methods

Mixed methods research is the collection, analysis, and interpretation of both quantitative and qualitative data within a study (Creswell, 2009; Creswell & Tashakkori, 2007). A mixed methods approach was selected here because at the beginning of the research period, it was unknown whether there was a relationship between teaching presence and online instructor satisfaction, or what the nature of that relationship might be. A mixed methods approach allows for the examination of these phenomena from both a qualitative and a quantitative perspective. This is useful because, when it comes to teaching, examining instructor actions, and the dynamic environment of an online lesson, it seldom matters how much systematic planning has gone into the delivery of content by an instructor (or indeed, systematic planning of observation by a researcher). Instructors (and researchers) in an online lesson need to be aware of and remain responsive to a plethora of student responses, technical issues, interactions, and other possible phenomena. These phenomena cannot be fully described using a single method, whether experimental or descriptive.

Employing a mixed methods approach here allows for the triangulation of responses from three sources and allows for different perspectives to be taken into account. One way of conceptualizing the sources of data for this study is on a continuum where the OISM provides participants the opportunity to rank their perceptions of satisfaction, interviews provide them the opportunity to expand on those responses, and observations yield accounts of phenomena as they occur in participants' lessons. This sort of methodological pragmatism is advocated by Onwuegbuzie and Leech (2005) and allows for what Reams and Twale (2008) terms the "uncovering of information and perspective, increased corroboration of data and rendering of less biased and more accurate conclusions" (p. 133 cited in Cohen et al., 2013). Taken together, these methods yield results from which the researcher can better make inferences

concerning phenomena (Teddlie & Tashakkori, 2009, p. 35) that can be utilized to address the research focus, that can serve as a foundation for later research, and perhaps most importantly, can inform practitioners in their day-to-day teaching.

Methods

During the research period, participants completed the OISM, were interviewed, and were observed in online videoconference lessons. The results of the analysis of data from these three methods are presented in the next chapter. Approval for research involving human subjects was granted for this study by the Faculty of Human Sciences Human Research Ethics Sub-Committee of Macquarie University, effective 17th May 2017. Approval to conduct this study and collect data was also obtained from the director of the Graduate School of TESOL at CU with the explicit understanding that data gathered would not be used in any way to evaluate the instructors taking part in the research.

Participants, recruitment, and consent

As indicated previously, participants in this study were members of the faculty of the Graduate School of TESOL at CU. To recruit participants, emails were sent to all faculty members by the researcher outlining the purpose of the study, detailing potential risks and how confidentiality of responses would be maintained. Participants were provided with a consent form (see Appendix 3) via email and then met with the researcher in person to discuss the study and give their informed consent. In addition to the instructors, 27 students participated in this study by being present during lesson observations. While not the main focus of the study per se, the students necessarily formed the other half of the interactions observed during lessons and discussed here. Student participants were provided with the same information outlining the purpose of the study, potential risks, and issues of confidentiality. The consent form was provided to them via their learning management system (LMS) in both English and Korean for their review. Prior to observations, the researcher met with students via videoconference (and in person for the blended group), explained the principle of informed consent and the purpose of the study, and answered student questions. Students returned their consent forms via the LMS.

Online Instructor Satisfaction Measure

The OISM (Bolliger et al., 2014) examines the five constructs of instructor satisfaction (discussed above in Chapter 2, Table 7): affordances (A); instructor-to-student interaction (ISI); course design/development/teaching (CDT); institutional support (IS); and instructor-to-student interaction (SSI). It's use in the present study allows for the development of a somewhat quantitative profile of participant's perceptions of their satisfaction - essential in

developing an understanding of the satisfaction constructs in response to RQ1.The OISM is a previously validated tool for measuring instructor satisfaction (Ibid.) and was administered to the participants at the start of the research period. Participants were asked to indicate their level of agreement with 27 5-point Likert scale items relating to their satisfaction with online teaching. The points on the Likert scale were 1. Strongly disagree, 2. Disagree, 3. Neither disagree or agree, 4. Agree, and 5. Strongly agree. The OISM was recreated in Survey Monkey, a commercial, web-based survey builder and data collection/analysis tool. Participants were sent a link to the survey, which they then completed online. The first part of the measure gathered demographic data about the participants and prefaced the gathering of data relating to instructor satisfaction in the OISM proper:

A. Instructor to student interaction (ISI)
   a. I am pleased with the quality of student work in online courses.
   b. I am satisfied with students' motivation in online courses.
   c. My online students are somewhat passive in their interactions
   d. My interactions with online students are satisfying.
   e. My online students participate enthusiastically.
   f. I do not get to know my online students well.
B. Affordances (A)
   a. I am satisfied with the convenience of the online learning environment.
   b. Online courses provide a flexible learning environment
   c. Online courses allow students to access a wide range of resources.
   d. Online teaching allows me to reach a more diverse student population.
   e. I am satisfied that my students can access their online course from almost anywhere.
C. Institutional Support (IS)
   a. At my institution, teachers are given sufficient time to design and develop online courses.
   b. My institution provides the necessary technology tools (equipment and software) for teaching online.
   c. My needs for training to prepare for teaching online have been met.
   d. I have adequate technical support by my institution.
   e. My institution provides fair compensation or incentives for teaching online.
   f. I am satisfied with online teaching policies that have been implemented by my institution.
D. Student to student interaction (SSI)
   a. My online students actively collaborate.
   b. My students work well together online.
   c. My online students share resources with each other within the course.
   d. My students appear to be part of an online community in the online course(s) that I teach.
   e. In online courses, each student has an opportunity to contribute.
E. Course design/development/teaching (CDT)
   a. My online students receive quality feedback.
   b. It takes a lot of time to develop an online course.
   c. I am accessible to students in online courses.
   d. I am satisfied with how I assess students in online courses.
   e. I am satisfied with the content quality of my online courses.

The responses to the survey items were exported from Survey Monkey into Microsoft Excel for quantification and analysis, and the creation of graphic representations of participant responses was performed. To check the validity of the instrument in the current context, the OISM was administered as an informal pilot to a former member of the faculty to check for intelligibility and relevance. A more formal/substantial pilot was not feasible due to the small number of potential participants and the lack of pilot participants with the relevant profile.

Interviews

To obtain more in-depth qualitative data about instructor satisfaction, a 40-minute interview was designed. These face-to-face interviews were recorded using a digital audio recorder and the resulting audio files were stored in secure, password protected cloud storage.

The use of a face-to-face interview here was a chance for the researcher to really be provided with access to "what is inside [a participant's] head" (Tuckman, 1972, p. 244) and give participants the chance to expand on their attitudes and beliefs surrounding the context and their actions as online instructors in CU's TESOL programs. Interviews have a higher response rate than questionnaires because "respondents become more involved [in the process] … enabling more to be said about the research… and are better for handling more difficult and open-ended questions" (Oppenheim, 2000, pp. 81-82). The interviews were semi-formal with a predetermined set of topics and possible questions, but the interviewer was free to modify the sequence of questions as needed, responding to key issues as they arose (Cohen et al., 2013). A series of brief, introductory questions was asked to establish rapport with the interviewee and gather data on their experience as a teacher generally and as an online instructor. Then, questions geared towards expanding on the themes brought to light by the OISM were asked. These questions reflected topics highlighted in the literature (Conrad, 2002; Meyer, 2006): experience with course design/development/teaching, thoughts on the affordances provided by online learning (for both instructors and learners), thoughts on the styles of interactions occurring in online classes, and perception of the level of institutional support received as an online instructor. The rationale for including the interview was to provide participants with a space in which to share their experience and reflect upon their online teaching over the last three to four years in the programs at CU.

Audio files of interviews were then transcribed, and transcriptions entered into NVivo (QSR International, 2017), a computer assisted qualitative data analysis (CAQDAS) (Cohen et al., 2013, p. 542) program for coding and analysis. Analysis involved examining the frequency with which satisfaction constructs were mentioned by participants, as well as identifying themes emerging from each interview and cross-referencing them with the

responses of the other participants in order to identify commonalities (also done using NVivo). Question reliability was checked by conducting a sample interview with a former faculty member in an informal pilot. Questions were found to be understandable and provided the kinds of data that align with those produced in this study. The validity of the interview questions was also confirmed because they were shown to align positively with the results of the OISM. Interviews provided data that were pertinent to both RQ1 and RQ2, allowing participants to explain their perceptions of their own satisfaction and elucidate on their experiences in online teaching and learning.
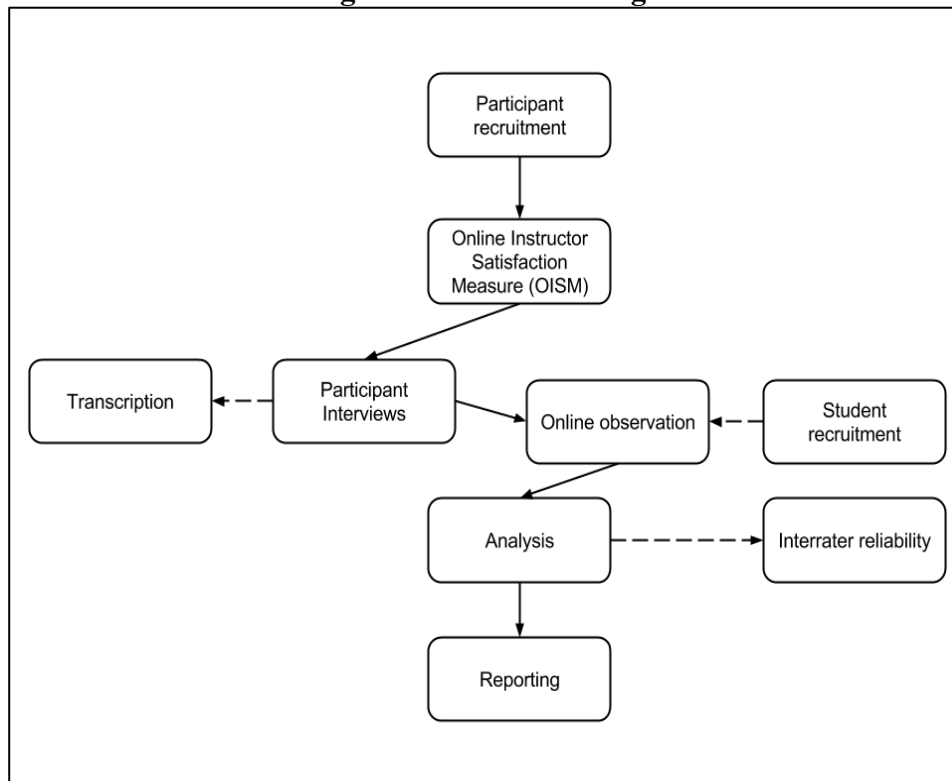
Observations

For gathering data about teaching presence in online videoconference lessons, four of the participants' lessons were observed. The researcher and four of the participants chose lessons to be observed based on schedule and participant preference. The researcher joined the lessons remotely. In some cases, this meant that both instructor and researcher were in two offices adjacent to each other, whereas in other cases, the participant and researcher were in different parts of the city (Participant Ray, for example, taught from home while the researcher was in their own home – such are the affordances of OTL!). During observations, the researcher acted as what Gold (1958) refers to as *the complete observer* (in Cohen et al., 2013). In an online videoconference observation, it is very easy for the observer to be unseen and have their presence go unnoticed by the group being observed. During the observation, the researcher joined a videoconference lesson remotely, just like the participants, and remained with their audio and video switched off for the duration of the lesson. Unlike an observation in a physical space, the only evidence of the researcher observing videoconference lessons was their onscreen avatar. This was done with awareness of and intention of reducing (but not eliminating completely) the phenomenon of so-called reactivity, whereby participants change their behaviours because they know they are being observed.

Four hours of online lessons for each participant were recorded using Open Broadcast System desktop software. The resulting video files were stored in secure, password protected cloud storage. The video from these lessons was then reviewed in NVivo and the frequency and type of each of the teaching presence indicators (Garrison, 2017) were noted. Chapter 2 details each of the teaching presence indicators used. The fifth participant was "observed" in terms of their asynchronous, text-based interactions with students via the LMS, Google Classroom. RQ2 was addressed by making connections between data gathered in interviews and the OISM with the frequency of indicators of teaching presence observed in participant's videoconference-based lessons.

Summary

The choice of a mixed-methods, descriptive case study here has seen the operationalization of a survey, interviews, and observations in an effort to identify and describe the relationship between teaching presence and online instructor satisfaction for a group of instructors in a specific context. During the collection of data, it was important to take into account the potential for bias to arise due to the closeness of the researcher to the context and the participants. Bias was mitigated through gaining informed consent from participants and using a semi-structured approach to interviews. The reactivity of participants in observations was limited thanks to the affordances of videoconferencing. Data from the three different sets allowed for the triangulation of participant responses. The research design for the case study is summarized in Figure 4 below.

Figure 4: Research design

After recruiting participants, the OISM was administered. Interviews and observations of videoconference lessons occurred concurrently and were conducted depending on individual schedules of the participants. During the interview process, transcriptions from audio were created and reviewed as they were completed. Prior to online observations student recruitment also took place. Finally, after the data was gathered from these three sources it was analyzed, including for interrater reliability.

Chapter 5 Results

Introduction

In the preceding chapter, I outlined the operationalization of methods for collecting data. In this chapter, the results of the Online Instructor Satisfaction Measure (OISM) are presented along with results obtained from the interviews and observations.

The mixed methods approach used in this study seeks to discover if there is a relationship between teaching presence and online instructor satisfaction and describe that relationship. The data presented in this chapter provides a more holistic representation of the participants and the context in which they operate. In the next chapter, these results will be interpreted and their implications for the identification and description of the relationship between online instructor satisfaction and teaching presence will be considered.

Survey data was gathered from the study participants using the OISM (Bolliger et al., 2014) which was distributed online. The survey consisted of one section seeking demographic information about the participants and five sections relating to their teaching satisfaction. The responses reported in this section fall on a five-point Likert scale ranging from "strongly disagree" to "strongly agree".

Next, the five participants in the study were interviewed in a one-on-one, semi-structured interview. Interview questions expanded on the themes that came out of an initial examination of the results of the OISM (see Appendix 4). Finally, observation of online videoconference lessons conducted by the participants provide a third perspective on instructor satisfaction and its relationship with teaching presence. Additionally, one instructor's text-only instruction was analysed to provide a comparison with the online videoconference lessons. While these observations yielded rich qualitative data, the potential for examining trends was also exploited to the extent of identifying general positive and negative responses in interviews and looking for evidence of teaching presence indicators in observations.

Participant profiles

The five participants in this study are full-time faculty members in CU's Graduate School of TESOL certificate programs and have been teaching online for between one and three years in web-enhanced, blended, or fully online courses, in either synchronous or asynchronous modes. The age of the participants ranges from 33 to 54 years. Two instructors

("Michelle" and "Esther") are female, and three ("Grant," "Martin," and "Ray")[9] are male. All have postgraduate degrees in education or applied linguistics and have taught at levels ranging from kindergarten to university/postgraduate. Additionally, one participant holds an industry certification in network systems engineering. Three of the participants are originally from the Midwest region of the United States, one is from the west coast of the United States, and one is from the north of England. The participants have resided and worked in South Korea for between 4 and 15 years. Two of the participants have previously held positions as English Language Fellows with the US State Department in various parts of the world, two are trained K-12 teachers, and one is currently pursuing a Doctor of Education in instructional design through a United States-based university.

