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Measuring Instructor Self-Efficacy when Migrating Face-to-Face Courses Online

Abstract. This study measures instructors' online teaching self-efficacy with an aim to capture their immediate and initial perception of migrating their teaching online and identify potential instructional needs and support. The authors sent a survey to all instructors in our institution four days prior to the first day of classes in spring 2020 and received 73 responses (60% response rate). The number of years of experience with online tools was low (88%). Instructors reported high confidence in their ability to teach online (82%); realization of the effort to create quality online experiences (90%);

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belief that teaching online would be different (90%); recognition of having to modify their assessment (77%); ability of adjusting teaching efficiently with unexpected events (82%); knowledge of where to seek teaching and technology guidance (86% & 89%); and confidence in developing a similar rapport with students (71%). Respondents were split in their beliefs about offering similar active learning opportunities. This study supplements research on instructors' perception of online teaching as a well-planned and intentional event, offering implications over the immediate and long-term support to be offered to instructors regarding migrating courses online both in times of crisis and when such opportunities arise.

Keywords: self-efficacy; online teaching; course design; motivation; teaching methods; active learning

Introduction

When instructors are asked to migrate their existing face-to-face (F2F) courses to an online format at short notice, what will happen? How are the instructors' own perception of their ability to achieve this extremely challenging goal? What are the immediate difficulties they might have? And what are the instant decisions they might make? Existing studies (Chiasson et al., 2015; De Gagne, 2009; Freeman, 2013) show that online teaching can be much more demanding than F2F teaching. Faculty often report that online teaching needs more preparation time and can be more time consuming (Chiasson et al., 2015; Lewis & Abdul-Hamid, 2006; Mills et al., 2009).

Current studies on instructors' perception of online teaching are usually conducted retrospectively when instructors are asked to comment on their existing or past experience (Chiasson et al., 2015; Conrad, 2004; Ray, 2009) or to share their views on online education in general (Mills et al., 2009; Stewart, Bachman, & Johnson, 2010). In this paper, we report the findings from a survey we sent to all instructors at our institution who were notified of the decision to migrate all their courses online three weeks before the semester started, due to the Coronavirus (COVID-19) epidemic, resulting in the closure of all educational institutions in many cities in the Chinese mainland. By capturing instructors' immediate and initial perception of this demanding task prior to their teaching with the lens of instructors' self-efficacy, we hope the findings can provide implications for the potential support to be provided when such needs arise on special occasions³. This paper can thus supplement existing studies with a broader focus on instructors' self-efficacy, while

3 As we were finalizing this paper, we witnessed a vast number of campus closures accompanied by immediate transition to online teaching worldwide as COVID-19 escalated as a global pandemic.

contributing to research on ‘planning, designing, delivering, and evaluating online instruction’ (De Gagne, 2009, p. 581) in general.

Since research has shown that ‘instructors increased their confidence and believed they became better instructors in their face-to-face courses’ (Chiasson et al., 2015, p. 234), we believe that beyond revealing the current gaps in urgent migration to online instruction in unusual situations, this initial survey can also shed light on long-term future-oriented visions that higher education can build in terms of preparing instructors with the skills and abilities needed for high-quality online instruction or even for further integrating digital tools in their everyday F2F teaching.

In the present paper, we will introduce the background of this survey study and explain how we designed the survey by referring to the concept of instructors’ self-efficacy. We will then demonstrate and discuss both the quantitative findings as well as our thematic analysis of the two open-ended questions in the survey. Towards the end of this paper, we will discuss the limitations of this study and outline potential areas for future studies.

Measuring Self-Efficacy prior to Online Teaching

Background

On January 27, 2020, following the required policy of campus closure, our university announced the decision to postpone the original starting date of the spring semester for two weeks (from February 3 to February 17, 2020). An email was sent from the university leadership to all faculty, announcing that they needed to start preparing to migrate their courses online (at least for the few weeks of the new semester until further notice), which meant that faculty had less than three weeks’ time to prepare for an unusual semester. Meanwhile, students had also received the notice of the postponing starting date and of the transition to online learning. Within the three weeks, the Center for Teaching and Learning (CTL) started to offer support by providing online teaching guidance in areas of pedagogical advice, course design and examples, and teaching resources.

The authors of this research are both faculty members at this young private research university that has in total approximately 200 faculty members and 1800 undergraduate students. Our university has a diverse international make-up of both faculty members (from more than 20 countries) and students (half from China and half from 70 other countries). This means that when the announcement was made, all faculty and students were located in different places across the world (mostly in their home countries) in different time zones.

