

Faculty Attitudes and Response to Online Learning in Transnational Higher Education in Qatar: A Promising Future

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Abstract

This paper presents preliminary results from a doctoral thesis investigating faculty attitudes, preparedness, and response to adopting technology-enhanced learning during the 2020-2021 pandemic. The current events that affected teaching and learning worldwide necessitated a re-evaluation of the traditional higher education system and imposed an immediate adjustment to teaching approaches. Using a survey and semi-structured interviews with faculty members teaching at transnational higher education institutions in the state of Qatar, this paper presents the recent pedagogical shift experienced during the pandemic. Using a case study approach, this paper examines the impacts of this shift on student learning from faculty perspective and discusses the implications of this shift on networked learning research and practice. Findings suggest that faculty found online teaching more difficult than previously perceived which encouraged them to be creative and innovative in their teaching approaches. However, there does not seem to be an agreement as to whether online learning is the future of higher education as some faculty still see more value in face-to-face teaching. Furthermore, student assessment is an issue for some faculty. Overall, faculty members seem to appreciate the online teaching experience as it allowed them to try new teaching approaches, use new technologies, and integrate new assessment techniques that they would not consider in their pre-pandemic classes.

Keywords

Technology-enhanced learning, networked learning, transformative learning, pandemic, emergency response, case study.

Introduction

Up until the Covid-19 pandemic, the idea of online learning was still being entertained and integrated on an individual level (Graham et al., 2013; Wieland & Kollias, 2020). In April 2020, higher education institutions in 185 countries were closed following the spread of the Covid-19 virus, with more than 1,000 million learners affected by the abrupt transformation (Marinoni et al., 2020). This paper investigates the adoption of online learning by faculty working at international branch campuses of American universities in the state of Qatar, their attitudes and response during the latest pandemic and the role networked learning plays in bridging the gap between the different elements of online teaching and learning to support faculty and students.

The Different Constituents of Online Learning

Research on online learning in higher education abounds in a range of domains including flipped classroom, social media, self-directed learning, gaming, artificial intelligence, learning analytics, open educational resources, digital credentialing, and blended and hybrid course models (Ajjan & Hartshorne, 2008; Bolliger & Wasilik, 2009; Ulrich & Karvonen, 2011; Baltaci Goktalay, 2013; Lewis et al., 2013; Gallagher & Palmer, 2020; Pelletier et al., 2021). Hodges et al. (2020) considered that while online learning requires time and careful planning, emergency remote teaching emerged as a temporary shift from face-to-face or blended teaching to remote teaching following the pandemic. The reason for differentiating between the two is that emergency

remote teaching comes in times of uncertainties and lacks planning, preparation, and support (Hodges et al., 2020). It usually takes between six and nine months to create an online course (Hodges et al., 2020), however, the pandemic left faculty members with no choice but adopting the online modality leaving them with a restricted margin of freedom to choose between synchronous and asynchronous delivery, communication methods, and assessment techniques (Iglesias-Pradas et al., 2021). For instruction to continue with minimal impediment, several factors must be in place to support faculty preparedness in emergency situations, such as the deployment of instructional designers and technologists, maintenance of a robust and flexible IT infrastructure, and the promotion of communities of practice (Lave & Wenger, 1991) enabled through networked learning (Fox, 2005).

There is a significant body of knowledge on adoption barriers and integration opportunities of technology in instructional practice such as lack of preparation to teach online, inadequate access to digital devices including hardware and software, insufficient internet bandwidth, class size, communication between faculty and students, as well as the lack of faculty and student support (Taft et al., 2011; Newland & Byles, 2013; Reid, 2014; Wright, 2014; Horvitz et al., 2015; Wichadee, 2015; Nworie, 2021; Iglesias-Pradas et al., 2021). Iglesias-Pradas et al. (2021) stressed the important role of learning management systems infrastructure and IT support, flexible decision-making by administration, the establishment of informal communication channels, and the development of faculty members' digital skills that allow a successful transition to emergency remote teaching.