Participants have a mix of experience when it comes to designing online courses for use in CU's programs, but all have taught each of the distinct types of modules offered at CU during their time in the department. When the department began delivering online instruction in 2014, instructors were provided with approximately four hours of in-person training in how to use Blackboard – a commercial Content Management System (CMS) licenced by the department. An additional two hours of in-person training was provided to participants when the department changed to G Suite for Education for its CMS, with ongoing training occurring at least once a semester and as needed, usually in response to Google updating aspects of its platform. This study examined the participants' teaching in the following types of modules and subject areas:

- Esther – fully online, synchronous (videoconference) –language teaching methods
- Michelle – blended, synchronous (videoconference) – curriculum design
- Martin – fully online, synchronous (videoconference) – materials development
- Ray – fully online, synchronous (videoconference) – phonology
- Grant – asynchronous (text-based/LMS) – second language acquisition theory

Detailed results - the Online Instructor Satisfaction Measure

In total, the highest score in any of the instructor satisfaction constructs outlined below is that of affordances, meaning that the participants in the survey derive a high level of satisfaction from the flexibility provided by the online environment. The lowest score is for the institutional support construct. Institutional support also produced the highest variation in responses, despite the participants all belonging to the same department in the same university.

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[9] Participant pseudonyms are used here.

This may also be reflected in the unexpectedly different scores among respondents for the question relating to the provision of the necessary technology tools (equipment and software) for teaching online. In this section, overall results from each part of the OISM are reported along with a summary of individual participant responses.

Figure 5: Participant perceptions of instructor-to-student interactions (ISI) in online courses
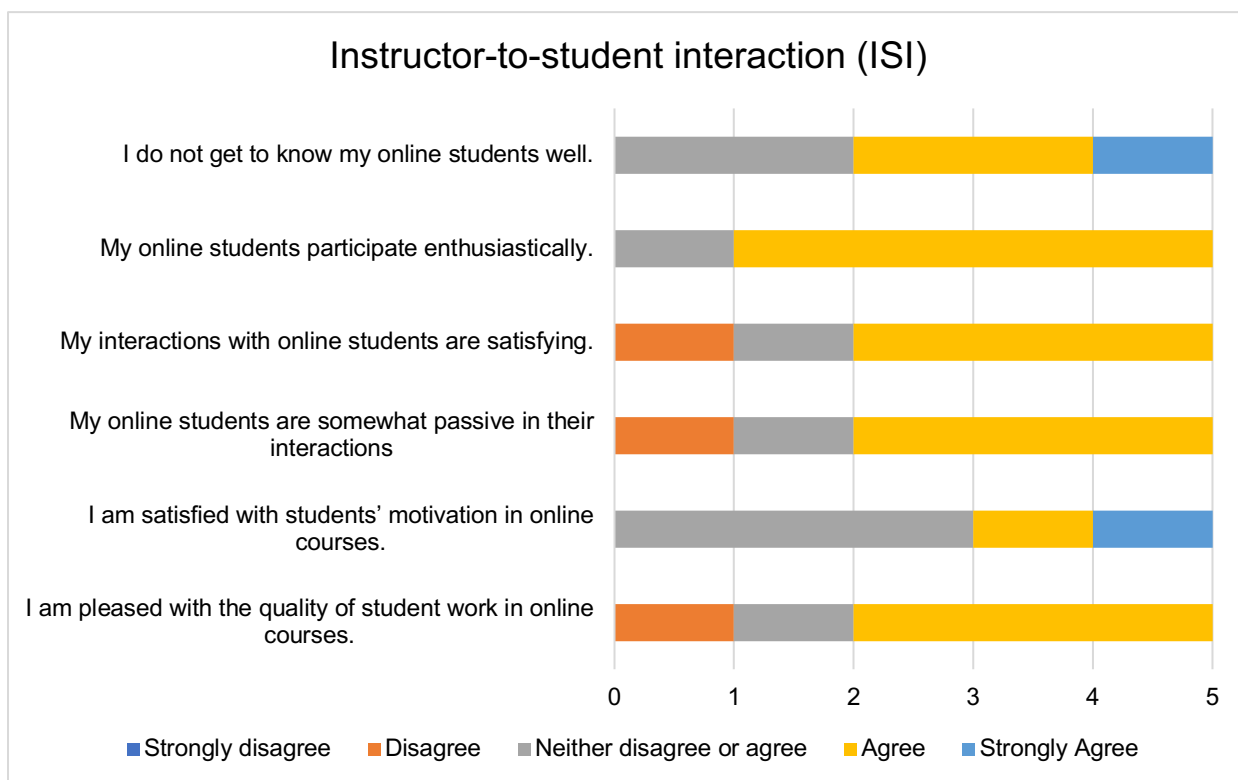
Figure 5 above details the participants' responses to statements regarding the quality and quantity of their interaction with their students. In response to the statement "I do not get to know my online students well", three of the five agreed (1 "strongly agree," 2 "agree") and two neither disagreed or agreed. Four considered their students' participation to be enthusiastic, while one neither disagreed or agreed. In terms of their own interactions with students being satisfying, one instructor disagreed, one neither disagreed or agreed, and three agreed. With reference to student passiveness in interactions in online courses, three instructors agreed that their students are passive, one neither disagreed or agreed, and one disagreed. Two instructors agreed that they were satisfied with their students' motivation in online courses (1 "agree," 1 "strongly agree"), and three neither disagreed or agreed. Finally, three instructors agreed that they were satisfied with the quality of student work in their online courses, one neither disagreed or agreed, and one disagreed with this statement.

There is something of a contradiction in the responses to this section overall. All the instructors agree that their students participate enthusiastically in online courses, and yet, four out of five believe that students are somewhat passive in their interactions. (The exception to
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this being Michelle who disagreed that her students are passive in their online interactions and strongly agreed that she was satisfied with her students' motivation.) When thinking about ISI, Martin provided responses that showed less satisfaction with ISI than did the other instructors. He disagreed with the statement "I am pleased with the quality of student work in online courses", while also disagreeing that his interactions with online students were satisfying. Martin could neither disagree or agree that he was satisfied with his students' motivation in online courses and believes that his online students are somewhat passive in their interactions ("agree"). He strongly agreed that he does not get to know his online students well.

Figure 6: Participant perceptions of the affordances (benefits) that teaching online provides
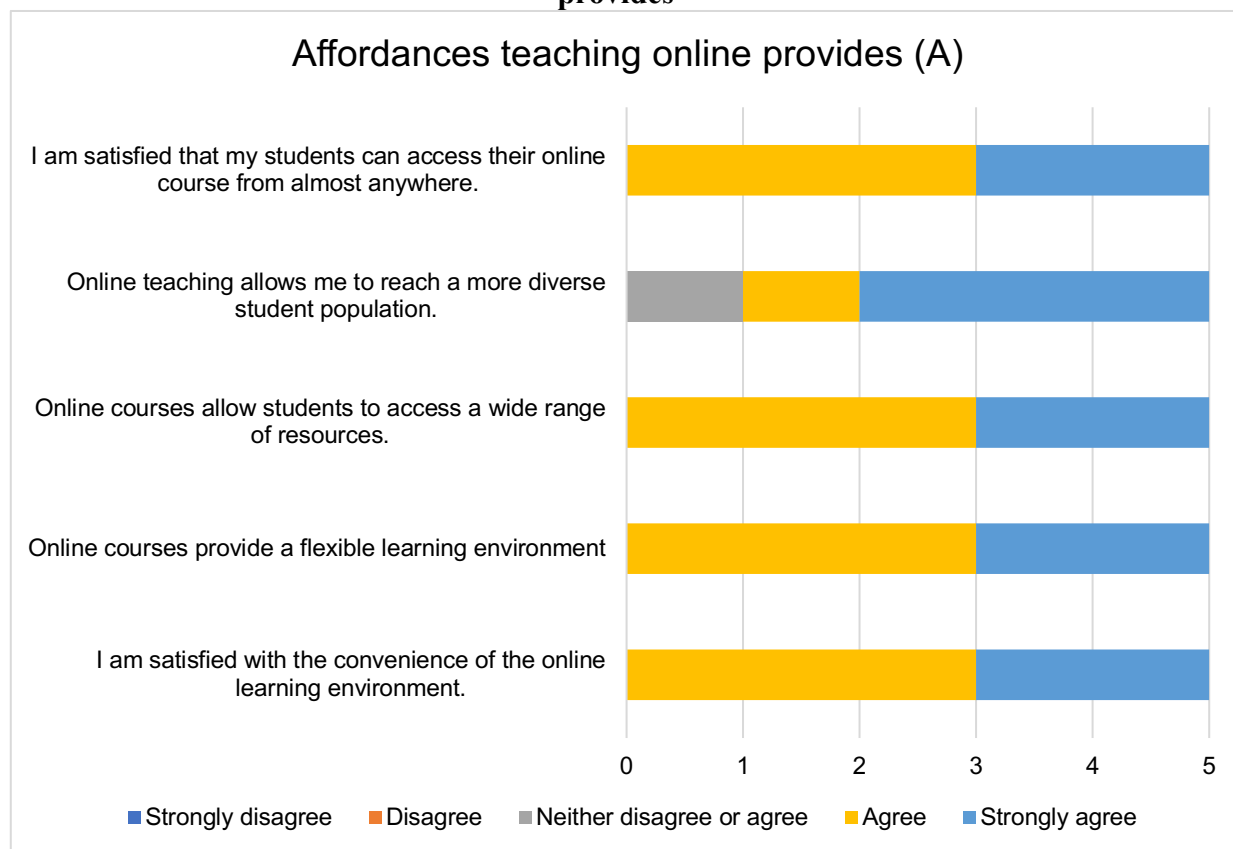
As can be seen in Figure 6 above, overall the instructors are satisfied with the affordances offered by OTL. When considering the affordances (benefits) that teaching online provides, all of the instructors agreed (3 "agree", 2 "strongly agree") that they were satisfied that their students can access their online course from almost anywhere. Four agreed (1 "agree, 3 "strongly agree") that online teaching allows them to reach more diverse student populations, while one instructor neither disagreed or agreed. All instructors agreed (3 "agree", 2 "strongly agree") that online courses allow students to access a wide range of resources. All agreed (3 "agree, 2 "strongly agree") that online courses provide a flexible learning

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environment, and finally all agreed (3 "agree", 2 "strongly agree") that they were satisfied with the convenience of the online learning environment.

On a personal level, both Esther and Ray strongly agreed to all the statements in this section and their enthusiasm for OTL is also evident in their responses during interview (discussed below). Only Martin provided a response that didn't agree to some extent with these questions, neither disagreeing or agreeing that OTL allows him to reach a more diverse student population. This may have been because he was thinking specifically about CU's student population, which, as discussed above, is homogeneous, while the other instructors may have been thinking about the affordances more abstractly.

Figure 7: Participant perceptions of institutional support (IS) received while teaching online
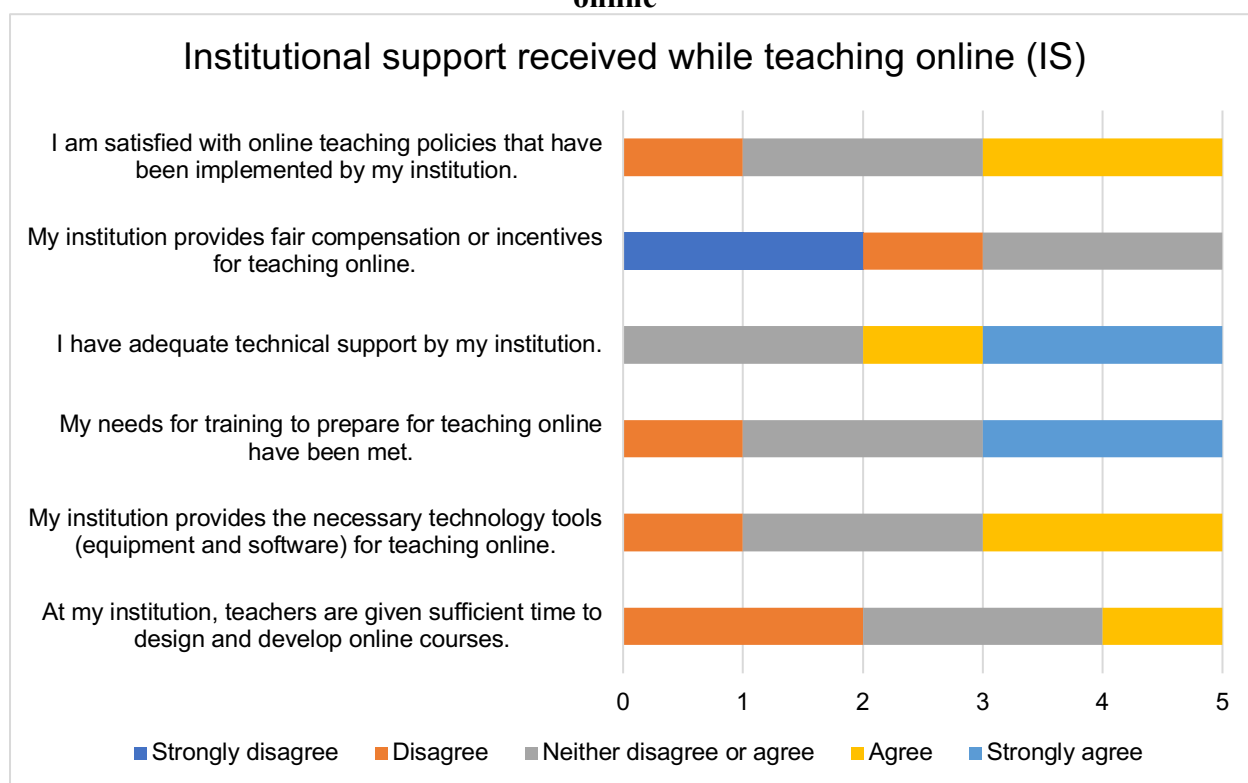
With regard to institutional support (IS), Figure 7 above shows that the participants provided the highest number of "disagree/strongly disagree" responses in this section, indicating a higher level of dissatisfaction among instructors compared to other parts of the measure. One instructor disagreed, two neither disagreed or agreed, and two agreed in response to the statement "I am satisfied with the online teaching policies that have been implemented by my institution." Three instructors disagreed (2 "strongly disagree", 1 "disagree") that they are provided with fair compensation or incentives for teaching online, while two neither disagreed or agreed. When asked to consider the technical support provided by the institution, three agreed (1 "agree", 2 "strongly agree") that it was adequate, and two

neither disagreed or agreed. Two instructors strongly agreed that their training needs for teaching online were met, two neither disagreed or agreed and one disagreed. Concerning technology tools, two instructors agreed that they were provided with the necessary equipment and software, two neither disagreed or agreed, and one disagreed. Finally, with regard to being given sufficient time to design and develop online courses, one instructor agreed that they were given sufficient time, two neither disagreed or agreed, and one disagreed.

Ray and Grant both strongly disagreed that their institution provides fair compensation or incentives for teaching online, and Michelle disagreed, while Martin and Esther neither disagreed or agreed. Interestingly Ray and Grant also disagreed that at their institution they are given sufficient time to design and develop courses, while Martin and Michelle neither disagreed or agreed and only Esther agreed, leading one to posit that there may be an association between perceptions of sufficient planning time and compensation. Overall, the participants derived the least amount of satisfaction from this construct.

