The Impact of COVID-19 Lockdown on Design Students’ Performance Case Study in the UAE

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Abstract

In China and the rest of the world, the COVID-19 pandemic has been spreading since December 2019. This pandemic had negative effects on the public in general and on students’ performance. This study aimed to evaluate the perceived performance of design students participating in online distance learning due to the COVID-19 pandemic lockdown in the UAE. The evaluation of the students’ negative emotions and their impact on creativity and design performance was conducted in two design courses. The case study included 193 design students, 140 first year and 53 fourth year students who are enrolled from the College of Fine Arts and Design. An online survey was used as a post-evaluation tool for the students. Two focus group interviews were conducted for instructors who were involved in the sudden remote teaching. The findings showed the instructors’ deep understanding of the students’ emotions and how such emotions are reflected on performance during the pandemic. First year students had higher anxiety levels than fourth students, which negatively affected their design practice and learning performance for the lack of design experience. However, first years produced creative projects. Fourth years also had high anxiety levels, but they showed a higher level of satisfaction in their performance than first years. This study explored the impact, changes and challenges brought about by the pandemic experience and how instructors could benefit from it in future. Online classes changed the way design was taught and delivered. Blended learning is considered as a motivational and creative learning process.

Keywords

online distance learning, interior design education, design performance, students’ emotions, blended learning, COVID-19 pandemic
Introduction

On 11 March 2020, World Health Organization declared coronavirus as a pandemic. Coronavirus was seen firstly in Wuhan, China on 31 December 2019 (Zhu et al. 2020). The virus that caused the pandemic was designated as COVID-19, and it has spread rapidly across the world (Carlson 2020; Kavoor et al. 2020; Kelly 2020; Tang et al. 2020; Trung et al. 2020). Within a short period of three months, the disease has taken the world by storm; lockdowns were enforced in more than one-third of the world’s population (Grover et al. 2020). COVID-19 also forced the governments of many countries to put their people under home quarantine for many weeks, which dramatically affected their lifestyles. Schools and universities were closed. Many non-essential outdoor activities were strictly prohibited. Millions of people had to cope with their new daily routines in a very short period of time and started working from home. The risk of developing a variety of mental disorders increased, because the abovementioned disruptions affected people’s daily routine (Duan & Zhu 2020; W. Liu et al. 2020; Zhang et al. 2020; Zu et al. 2020), thereby causing health-related fears and uncertainty (Grubic et al. 2020; Torales et al. 2020).

Students’ mental health and emotions during COVID-19

In China and many countries, the latest research that assessed COVID-19 implications on mental health generally identified somatic symptoms caused by negative emotions due to lockdown. These emotions have led to significant physical and mental discomforts during quarantine (Grubic et al. 2020; Guo 2020; Lee et al. 2020; S. Liu et al. 2020). Many mental health problems, such as denial, depression, stress, anger, anxiety, fear and insomnia symptomatology, are caused by negative emotions (Carlson 2020; Kang et al. 2020; Lee et al. 2020; Torales et al. 2020; Wang et al. 2020). Sleep disorders occurred more frequently during the COVID-19 pandemic (Cao et al. 2020).

Tertiary education institutions have shifted from traditional face-to-face teaching to distance learning using various platforms as a social/physical distancing measure implemented in response to the COVID-19 pandemic. This change was expected to increase stress on the performance of students in higher education institutions (Grubic et al. 2020; Khan & Jawaid 2020). For geographically distant students, distance learning provided easy access to learning materials, resulting in the successful delivery of education (Moore et al. 2011).

However, many people, especially students, developed unprecedented mental health issues and some people were affected by life-threatening negative physical health conditions (Grover et al. 2020; Tang et al. 2020). Pekrun et al. (2011) showed that students’ motivation, control, use of learning strategies, value appraisals, academic performance and self-regulation of learning are directly linked and connected to their emotions regarding their achievements (Pekrun et al. 2011). Significant negative emotions, such as shame, anger and anxiety, have very negative effects on their performance, as expected (Hancock 2001; Kusturica et al. 2019; Pekrun et al. 2011). In addition, the educational engagement and effective learning in general are directly affected by the disadvantages of long-term distancing and isolation (Carlson 2020). This experience expectedly reduced motivation towards studying; students are under high pressure to learn independently and to abandon
or change their daily routine, which increased the frequency of dropouts. These are the direct and highly expected consequences of online learning (Grubic et al. 2020). However, the impact of online teaching and learning process on design course has different procedures and deliveries compared with other disciplines: for example, humanities and medicine.