After designing the online Self-Efficacy survey (see Appendix), one of the authors (as the current CTL Director) emailed a link to the online survey to all faculty

four days before the beginning of the new semester (February 14, 2020) and invited them to complete the survey. The online survey was created using Google Form, and all data were all collected anonymously. In the email, the goal of this project was shared, which is to help further inform CTL's programs and resources, so they could target their assistance in these rapidly changing times.

Why Self-Efficacy and the Survey Design

The concept of instructor efficacy emerged during the 1970s following the development of two intertwined conceptual strands (Tschannen-Moran et al., 1998). In the area of instruction, it was defined specifically as 'the extent to which the teacher believes he or she has the capacity to affect student performance' (Berman et al., 1977, p. 137). Meanwhile, Bandura further developed self-efficacy within the framework of social cognitive theory in the 1970s. Bandura (1977, 1982, 1993) defined self-efficacy as one's own perception and judgments of one's ability to perform actions required to deal with prospective situations in order to achieve desired outcomes, exerting influence on how one behaves, one's thought patterns, and emotional reactions. Bandura (1986) further argued that self-reflection is the most uniquely human characteristic and the higher the sense of efficacy, the greater the effort, persistence, and resilience.

Our decision to design a survey centred around the concept of an instructors' self-efficacy is made by considering the relevance of this conceptual framework and the practicality of the method. As Bandura (1993) pointed out that 'people with high efficacy approach difficult tasks as challenges to be mastered rather than as threats to be avoided.' (p. 144). In addition, efficacy expectations refer to one's conviction of successful execution of the behaviour required to produce the outcomes rather than one's expectation of the actual outcome (Bandura, 1977). Therefore, we believe the concept of self-efficacy aligns with our goal of understanding instructors' perception of their own ability and confidence before they begin to teach online as their level of self-efficacy can both influence their behaviour when teaching begins and can partially reveal the potential efforts they invest in this migration.

In terms of practicality, given the urgent situation that our university (and others) were experiencing, we had limited time to develop more thorough methods to collect data from multiple data sources, and we found it difficult to implement further qualitative research as all faculty members were prioritizing their time to prepare their courses for the online transition. We thus decided to start with an online survey to capture faculty's level of self-efficacy before the semester began when it comes to this urgent migration to online instruction.

In our survey, we collected three types of responses:

General information regarding instructor's discipline areas, years they have been teaching in higher education and in the current institution, as well as their own reporting of experience in teaching with online tools;

A self-efficacy scale survey composed of ten statements, where respondents choose a score between 1 and 4 (from 1 Not at all True; 2 Somewhat True; 3 Moderately True; and 4 Exactly True); and

Open-ended input for respondents to share the major difficulties when they were trying to migrate courses online and details of their plan; and an optional area where they could share the details of the percentage of lecture in their usual F2F courses, their decision of the online format (*a/synchronous*), and the percentage of active learning components.

When we designed the ten statements to measure self-efficacy scale, we referred to the Generalized Self-Efficacy Scale (GSE) (Schwarzer & Jerusalem, 1995) and Bandura's (1997) previous studies. As Bandura (1977) reminded us that there is not one all-purpose measure for perceived self-efficacy, we designed our ten self-efficacy scale statements by relating to the specific context of our focus. As a result, we included two statements that *describe one's overall confidence of online teaching* (I am confident that I can create and deliver high-quality online teaching; I understand the effort I need to create and offer effective online teaching), the two statements around *their skills for evaluating the situation and willingness of making alternative efforts* (I believe there are big differences between F2F and online teaching; I will have to modify my assessment strategies significantly for online teaching), two statements about *their confidence in achieving the desired outcomes* (I am able to offer the same type of active learning and engagement while online; I will be able to develop a similar rapport with my students online), two statements about *their confidence in managing difficulties and unexpectedness with identified efforts* (I am confident that I could adjust my teaching efficiently with unexpected events; I have built a network of resources to help resolve challenges while teaching online), and two statements about *the identification of resources in challenging situations* (I know how and where to seek help if I meet any difficulties with online teaching; I know how and where to seek help if I meet any difficulties with technology).