Figure 8: Participant perceptions of student-to-student interaction (SSI) in online courses
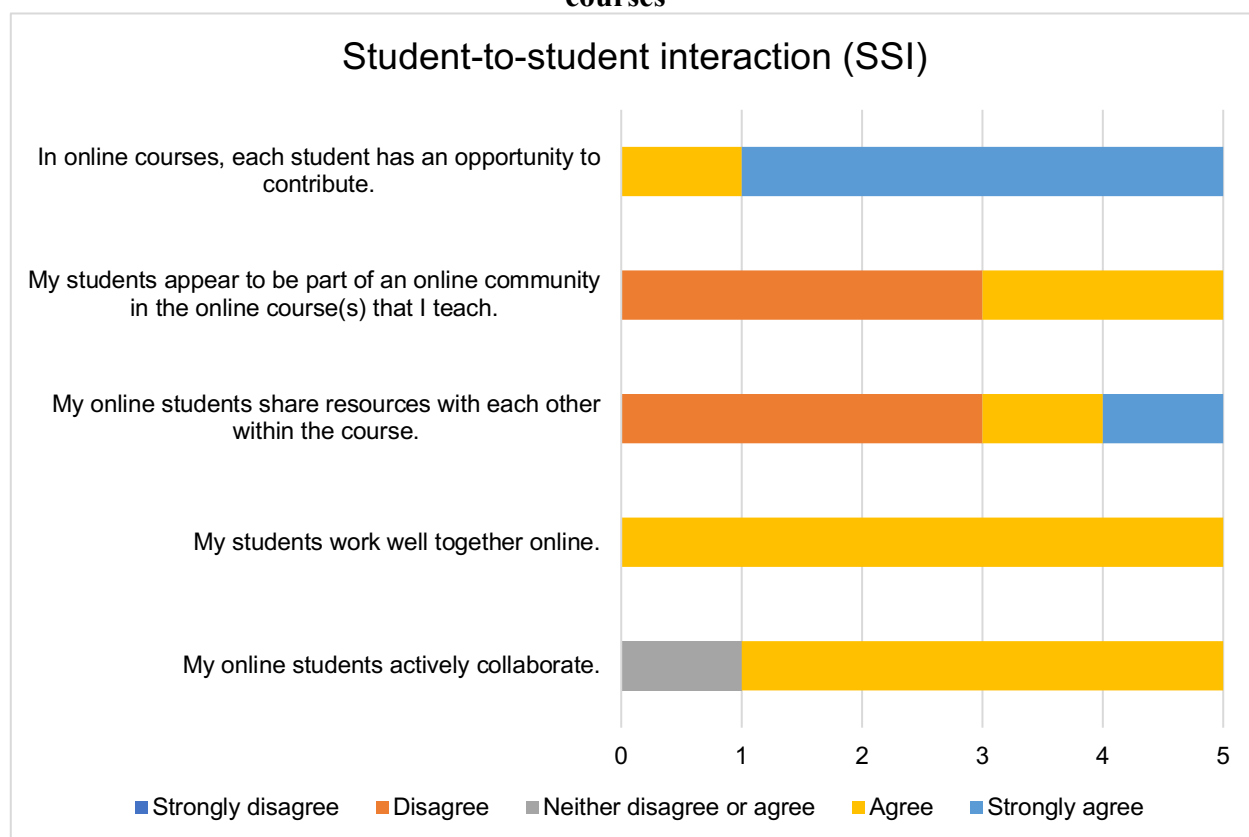
In contrast to the IS levels, the participants gave a mixed response toward the quality and quantity of student-to-student interaction (SSI) they witnessed online (see Figure 8 above). All five of the instructors agreed (1 "agree", 4 "strongly agree") with the statement that "In online courses, each student has an opportunity to contribute." Three instructors disagree that

students appear to be part of an online community in the online courses they teach, and two agree. Two agree (1 "agree", 1 "strongly agree") that students share resources with each other within the course, while three disagree. All instructors agreed that their students work well together online. Four instructors agreed that online students collaborate and one neither disagreed or agreed.

Martin disagreed that his students share resources with each other within the course, yet agreed that students do, in fact, actively collaborate. Grant agreed that students appear to be part of an online community in the online courses he teaches but disagreed that students share resources with each other within the course. It is possible that this potential contradiction arises because instructors made a distinction between the potential for students to interact and collaborate with each other, versus the actual interaction and collaboration they observed or were aware of in their classes. Overall, the instructors seem to share a moderate level of satisfaction with the quantity and quality of SSI in their courses but appear to derive that satisfaction from opposing perceptions of student collaboration.

Figure 9: Participant perceptions of course design/delivery and teaching (CDT) in online courses
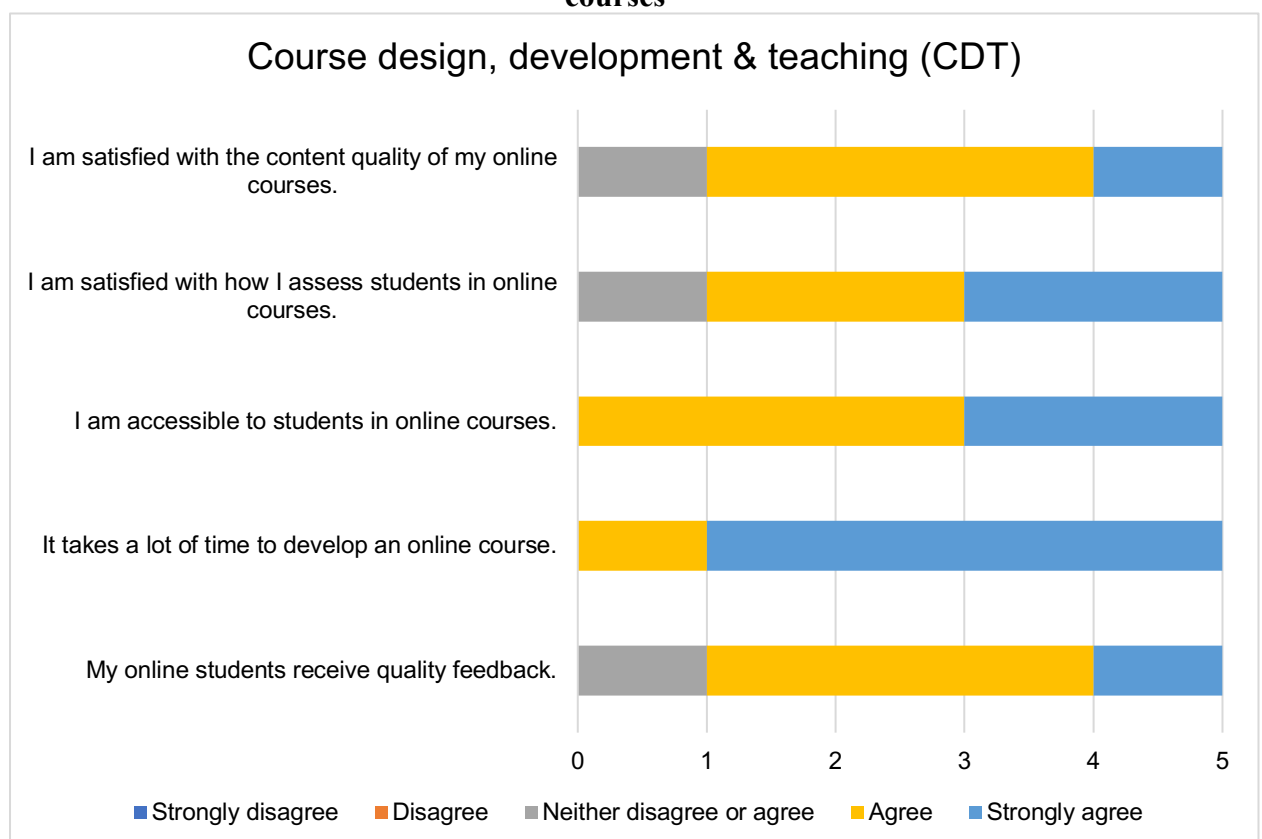

Figure 9 shows that the instructors derive a high level of satisfaction from the design, development and teaching of online courses (CDT). Four out of the five instructors (3 "agree", 1 "strongly agree") reported that they were satisfied with the quality of the content in their online courses and one neither disagreed or agreed. Likewise, four instructors agreed (2

"agree", 2 "strongly agree") that they were satisfied with how they assess students in online courses, and one neither disagreed or agreed. In response to whether they were accessible to their students, all five instructors agreed (3 "agree", 2 "strongly agree"). All instructors also agreed (1 "agree", 4 "strongly agree") that it takes a lot of time to develop an online course, while four agreed (3 "agree", 1 "strongly agree") that their students receive quality feedback. One instructor neither disagreed or agreed.

Of note is the finding that all of the instructors either agreed (Michelle) or strongly agreed that it takes a lot of time to develop online courses. For Ray, satisfaction with how he assesses students and satisfaction with content quality were neutral (neither disagree or agree). In interviews, Ray would go on to speak at length about course design and his interest in the intricacies of design choices, so his responses here relating to assessment and content quality might reflect a continued effort on his part to always be revising and reviewing course content in pursuit of improving it.

Detailed results - interviews

Participant responses to questions relating to the satisfaction constructs were categorized as either positive or negative in terms of word choice and general tone. Positive comments were characterized by participants using terms like "happy," "enjoy," "thrilled," and "confident." By contrast, comments and responses that were negative in word choice and tone were characterized by participants using terms like "dissatisfying," "hindrance," and "sad." A tally of the total number of positive and negative comments made by each instructor is presented in Figure 10 below.

It is tempting to draw some conclusions based only on these positive and negative responses. On the face of it negative comments seem to outweigh positive ones from all but one of the participants. However, online instructor satisfaction is both dynamic and complicated (Bolliger et al., 2014). The number of positive and/or negative responses makes up a relatively small number of overall responses from participants. As trained practitioners, the participants are used to attempting objective evaluation and discussion of their own classroom performance. These objective discussions make up a much larger proportion of the responses made by participants in the interviews. This may indicate, for example, that Participant 5 is not overwhelmingly more positive than the other respondents but was perhaps more inclined to articulate positive thoughts during the interview.
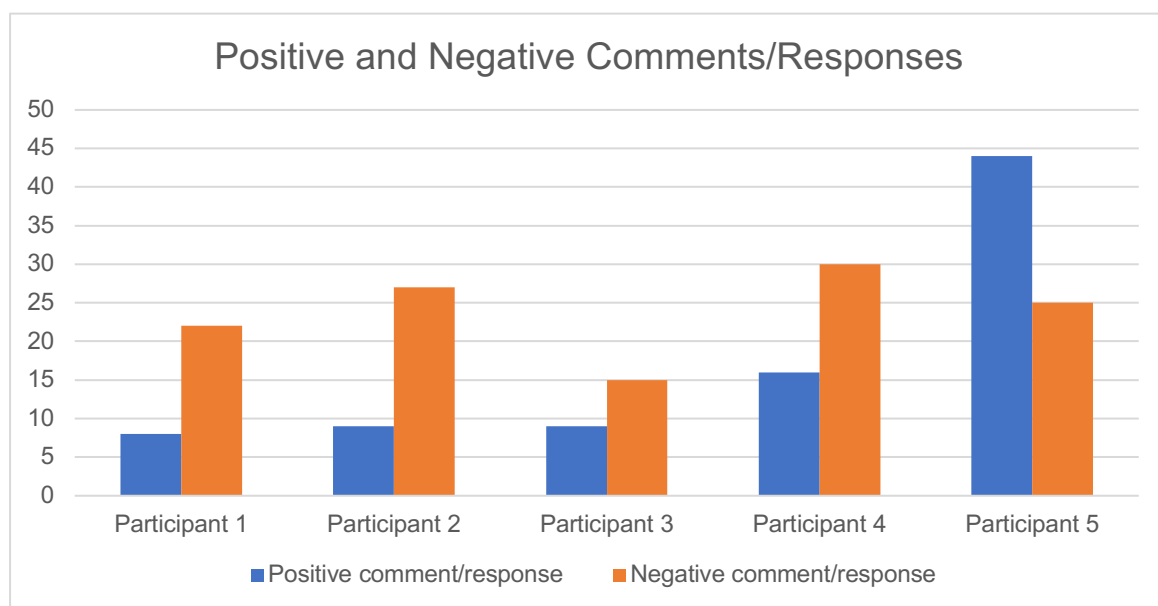
The satisfaction derived from course design/development and teaching (CDT) was, by a wide margin (as shown in Fig. 11 below), the most talked about satisfaction construct in interviews. This is perhaps not surprising given that CDT forms the core of participants' responsibilities as online instructors. Participants articulated that they saw course design as being synonymous with facilitating discourse through planning classroom interactions (both instructor-to-student and student-to-student). As a result, there is an overlap in interview responses describing interactions and CDT. Participants described how, in CU's TESOL programs, a premium is placed on the development of students' language skills in context. A key component to this language development is the use of so-called *classroom interactions*[11]. Ray, in particular, noted how CU TESOL has tried to replicate these techniques in online videoconference lessons. The efficacy of these techniques is not examined here, although some of the issues that this replication may cause might be represented in the emergent themes discussed later in this section.

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[10] Instructor pseudonyms are not used here to prevent identification of individuals in relation to their use of positive/negative comments.

[11] For instructors in CU's TESOL programs, "classroom interactions" has a specific pedagogical meaning related to classroom practice. It refers to helping to make input comprehensible for students and checking comprehension, having students reflect and narrate on the material being presented in the lesson, and modeling not only instruction but also appropriate classroom language to use when teaching English in English (and getting students to repeat the models used). These are all done with the goal of improving students' English through scaffolding the quality and amount of student output produced in the classroom not only in interactions with the instructor, but also with each other.

Figure 11: Number of participant interview responses that refer to Bolliger et al.'s (2014) Online Instructor Satisfaction constructs.
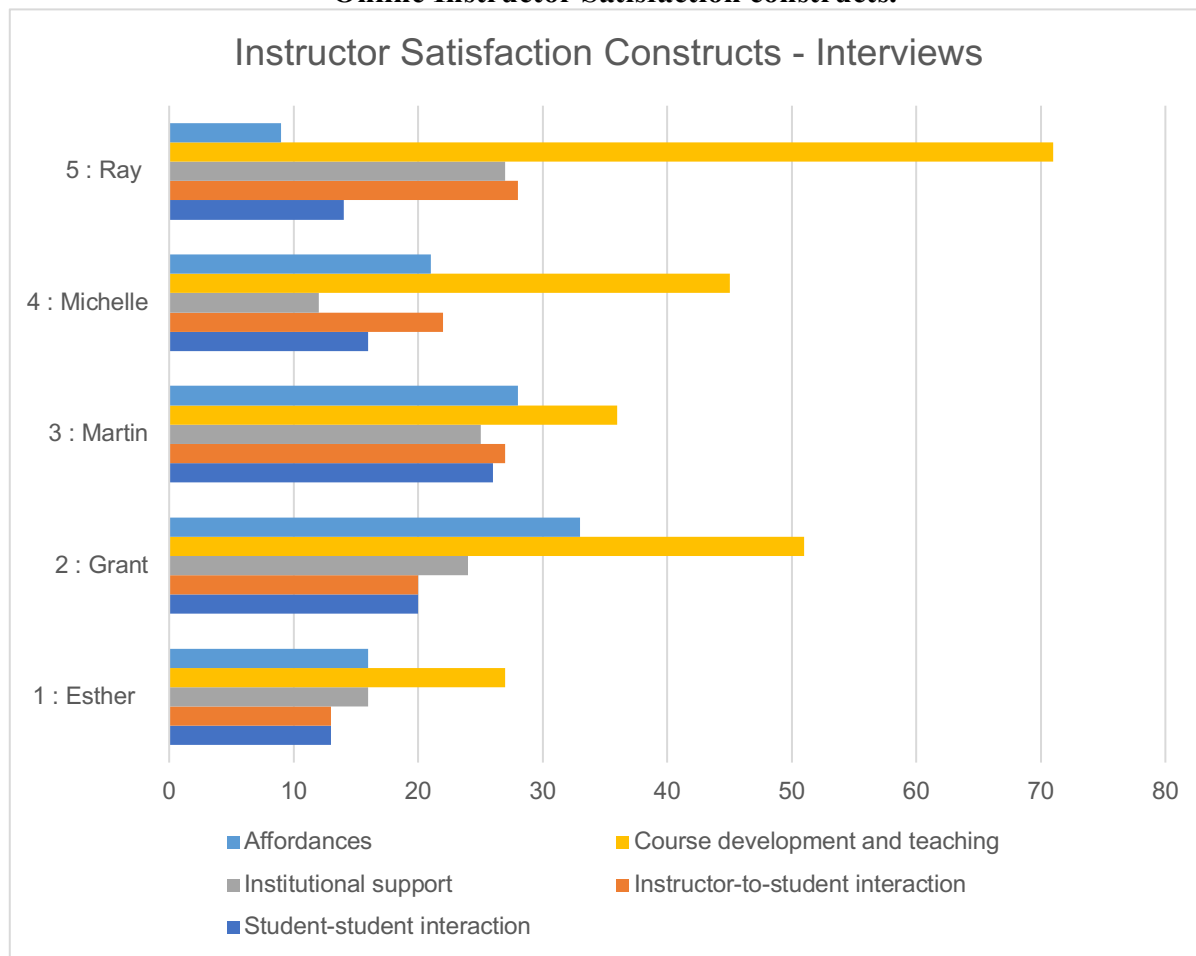
Whereas the OISM provided data that measured participant responses to questions about their satisfaction, interviews were used to expand upon these satisfaction constructs and afforded participants the opportunity to personalize and expand on their perceptions. As such, it is important to note that participants' responses may have been influenced by the semi-structured format of initial and follow-up questions in the interview. Figure 11, outlines the frequency with which participants mention the constructs associated with satisfaction (Bolliger et al., 2014).