**Design online teaching**

Few studies have been conducted on full online or remote learning in interior design or design in general. A few studies revealed that distance learning have lowered the dropout rate of college students and increased the rate of enrolment and student satisfaction (Amoozegar et al. 2018; Bezuidenhout 2018; Martínez et al. 2019). Satisfaction and motivation are obviously shown by students in a distance learning environment (Bovermann et al. 2018). In addition, distance learning is flexible and time saving; it allows students to work from home with easy access to learning resources (Fleischmann 2018). Moreover, to achieve meaningful and successful online distance learning, a supportable learning environment needs to be provided to learners via technology (T. Park & Lim 2019). However, some students face learning challenges especially in establishing communication patterns and in relating to effective teaching practices, even if their evaluation of their distance learning experiences is positive (Markova et al. 2017). Unfortunately, the COVID-19 pandemic forced design students to shift to fully remote learning in the form of online learning.

Several studies explained that blended learning is a part of the online experience. Clearly, in interior design, the design studio is an essential component of a pedagogical approach that emphasises student-centred learning in design education disciplines (Cho & Cho 2014). Blending online learning with traditional learning increases the variety of methods to enhance the learning experience (Raymond et al. 2016). Therefore, by promoting critical thinking in a blended learning environment, the success of online learning experience among design students can be ensured (Cho et al. 2016; Fleischmann 2018; Smart & Cappel 2006). Consequently, the improvement of students’ perception of online learning is based on satisfactorily prepared and well-planned online experiences; such improvement will be transferred to the real-life practice of future interior designers (Cho & Cho 2014; Jeong et al. 2017). The ability to provide good communication to convey information and to improve knowledge advancement processes come from learners’ interaction with instructors; feedback from the instructors is the key to successful online learning (Allan 2004). Students’ experience is enhanced by online learning (Cho et al. 2016). Providing emotional and necessary support remains the university’s responsibility. Instructors must consider the singularity of each student when planning online courses (T. Park & Lim 2019; van den Berg 2018).

**The case study**

The first case of COVID-19 was reported on 23 January 2020 from a Chinese family who were on a holiday in the UAE. As the number of cases started to increase, many new health-protection procedures were announced, and various precautions were adopted (Duncan & Gautam 2020, May 23). On 23 March 2020,
the total number of reported COVID-19 cases reached 198 (GulfNews 2020, May 25). Consequently, the Ministry of Interior and the National Emergency and Crisis and Disasters Management Authority endorsed a directive asking people to stay at home and only leave when necessary or for work (WAM 2020, May 25).

In addition, the Ministry of Education announced on 3 March 2020 that schools and universities (higher education institutions) would start distance learning. After two weeks of intensive training on the online platforms for all instructors, one of the universities announced that remote learning would start right after the spring break on 7 March 2020. This university is one of the biggest universities in the region. It is a comprehensive academic institution with a distinctive learning style and a global vision. It includes 14 colleges. Approximately 15,300 students are currently enrolled. The College of Fine Arts and Design (CFAD) aspires to become one of the leading academic institutions in the UAE, the Gulf, the Arab world and the whole world. CFAD has two design departments: the Applied Design department – which has three programmes, namely, Interior Design, Visual Communication and Fashion Design with Textile – and the Fine Arts department. The interior design programme is considered the largest programme in the collage with around 300 students.

The main purpose of this study was to evaluate the perceived performance of students under online distance learning scheme, which was developed in response to the COVID-19 lockdown in the UAE. To understand the design students’ perception of online distance learning during the COVID-19 lockdown, three major issues were explored, as follows: 1. evaluation of students’ emotions during the COVID-19 pandemic; 2. evaluation of the impact of these emotions on the students’ performance in their design courses in an online distance learning environment; and 3. sharing of instructors’ online distance teaching experience and challenges. The study results of first and fourth year students were compared to obtain good quality results and to make satisfactory recommendations.

Methodology

A mixture of methods was adopted to achieve the purpose of this study. The methods and tools were selected in accordance with the study’s objectives. The tools used were online survey and focus group interviews. This study was conducted at CFAD in one of the universities in the UAE. The participants were first and fourth year interior design students while learning during the COVID-19 lockdown in the UAE.

The creative performances of first and fourth year students at the main design courses, such as Art and Design Foundation II and Unit 14 design graduation project for first and fourth year students, respectively, were evaluated. These courses were converted to online distance classes in the last 4 weeks before the end of the spring semester.

Online survey

The first year is the foundation year for all design students in college. The online survey respondents included 193 out of 205 students, and the response percentages of first and fourth year were 95.2 and 91.3, respectively. In addition, most participants were females (93.8 per cent) as shown in Table 1. The dominance of
female students reflected the current population of interior design students at CFAD.