Results

We calculated all the responses before the teaching began on the Monday, February 17, and in total that provided 73 valid responses (by the end of January 2019, the total faculty number who have committed to teaching in Spring 2020 is about 120 and in total 317 courses are offered), resulting in a 60% response rate. The data, analysis and interpretation of this research is based on those 73 faculty responses.

Of the 73 responses, the areas with the most responses include Sciences (20%); Social Sciences (16%); Chinese Language (18%); IMA (Interactive Media Arts)/IMB (Interactive Media Arts and Business) (14%); and EAP (English for Academic Purposes) (10%), which encompasses 78% of the respondents. Therefore, many of the conclusions may be based on the perspectives of these faculty. More than half (60%) have been teaching over five years in higher education. About an even distribution of respondents from a range of years teaching at this university participated. The number of years of *experience with online tools was low*, with most (88%) of the respondents self-reporting that they have either ‘No Experience At All (18%)’; ‘Very Limited Experience (integrated a few digital tools for some sessions, 40%)’; or ‘Some Experience (used technology frequently when teaching F2F and blended, 30%).’

The results of self-efficacy data show an overall *high confidence in their perceived ability to teach online* (82%) (‘Moderately True’ or ‘Higher’). There is also a high level of confidence in terms of instructors’ perception in their:

- ability to realize the effort to create quality online experiences (90%);
- thoughts that teaching online would be different (90%);
- approach they would have to modify their assessment (77%);
- approach they can adjust with unexpected events (82%);
- knowledge where to seek teaching and technology guidance (86%; 89%); and
- ability to develop a similar rapport with students (71%).

Respondents were split in their beliefs about offering similar active learning opportunities online as they have done in their F2F courses.

Table 1.
Result of Self-Efficacy Scores as Number of Respondents (percentage).

Self-Efficacy Statement	1 (Not at all true)	2 (Somewhat true)	3 (Moderately true)	4 (Exactly true)
	Number of Respondents (percentage, %)			
I am confident that I can create and deliver high-quality online teaching.	0 (0%)	13 (17.8%)	45 (61.6%)	15 (20.5%)
I understand the effort I need to create and offer effective online teaching.	0 (0%)	7 (9.6%)	25 (34.2%)	41 (56.2%)
I believe there are big differences between F2F and online teaching.	0 (0%)	7 (9.6%)	26 (35.6%)	40 (54.8%)
I am able to offer the same type of active learning and engagement while online.	4 (5.5%)	33 (45.2%)	30 (41.1%)	6 (8.2%)
I will have to modify my assessment strategies significantly for online teaching.	1 (1.4%)	16 (21.9%)	26 (35.6%)	30 (41.1%)

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I am confident that I could adjust my teaching efficiently with unexpected events.	0 (0%)	13 (17.8%)	45 (61.6%)	15 (20.5%)
I know how and where to seek help if I meet any difficulties with online teaching.	1 (1.4%)	9 (12.3%)	25 (34.2%)	38 (52.1%)
I know how and where to seek help if I meet any difficulties with technology.	2 (2.7%)	5 (6.8%)	31 (42.5%)	35 (47.9%)
I will be able to develop a similar rapport with my students online.	6 (8.2%)	15 (20.5%)	38 (52.1%)	14 (19.2%)
I have built a network of resources to help resolve challenges while teaching online.	4 (5.5%)	15 (20.5%)	31 (42.5%)	23 (31.5%)

Since the first open-ended question is set as a required response area, we also received 73 answers. We used thematic coding to categorize the main themes emerging from the textual data. Trends from responses on *major difficulties* encountered when migrating online include:

1. *Technology*: Where 39 comments of 96 (40.6%) mentioned some aspects of faculty perception of using technology.
2. *Interaction and Active Learning*: Was listed by 24 of 96 (25.0%), sharing some ideas of their perception that active learning would be affected.
3. *Course Design (including Learning Outcomes, Assessment and Methods)*: Stated by 20 of the 96 (20.8%) participants that they would have to re/consider foundational aspects of their approach to organize course content and expectations.
4. *Unsure*: Was posted by 13 of 96 (13.5%), as they mentioned several aspects that they were not sure how to anticipate and/or plan for this online experience.