CDT was the most frequent construct referred to by participants during the interviews. As mentioned above, this construct encompasses what would be considered the core responsibility of a teacher: the development and delivery of lessons. Beyond that, though, it is also clear that course design/development and teaching is something that the participants feel strongly about, and a topic which elicited both positive and negative responses. For example, in reflecting upon finding, mid-lesson, an error in materials he had created, Ray states "I kick myself every time there is a slide with an error on it, or that kind of thing." Participants also talked about the amount of time that they spend preparing for online classes. Comments from Michelle and Esther are indicative of this theme. When talking about preparing materials,

Michelle draws attention to "all the prep beforehand, especially because it's only for one class. For instance, when I make PowerPoint slides for the traditional classroom, they can be used for all four or five classes. Those same slides cannot always be used for the online class." Esther talks about extra hours of preparation: "Despite the extra hours I would spend 'preparing' for the class, reviewing notes, checking my content knowledge… I [felt like] I didn't have the skills to handle anything that landed outside of the script."

Instructor-to-student interaction (ISI) and student-to-student interaction (SSI) taken together form the next most mentioned construct. Again, this reflects the importance placed on such interactions in the department as a whole. Martin has a fairly positive view of using classroom interactions from offline settings in online videoconference lessons, and reports that he thinks they are used "to a pretty good extent." When talking about student interaction and engagement, Ray is positive, too: "I think as a [sic] long as a teacher sets up a safe, genuine, friendly, interactive rapport, and if you've got four or five students who are obviously thoroughly involved and thrilled, [everyone] is having a great time." On the other hand, Michelle, when talking about classroom interactions, is more circumspect about her performance:

> *"Some of our classroom interactions I feel I could model a little bit better in the online setting and in the traditional setting as well. For instance, calling on you, then calling on another person to repeat what you said to make sure that students are listening to each other, trying to get them to ask questions to each other. So, I would like to replicate those a little bit more."*

The affordances offered by online instruction and institutional support were referred to during interviews to a similar extent. Affordances were discussed positively, in line with the results gathered in the OISM. However, instructors were able to critically evaluate the affordances in the interviews as well. The ability to be both positive and critical of the affordances of online teaching and learning is exemplified by Grant, who discusses asynchronous tasks and notes, "It works. Usually those students that we've had have done better on certain tasks, and the asynchronous gives them more time than in-class gives them." He also elaborates on the idea that teaching online is faster, "Online doesn't cover things twice as fast, usually half as fast!" In the survey, all of the instructors agreed that they derived satisfaction from the fact that students can access their online classes from anywhere. But again, the instructors articulated some of the difficulties that this can cause. Martin describes some of the frustrations that can arise from this ease of access: "These omnidirectional mics pick up every clink and clank of a coffee shop, the milk steamer, the noise of that, so what seems like a convenience actually becomes a hindrance." Finally, Michelle is cognizant of

some of the tasks in her course that are not necessarily available or practical to do in online courses, despite the many affordances online teaching and learning offers teachers and students. With reference to a practicum task, she recalls, "With the online version, we were able to do everything except the actual teaching part, which made me sad because we weren't able to give [the students] another opportunity to teach in class."

Institutional support (IS) received more negative commentary from participants, again consistent with the responses to the OISM. Such thoughts about IS hold implications for all of the other satisfaction constructs discussed here. For instance, with relation to the preparation required for online courses, and the use of the instructor's own hardware and internet connection to create materials outside of work hours, one instructor notes, "A lot of the things I do in-between weeks in [sic] on a tablet or a phone that are mine, and the bill is mine, and no one is giving me relief on that." Remuneration[12] for work on online courses also features in other interview responses. When asked if they felt they received adequate compensation for the work they did in developing online courses one participant responds, "For the course I was given 500,000 Won ($1 USD = 1,144 KRW) for the design of both the face-to-face and the blended courses, for which I spent around 60-70 hours on which is roughly… 7,500 [KRW] per hour. I am aware that online instructional designers make around $45-$50 per hour." This participant later emailed the researcher with a link to a popular website that aggregates salaries and working conditions for positions at different companies and organizations to back up their assertions about rates of pay. Another illustrative exchange in interviews regarding what instructors thought about remuneration included the following:

> *To answer this question fairly or more objectively would be what kind of course development fees people are being paid, is there an hourly thing, are they expected to be making them and teaching them at precisely the same time, like we are, that kind of stuff. Because my suspicion is that relative to many of our contacts elsewhere where this might be happening, I suspect we would find that we were being fairly drastically underpaid. Because for me the compensation I'm getting is overtime hours teaching the material I've developed. There is no payment whatsoever for the material, there is an assumption that it already exists. And as I've already detailed through some examples, it really doesn't.*

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[12] In this section, participant pseudonyms are not used to prevent identification of individuals in relation to their comments on remuneration and pay.

Participants also articulated ideas about the perception of online teaching that for them don't necessarily hold true. In responding to a question about how a commonly held perception of online teaching and learning is simply that it is a "copy and paste" of existing content, Ray notes, "Sure, yes. Well, it's a famously documented perception. And, yes, I think that's the idea. But the truth of the matter is every two-hour lesson requires a day at least of living in it beforehand, and in my case, it usually means 24 hours spread out over 4-6 days, so that it can gestate and come together." Grant states that he had difficulty convincing administration that asynchronous tasks for learners constituted "class time… because it's not face-to-face, [via videoconference] because the teacher is not visible, paying attention". When examining the responses from participants, several common themes were detected that are highlighted in Appendix 2 with quotes from the participants that characterize each of the themes. Additionally, satisfaction constructs and teaching presence components are noted.

During the face-to-face interviews, the participants expanded on their responses to the OISM and articulated their thoughts and feelings of satisfaction towards online instruction. Overall, the participants expressed a high level of satisfaction with their experiences as online instructors, and course design/development and teaching was the most frequently discussed of the satisfaction constructs. Participants explicitly pointed to a certain level of dissatisfaction with institutional support. While the number of negative comments recorded outnumbered positive comments in four out of the five interviews, this only forms part of the picture relating to instructor satisfaction. Six themes can be observed that are common to all of the instructors. The first of these is that the instructors do not believe that online instruction is recognized as a specialized skill, and that, there is a general belief among instructors that online instruction via videoconference lessons is a new phenomenon. These two themes manifest in both IS and CDT satisfaction constructs as well as the IDO component of teaching presence. The participants believe that their ability to facilitate discussion and elicit responses online is diminished compared to offline contexts, and connected to this, tasks take longer online. Underlying these two themes we see the ISI, SSI, CDT, and affordances satisfaction constructs, in addition to IDO, DF and DI components of teaching presence. Finally, all the instructors believe that students' perceptions of teaching quality (and to some extent, program quality as a whole) are based on what students see of the instructor, which is to say, student perceptions are mediated by the camera. Here, in addition to the interaction, CDT, and affordances constructs, this theme incorporates elements of the IDO component of teaching presence.

Detailed results - observation of online videoconference lessons

Four hours of videoconference instruction was observed for each participant in real-time, as well as recorded for later review. This equalled 16 hours of instruction observed constituting two weeks of instruction in each of the modules described in Chapter 2. By recording the lessons, issues with selective attention are reduced and allow for multiple viewings of the same data. Problems with attention deficit – the observer being distracted, selective memory, etc. – and the omission of data relating to context are completely eliminated (Cohen et al., 2013). By importing video of the online videoconference lessons into NVivo, it was possible to code all instances of teaching presence indicators. From this process two methods of analysis emerged. First, it was possible to examine the frequency with which instructors exhibited teaching presence for each of the OISM constructs. Second it was possible to discern patterns of teaching presence specific to individual instructors.

Unlike text-based online courses, teaching presence in videoconference lessons happens in real time. On the surface, videoconference lessons would be familiar to anyone who has observed teaching in a face-to-face classroom setting. However, there is also a temporal "shrinking" to some of the indicators of teaching presence. For example, where an instructor in a text-based course establishes a time parameter by saying "Please post by Friday," in a videoconference lesson the instructor may establish a time parameter by saying, "You have six minutes to complete this task."

In the video conference lessons, the instructors in the study were observed using the different teaching presence indicators to different extents as discussed and summarized in Figure 14 below.

Instructional design and organization

It is important to remember that with the instructional design and organization (IDO) indicators of teaching presence, a number of these occur before the instructor "sets foot in the classroom" and so some of the indicators, for example 'designing methods', are represented here in a lower number and frequency than is probably the overall case. Nevertheless, 'designing methods' is the IDO indicator that was observed the most. This indicator manifests in the form of things like spoken instructions, visual indications, and chat messages that lead students into beginning tasks. Since the study participants are teaching in a teacher training program, instructions are very deliberately planned and, in addition to telling students what to do, their use in lessons serves as a model for students.

'Utilizing the medium effectively' was observed as instructors providing students with hints and instruction on how to utilize the videoconference software and Google Docs to more

effectively complete tasks during the lesson, with Michelle being observed doing this the most. In one instance during a lesson, she notes to students in an aside, "As with anything we do, you can always refer back to each week and see what the other group did if you would like the answers. Don't feel like 'I don't know what the answers are,' just look at what the groups did in other weeks" (Michelle lesson observation).

On the other hand, macro level comments about course content were mostly absent from the lessons observed. Martin, however, provides some macro level information in a lesson discussing materials development that ties together what students have been doing over a number of weeks: "This class is closely connected to week two and week three's content about providing appropriate challenge and setting a clear, appropriate goal for students. None of these lessons are isolated and connect back to previous weeks" (Martin lesson observation).

Instances of establishing so-called *netiquette* or instructional guidelines that, for example, ask students to keep responses in (text-based) posts short, were also largely absent from the lessons that were observed. This may be due to the synchronous nature of videoconference lessons. However, in my own experience, reminding students to mute their microphone to avoid noise and feedback, or turning their camera on when they are speaking, are possible instances in videoconference lessons that would fall under the netiquette indicator.

'Setting curriculum' is another indicator that appeared in all observations, primarily at the beginning of lessons when instructors introduced objectives for the lesson. Ray exhibited this indicator the most. For example, at the beginning of one lesson he states, "Today our topic, of course, is… [pauses to bring up PowerPoint screen] teaching reading, reading strategies, effective reading, all these great words! All these great words! [sic] Let's jump right in." At the same time, he also involves the students in the process of setting the curriculum by putting the information and objectives for the lesson on screen and eliciting them from students and getting them to read and answer concept checking questions based on the objective. A pattern emerges where an instructional design and delivery indicator ('setting curriculum') is paired with indicators related to facilitating discourse. In a three-minute sequence during one lesson where Ray sets the curriculum, he calls on a student by name ('drawing in participants'), the student answers, and Ray acknowledges and reinforces their contribution before returning to a little more curriculum setting and going through the process again. This is illustrated in Figure 12 below.

Figure 12: Ray setting curriculum (IDO) and drawing in participants to promote discussion/acknowledging student contributions (FD)
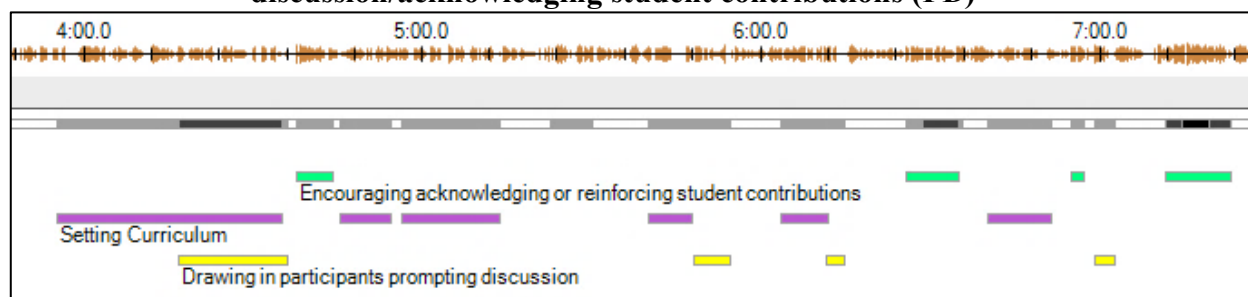
This sort of ISI was observed across lessons and across instructors and is consistent with the data gathered from the OISM where instructors derive a reasonably prominent level of satisfaction from ISI. The OISM data also concurs with that of the interviews, in which instructors also discussed the ISI construct with a high degree of frequency.

Facilitating discourse

Looking at facilitating discourse (FD), two indicators stand out as being the most frequently observed: 'Drawing in participants, promoting discussion' and 'Encouraging, acknowledging, or reinforcing student contributions.' Without exception, instructors were observed drawing students into a discussion by calling them by name and eliciting a response. After receiving a response, instructors would acknowledge the student's contribution in a variety of ways, usually involving thanking the student, and either summarizing the student's contribution (a DI indicator), paraphrasing, or using it as a jumping-off point to present content and further questions (also a DI indicator). The frequency of this phenomena points to instructors looking for ways to cope with some of the difficulties they point to in interviews around their perceived diminished ability to facilitate classroom interactions in videoconference lessons in lieu of the body language and eye contact afforded them in face-to-face settings.

The next most frequent indicator observed is that of 'Setting a climate for learning.' In lessons, this was characterized by comments from the instructor that were designed to set students at ease, either in terms of the content, or the use of the technology and software to participate in the lesson. Michelle did this the most. For example, when discussing a change to the order of lessons in the syllabus she tells students, "Don't worry, I'll tell you [the order of] what to do, what [questions] to answer, and what to read. So, I'll make it as easy as possible on us" (Michelle lesson observation). Elsewhere Michelle says, "Don't feel bad about any errors you have [sic] in English, because I could triple them with the errors I make in Korean!" (Ibid.) All instructors were observed setting the climate for learning. This also

took the form of reminding students that their answers in brainstorming and think-pair-share activities were neither right, nor wrong, and that the online space (and the course) were a place where they could try out their ideas and show their understanding of the content without judgement. When observed near the beginning of a lesson, this gave the effect of focusing students and perhaps lifting their collective affective filter.

Somewhat surprisingly, 'identifying areas of agreement' and 'seeking to reach consensus/understanding' were two indicators that were observed less frequently in observations, despite their efficacy in establishing communicative or interactive situations that the instructors spoke at length about during the interview stage of the study. Esther was observed identifying areas of agreement/disagreement and seeking to reach a consensus. For example, in discussing student responses to a task that asked them to brainstorm where and how to select topics for English language lessons, she said, "It looks like we have a lot of similar ideas between the groups [consensus/understanding] …but *Miok*, were you thinking about younger learners or older learners? What was the age you discussed?"

'Assessing the efficacy of the process' was not observed in any of the videoconference lessons. It might be that, during observations, students remained focused on tasks and the topic of the lesson. Alternatively, it may be that text-based interactions are more predisposed to getting off track when there is no immediate interaction possible with an instructor.

Direct instruction

'Presenting content and asking questions' was the most frequently observed direct instruction (DI) indicator of teaching presence. This is not surprising since the presentation of content is one of the traditional responsibilities of teachers. Interestingly, the frequency of each instructor presenting content during lessons is similar to the frequency with which they summarize the discussion. This is illustrated in Figure 13 below, which shows Martin first 'drawing in participants' by calling on a student by name (IDO), 'encouraging/acknowledging the student's contribution' (IDO), 'summarizing the response' (DI), and 'presenting content' (DI) before drawing in another student. This cycle of ISI was observed in all of the videoconference lessons and across instructors.