Networked Learning as a Holistic Approach to Online Learning

The pandemic situation created a myriad of feelings among faculty members and students. Faculty used to consider online teaching to threaten their "autonomy and control of the curriculum," requiring more labour and time and additional training (Keengwe & Kidd, 2010; Esani, 2010). Therefore, faculty resistance to using technology is due to lack of training rather than lack of technological proficiency (Thormann & Zimmerman, 2012) which is also re-emphasized in a recent study by Hüttel and Gnaur (2020). However, a study by Lederman in fall 2020 brought a silver lining in the cloud of online learning. The study that took place in the U.S. found that faculty confidence in online learning has grown by 10% between May and August of 2020 (Lederman, 2020). In his study, Lederman (2020) found that faculty's increased positive attitude towards online learning was a result of their positive experience with a) student engagement; b) flexibility; and c) content development. Similarly, this was also echoed in a study by Lee et al. (2021) in which it was found that students were actively engaged in "creating meaningful learning experiences" (p. 168). However, the literature also shows that students' engagement is positively affected by student–student interaction and instructor presence (Kim & Kim, 2021) and the lack of engagement might lead to students drop-out (Spitzer et al., 2021; Szopiński & Bachnik, 2022).

Keengwe and Kidd (2010) considered the role of online teaching faculty to consist of four categories: pedagogical (educational facilitation), social (friendly environment), managerial (setting agenda, objectives, rules, and decision making), and technical (use technology easily and facilitate its use by their students). These categories correspond to the networked learning theory and practice especially in its latest definition in which five essential elements come to play together as "processes of collaborative, co-operative and collective inquiry, knowledge-creation and knowledgeable action, underpinned by trusting relationships, motivated by a sense of shared challenge and enabled by convivial technologies" (Networked Learning Editorial Collective, 2021, p. 319). Rather than focusing on the technology or communication channel as in the case of online learning, networked learning presents a holistic approach that takes into consideration 1) interpersonal relationships such as trust, power, and identity, 2) digital technology, especially when it comes to affordances, access, and ownership, and 3) collaborative engagement which entails knowledge, meaning-making, negotiation, scope, duration, etc... (Networked Learning Editorial Collective, 2021).

Overview of the Context and Aims of the Study

Networked learning as a framework encompasses face-to-face and virtual contexts through the same process of "learning from one another, learning with one another, learning on behalf of, and Meta-learning" (Jackson & Temperely, 2007) while capitalising on a balanced relationship between learners, tutors, and resources (Jones et al., 2008). Therefore, as expressed by Carvalho and Goodyear (2014), networked learning cannot be simply designed but should be *designed for* a specific community to allow meaningful engagement (Boud & Prosser, 2002). This is true especially in transnational higher education (TNHE) settings where faculty designing and delivering their curricula operate in a unique cultural environment.

In Qatar, Education City, a private, non-profit organisation provides a unique setting in which eight world-class higher education institutions - six American universities, one British, and one French -in addition to a young home-grown university operate to fulfil Qatar’s National Vision 2030 (QNV 2030) of a “world-class educational system” that delivers the best educational opportunities to its population to increase scientific research and foster innovation (General Secretariat for Development Planning, 2008; Khodr, 2011). These TNHE institutions offer foreign degrees with admission and graduation standards similar to their home campuses (Miller-Idriss & Hanauer, 2011; Badry & Willoughby, 2016) and have also experienced the sudden shift to online learning following the pandemic. Faculty members teaching at these institutions not only come from different countries and speak different languages, but they also bring with them their own value systems influenced by their upbringing, educational backgrounds, and philosophies of teaching (Lee & Brett, 2015; Leask & Carroll, 2013). These complexities undoubtedly affect their perceptions of the approaches and techniques required for effective teaching to meet the learning needs of a technologically savvy generation. Students also benefit from faculty’s diverse backgrounds as they can bring a broad range of teaching practice, diversified content, and even serve “as role models to the students” (Antonio, 2003; Collins & Kritsonis, 2006). Therefore, this paper aims to:

- investigate faculty attitudes towards the recent pedagogical shift following the Covid-19 pandemic;
- examine the impacts of this shift on student learning from faculty perspective;
- and discuss the implications of this shift on networked learning research and practice.