The online survey was in the English language and was administered anonymously to the students through Google forms after the completion of their online distance classes. The survey form was available online from 18 May to 25 May 2020. The survey’s main instruction was for the participants to provide honest feedback about their emotions regarding online distance learning and their performance. The students were asked if they would like to be a part of the study, and their response was acknowledged as an ethical approval of their participation. The survey included two main parts, as follows:

- **Part one** examined the students’ mental health and measured the repetition of their negative emotions and feelings while designing their projects during lockdown. The data was collected through 15 items in question two. Responses were self-reported on a Five-point Likert scale that ranged from ‘Always’ to ‘Never’.

- **Part two** measured their creativity and performance in online learning during lockdown. They were asked to indicate their agreement or disagreement using a five-point Likert scale. The data was collected through 26 items. The self-reported survey consisted of four sets of questions in various areas, such as motivation, effectiveness, learning and satisfaction.

Many studies used an online survey to collect data on students’ perception of online learning (Cho et al. 2016; Fleischmann 2018; Gajghat et al. 2018; Ghadirian et al. 2018; Yang et al. 2020). The survey questions were adopted from several studies related to two main subjects, namely, students’ emotions and performance. As for students’ perception of and performance in online and blended learning (Cho & Cho 2014; S. Park 2015), this study’s survey questions were based primarily on students’ emotions and feelings (T. Park & Lim 2019).

**Focus group interviews**

Instructors were placed into two groups. They were required to share their feedback regarding online teaching for this study’s courses. The interviews were conducted online through Microsoft Teams at the end of both courses. Interviews were in the Arabic language as all the instructors are native Arabs. The first group comprised five instructors teaching Art and Design Foundation II course to first years, and their interview was conducted on 13 April 2020 for 60 minutes. The

| TABLE 1 Participant Characteristics | Number | Percentage |
|-------------------------------------|--------|------------|
| Gender                              |        |            |
| Male                                | 12/193 | 6.2%       |
| Female                              | 181/193| 93.8%      |
| Student Rank                        |        |            |
| 1st year respondent                 | 140/147| 95.2%      |
| 4th year respondent                 | 53/58  | 91.3%      |
| Total 193 students                  |        |            |
second group comprised seven instructors who teach fourth years completing Interior Design Graduation Project, and their interview was conducted on 28 April 2020 for 85 minutes, as shown in Table 2. The focus groups answered 10 questions covering the instructors’ experience, impact, evaluation and challenges regarding students’ performance during the pandemic.

The methods and online design courses procedure

This research was conducted on design studio-based courses during the spring semester, which is 16 weeks long. The design course for first year students is Art and Design Foundation II, which consists of a 4 hour lecture, whereas that for fourth year is the senior graduation project II, which was given twice a week with a length of 4 hours per session.

Online distance learning for the course started from week 8, which was the week of the submission for the project detailing. This meant that the participants started their project designing in the studio. For first years, the final project was conducted from beginning to end via online distance learning, as shown in Figure 1.

| Focus group                           | Number     | Date          | Length     |
|---------------------------------------|------------|---------------|------------|
| First group- 1st year instructors     | five instructors | April 13, 2020 | 60 minutes |
| Second group- 4th year instructors    | seven instructors | April 28, 2020 | 85 minutes |

Figure 1
Spring semester weekly distribution for each course topics in 2020
The participants’ prior experience in online learning was identified as follows. First year students had little experience, which was limited to several assignments during their first semester in the college. In contrast, senior students had significant experience in online learning because of the blended learning system that was adopted in the college. Fourth years used this learning style in their previous year levels. However, all participants have never experienced full-time online distance learning.

The two courses delivery procedures are summarised in five main aspects as follows:

1. **Teaching**: Instructors chose between two modes of delivery for learning materials, online or offline. For studio class, the online mode was delivered best by using platforms like Black Board (BB) and Microsoft Teams (MT), which were frequently used for creative design process and feedback. Instructors conducted an online class live, and all students joined at the same time.

2. **Timing**: Instructors had two options to deliver their online class according to timing, namely, synchronised (similar to the actual time for studio time) or asynchronised (any time during the day). These options take in consideration the students’ schedule. Most design courses considered synchronised classes with few asynchronised classes for more feedback.