Figure 13: Martin presents content and questions and summarizes discussion (DI)
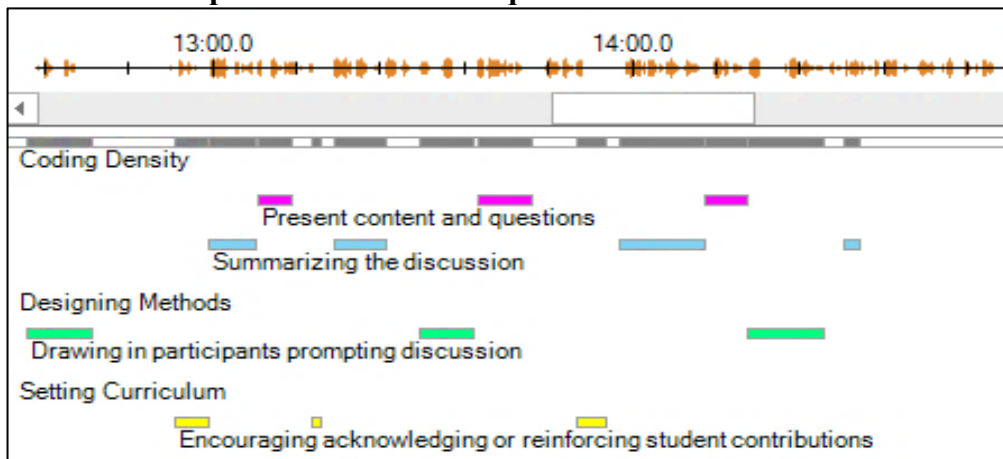
'Responding to technical concerns' featured infrequently in observations. However, technical issues did occur in Esther and Martin's lessons when students experienced issues with their microphones during the lesson.

'Injecting knowledge from diverse sources' was observed most in lessons taught by Michelle and Ray. Both have extensive classroom teaching experience. Michelle has considerable K-12 classroom teaching experience in the United States, and she brought this to bear during the lessons observed to relate the content being presented to practical classroom practice and suggestions. On the other hand, Ray was more likely to be observed having students find resources and answers to questions from sources online during the lesson, and then summarizing their use and his experience with them. 'Focusing the discussion on specific issues' was observed with less frequency across all of the instructors. This may be a result of students remaining focused on the tasks set for them or may be a result of instructors designing methods that allow students to focus on the task without the possibility for meandering off topic.

The 'diagnosis of misconceptions' was observed with some frequency across the lessons that were observed. Such diagnoses usually occurred during tasks where students were unsure of the concept that was to be utilized to complete a task, or after tasks where students were reporting back on the task and groups shared their results. Finally, 'confirmation of understanding through assessment and explanatory feedback' was also observed with less frequency than expected. Which is not to say that formative assessment wasn't being performed by the instructors as they monitored students during tasks. Ray and Esther were observed as having the most frequent indicators of 'confirmation of understanding through assessment and explanatory feedback'. This was characterized in Ray's case by more frequent error correction than other instructors of student language use (and in particular pronunciation of difficult terms related to teaching phonology), while Esther

provided significant feedback post-task for students in her lessons. Both instructors would often tie this confirmation of understanding into their summaries of discussion.

Figure 14 below, provides a summary of the teaching presence indicators observed across the lesson observations. A trend is discernible across all of the instructors who demonstrated a high number of teaching presence indicators for 'designing methods', 'encouraging, acknowledging or reinforcing student contributions', 'drawing participants into the discussion', 'summarizing the discussion' and 'presenting content and questions'. Reliability was attended to in observations by having extracts from each video reviewed by another rater and then the Pearson correlation coefficient was used to correlate the number of indicators identified by one rater with those identified by the other. A moderate correlation was found (r=0.69) consistent with the rating of subjective items.

Text-based indicators

To provide contrast between videoconference lessons and traditional, text-based teaching presence one participant, Grant, was "observed" in the context of his asynchronous, text-based course delivered through the LMS. While this provided the chance to approach the examination of teaching presence in a way more consistent with previous studies focused on teaching presence, it is only of one teacher and one course, meaning the generalizability of these results can only extend to this study. Figure 15 below includes this fifth observation. By examining a text-based course we are able to see some interesting contrasts between the two media. 'Utilizing the medium effectively' occurs with much more frequency in text-based interactions with students. This may have to do with more frequent inclusion of the processes students need to go through and more hints from the instructor on what to include in text-based student responses. Likewise, 'setting curriculum' occurs with more frequency, with posts from the instructor clearly stating what the post is about, what students will achieve by completing the task/responding to the post, and relating it back to the objectives for the unit, week, etc. Similar to the videoconference lessons, there was an absence of 'macro-level comments about the course' as a whole in the text-based course.

Like 'setting curriculum' and advice on 'utilizing the medium effectively', the asynchronous nature of the text-based course meant that it was important for the instructor to clearly establish time parameters for posts and tasks, and to remind students more than once in a post (or series of related posts) of completion dates. Connected to these, 'designing methods' also features with greater frequency in the text-based course. This may be because instructions for tasks were clearly listed in each post, whereas in videoconference lessons, if students repeated a task (or type of task), there wasn't really the need for instructors to repeat the instructions, at least not to the extent seen in text-based interactions. The asynchronous

nature of text-based interactions also seems to point to the absence of indicators related to drawing in participants (it is impossible to call on students by name in text, for example), and as such there is much less acknowledgement of student contributions, and fewer summaries of the discussion. Other indicators are consistent with those observed in videoconference lessons.

In the section below, Figure 14 provides a visualization of the different teaching presence indicators as observed in the videoconference lessons of the four participants. Figure 15 incorporates the teaching presence indicators identified in Grant's text-based course reflecting the use of different indicators in the different medium.

Figure 14: Teaching presence indicators in videoconference lessons for Esther, Martin, Michelle, and Ray

Teaching Presence Indicators in Videoconference Lessons
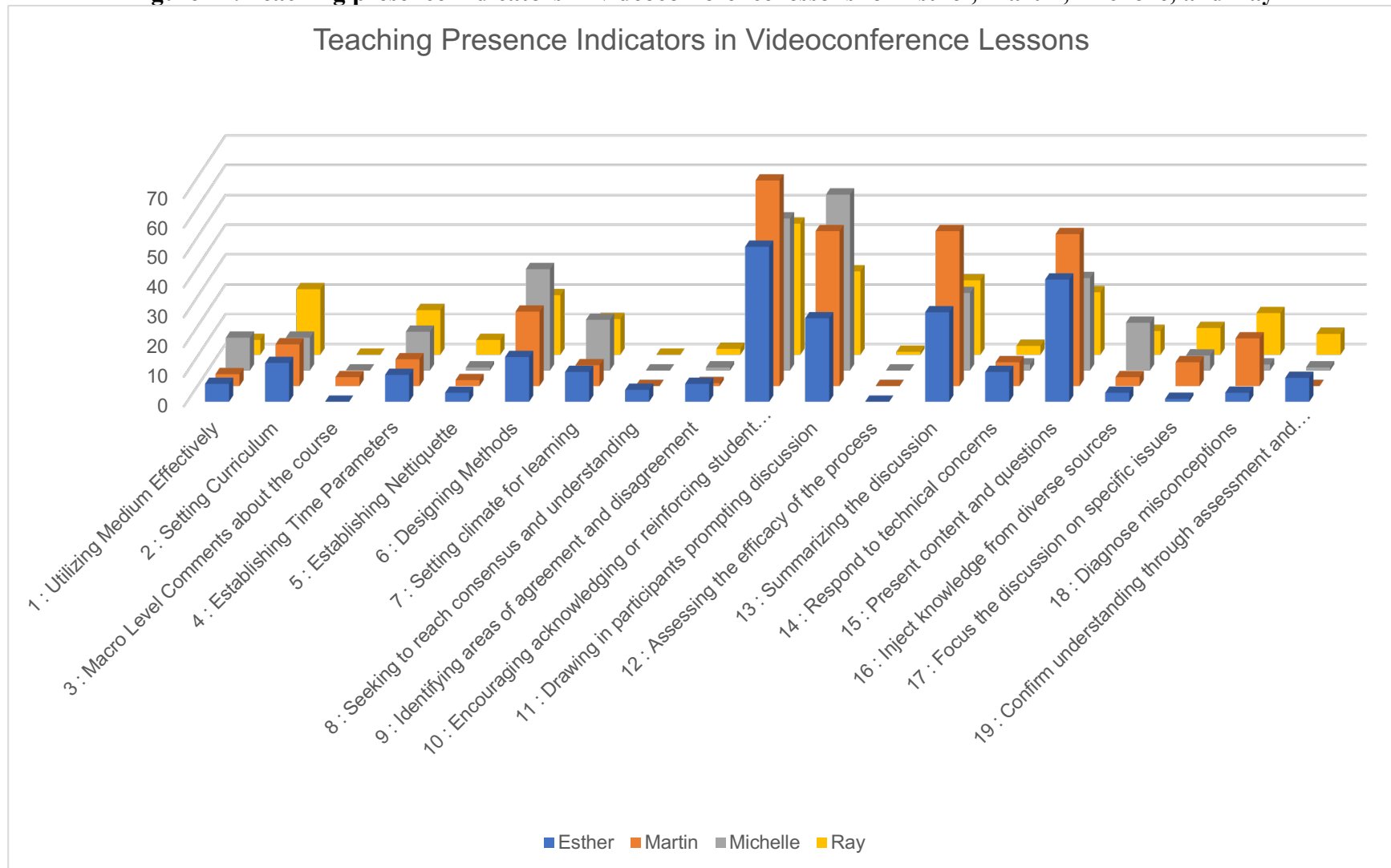
Figure 15: Teaching presence indicators in videoconference lessons for Esther, Martin, Michelle, and Ray and in text-based interactions through LMS for Grant

Teaching Presence Indicators in Videoconference Lessons and a Text-based Course
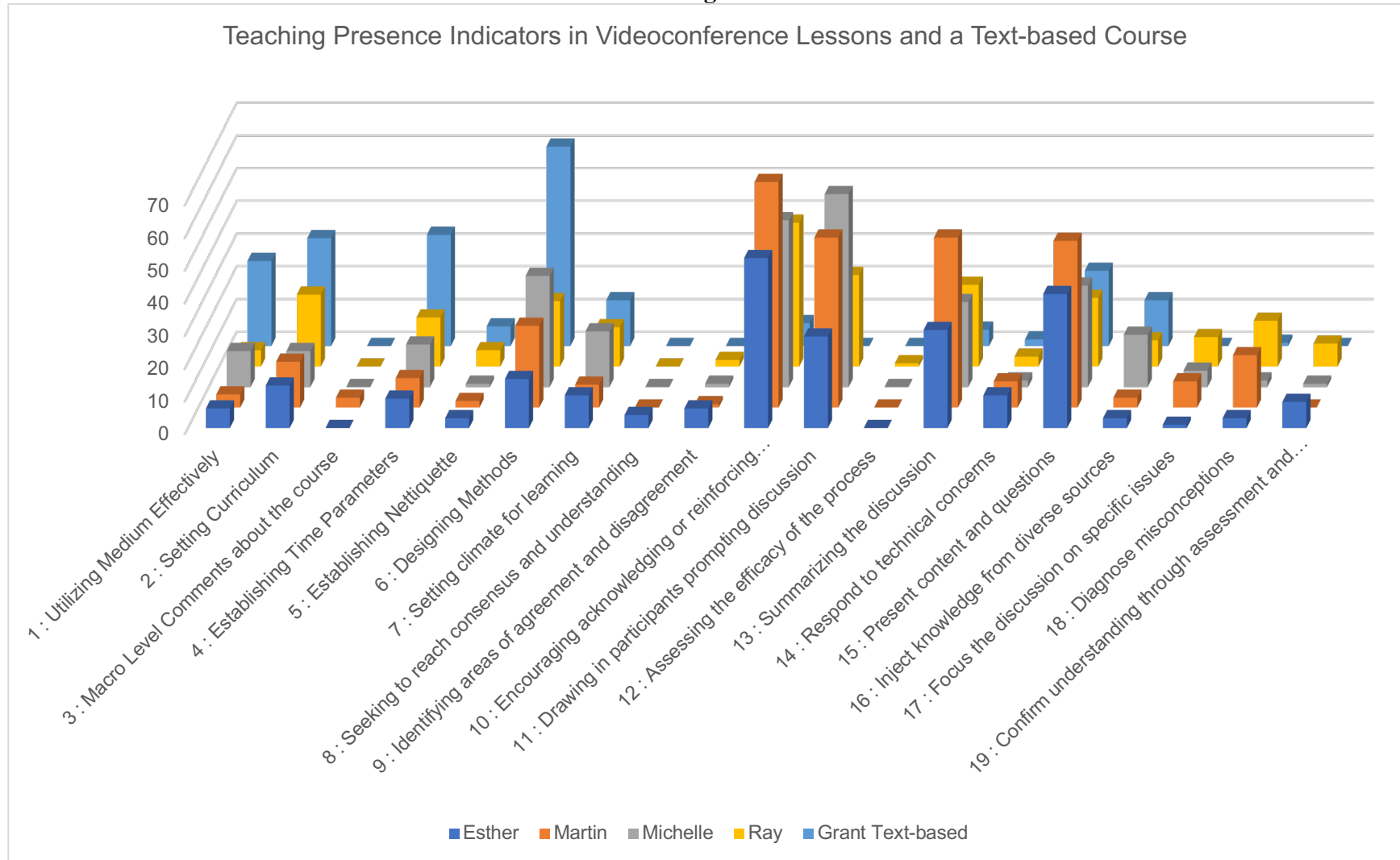
Chapter 6 Discussion

Introduction

This thesis sets out to identify whether there is a relationship between teaching presence and online instructor satisfaction, and if such a relationship exists, to describe it. Chapter 2 introduced the background and context in which this study took place. Chapter 3 examined the literature on teaching presence and instructor satisfaction. Chapter 4 examined the methodological underpinnings of conducting this single case study and described the methods used to collect data, while Chapter 5 reported the results of the operationalization of these methods. In this chapter, key findings are further examined for the purpose of identifying whether or not a relationship exists between teaching presence and online instructor satisfaction. Finally, some of the limitations of this study are noted as well as possibilities for further research.

Key findings

In the case of the present study, the instructors are highly satisfied with the affordances (A) offered by online teaching and learning (OTL) and satisfied with course design/development and teaching (CDT), instructor-to-student interaction (ISI) and student-to student interaction (SSI). However, the results also show that the level of satisfaction derived from institutional support (IS) is low, which is consistent with findings in Bolliger and Wasilik (2009), Bolliger et al. (2014), and Al-Zahrani (2015). Satisfaction and dissatisfaction are evidenced by both the results of the OISM survey and the instructors' own descriptions of their experiences in interviews. It is probable that some of the participants are more satisfied than others and have different individual levels of satisfaction with different constructs. This is also consistent with Bolliger et al. (2014), which finds variance in satisfaction among instructors in a cohort. In this section, the satisfaction constructs and components of teaching presence are grouped by their relationship with each other to illustrate the relationship between the two.

Affordances

Satisfaction derived from the affordances of OTL rated highly among all of the participants, and all articulate an awareness of the potential benefits of OTL, such as providing a flexible learning environment, convenience (for both instructors and learners), and that learners can access online courses from almost anywhere. Again, this is consistent with the literature. One theme that is common to all of the participants' responses as seen in the results, and in Appendix 2, is the importance of students' perception of quality and its

connection to what they are seeing (and what instructors are doing) on screen. As noted, four out of five participants speak negatively, with one noting a feeling of having to "entertain" because students are used to the online environment being an entertainment medium (Esther, interview response). Two instructors are particularly conscious of how they appear to students, and how the many and varied things instructors need to attend to during a videoconference lesson could lead to students thinking instructors are ill-prepared because they are looking down or looking off-camera. With regards to being on-camera, it may be that instructors are not cognizant of issues relating to psychological distance discussed, for example, in Rehn (2017) and Rehn et al. (2016) in videoconferences.