Methodology

Study Design

This case study uses an explanatory sequential mixed-methods approach as it builds on the quantitative elements of the study to develop the qualitative data collection tools (Creswell, 2014, p. 220). A case study is usually used to provide “an in-depth analysis of a case” (Creswell, 2014, p. 14) and interpret a particular situation (Yin, 2009; Cohen et al., 2018). Participants in this study are faculty members from six American higher education institutions in Education City in Qatar. The first part of data collection is a survey that explores faculty perceived challenges towards the imposed online learning situation following the 2020 pandemic crisis in the State of Qatar. Bryman (2012) believes that qualitative interviews can be used to “make the survey data more robust” (p. 635). Therefore, based on the survey results, faculty members were contacted to take part in semi-structured interviews to investigate their experience adopting, designing, and delivering online learning to students of the six American TNHE in EC.

Data Collection Methods

Phase I: Survey

The first data collection tool is a survey designed for faculty members who have experienced the imposed move to online learning due to the pandemic crisis of 2020 and consisted of 20 questions.

The survey was piloted with five participants - two faculty members, one librarian, one instructional designer, and one engineer - who provided valuable feedback as to the flow of the survey, the language used, the choices provided for closed questions, the length, and other mechanic flaws that were identified during the piloting phase. The survey was sent to four (out of six) American higher education institutions in Education City in Qatar with a total number of 297 faculty members. 30 responses were recorded with one respondent dropping out after taking only the first four questions. Only 29 faculty completed and returned the survey which constitutes 10% of the total targeted population. Majority were male respondents (17 respondents; 58.6%). It is important to note that the survey and interview questions use the terminology “disruptive period” and “transition period” interchangeably to indicate the beginning of the pandemic when live classes were suddenly replaced by online teaching following the outbreak of Covid-19. The survey started with a section that gathered demographic information about the respondents (Q1-3), followed by three main sections as:

- Part I: Teaching Online Before the Pandemic (Q4-8);
- Part II: Teaching Online During the Pandemic (referred to as disruptive period) (Q9-13); and
- Part III: Teaching Online After the Pandemic (Q14-19).

The survey also included a question asking whether they are willing to participate in a one-on-one interview to follow up on the survey results and provide more insights into their experience teaching online during the pandemic.

Phase 2: Semi-structured Interviews

Once the survey results were categorised, and faculty members willing to participate in semi-structured interviews were identified, faculty were contacted to set up one-on-one interviews to investigate these patterns in depth and gather faculty reflections on the imposed online learning situation. A total number of 15 survey respondents indicated their willingness to participate in a one-on-one interview, however, only 13 identified themselves by providing their contact information. The interviews took place in the Spring semester of 2021, one year into the pandemic. Interviews were scheduled for 30 minutes. Some of them were shorter while others took approximately 45 minutes. They were transcribed manually right after the interview finished to make sure most of the content was captured.

The interviews consisted of seven questions. The first question was used as an icebreaker to get the interviewee comfortable and set up the scene for the other questions. Q2-4 inquired about faculty online teaching experience during the disruptive period while Q5-7 collected faculty members' attitudes of online teaching post pandemic and their perception of the future of higher education following their experience. The interview generated a rich qualitative data that was coded in two phases using Atlas.ti. The first phase included open coding to uncover primary data and provide a map towards developing and defining specific codes that would help later in developing 11 categories that show the different stages of faculty online teaching experience during and after the pandemic.

Data Analysis & Ethical Considerations

Qualtrics was used to circulate the survey and collect quantitative data. Qualitative data from the survey open-ended questions and the interviews were coded in Atlas.ti to help in the analysis of the information and provide a complete picture of the current online learning situation.

Ethical approval was received from Lancaster ethics board and Weill Cornell Medicine-Qatar Internal Review Board (IRB) before conducting this study. A description of the aims of this study, the data collection and analysis process, along with a consent form were emailed to participants prior to collecting data.