The second open-ended question is optional, and we received 44 responses, from which we can summarize that the models that faculty selected are:

<i>Mixed</i>	(45.4%)
Synchronous	(27.3%)
Asynchronous	(18.2%)
No Response	(9.1%)

Among the 44 responses, 23 respondents (52.3%) shared how they plan to distribute time for teaching online (central tendency and dispersion statistics of 23 respondents):

Lecture	(Average 38%; Standard Deviation 22.0; Range 10–90%)
Discuss	(Average 33%; Standard Deviation 30.6; Range 0–90%)
Active	(Average 29%; Standard Deviation 28.8; Range 0–85%)

Data from the open ended responses were gathered and sorted using a graphical word distribution program resulting in Figure 1.

2. Time zone difference was mentioned as a major challenge for interaction. When explaining why a/synchronous format was chosen, the reasons included:
 - 1) feasibility (time zone, convenience);
 - 2) student experience, course design (assessment methods);
 - 3) students' diverse needs (e.g. 'because chat can be more welcoming to quieter students or those who like to compose a response carefully'); and
 - 4) some do not seem to be able to articulate (e.g. 'because it's a language course').

Since these are averages, the data may not tell us much, other than as with any instructional approach, a large variance. If we were attempting to interpret in an optimistic way, perhaps we could conclude that students, as a whole, on average would be receiving an equal amount (one third each) of lecture, discussion and active learning.

While research (Chiasson et al., 2015) has shown that preparing an online course requires a substantial amount of time, only seven out of 73 responses mentioned this particular point. This might be because other instructors did not deliberately associate time to difficulties. Out of the seven responses, four answers attribute the 'time consuming' element to recording and editing videos. One respondent mentioned '*spending too much time investigating options instead of making decisions*' and only two respondents implied that more time is needed when the nature of their teaching changes from F2F to online settings: '*I am now having to spend hours and hours inventing "lectures" where before, there were none because it was discussion-based*'; '*Time to prepare necessary content is quite important, as a good video tutorial of half an hour can take a whole day*'.

We also identified examples of negative perception of online teaching in general, and this correlates with low self-efficacy scores (we consider 2 points 'Somewhat true' as mid-confidence and 1 point 'Not at all true' as no confidence), especially in terms of offering active learning opportunities and developing a similar rapport with students. We list the three extreme examples of such negative comments below:

1. 'We are using a combination, online tutorials, videos or photos of students performing. Not sure what will work best yet. Of course, none of this can be as good as F2F' (showing *mid-confidence* in offering similar active learning opportunities and developing a similar rapport with students).
2. 'Trying to learn how to use digital tools without any F2F development from experts on campus. It's like trying to learn how to drive a car by reading about it... while under quarantine. And my driving test will be a road trip of uncertain duration and destination. Buckle up!' (showing *mid-confidence* in being able to teach online, realize the effort to create quality online experiences, developing a similar rapport with students, and building a series

of networks for support; and *no confidence* in offering similar active learning opportunities, or developing a similar rapport with students).

3. 'I do not feel that I can get across my enthusiasm and my humor in my video-registered lectures' (showing *mid-confidence* in knowing where to seek help for tech guidance, building a series of networks for support, modifying their assessment and offering similar active learning opportunities; and *no confidence* in developing a similar rapport with students).

One overly simple and sentimental comment 'I miss the experience of being in the classroom with my students in real time' also corresponds with *mid-confidence* in areas of modifying their assessment, developing a similar rapport with students, and offering similar active learning opportunities.

In contrast, we did find one highly positive comment where the respondent shared how s/he responded to the identified difficulty and has developed confidence for effective online teaching. Not surprisingly, it corresponds with high-confidence in all ten self-efficacy statements as '4 Exactly true' is selected for nine statements and '3 Moderately true' is selected for the statement 'I am able to offer the same type of active learning and engagement while online':

Practical sessions are difficult to be delivered online. However, strategies have been implemented to ensure that simulation or practice or distribution of resources to students so that they can utilize it is necessary. It is at the same time difficult to track attendance and participation, but through the mix of different strategies and frequent personal meetings online this can be accomplished efficiently. Time to prepare necessary content is quite important, as a good video tutorial of half an hour can take a whole day. To switch all classes online in a couple of weeks is unrealistic, however, mixing of tools and resources in a fashion that is efficient and at the same time of an excellent quality, might be a solution to this. After prior discussions with faculty and students, I am confident that the teaching will be effective and rewarding for all (original response).

We have also found potential correlation between self-reported experience in online teaching and level of self-efficacy, as instructors who believe they have much or some experience with online teaching have overall exhibited higher confidence whereas instructors who have no or very limited experience tend to be located on the lower end.