Despite one participant lauding his ability to create a more friendly and genuine atmosphere in videoconference lessons via judicious use of the camera, this particular issue, of student perception of quality based on what is seen on-screen, is perhaps an example of instructors (as well as administrators) not fully utilizing or understanding the affordances provided by online technologies. To fully realize these affordances, instructors require more IS in the form of guidance and training to better understand how collaborative tools, such as webcams, can be used to improve interaction and learning. This, in turn, characterizes quite well the different and new competencies online instructors need in their role, which is another theme that was prominent in interview responses.

Instructor-to-student, student-to-student interaction and discourse facilitation

One of the constructs where a greater variability among participants was evident, was the role of interaction. A majority of the participants agreed that students in their online classes participated "enthusiastically" in their classes. At the same time, three out of the five participants also agreed that their students were somewhat passive in class. Notwithstanding the subjective nature of terms like "enthusiastic" and "passive," this seems to be contradictory. Additionally, one of the common themes to come out of interviews with the participants was that they felt that their ability to facilitate discussion was diminished in videoconference lessons, at least compared to their experience in face-to-face settings. Again, this is a bit puzzling as the instructors were frequently observed drawing in participants, acknowledging their contributions and summarizing the discussion during their videoconference lessons.

One part of this puzzle may be that drawing in students, acknowledging contributions, and summarizing is not enough to get students to move beyond what participants have perceived as passivity. Indicators for seeking to reach consensus and understanding, identifying areas of agreement or disagreement, and assessing the efficacy of the process were not observed with high frequency during lessons. What is perhaps missing, and thus contributing to the perception of passive students, is the clear and specific articulation of

shared understanding by the instructors. As Garrison (2017) notes, the teacher must negotiate something more substantial than a rambling conversation, yet not simply provide a prescriptive summary of the topics discussed (p. 74).

On the other hand, the absence of some indicators doesn't mean they are not happening elsewhere, unobserved by this researcher. Unlike the more static, text-based interactions that Garrison (Ibid.) talks about, videoconference lessons are dynamic. Instructors bring their own experiences, preferred approaches, and understanding of the technology to delivering lessons. It is possible that some lessons inherently require more summarizing by the instructor, perhaps near the end of a unit of study, while others contain more presentation of content and questions. Some lessons will be awash with discussion among students that sees them being both enthusiastic and less passive, and other lessons perhaps less so.

Nevertheless, the absence of identifying consensus and understanding, of finding areas of common agreement (and disagreement), and assessing the efficacy of the process points to underdeveloped DF in the lessons that were observed in this study. This may be because instructors have yet to find ways in which they are comfortable integrating interactive learning activities into their lessons, (Bolliger et al., 2014) and may account for some of the dissatisfaction instructors describe when it comes to transferring classroom interactions from face-to-face lessons to videoconference lessons.

Course design/development and teaching, instructional design and organization

Online instructors invest more time in preparation than instructors who teach face-to-face (Reinheimer, 2005). It is clear from the interviews and observations that the participants examined in this study spend a great deal of time and energy preparing for their online lessons (let alone responding to students in between lessons). It is equally clear, especially from their responses during the interviews, that the participants are proud of their efforts, and rightfully so. This preparation manifests itself in all of the IDO indicators observed during the videoconference lessons. Instructor satisfaction is derived from designing courses that have "groovy elements" (Ray, interview response) where "students produce spoken and written language, and demonstrate understanding of concepts" (Michelle, interview response).

Institutional Support

However, dissatisfaction arises due to the amount of, and time needed for, preparation. Participants talk about having to be more prepared for online lessons than face-to-face ones. Participants report that the amount of time spent dealing with the LMS can be "stress inducing" (Michelle, interview response), and preparing a single lesson can take anywhere up

to 24 hours over the course of a week to prepare (Ray, interview response). This is concerning. Lack of IS in terms of sufficient, timely support for the development and delivery of online courses can only lead to instructors becoming increasingly dissatisfied. Hogan and McKnight (2007) finds that instructors that don't receive institutional support in this area are likely to suffer from burnout (p. 122), which is likely to lead to less retention of experienced instructors by the institution. This dissatisfaction may be a feature of the LMS being used. At this institution it may be worthwhile investigating effective use of the LMS and conducting further professional development sessions geared towards optimal use.

Dissatisfaction with IS among participants arises in four areas: support in terms of time required to prepare lessons, recognition of online teaching as a specialized skill, appropriate remuneration for such a specialized skill, and a subsequent overall perception of online teaching as being a new phenomenon and thus not seen as a legitimate form of teaching. The potential dangers of a lack of IS in terms of time for lesson preparation is discussed immediately above but is essential for avoiding instructor burnout and retention of experienced instructors. Where instructors are unfamiliar with and are not receiving sufficient support in terms of instructional strategies to use online, or lack understanding of how to utilize tools such as cameras to facilitate discourse and promote interaction, they will perceive online teaching as too work intensive (Conceição, 2006).

Participants are adamant that what they are doing in their videoconference lessons is a specialized skill, using "new types of pedagogical competency" in addition to "technological competency" (Esther, interview response). A number of participants also state that they feel they should be paid more for their efforts, but concede that they don't think it will happen in the near term, with Grant stating, "Once it gets more established and more recognized and the people holding the purse strings maybe appreciate that it is actually a skill, maybe the pay will change" (Grant, interview response). Martin adds, "It's still fairly early in interactive online teaching, that maybe that's not recognized yet financially…because [online teaching] is new and people cling to the old ways for longer than they need to…" (Martin, interview response).

The perception that online teaching is a "new" phenomenon is an interesting one. We have seen in the literature that online learning in one form or another can be traced back to the 1980s, (J. L. Moore et al., 2011, p. 130) and videoconferencing at least to the early part of the 21st century (Lai & Pratt, 2009; Roberts, 2011; Pratt & Puller, 2013). Participants are either considering the more recent development of videoconferencing, enabled by improved and more widespread infrastructure, or they are specifically thinking about the context at CU, where videoconference lessons (and web-enhanced courses more generally) have only been utilized on a program-wide level for about two years. The dissatisfaction arising from online

teaching not being recognized as a specialized skill is summed up by Grant who states, "For me, it's just the lack of appreciation or general awareness of what it is. And then [there are] complaints about what you do" (Grant, interview response). It is beyond the mandate of the present study to advocate for a pay-rise for its participants, but for OTL to be successfully implemented in higher education contexts, administrators and managers need to recognize it as requiring a specialized skill-set.

RQ1: Is there a relationship between online instructor satisfaction and teaching presence?

The data presented here points to there being a relationship between online instructor satisfaction and teaching presence. The Online Instructor Satisfaction Measure provides a quantifiable description of the participant's level of satisfaction with the different satisfaction constructs while teaching presence is measured by the frequency of teaching presence indicators observed during videoconference lessons. The following relationships between the two measures were observed in the data as follows:

1. Instructors who derive satisfaction from course design/development and teaching (CDT) were observed exhibiting indicators of instructional design and organization (IDO). Instructors who derive satisfaction from the type and quality of student-to-student interactions in their lessons, attend to interaction in their planning, and exhibit indicators of discourse facilitation.

2. Instructors who derive satisfaction from their interactions with students (ISI) also exhibit indicators of direct instruction (DI) in videoconference lessons. The affordances provided by OTL inform instructors in their preparation and in designing methods for videoconference lessons.

3. Finally, the level of satisfaction instructors derive from institutional support (IS) influences all other aspects of satisfaction, and potentially on establishing teaching presence in videoconference lessons. Instructor satisfaction is the "perception that teaching in the online environment is effective and professionally beneficial" (Bolliger et al., 2014, p. 105).

4. However, satisfaction is institution-dependent. Instructors are satisfied only when the institution provides a climate ensuring professional autonomy and activity commensurate to specialized expertise (Pollicino, 1996). The relationship instructors have with their institution is important. Instructor loyalty to their employer is predicated on perceptions that it is the institution's responsibility to foster a "climate that is conducive to faculty satisfaction" (Ibid., p. 3). While the

participants in this study experience considerable autonomy, it is clear that they have a perception that they are not receiving recognition or an experience commensurate to specialized expertise.

RQ2: What is the nature of this relationship?

The nature of the relationship between online instructor satisfaction and teaching presence is a dynamic one and typified by parallels that exist between the two constructs. At the theoretical level, there are similarities between satisfaction constructs and the components of teaching presence. Course design/development and teaching, defined by Bolliger et. al (2014) as the satisfaction derived from the teaching process, is synonymous with instructional design and organization from the Community of Inquiry Framework (Garrison et al. 2000), which encompasses the planning and delivery elements of designing a course.

Likewise, student-to-student interaction speaks to the satisfaction gained from the quality and quantity of active communication, interaction, and collaboration happening among students. This construct parallels with the facilitating discourse component of teaching presence where instructors are enabling communication, interaction, and collaboration between students through identifying areas of agreement, seeking to identify consensus and understanding, drawing in participants, acknowledging contributions by students, and assessing the efficacy of the discussion/process. In interviews, instructors were adament in their belief that student-to-student interaction formed a core component of their approaches to OTL, and noted that they spend a considerable time planning out (IDO) the kinds of interactions they wanted to happen in lessons. When successful, participants derived satisfaction from student-to-student interactions.

Instructor-to-student interaction, the satisfaction derived from the format, type, and quality of two-way communication between instructor and students is akin to the direct instruction component of teaching presence, whereby the instructor presents content and asks questions, summarizes discussion, diagnoses misconceptions among students, responds to technical concerns, and summarizes the discussion after injecting information and knowledge from a diverse range of sources. Figure 12 illustrates this relationship. Ray, for example sets curriculum (IDO) and draws in participants to promote discussion/acknowledge student contributions (FD). These are both indicators of teaching presence. In his interview, Ray also expressed considerable satisfaction with these kinds of instructor-to-student interactions.

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Practitioner Implications

At the practitioner level, satisfied instructors are likely to exhibit more indicators of teaching presence. Put another way, happy teachers teach well. On one hand, instructor satisfaction is an important topic in OTL, and has the potential to influence the quality of instruction (Bolliger et al., 2014, p.192). On the other hand, the CoI, and in particular teaching presence, may be an appropriate framework for measuring program quality and student outcomes (for example Arbaugh, 2008). However, in attempting to increase the amount of teaching presence they exhibit during lessons, instructors are faced with an increased workload. This may lead to less satisfaction and may not be recognised by their institution. Alternatively, an increase in teaching presence, leading to more active interaction with and between students, might increase the amount of satisfaction instructors experience because of a sense of accomplishment, in spite of the workload. In practice, instructors need to strike a balance between these two possible outcomes. Striking that balance is crucial and predicated on instructors' institutions providing appropriate support, and recognizing that online instruction is specialized, utilizing specific skills and pedagogies that are different from face-to-face teaching contexts.

Limitations

Some limitations of the study need to be outlined. The results of the OISM are self-reported, and therefore represent participant's perception of satisfaction. The sample itself is small, with a total of five participants precluding any statistical analysis of significance. It is also limited in geographic scope, with all the participants coming from one department with its own culture, beliefs, values and attitudes towards online teaching and learning, English language teaching, TESOL, and education in general. The department's use of G Suite for Education and Google Classroom is also a factor that might limit this research since, at least in Korea, its use is not commonplace in higher education. Therefore, it is difficult to generalize the findings presented here beyond these instructors in this context. Furthermore, since the researcher is a member of faculty in the department, there is the potential for bias both in terms of the responses from participants and also in the interpretation of the data. However, as an examination of these phenomena in a single context there are some useful, and exciting, potential avenues for future research.

Additionally, in the analysis of videoconferencing, it was found that the existing, linguistics-based, Community of Inquiry framework may be insufficient for detailed identification and analysis of phenomena. Multimodal approaches to the examination of videoconference lessons need to be developed that use the established indicators of teaching

presence, but also other indicators, such as instructor on-screen behaviours, that are specific to this relatively new form of teaching and learning.

Multimodal analysis of videoconference lessons might also draw on theory from outside of linguistics. For example, a combination of the existing CoI and Tan's (2009) Systemic Networks for Gaze and Kinetic Action Vectors might be more likely to account for a greater number of semiotic resources in videoconference lessons and may also work as a professional development tool for instructors. Approaching the examination of videoconference lessons from a Multimodal Discourse Analysis perspective will afford researchers the opportunity to gather richer data than current approaches.

Future research

Future research needs to consider a greater sample size and should include data collection from more than one department, or institution. With the continued growth of videoconferencing as a medium of instruction, it should also be possible to collect data from various kinds of institution. Of interest is the use of videoconferencing in primary and secondary (K-12) education settings as well as professional development settings in the public and private sectors.

Future research must also explicitly describe an instance of online teaching and learning, rather than relying on generic definitions of so-called e-learning, distance learning or online learning. By adopting a typology, context-driven descriptions can be derived. Expanding beyond context, researchers might seek to conduct ethnographic studies of instructors. Practitioners can take up the mantle and conduct action research on how these phenomena are playing out in their own virtual classrooms. Ethnographic and action research approaches are advocated by Levy & Stockwell (2006). While there are some issues in terms of the generalizability of studies that come out of such approaches, since they often take longer periods of time, shorter, ethnographic and contextual studies like the present one may be of use.

Chapter 7 Conclusion

This study began with the aim of establishing whether or not there is a relationship between teaching presence and online instructor satisfaction and describing that relationship. To investigate these questions, a cohort of five instructors at Central University's (CU) graduate school of TESOL, in Seoul, South Korea, were recruited to participate in a descriptive mixed methods case study.

The results of the study point to there being a relationship between teaching presence and online instructor satisfaction, although there is individual variability in the level of satisfaction described by each participant. In interviews, participants discussed their satisfaction and in doing so articulated a series of common themes related to both satisfaction and teaching presence. In observations, numerous indicators of teaching presence were observed. The greatest number of indicators related to discourse facilitation. In contrast, in text-based observations, teaching presence indicators relating to instructional design and organization were more frequently observed. Overall, participants perceive themselves as moderately satisfied, but are least satisfied with the amount of institutional support they receive. These results are significant because institutional support seems to link teaching presence with satisfaction. More satisfied instructors are likely to exhibit more teaching presence indicators, but only when they feel they receive adequate institutional support.

While this study has achieved its aim of identifying whether there is a relationship between teaching presence and online instructor satisfaction, the evidence must be viewed through the lens of this specific context, and in relation to these specific participants. The Lowenthal-Wilson-Parrish Typology (Lowenthal et al., 2009), was used to aid in this description, and is a useful tool for building such descriptions of specific instances of OTL. By describing, rather than defining this instance of OTL at CU, a much more nuanced examination of the context was possible.

Finally, and to recall Hubbard & Levy (2016), more "tinkering" needs to be done. Future research directions for the study of teaching presence, especially as it manifests in videoconference lessons, will need to combine ethnographic and contextual types of studies with multimodal approaches. Such approaches will need to take the existing CoI and modify it to encompass the numerous semiotic resources that are utilized by instructors.