Results

The survey yielded a total number of N=29 responses. The majority of the respondents taught a humanities and social sciences discipline (17 respondents; 58.6%) and 18 respondents (62.1%) did not teach online prior to the pandemic. It is worth mentioning that none of the 29 respondents who took the survey used to find online teaching easy before the pandemic. For the ones that taught online before the pandemic (11 respondents; 37.9%), the main challenge they mentioned is engaging with the students.

During the pandemic, 25 out of the 29 respondents (86.2%) had to teach online. The median number of courses they taught was three and all of them, except one respondent, confirmed having access to the resources they needed to teach online. IT department support was ranked top with 21 respondents (87.5%) followed by instructional design support (12 respondents; 50%). During the disruptive period, only 19 respondents (76%) confirmed seeking help, and again IT department seems to be the most sought after for help with 17 respondents (89.5%), followed by reaching out to colleagues (10 respondents; 52.6%), while six respondents (31.6%) reached out to the library staff and five respondents (26.3%) asked instructional designers for help. Among the six respondents who did not seek help, five confirmed that they did not need it, while one respondent did not know how to access help. Consequently, 12 out of the 25 respondents who taught online during the disruptive period (48%) claimed having a good and excellent experience while 10 respondents (40%) had an average experience and three (12%) had a poor and terrible experience. However, in all three categories faculty still had challenges with student engagement.

Challenges with student engagement was a recurrent theme for the majority of the survey respondents. This is also shown in one of the six categories that emerged from data gathered from the interviews. Table 1 below provides the top five emerging themes from faculty answers. Beside these five top themes, it is worth mentioning that faculty members struggled with *students coming unprepared for live sessions* (1 recurrence),

not keeping up with schedule and deliverables (1 recurrence), *students losing interest* (2 recurrences), and faculty members *feeling unable to help students who were struggling during this time* (2 recurrences).

Table 1: Emerging Themes from Challenges with Student Engagement During Transition Phase

| Transition Phase Categories | Most Recurrent Emerging Themes | Frequency |
|--|---|-----------|
| <i>Challenges with Student Engagement During Transition Phase</i> This category is defined as the perceived lack of motivation of students, lack of preparedness, and gradual disinterest during the emergency online learning crisis | Faculty feeling disconnected from class/Lack of student live feedback | 9 |
| | Feeling of anxiety/uncertainty | 5 |
| | Students refuse to turn their cameras on | 7 |
| | Students lack motivation in large classes | 3 |
| | Students would not turn up for live sessions | 3 |

Faculty also experienced challenges with online learning modality as indicated in the interview data, especially the *need for more preparation time and training on technological tools*, and the *lack of human interactions in online lectures*. Therefore, respondents provided some examples on how they modified their teaching approach to accommodate students' needs especially through *using the flipped classroom* modality (6 recurrences) and *working with smaller groups of students* (7 recurrences). Table 2 below summarises respondents' answers with the top four emerging themes for each category.

Table 2: Emerging Themes from Challenges with Online Learning Modality During Transition Phase

| Transition Phase Categories | Most Recurrent Emerging Themes | Frequency |
|--|---|-----------|
| <i>Challenges with Online Learning Modality During Transition Phase</i> The difficulties faculty encountered: the absence of preparation time, issues with assessment, unfamiliarity with online teaching | Loss of the apprenticeship/Learning by doing element | 5 |
| | Need more preparation time/mastering technological tools for faculty | 13 |
| | Online lectures lack the human element usually present in live lectures | 9 |
| | Students high risk of cheating | 4 |
| <i>Modifications to Teaching During Transition Phase</i> The changes faculty needed to implement immediately in order to accommodate students' needs during the emergency online learning phase | Increasing class discussions | 5 |
| | Reducing live sessions/Replacing with PowerPoint | 5 |
| | Using the flipped classroom | 6 |
| | Working with smaller groups of students | 7 |

Overall, less than half of the interviewees claimed that they were *satisfied with the quality of online teaching* during the pandemic (6 recurrences) as some have received *positive feedback from students* (3 recurrences). However, some required *more personal presence* (3 recurrences). It is also important to mention that some faculty found that teaching online had them *miss important teachable moments* that occur during face-to-face (1 recurrence), some of them found themselves *less active in online teaching* (2 recurrences), and had *doubts about the effectiveness of their online teaching* (2 recurrences) or were generally *unsatisfied with their online teaching* (2 recurrences), and finally two faculty members found that it was *easy to monitor students' engagement with their cameras on*. The top three emerging are shown in Table 3 below.