Conclusions and Recommendations

In this study, we applied survey methods to collect the instructor's self-efficacy level in response to a very special occasion when instructors need to respond and act with more agile approaches. Migrating F2F courses to an online environment is not a choice or an extra opportunity, it is the harsh reality and the only option at this time.

In parallel to the overall high self-efficacy level, we have also been able to collect their thoughts on the difficulties they face and how they plan to teach their online courses. *Preliminary interpretations* for this study focused on technology, student engagement and course migration/redesign:

1. Migrating F2F teaching to online format is challenging (instructors exhibited strong awareness of potential difficulties though specific reasons vary);
2. Different tools are being explored. And some instructors are able to put themselves in the students' shoes (e.g. 'Planning methods that would ensure student engagement; not so much the delivery or technology, but trying to put myself in the students' chairs, i.e. where are they doing this, to help build a rapport to maximize the learning');
3. While we designed the question to collect their thoughts on the immediate difficulties they have encountered, some instructors shared the approaches they have been exploring and their coping strategies, and few indicated that support from colleagues, CTL and leadership can be helpful;
4. We can notice the implication that instructors believe extra time is needed to achieve this transition.

We believe our initial findings will have implications over at least the following aspects:

1. Capturing instructors' immediate perception during the period when they prepare for migrating courses online and right before they start their first lesson. Thus, our findings can potentially reflect more authentic feelings rather than retrospective reflections.
2. Shedding light on the support that higher education institutions can provide to instructors in terms of migrating existing courses to online environments, not only in terms of a 'multi-tiered system of support (MTSS) for new and experienced faculty' (Chiasson et al., 2015, p. 238), but also in terms of a sustainable institutional vision of planning online teaching with multiple time scales.
3. Capturing a group of instructors who mostly have very limited experience of online teaching and who are requested to deliver online teaching to a student group who have prior expectations of purely F2F teaching.

We also believe that our study can provide insights for preparing for and delivering teaching in times of crisis (Foster, 2006) when instructors can encounter

extreme challenges. Based on the findings we have shared, we recommend that universities provide all instructors professional teaching support and resources to implement online tools in their everyday teaching so that instructors can all have basic knowledge and skill sets of the digital tools that they can apply in their teaching. Our findings have shown that logistical challenges (time zone, network, and selection and application of digital tools) and course redesign are the two primary concerns among instructors. Both aspects would require a high level of creativity and resilience, and we would argue that the former one can be solved with some technical and administrative support as well as time investment, whereas the latter needs more long-term commitment and preparation.

If instructors are provided the necessary support to build more capacity of integrating appropriate, relevant and meaningful technology tools and trials of delivering part of their daily courses in an online setting, then we can better mitigate the risks of ineffective instruction due to unpreparedness and lack of confidence in extreme times (epidemics and pandemics, natural disasters, regional conflicts, and even illness and occasional absence due to other personal emergencies). In addition, this approach can assist instructors in building more confidence in everyday F2F instruction and perhaps integrate the same tools to enhance certain teaching methods. It is worth investing time and resources in online teaching since it will benefit F2F teaching as well. For this unusual event, the response was treated as an emergency response, rather than a well-planned, intentional approach to design and implement quality online learning experiences. There is substantial research (Angelo & Cross, 1993; Baghdadchi et al., 2018; Freeman et al., 2014; Kuh et al., 2017; Hill et al., 2016; Lockard & Hargis, 2017; McKeachie, 2005; Wiggins & McTighe, 2011) that shows the creation of a quality learning experience in any discipline or environment requires measurable learning outcomes, valid and reliable assessment measures, well-aligned active teaching methods, and on-going professional development to create and sustain effective online instructional programs.

Limitations and Future Studies

As mentioned earlier, time constraints and access limitations posed the biggest methodological challenges to the current study. As a result, before online instruction began, one online survey was created to capture instructors' perception of the rapid online course migration. To maintain anonymity and minimize the potential risk of exposing identities, it was decided not to collect further information about the details of the courses (e.g. the number of courses instructors teach this semester, the times they already taught the course before offering it online, the number of enrolled students before the first week starts, and the type of the courses: foundational/required/elective, etc.). Although over half (~60%) of the faculty did respond to

the survey (which is an extraordinary response rate in this context), we believe it is sufficient to generalize the data to those faculty who were not able to respond perhaps due to logistics⁴.