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List of Appendices

Appendix 1 Lowenthal-Wilson-Parrish Online Learning Typology

Lowenthal-Wilson-Parrish Typology for describing online teaching and learning

Theme	Characteristics	Description	Notes
	Formality	Describes the type of education (Coombs & Ahmed, 1974) being undertaken.	*Formal* – traditional education *Non-formal (required)* – education undertaken as part of one's job duties; a. An example of required non-formal education might be a sexual harassment awareness training required by an employer Lowenthal et al. (2009). *Non-formal (optional)* – education that is not required but might be considered "professional development". *Informal* – potentially an example of lifelong learning but which lacks the "deliberate instructional and programmatic emphasis in formal and non-formal education" (Harasim, 2000, p. 63).
	Setting	K-12, higher education, corporate, etc.	Each setting brings with it different demands which instructors and administrators needs to be aware of.
Context	Curriculum fit	Somewhat connected to formality and specifically credentialing, where specificity of outcomes is important.	In professional development contexts students may require some form of certification to show proficiency. This requirement may be less in less formal contexts.
	Synchronous/ Asynchronous	Describes whether delivery is synchronous or asynchronous.	
	Pacing	Does the course follow a predefined schedule such as– e.g. a semester timetable, or can learners complete it at their own pace?	Pacing may also be connected to delivery with asynchronous courses often being self-paced while synchronous courses are connected to a semester definite time-frame.
	% Online	Describes the percentage of the course delivered online versus face-to-face	cf. Allen et al. (2016)
	Class size	Describes the number of students in the course	

Theme	Characteristics	Description	Notes
	Development model	Describes who developed the course	An external vendor, a different instructor from the instructor delivering the course, or is the instructor responsible for both design and delivery?
	Targeted learning	Is the course focused on development of skills, knowledge, or a combination of both?	
	Subject area	What discipline, subject area etc.?	
	Multimedia	Is the course text-based, video/multimedia based, or a combination of both?	
Media	3D virtual worlds	Use of a 3D virtual world for example *Second Life*.	In 2009 when Lowenthal et al. developed this typology, the potential for immersive 3D worlds such as Second Life to be a medium for online instruction was at the forefront of researcher's' minds. (For example, see Dudeney and Ramsay (2009)). Some eight years later, the perceived potential for these immersive virtual worlds has been diminished considerably, perhaps in favor of social networks like Facebook and Twitter.
Teachers & Learners	Instructor role	Describes the role of the instructor.	This varies considerably from course to course. In synchronous and especially videoconference-based courses the instructor may play a prominent role, while self-study and self-access courses may not have an instructor at all.
	Cohort group	Are students part of a cohort group, or do they work individually?	Group and pair work is likely to influence student experiences, especially in the establishment of community (cf. Ssocial presence). Students' feelings of isolation (as detailed by Ludwig-Hardman and Dunlap (2003)), may play a part in attrition, as well as their previous experiences with online learning.

Theme	Characteristics	Description	Notes
	Student collaboration	Explicitly describes the amount of collaboration occurring between students in the course.	For example, it cannot be assumed that there is a low level of collaboration just because the course is self-access.
	Communication	Describes the means of communication between instructor and students and between students.	Both asynchronous and synchronous communication strategies have advantages and disadvantages, and are likely to have an impact on the satisfaction of participants, and therefore need to be accounted for.
	Teacher preparation	Do instructors in online courses have specific and applicable training/certification in online instruction?	
	Student diversity	The level of homogeneity or heterogeneity of the student body taking the online course.	

Adapted from Lowenthal et al. (2009)

Lowenthal-Wilson-Parrish online learning typology observation/notes form

Context – Course setup, purpose, fit				
Formality	Formal/Credit	Required Non-formal	Optional Non-formal	Informal
Setting	K-12	Higher Ed.	Workplace Learning	Other [specify]
Curriculum Fit	Course within Credential or Degree	Module Embedded within a Course or Credential	Stand-Alone Module	
Synchronous	[Specify % synchronous and asynchronous]			
Pacing	Fixed – Standard Term	Fixed – Accelerated Term	Self-Paced on	Completely Self-Paced
% online	[Specify % online and on-site]			
Development Model	Course was purchased from a vendor	Course was collaboratively designed and developed by a team or unit	Instructor is teaching a course designed and developed by another faculty	Instructor is teaching a course in which Wed-based or other materials designed by others are incorporated into his/her own materials	Course is designed, developed, and taught by the instructor
Targeted Learning	Knowledge/memory/text processing	Skills and operations	Higher-order/authentic performing	
Subject Area	[Specify][			
Media – Use and integration of multimedia and virtual worlds				
Multimedia	Primarily Audio and Video	Blended Media	Primarily Text-based	
3-D Virtual World	Fully Immersed	Blended	Supplemental	No 3-D World
Teachers and Learners				
Instructor Role	Instructor – highly engaged/present	Instructor – less engaged/present	No Instructor	
Cohort Group	Continuing Cohort or Established Group	New Cohort	Non Cohort – most students don't know each other	
Communication	Regular communication with faculty and between students	Communication primarily with students	Communication primarily with faculty	Very little communication with faculty or students
Student Collaboration	Ongoing student collaboration on projects and issues that arise	Occasional collaboration among students	Student collaboration is rare	
Teacher Preparation	Trained/Experienced Online Instructor	Trained but first time teaching online	First time teaching online	Not applicable (No instructor)
Student Diversity	Heterogeneous [Describe in space provided]	Homogeneous [Describe]		
Class Size	[Specify class size or class size estimate]			

Description of CU modules

Central University Web-enhanced Module

Context – Course setup, purpose, fit	
Formality	Optional Non-formal. Ss. complete certificate programs for 1) professional development (in-service teachers) 2) professional development (pre-service) 3) other
Setting	Higher Education. Post-graduate certificate course feeding into Masters level programs within CU, or external Masters programs (CU credit transfer agreements)
Curriculum Fit	Module embedded within a course or credential (The CU YL or CU TESOL certificate) Ss. Complete 6 modules
Synchronous	0% synchronous, the amount of asynchronous content and number of asynchronous tasks varies depending on the instructor and needs of the module.
Pacing	Fixed term, 18-week semester. Modules have 2 hours each per week face-to-face instruction.
% online	Varies depending on course, and instructor. >1%, <29%
Development Model	Courses are developed in teams or units but are supplemented by instructors with a variety of web-based and multimedia resources depending on the needs of students. Weekly meetings among instructors, content development and revision meetings mid- and end of semester.
Targeted Learning	Move from skills and operations in the beginning of the semester toward higher order thinking and authentic performance as students move to teaching practicum/final assessments.
Subject Area	Applied Linguistics/TESOL.
Media – Use and integration of multimedia and virtual worlds	
Multimedia	Blended - use of audio, video and text-based media.
Learning Management System (LMS)	G Suite for Education Google Classroom Google Docs, Google Slides
Teachers and Learners	
Instructor Role	Less engaged/present. Depending on the instructor and course. Some instructors utilize the LMS etc. at higher levels than others depending on personal approach, style, course and student needs etc.
Cohort Group	Established group (at least by the end of the semester). Ss know each other predominantly from face-to-face interactions.
Communication	Primarily instructor-to-students, some student-to-student interaction depending on needs of the course, task types etc.
Student Collaboration	Occasional collaboration. In Curriculum Design and Lesson Planning module for example, students work on a lesson planning task collaboratively via a shared Google Doc. In SLA module Ss create summaries.
Teacher Preparation	Trained and experienced instructor(s) with 2+ years experience using the LMS etc. Instructors have considerable levels of experience at the university level and teaching in general.
Student Diversity	Homogeneous – 100% female, 100% Korean ethnicity. Age 24-50.
Class Size	9-17(depending on cohort group).

Central University Blended Module

Context – Course setup, purpose, fit	
Formality	Optional Non-formal. Ss. complete certificate programs for 1) professional development (in-service teachers) 2) professional development (pre-service) 3) other
Setting	Higher Education. Post-graduate certificate course feeding into Masters level programs within CU, or external Masters programs (CU credit transfer agreements)
Curriculum Fit	Module embedded within a course or credential (The CU YL or CU TESOL certificate) Ss. Complete 6 modules, SLA Theory and Lesson Planning modules are completed online, others are web-enhanced.
Synchronous	100% for this module. All classes are online delivered via videoconference lessons and use of the LMS
Pacing	Fixed term, 18-week semester. Modules have 2 hours each per week online instruction. (and 8 face-to-face)
% online	100% for SLA Theory and Lesson planning. For face-to-face modules same as web-enhanced; >1% - <29% depending on instructor and needs of students/course.
Development Model	Courses are developed in teams or units but are supplemented by instructors with a variety of web-based and multimedia resources depending on the needs of students. Weekly meetings among instructors, content development and revision meetings mid- and end of semester.
Targeted Learning	Move from skills and operations in the beginning of the semester toward higher order thinking and authentic performance as students move to teaching practicum/final assessments.
Subject Area	Applied Linguistics/TESOL.
Media – Use and integration of multimedia and virtual worlds	
Multimedia	Use of live/synchronous audio, video as well as asynchronous multimedia and text.

Learning Management System (LMS)	G Suite for Education
	    Google Classroom
	    Google Docs, Google Slides
	    Google Hangouts (videoconferencing)

Teachers and Learners	
Instructor Role	Instructor – highly engaged/present – by necessity, this is a live class, albeit delivered via videoconference. Instructors in this module tend to also be more engaged/present in the (text-based) LMS as well between classes.
Cohort Group	Established group (at least by the end of the semester). Ss know each other predominantly from face-to-face interactions.
Communication	Primarily instructor-to-students. Increased instances of student-to-student collaboration in synchronous classes (Ss. Completing tasks) as well as between classes/asynchronously.
Student Collaboration	Higher than web-enhanced. In this version students don't see each other face-to-face in the Lesson Planning module so there is much more deliberate collaboration via a shared Google Doc etc. Ss. Are also in different locations (many outside of Seoul) and so make use of online collaborative opportunities more readily in lieu of seeing classmates in-person. In SLA module Ss. create summaries.
Teacher Preparation	Trained and experienced instructor(s) with 2+ years experience using the LMS etc. Instructors have considerable levels of experience at the university level and teaching in general. Instructors may use more preparation time in synchronous versions of lessons. (cf. Reinheimer (2005))
Student Diversity	Homogeneous – 100% female, 100% Korean ethnicity. Age 24-50.
Class Size	9-17(depending on cohort group).

Central University Fully Online (Synchronous) Module

Context – Course setup, purpose, fit	
Formality	Optional Non-formal. Ss. complete certificate programs for 1) professional development (in-service teachers) 2) professional development (pre-service) 3) other
Setting	Higher education. Fully online modules are stand alone or can feed/prepare students to enter certificate courses at CU
Curriculum Fit	Module embedded within a course or credential (The CU "TESOL Live" Cert.) Ss. Complete 4 modules; Lesson planning, materials development, phonology, classroom English
Synchronous	100% for all modules. Three classes are online delivered via videoconference lessons and use of the LMS, one is asynchronous – descried below.
Pacing	Fixed term, 12-week semester. Modules have 2 hours each per week face-to-face instruction.
% online	100%
Development Model	Courses are developed in teams or units but are supplemented by instructors with a variety of web-based and multimedia resources depending on the needs of students. Weekly meetings among instructors, content development and revision meetings mid- and end of semester.
Targeted Learning	Knowledge/memory/text processing, with the aim of moving towards more skills and operations based learning by the end of the course.
Subject Area	Applied Linguistics/TESOL.
Media – Use and integration of multimedia and virtual worlds	
Multimedia	Use of live/synchronous audio, video as well as asynchronous multimedia and text.
Learning Management System (LMS)	G Suite for Education Google Classroom Google Docs, Google Slides Google Hangouts (videoconferencing)
Teachers and Learners	
Instructor Role	Instructor – highly engaged/present – by necessity, this is a live class, albeit delivered via videoconference. Instructors in this module tend to also be more engaged/present in the (text-based) LMS as well between classes.
Cohort Group	Established group (at least by the end of the semester). Ss know each other only through online interaction
Communication	Primarily instructor-to-students. Increased instances of student-to-student collaboration in synchronous classes (Ss. Completing tasks) but little between classes/asynchronously.
Student Collaboration	Higher than web-enhanced. In this version students don't see each other face-to-face in the Lesson Planning module so there is much more deliberate collaboration via a shared Google Doc etc. Ss. Are also in different locations (many outside of Seoul) and so make use of online collaborative opportunities more readily in lieu of seeing classmates in-person. In SLA module Ss. create summaries.
Teacher Preparation	Trained and experienced instructor(s) with 2+ years experience using the LMS etc. Instructors have considerable levels of experience at the university level and teaching in general. Instructors may use more preparation time in synchronous versions of lessons. (cf. Reinheimer (2005))
Student Diversity	Homogeneous – 100% female, 100% Korean ethnicity. Age 24-50. (Traditionally there has been one male per cohort.
Class Size	9-17(depending on cohort group).

Central University Fully Online (Asynchronous) Module

Context – Course setup, purpose, fit	
Formality	Optional Non-formal. Ss. complete certificate programs for 1) professional development (in-service teachers) 2) professional development (pre-service) 3) other
Setting	Higher education. Fully online modules are stand alone or can feed/prepare students to enter certificate courses at CU
Curriculum Fit	Module embedded within a course or credential (The CU "TESOL Live" Cert.) Ss. Complete 4 modules; Lesson planning, materials development, phonology, classroom English
Synchronous	100% for all modules. Three classes are online delivered via videoconference lessons and use of the LMS, one is asynchronous – descried below.
Pacing	Fixed term, 12-week semester. Asynchronous module is less structured than others. Ss. complete units 1-5 at their own pace but must finish before the midterm. Students complete Units 7-11 at own pace, but must complete before the final assessment in week 12.
% online	100%
Development Model	Courses are developed in teams or units but are supplemented by instructors with a variety of web-based and multimedia resources depending on the needs of students. Weekly meetings among instructors, content development and revision meetings mid- and end of semester.
Targeted Learning	Knowledge/memory/text processing.
Subject Area	Applied Linguistics/TESOL.
Media – Use and integration of multimedia and virtual worlds	
Multimedia	Text and some multimedia, used exclusively asynchronously

Learning Management System (LMS)	G Suite for Education
	    Google Classroom
	    Google Docs

Teachers and Learners	
Instructor Role	Instructor – less engaged/present. Instructors post tasks and discussion questions. May respond/provide feedback, but nature of mostly self-paced course means instructor feedback is less than other courses
Cohort Group	Established group (at least by the end of the semester). Ss know each other only through online interaction in synchronous modules.
Communication	Primarily instructor-to-students. Few instances of student-to-student collaboration. Ss interact with each other minimally in message board postings.
Student Collaboration	Few instances of student-to-student collaboration. Ss interact with each other minimally in message board postings.
Teacher Preparation	Trained and experienced instructor(s) with 2+ years experience using the LMS etc. Instructors have considerable levels of experience at the university level and teaching in general. Instructors may use more preparation time in synchronous versions of lessons. (cf. Reinheimer (2005))
Student Diversity	Homogeneous – 100% female, 100% Korean ethnicity. Age 24-50. (Traditionally there has been one male per cohort.
Class Size	9-17(depending on cohort group).