Table 3: Emerging Themes from Quality of Teaching During Transition Phase

| Transition Phase Categories | Most Recurrent Emerging Themes | Frequency |
|---|---------------------------------|-----------|
| <i>Quality of Teaching During Transition Phase</i> Faculty perceptions of the quality of their teaching during the emergency online learning phase such as satisfaction, student feedback, and personal presence | Positive feedback from students | 3 |
| | Require more personal presence | 3 |
| | Satisfied with online teaching | 6 |

Few months into the pandemic, and as we wrapped up the spring semester where emergency online teaching took place, the majority of the respondents (n=18; 72%) confirmed a change in their perception of online teaching. Their answers were equally divided between positive (n=6), negative (n=6), and mixed (n=5) while one respondent did not answer this question. Still, more than half of the respondents (n=14; 56%) found it difficult and very difficult, while 9 respondents (36%) were neutral and only two respondents claimed finding it easy and very easy. This also impacted responses to whether they plan to adopt online teaching in the future, with only 10 respondents (40%) confirming their willingness to teach online, while eight respondents (32%) do not want to teach online in the future, and seven (28%) were unsure. Respondents who claimed using online learning in the future considered that a hybrid or blended model would be adequate, while others preferred online teaching for its flexibility, safety, and the availability of online educational resources that they were able to develop and use during the emergency remote teaching period. On the other hand, respondents who did not want to teach online in the future mentioned two main reasons. Half of the respondents considered that their discipline does not lend itself to online learning, while the other half saw the value in face-to-face teaching. Among the total number of respondents (N=25), 10 respondents confirmed needing assistance in building their online courses in the future especially from instructional designers (9 respondents) and IT department (9 respondents), while six respondents required more training and workshops and four respondents required library staff support. Finally, 11 respondents (44%) provided a positive attitude towards online teaching beyond the pandemic, while six respondents had mixed attitudes, six respondents had a negative attitude, and two respondents did not answer this question.

Faculty experienced a shift in their pedagogical approach following the emergency online learning phase. One of the common shifts observed through four recurrences is *breaking lecture and complex issues into small units to keep students engaged and making sure they digest the materials* as explained while five consider that there is a pressing need to reconsider student assessment, and three respondents found that *smaller classes are more conducive to online learning and engagement*. Few faculty also mentioned that they *became a facilitator rather than the expert* (1 recurrence), *had the chance to collaborate with other faculty and share ideas* (1 recurrence), *needed to be more available to the students through flexible office hours* (1 recurrence), and finally their willingness to *keep some elements of the online learning for future-face-to-face teaching* (2 recurrences), and to *provide a mix of synchronous and asynchronous instruction* (2 recurrences). Table 4 below summarises the top three emerging themes.

Table 4: Emerging Themes from Shift in Pedagogical Approach Following the Transition Phase

| Post Pandemic Categories | Most Recurrent Emerging Themes | Codes |
|---|---|-------|
| <i>Shift in Pedagogical Approach Following Transition Phase</i> Faculty reflections on their teaching practice in light of the emergency online learning phase | Breaking lecture/complex issues into small chunks to keep students engaged and help them digest the materials | 4 |
| | Need for rethinking students' assessment | 5 |
| | Smaller classes are more conducive to online learning and engagement | 3 |

Finally, respondents' attitude towards the future of online teaching was gathered, and although a considerable number of respondents reported an equal number of mixed and negative attitudes (6 each; 24% each), a considerable number of respondents (11 respondents; 44%) had a positive attitude. This is reinforced with the interview results where the theme *positive experience with transition to online learning* had the highest number of recurrences (12 recurrences) compared to six recurrences for the theme *negative experience with online teaching and learning*. Below are their answers divided by *Positive*, *Mixed*, and *Negative* attitudes.