In terms of the amount of qualitative data collected via the online survey, we are aware that the responses obtained are not able to provide us with rich data for further analysis without the supplementation of other qualitative research methods. While we do see a relatively high level of self-efficacy, instructors might have very different understanding of *high-quality and effective online teaching*. As a relatively young and small private research university, the faculty profile of our institution can also be relatively distinctive in many aspects (we have a higher percentage of early-career faculty members) so that some of the findings might not have wider generalizability to other higher education institutions, especially considering the different nature of the institution and instructor make-up.

Taking the above limitations into consideration, we believe that future studies are needed to provide further triangulation between the quantitative data and other qualitative data. For example, qualitative interviews can be conducted before such migrations to gain a richer picture of instructors' perception. If circumstances allow, online surveys can also incorporate more data points to collect details in terms of examining the correlations and differences when it comes to the discipline areas and instructors' prior experience of teaching the same course in F2F settings. As online teaching develops, it is worth investigating how instructors' self-efficacy level influences their teaching as well as students' beliefs and achievements. In this regard, online class observations, interviews and focus groups with both instructors and students can be conducted to collect qualitative data. This can be supplemented with indirect measures, including but not limited to instructor surveys to identify teaching support services; midterm and end-of-the-term student evaluations of teaching surveys.

Meanwhile, we would also recommend further research to examine how instructors approach the same course differently by comparing their pedagogical approaches as reflected in course syllabi and students' work. Those data will offer a better understanding of different designs that instructors implement when migrating the same courses to online platforms as well as help identify factors that contribute to the effectiveness or ineffectiveness of their teaching. By tracking and scrutinizing the changes that instructors make when migrating their courses online, observations of how these decisions reflect aspects of the four different levels of employing learning technologies on the online setting, that is the SAMR model

4 We have a high percentage of international faculty who must travel between their hometown and the university located in Shanghai. The epidemic made international travel more difficult and challenging.

(Substitution, Augmentation, Modification, Redefinition) (Puentedura, 2006; 2012), can help identify areas where further support are needed.

As Mintz (2020) comments, 'if there's anything we've learned about online learning over the past decade, it's that truly effective online instruction is more demanding and generally more costly than its face-to-face equivalent'. The current world health situation reminds us again to rethink and work on the essentials of quality and meaningful instruction.

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APPENDIX Online Teaching Self-Efficacy Survey

Section One

1. Your Academic Area (alphabetical)

Arts

Business

Chinese Language Program

EAP

Engineering and Computer Science

Foreign Languages

Humanities

IMA/IMB

Sciences

Social Sciences

Writing Program

2. How long have you been teaching in higher education (years)?

0–1

1–3

3–5

More than five

More than ten

3. How long have you been teaching at this university (years)?

0–1

1–2

2–4

More than 4

4. What is your experience in teaching with online tools?

1-No experience at all.

2-Very limited experience (integrated a few digital tools for some sessions)

3-Some experience (used technology frequently when teaching face-to-face and blended)

MEASURING INSTRUCTOR SELF-EFFICACY WHEN MIGRATING FACE...

4-Taught one or two online courses

5-Significant experience (have taught several courses fully online)

6-Expert (I have been teaching online for several years and mentor colleagues)

Section Two

Please read each question and respond using a scale from 1–4, where 1 is Not at all True; 2 is Somewhat True; 3 is Moderately True; and 4 is Exactly True.

1. I am confident that I can create and deliver high-quality online teaching.
2. I understand the effort I need to create and offer effective online teaching.
3. I believe there are big differences between F2F and online teaching.
4. I am able to offer the same type of active learning and engagement while online.
5. I will have to modify my assessment strategies significantly for online teaching.
6. I will have to modify my assessment strategies significantly for online teaching. I know how and where to seek help if I meet any difficulties with online teaching.
7. I know how and where to seek help if I meet any difficulties with technology.
8. I will be able to develop a similar rapport with my students online.
9. I have built a network of resources to help resolve challenges while teaching online.

Section Three Open-ended Questions

1. What are the major difficulties you have encountered when migrating your course online?
2. Please share more about your online teaching using these questions to guide your response: In your face-to-face (F2F) course, what percent is lecture compared to your current online course? What percent of the F2F course is a group discussion or other active learning format compared to your current online course? What approach have you been using online, asynchronous or synchronous; and why did you choose this? Did this change since you began teaching online this term? (optional)
3. Please share any other information that you found interesting about your teaching online this term. (optional)