Appendix 2 Summary of themes from participant interviews

Theme (Satisfaction, Teaching Presence)	Keywords	Characteristic comments/responses
Teaching online is not recognized as a specialized skill IS, CDT, IDO	Skill sets Competency Specialized	"I found out through my experience that online environments require a new type of pedagogical competency in addition to a technological competency". (Esther) Once it gets more established and more recognized and the people holding the purse strings maybe appreciate that it is actually a skill, maybe the pay will change. (Grant) "I mean you could argue that [online teaching] is a skill and it's a specialized skill you can argue..." (Martin) "Because of teaching online my skill set is increasing, which is always helpful and diversifying [sic]." (Michelle)
Online videoconference lessons require more time to prepare CDT, IDO	Preparation Development Involvement	"Despite the extra hours I would spend 'preparing' for the class, reviewing the notes and scripts provided, double checking my content knowledge, etc I didn't have the skills to handle anything that landed outside of the script. Similar to how I felt when I first began teaching EFL (face-to-face) with no formal training." (Esther) "In terms of materials development and preparation, not it isn't. I found that I had to be much more prepared for the online courses whereas in a traditional classroom I could run the entire class completely from improvisation, if necessary." (Esther) "I have to go back into the actual thread, edit it, possibly erase everything I have up there already, put it back up there again in the correct order, which is not only stress inducing but it adds to my time that I need to prepare for class." (Michelle) "I actually think there's way more prep and there's a whole lot more involved in getting it to go right" (Ray) "…the truth of the matter is every two-hour lesson requires a day at least of living in it beforehand, and in my case it usually means 24 hours spread out over 4-6 days, so that it can gestate and come together" (Ray)
Student perceptions of quality based on what they can see on screen	Perspective Camera	"There was also a constant nagging sense that I had to keep them entertained otherwise they would think that I wasn't 'doing my job properly'. This may come from schema of only using the internet for entertainment prior to taking online course" (Esther)

ISI, SSI, A, CDT, IDO		"One good thing was that the camera wasn't permanently on, which made it sometimes quite awkward if you were trying to read something or trying to fiddle around." (Martin)
		"It could look like you didn't know what you are doing or you were unprepared or you weren't listening to them, because there is no eye contact with the camera." (Martin)
		if you're looking down or if you're fiddling with something, the students perceive you, or possibly perceive you, as not knowing what you're doing or not listening or something like that. (Grant)
		try to remember to look at the camera, don't look at my picture because then I get distracted, then I think, oh, maybe I should have worn a different lipstick colour today, that level of distracted. (Michelle)
		"the appeal of being able to sit down with my dog in my room with me and flash the camera at him once a while and see people smile and relax and create a better atmosphere" (Ray)
Instructor ability to facilitate discussion and elicit responses is diminished in online videoconference lessons ISI, SSI, CDT, A, IDO, DF, DI	Body language Eye contact	"The teacher can reduce comprehension anxiety in a face-to-face classroom with body language, drawings, and/or other improvisations" (Esther)
		"I think there is something in the physical room, there's kind of a body language which suggests that anyone can answer, whereas [online] I have to say 'Okay… so. anybody?'" (Martin)
		"In an online situation, the best you can do is look down the barrel of a lens and hope someone asks you. So it is one of these situations where body language can really make a difference" (Martin)
		"In a traditional classroom, I was able to use body language or gestures to lower the affective filter." (Michelle)
Traditional classroom tasks take more time in videoconference lessons ISI, SSI, CDT, A, IDO, DF, DI	Time Online environment	"…those sorts of things always seems [sic] to take too much time in the online environment as it required students to focus more, turn on their microphones, and stuff. To use that technique continually (or techniques like that) would have used 20 minutes or more in total of the class time" (Esther)
		"To use that technique continually, or techniques like that, would have used 20 minutes or more in total of the class time in my experience. Although I have heard of some instructors developing methods for making that run more smoothly, I personally was never able to up to this point. "(Esther)

		"With the online classes it's still difficult to get people back in the room on time, even if you send them messages, okay, one minute, one minute, one minute. So that's frustrating that we always start the follow-up, the feedback and the follow-up, people are just dribbling in." (Martin)

"Doesn't have to be, there's room for that. But I think in a limited-time environment where it takes longer to get students to raise their hands because you can't see them and they have to move their mouse and click a button or they have to follow protocol and signal their intent to do something, some of the more instantaneous interactions get slowed down." (Grant) |
| **Online videoconference lessons are a "new" phenomenon**

IS, CDT, IDO | New
Early | "I believe (and the literature shows) that online teaching and learning requires a totally new set of pedagogical methods, techniques and strategies" (Esther)

"For me it's just the lack of appreciation or general awareness of what it is. And then complaints about what you do is what online teaching is, and though it's not, it is. (Grant)

"It's still a fairly early in interactive online teaching, that maybe that's not recognized yet financially…because [online teaching] is new and people cling to the old ways for longer than they need to…" (Martin)

"Last night, I thanked the students for participating in this adventure of a new thing that nobody's ever done before." (Ray) |

Appendix 3 Ethics Committee Approval, Participant Consent

Ethics Committee Approval

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from: FHS Ethics < ████████████████ >
to: Helen Slatyer < ███████████████████ >
cc: Mr Stafford Lumsden < ████████████████████████████ >
date: Wed, May 17, 2017 at 2:07 PM
subject:RE: HS Ethics Application - Approved (5201700461)(Con/Met)

Dear Dr. Slatyer,

Re: "The relationship between Teaching Presence and Instructor Satisfaction in an online teacher education program" (5201700461)

Thank you very much for your response. Your response has addressed the issues raised by the Faculty of Human Sciences Human Research Ethics Sub-Committee and approval has been granted, effective 17th May 2017. This email constitutes ethical approval only.

This research meets the requirements of the National Statement on Ethical Conduct in Human Research (2007). The National Statement is available at the following web site: https://www.nhmrc.gov.au/book/national-statement-ethical-conduct-human-research

The following personnel are authorised to conduct this research:

Dr Helen Slatyer
Mr Stafford Lumsden

Please note the following standard requirements of approval:

1. The approval of this project is conditional upon your continuing compliance with the National Statement on Ethical Conduct in Human Research (2007).
2. Approval will be for a period of five (5) years subject to the provision of annual reports.
    Progress Report 1 Due: 17th May 2018
    Progress Report 2 Due: 17th May 2019
    Progress Report 3 Due: 17th May 2020
    Progress Report 4 Due: 17th May 2021
    Final Report Due: 17th May 2022

NB. If you complete the work earlier than you had planned you must submit a Final Report as soon as the work is completed. If the project has been discontinued or not commenced for any reason, you are also required to submit a Final Report for the project. Progress reports and Final Reports are available at the following website:
http://www.research.mq.edu.au/current_research_staff/human_research_ethics/resources

3. If the project has run for more than five (5) years you cannot renew approval for the project. You will need to complete and submit a Final Report and submit a new application for the project. (The five year limit on renewal of approvals allows the Sub-Committee to fully re-review research in an environment where legislation, guidelines and requirements are continually changing, for example, new child protection and privacy laws).
4. All amendments to the project must be reviewed and approved by the Sub-Committee before implementation. Please complete and submit a Request for Amendment Form available at the following website:

http://www.research.mq.edu.au/current_research_staff/human_research_ethics/managing_ approved_research_projects

5. Please notify the Sub-Committee immediately in the event of any adverse effects on participants or of any unforeseen events that affect the continued ethical acceptability of the project.

6. At all times you are responsible for the ethical conduct of your research in accordance with the guidelines established by the University. This information is available at the following websites:

http://www.mq.edu.au/policy
http://www.research.mq.edu.au/current_research_staff/human_research_ethics/managing_app roved_research_projects

If you will be applying for or have applied for internal or external funding for the above project it is your responsibility to provide the Macquarie University's Research Grants Management Assistant with a copy of this email as soon as possible. Internal and External funding agencies will not be informed that you have approval for your project and funds will not be released until the Research Grants Management Assistant has received a copy of this email.

If you need to provide a hard copy letter of approval to an external organisation as evidence that you have approval, please do not hesitate to contact the Ethics Secretariat at the address below.

Please retain a copy of this email as this is your official notification of ethics approval.

Yours sincerely,

Dr. Naomi Sweller
Chair
Faculty of Human Sciences
Human Research Ethics Sub-Committee

Participant consent (instructors)

Department of Linguistics
Faculty of Human Sciences
MACQUARIE UNIVERSITY   NSW   2109
Phone: +61 (02) 9850
Fax: +61 (02)9850 9199
Email: ███████████████████████

Chief Investigator's / Supervisor's Name & Title: Dr. Helen Slatyer

Participant Information and Consent Form

Name of Project: *The relationship between Teaching Presence and Instructor Satisfaction in an online teacher education program.*

You are invited to participate in a study about instructor satisfaction when teaching online. In order to better understand what drives instructor satisfaction, the relationship between Teaching Presence and instructor satisfaction will be examined.

The study is being conducted by Stafford Lumsden and is being conducted to meet the requirements of a Master of Research (MRes) under the supervision of Dr. Helen Slatyer, (email: ███████████████████) of the Department of Linguistics.

If you decide to participate, you will be asked to
- *Complete one questionnaire on Instructor Satisfaction. The questionnaire will take approx. 20-30 minutes to complete.*
- *Be interviewed by the researcher at the beginning and end of the research period. With your consent, audio recordings of interviews will be made and transcribed. Each of the two interviews will be approx. 60 minutes in length.*
- *Be observed by the researcher during online instruction (synchronous classes) 2-3 times. With your consent video/audio recordings will be made and transcribed.*
- *Be observed by the researcher in asynchronous instruction contexts.*
- *Information and data gathered during this research project will NOT be made available to third parties for the purpose of instructor assessment, performance review or similar, and are for the sole purpose of research to meet the requirements of the researcher's degree program only.*

Any information or personal details gathered in the course of the study are confidential, except as required by Australian and South Korean law. No individual will be identified in any publication of the results. The researcher, his Supervisor and Associate-supervisors will have access to data gathered during the course of the research and subsequent analysis. A summary of the results of the study can be made available to you on request by emailing ███████████████████████

Participation in this study is entirely voluntary: you are not obliged to participate and if you decide to participate, you are free to withdraw at any time without having to give a reason and without consequence.

If you feel that there are any issues pertaining to ethics and conflict of interest you may discuss these with the researcher, (███████████████████████) or contact their supervisor (████████████████). You can also contact ████████████████, Director, ████████████ (█████████████████) to discuss any concerns.

I, _____ have read *(or, where appropriate, have had read to me)* and understand the information above and any questions I have asked have been answered to my satisfaction. I agree to participate in this research, knowing that I can withdraw from further participation in the research at any time without consequence. I have been given a copy of this form to keep.

Participant's Name:_____ Participant's Signature_____ Date:
(Block letters)

Investigator's Name: <u>STAFFORD LUMSDEN</u> Investigator's Signature: *Slumsd* . Date:
(Block letters)

The ethical aspects of this study have been approved by the Macquarie University Human Research Ethics Committee. If you have any complaints or reservations about any ethical aspect of your participation in this research, you may contact the Committee through the Director, Research Ethics & Integrity (telephone (02) 9850 7854; email ethics@mq.edu.au). Any complaint you make will be treated in confidence and investigated, and you will be informed of the outcome.

Participant consent (students)

Department of Linguistics
Faculty of Human Sciences
MACQUARIE UNIVERSITY   NSW   2109
Phone: +61 (02) 9850
Fax: +61 (02)9850 9199
Email: ███████████████████████

Chief Investigator's / Supervisor's Name & Title: Dr. Helen Slatyer

Participant Information and Consent Form
온라인 교사 교육 프로그램에서 teaching presence 와 교사 만족 간의 관계.
귀하는 온라인 강사 및 teaching presence 연구에 참여하도록 초청받았습니다.
이 연구의 목적은 온라인 교육 환경에서 강사 만족도와 teaching presence 의 관계를 탐구하는 데 있습니다.

이 연구는 Stafford Lumsden 이 Macquarie University 의 언어학 박사 Helen Slatyer (이메일 : ███████████████████)의 감독하에 위와 같은 주제를 연구하기 위해 실시되었습니다.

이 연구에 참여하기로 결정한 경우,
당신은 당신의 온라인 수업 중에 관찰될 것입니다.

- 학생들은 이 연구의 일부가 아니지만, 연구자는 온라인 수업 중 학생들을 보거나 수업의 모든 것을 들을 수 있기에 (3 개) 학생들이 이 데이터를 수집 할 수 있도록 연구자에게 권한을 부여하는 것은 중요합니다.
- 당신의 얼굴과 목소리는 공개되지 않습니다.
- Google Classroom 에의 당신의 게시물은 학생과 교수 사이에서 발생하는 상호 작용의 예시로 사용될 수 있습니다.

귀하의 이름은 귀하의 게시물은 본 연구 결과에 공개되지 않습니다. 호주 및 한국 법이 요구하는 경우를 제외하고 연구 중에 수집 된 개인 정보는 기밀입니다. 결과 발표에 누구도 공개되지 않습니다.

연구원과 연구 책임자 및 공동 감독자는 연구 중에 수집 된 데이터에 액세스 할 수 있으며 분석 할 수 있습니다. 결과와 데이터 요약은 ███████████████████████ 이메일을 보내면 확인할 수 있습니다.

이 연구에 참여하는 것은 자발적입니다. 꼭 참여할 필요는 없으며 참여하기로 결정한 경우 언제든지 이유없이 철회 할 수 있습니다.

윤리 및 이해 상충 문제가 있다고 생각되면 연구원 (███████████████████)과 상의하거나 연구 책임자 (███████████████)에게 문의하십시오. . 또한 숙명여자대학교   TESOL Director ███████████████████████) 와 연락하여 우려 사항을 논의 할 수 있습니다.

나, _____는 위의 정보를 읽었으며 (또는 읽어주는 것이 적절하다면 읽어 주었을 때), 위의 정보를 이해하고 내가 질문 한 내용에 만족스러운 응답을 받았습니다. 결과에 아무런 영향을 미치지 않고 언제든지 연구 참여를 철회 할 수 있음을 알고 이 연구에 참여하는 것에 동의합니다. 나는 이 양식의 사본을 보관 해 두었습니다.

지원자 이름:_____서명:_____ 날짜:_____
        (대문자로 작성)

Investigator's Name: <u>STAFFORD LUMSDEN</u> Investigator's Signature: _____ Date:____
_____
        (Block letters)

The ethical aspects of this study have been approved by the Macquarie University Human Research Ethics Committee. If you have any complaints or reservations about any ethical aspect of your participation in this research, you may contact the Committee through the Director, Research Ethics & Integrity (telephone (02) 9850 7854; email ethics@mq.edu.au). Any complaint you make will be treated in confidence and investigated, and you will be informed of the outcome.

Appendix 4 Online Instructor Satisfaction Measure and Interview Questions

OISM

Instructor Satisfaction Survey (Bolliger et al., 2014)

Please indicate the level to which you agree with the following statements using the scale 1 – 5, with 1 indicating you strongly disagree and 5 indicating you strongly agree.

Instructor to student interaction
1. I am pleased with the quality of student work in online courses.
2. I am satisfied with students' motivation in online courses.
3. My online students are somewhat passive in their interactions
4. My interactions with online students are satisfying.
5. My online students participate enthusiastically.
6. I do not get to know my online students well.

Affordances
1. I am satisfied with the convenience of the online learning environment.
2. Online courses provide a flexible learning environment
3. Online courses allow students to access a wide range of resources.
4. Online teaching allows me to reach a more diverse student population.
5. I am satisfied that my students can access their online course from almost anywhere.

Institutional Support
1. At my institution, teachers are given sufficient time to design and develop online courses.
2. My institution provides the necessary technology tools (equipment and software) for teaching online.
3. My needs for training to prepare for teaching online have been met.
4. I have adequate technical support by my institution.
5. My institution provides fair compensation or incentives for teaching online.
6. I am satisfied with online teaching policies that have been implemented by my institution.

Student to student interaction
1. My online students actively collaborate.
2. My students work well together online.
3. My online students share resources with each other within the course.
4. My students appear to be part of an online community in the online course(s) that I teach.
5. In online courses, each student has an opportunity to contribute.

Course design/development/teaching
1. My online students receive quality feedback.
2. It takes a lot of time to develop an online course.
3. I am accessible to students in online courses.
4. I am satisfied with how I assess students in online courses.
5. I am satisfied with the content quality of my online courses.

Interview Questions

<u>Introductory questions</u>
1. What was your first experience with online teaching (maybe as a student?)
2. Have you been teaching online consistently since then?
3. What methods of online delivery/pedagogy are you familiar with?

<u>Online Course Design</u>
4. What experience do you have in designing a course for online?
    1. Have you had any instruction in online course design?
    2. Have you adapted courses that were previously fully "offline"? What is that experience like?

    <u>Technology and Affordances etc.</u>
5. Would you describe teaching online more or less convenient than offline? Why?
6. What are your biggest concerns in using the technology currently available to you and used in your online classes? Can you describe a "victory" you have had in terms of using the technology etc.?

    <u>Interaction</u>
7. How much interaction occurs in your online classes? How is it different to interactions you have observed/witnessed in your offline classes?
8. Would you describe your students as participating in online classes "Enthusiastically"?
9. What leads you to think this... is there an element of assessed participation in your course?

<u>Institutional Support</u>
10. Did you receive adequate training in how to use the software and hardware tools the department uses for delivering online classes/content?
11. Is ongoing training and professional development and support available?
12. Does online teaching take more time?
    1. Do you think that the department provides adequate compensation for online teaching? Why/not?
    2. Do you think that the department provides adequate incentives (apart from pay) for online teaching? Why/not?