Faculty recognized some critical issues facing the *rigid, regimented, and [the] lacking innovation [nature] of the higher education sector* along with the *threat of budget cuts and the potential replacement of faculty with recorded lectures*, each having three recurrences. However, faculty also reiterated the *great opportunity online learning offers if well designed and delivered for certain types of students* (3 recurrences) along with the *need for rethinking different forms of assessment* (3 recurrences). Finally, while *technology should be used as a powerful/great/flexible tool for instruction* (7 recurrences) *faculty role, especially in-person teaching, is crucial in facilitating and directing students' learning* (9 recurrences), and the *need to rethink different forms of assessment* (3 recurrences), while *online learning offers a great opportunity if well designed and delivered* (3 recurrences). Answers are summarised in Table 5 below.

Table 5: Emerging Themes from Critical Issues and Transformations in HE

| Post Pandemic Categories | Most Recurrent Emerging Themes | Frequency |
|--|--|-----------|
| <i>Critical Concerns Towards HE</i> Perceived obstacles to effective delivery of high-quality learning experience | HE is too rigid, regimented, and lacks innovation | 3 |
| | Worries about budget cuts/potential replacement of faculty members with recorded lecture | 3 |
| <i>Transformation in HE</i> Faculty perceptions of the future of HE in light of their experience with the emergency online learning phase | In-person teaching remains crucial in facilitating students' learning | 9 |
| | Need for rethinking different forms of assessment | 3 |
| | Online learning offers great opportunity if well designing and delivering for certain type of students | 3 |
| | Technology should be used as a powerful/flexible tool for instruction | 7 |

Faculty Change in Perceptions

To assess if there were any changes in faculty perception of online teaching before and after the pandemic, a McNemar test was applied and a $p = 0.182$ indicates a slight increase in negative perception of online teaching after the disruptive period. From the total number of respondents (N=25), 12 (48%) stayed the same, four (16%) respondents experienced a positive increase in their perception and nine (36%) had a negative increase. Exploring respondents' perception of online teaching before and after reveals that there is a slight increase in the male respondents' negative perception of online teaching following their experience during the disruptive period while there was no significant increase in female perception. Furthermore, a Fisher test was applied with $p = 0.12$ before and $p = 0.465$ after which indicates no significant difference between gender and perception of online teaching.

Faculty Change in Experience

Using McNemar test to measure the change in faculty online teaching experience, out of the total number of respondents (N=29) who completed all sections of the survey, result ($p < .001$) shows a significant increase in negative experience among respondents who have taught Before (37.9%) and During (86.2%) the pandemic. It can be noted that those with *Excellent Experience* were significantly more likely to perceive online teaching as *Easy or Very Easy* (50% versus 0% for those with *Good or Average and Lower*). A Fisher test was applied with $p=0.019$ which indicates no significant difference between respondents' experience teaching online during the pandemic and their perception after the pandemic. Table 6 presents the corresponding values.

Table 6: Faculty Experience During the Disruptive Period and Their Perception After

| Perception After | Experience During | | | | | |
|----------------------------|-------------------|-------|------|-------|------------------|-------|
| | Excellent | | Good | | Average or Lower | |
| Difficult/Very Difficult | 1 | 25.0% | 3 | 37.5% | 10 | 76.9% |
| Neither Difficult Nor Easy | 1 | 25.0% | 5 | 62.5% | 3 | 23.1% |
| Easy/Very Easy | 2 | 50.0% | 0 | 0% | 0 | 0% |
| Fisher Test | $p = 0.019$ | | | | | |

Need for Help in the Future

When comparing respondents' answers regarding their Need for Help during the Disruptive period and in the future, there is a significant decrease in their need for help in the future. Seven (46.7%) out of 12 respondents teaching in the Humanities and Social Sciences require help while only two (20%) out of 10 respondents teaching in the Sciences and Engineering require help with their future online teaching.

Attitude Towards the Future of Online Teaching

The majority of respondents who had an Excellent and Good experience teaching online during the disruptive period reported a Positive attitude towards online teaching in the future (6 respondents; 28%). It is also worth noting that among the respondents who reported an Average or Lower experience teaching online during the disruptive period (12 respondents; 48%), almost half of them (5 respondents) reported a Positive attitude towards online teaching in the future.

Discussion

Networked learning, with its five essential elements (Networked Learning Editorial Collective, 2021, p. 319), can create a suitable environment to integrate the human part with the technological part for an ultimate online learning experience. First, the "processes of collaborative, co-operative and collective inquiry" brings the community together as partners in the learning experience. Second, "knowledge-creation and knowledge action" that are at the heart of the learning activity, when supported by "trusting relationships" and "a sense of shared challenge" reinforce the sense of community, trust, and identity. Finally, when these elements are "enabled by convivial technologies" the learning experience becomes more accessible and cost-efficient to community members. The following section analyses and discusses the findings based on these five elements.

Online Teaching more Difficult than Previously Perceived

The majority of the survey respondents perceived online teaching before the pandemic as a neither difficult nor easy task even though very few of them had experience teaching online before the pandemic. Furthermore, less than half of the respondents with online teaching experience prior to the pandemic described their experience as good or excellent. However, the main challenge was engaging with students and engaging students with the content. This experience has urged faculty to make student engagement a priority for the fall semester which explains having it on top of the list with 71% responses in August 2020 survey versus 57% back in May 2020 followed by "providing timely feedback for students" with an increase of 11% for August 2020 (Lederman, 2020).

During the emergency online delivery, even though faculty had access to resources and academic support to facilitate online teaching especially IT department and instructional designers, and while zoom was used as the main teaching tool, a considerable number of faculty experienced absence or limited expertise and support from IT which explains why they had to ask colleagues and librarians for support and assistance. This correlates with previous literature on the challenges faced when trying to integrate technology in teaching especially faculty members' lack of preparation time and issues with access to hardware and softwares to facilitate online teaching and learning (Newland & Byles, 2013; Reid, 2014; Horvitz et al., 2015; Wichadee, 2015). Furthermore, the majority of faculty seem to struggle with engaging students, while a few were worried about academic integrity,

fair assessment, and increased workload which was also described by Keengwe and Kidd (2010) as a perceived threat to faculty's "autonomy and control of the curriculum." Therefore, a successful online learning experience necessitates a responsive learning management system infrastructure and an unwavering IT support endorsed by the administration (Iglesias-Pradas et al. (2021). These essential elements "enabled by convivial technologies" make the learning experience more accessible to community members (Networked Learning Editorial Collective, 2021, p. 319), less overwhelming for faculty members, and more engaging to students.

Faculty Use of Creative and Innovative Teaching Approaches

"Knowledge-creation and knowledge action" are at the heart of the learning activity, and when faculty build "trusting relationships" and create "a sense of shared challenge" with their students, they reinforce the sense of community, trust, and identity that is inherent to learning (Networked Learning Editorial Collective, 2021, p. 319). Nevertheless, faculty were resourceful trying to adapt to the emergency online teaching situation by adopting a creative approach. Thormann and Zimmerman (2012) have shown that faculty' resistance to adopt technology is not a result of their lack of technological proficiency but a lack of time for training. While most of the faculty decided to divide their students in small manageable groups, using breakout rooms to facilitate group work and discussions, others were using the flipped classroom modality to make better use of live class time. This approach connected the instructors to the learners by replicating some level of "human-human interaction" that is necessary in a networked learning environment (Goodyear, 2005; Tu, 2002). Some faculty were also using creative assignment and assessment tools by replacing outdated quantitative quizzes and assignments with qualitative work such as literature reviews and discussions that engage students with more critical thinking and information synthesis.

Despite some concerns about the lack of human interaction that might lead to missing important teachable moments that are believed to be key in any learning, this transformation in teaching and assessment led some faculty to feel satisfied about their experience during the pandemic. The pandemic offered faculty an opportunity to rethink their teaching content and design learning activities and assessment techniques that allow students to feel engaged and connected (Carvalho & Goodyear, 2014; Boud & Prosser, 2002). Some faculty were happy about the content they have put together and are planning to keep on using it once we go back to 'normal days' and they also mentioned that their students' feedback regarding the course was positive. The literature has found that the increased positive attitude towards online learning following the pandemic comes from the perceived flexibility and cost saving on using online resources (Lederman, 2020).

Online Learning and the Future of Higher Education

There is still a mix of positive, negative, and neutral attitudes towards the usefulness and applicability of online learning. Even though a considerable number of faculty consider that their disciplines do not allow for online learning, saw value in face-to-face teaching, and were concerned about providing fair and equitable student assessment, some faculty seem to appreciate the experience as it opened the way for them to try new teaching approaches, use new technologies, and integrate new assessment techniques that they would have never considered if it was not for the emergency online teaching. This shows that if higher education wants to create a successful and responsive learning experience, it should bring the community together as partners in the learning experience encouraging collaboration, co-operation, and a collective inquiry (Networked Learning Editorial Collective, 2021).

Finally, some faculty called for integrating both approaches - online and face-to-face, synchronous, and asynchronous - to create a blended teaching and learning environment, where faculty and students can find a balanced environment that supports the different needs of the community. This blended approach would bring the best out of an asynchronous environment - that is found to improve higher order thinking skills and may result in better student outcomes (Breirton et al., 2021; Bernard et al., 2004), - along with a synchronous environment - that would support faculty need for face-to-face - to build interpersonal relationships and improve collaborative engagement while utilising digital technology to facilitate access. It is hoped that higher education in its improved post-Covid-19 model follows an inclusive approach to teaching and learning that embraces online learning while creating a global network where "humanity is at the centre of educational technologies" (Networked Learning Editorial Collective, 2021).

Conclusion and Limitations

This case study investigated faculty attitudes, preparedness, and response to adopting technology-enhanced learning during the 2020-2021 pandemic and examined the impacts of this shift on student learning from faculty perspective while exploring the implications of this shift on networked learning research and practice. Few limitations should be taken into consideration when replicating this study, especially the context-specific nature of the study that takes place in a relatively new higher education setting in the Arab Gulf region. Therefore, the sample size is limited and might not allow generalisation of the results on a larger scale. However, when results are compared with the recent literature on online teaching during the pandemic, most of the findings correspond, to a certain degree, to the general attitudes of faculty members and describe some common challenges and opportunities for the future of higher education.

Despite the limited sample of survey respondents, the interview generated a rich set of data that informed this case study and provided a map of the online teaching challenges and opportunities in TNHE institutions in Qatar. First, faculty experienced a slightly negative increase in their experience of online teaching following the pandemic. However, the majority still hold the same perception about online learning as a neither difficult nor easy task. Second, those with good experience teaching online perceive it as an easy task and showed a positive attitude towards the future of online learning. Third, it is also important to note that faculty perceive the usefulness of online learning based on the disciplines they teach. Some of them consider their discipline to require face-to-face teaching which is a finding that needs to be investigated in the future on a discipline basis.

Therefore, based on the results drawn from this study, we can conclude that online teaching is not an easy transition and requires a lot of planning, content building, and different assessment tools. Furthermore, faculty calls to consider the use of blended learning in the future is a proof that online learning is here to stay. These challenging times have instilled a sense of creativity and innovation and proved that faculty members can adapt to change and are willing to take this further beyond the pandemic to ensure students have a positive, rich learning experience. Whether we consider online learning as a temporary solution or as the future of education, it must be integrated in faculty professional development (Hodges et al., 2020). “It takes a village to raise a child” is especially true to online education where the community, including administration, faculty, support staff, and students need to come together to plan, implement, assess, improve, and support a sustainable, inclusive, and successful online learning experience.

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