3. **Assignments and evaluation**: During online design courses classes, instructors provided direct instructions and feedback for students before they submitted their design work. The instructors’ feedback on the students’ designs was through BB, in which a pen tool is used. Thus, feedback can be placed directly on the students’ sketches. These pens were considered helpful tools. However, instructors faced several difficulties in terms of providing design feedback in general. The MT platform was more practical, because the instructors can directly sketch on the students’ projects. Online juries had been conducted to evaluate students’ final performance. Brainstorming and initial creative ideas sessions focused on real designer’s work as case studies presented through YouTube videos, which were very helpful platforms for the students.

4. **Interaction**: Instructors interacted with the students during the online class through several ways by using drawings on whiteboard, visual videos, audios and Flashback Pro recordings to explain how to use design software, such as AutoCad and 3D Max. MT is suitable for individual one-to-one feedback during the instructors’ office hours or through official emails.

5. **Resource sharing**: Lecture materials, assignments’ handouts, notes, PowerPoint presentations with voice over, YouTube videos and tutorials, Flashback recordings and other related information were shared with the students using BB.

**Findings and discussion**

The findings of the online survey were presented, discussed and compared for first and fourth year participants.

**Part one**

The questions examined the students’ mental health in relation to their negative feelings and emotions while designing their projects through online classes during the COVID-19 lockdown. Table 3 shows the results of comparisons. The results showed the following:
|                               | 1st Year 5* | 4th year 5* | 1st Year 4 | 4th year 4 | 1st Year 3 | 4th year 3 | 1st Year 2 | 4th year 2 | 1st Year 1 | 4th year 1 |
|--------------------------------|-------------|-------------|------------|------------|------------|------------|------------|------------|------------|------------|
| Feel trouble relaxing when I work at online class | 32.1 | 34.6 | 23.6 | 38.5 | 32.9 | 5.8 | 7.9 | 13.5 | 3.6 | 7.7 |
| Apprehensive about enrolling in online class        | 157 | 15.7 | 32.1 | 34.6 | 32.9 | 4.3 | 8.6 | 32.7 | 7.1 | 9.6 |
| Confused when I work on the internet               | 100 | 250 | 30.0 | 44.2 | 114 | 32.7 | 17.3 | 7.7 | 4.3 | 5.8 |
| Anxious when I learn through online class          | 279 | 231 | 28.6 | 24.3 | 25.7 | 7.7 | 11.5 | 32.7 | 8.6 | 13.5 |
| Feel worrying about working on my project at home  | 38.6 | 38.6 | 22.9 | 23.1 | 25.7 | 154 | 21.2 | 44.2 | 7.7 | 9.6 |
| Get nervous when I am participating in online discussion | 243 | 243 | 25.0 | 38.5 | 22.9 | 7.7 | 17.1 | 32.7 | 9.6 | 21.2 |
| Have trouble in focusing during the online class   | 28.6 | 192 | 22.9 | 40.4 | 30.0 | 15.4 | 12.9 | 38.5 | 5.7 | 15.4 |
| Face difficulties while working on my project       | 25.7 | 308 | 36.4 | 38.5 | 32.1 | 7.7 | 2.1 | 17.3 | 3.6 | 5.8 |
| Feel nervous about my online performance           | 25.7 | 173 | 36.4 | 42.3 | 32.1 | 9.6 | 2.1 | 23.1 | 3.6 | 7.7 |
| Lost interest in doing my assignments and project  | 314 | 231 | 25.7 | 38.5 | 27.1 | 9.6 | 10.7 | 32.7 | 5.0 | 3.8 |
| Get nervous about getting lost in online class      | 293 | 212 | 30.0 | 44.2 | 22.9 | 9.6 | 9.3 | 21.2 | 8.6 | 5.8 |
| Feel empowered in my online class                   | 150 | 154 | 27.1 | 53.8 | 34.3 | 15.4 | 15.7 | 53.8 | 7.9 | 15.4 |
| Got stressed while working on my project           | 421 | 115 | 31.4 | 7.7 | 20.0 | 5.8 | 2.1 | 50.0 | 4.3 | 1.9 |
| Feeling afraid in finishing my project on time      | 414 | 135 | 26.4 | 11.5 | 24.3 | 3.8 | 6.4 | 42.3 | 1.4 | 3.8 |
| Anxious when I think about logging into the online class | 18.6 | 135 | 27.1 | 19.2 | 26.4 | 3.8 | 15.7 | 32.7 | 12.9 | 7.7 |
| Total Average                                      | 27.3 | 21.3 | 28.0 | 42.4 | 28.1 | 10.3 | 9.9 | 17.6 | 6.8 | 8.5 |
| Total percentage                                   | 83.0% | 81.3% | 83.0% | 81.3% |

*Always=5  
*Often=4  
*Sometimes=3  
*Rarely=2  
*Never=1

*All numbers are in percentage

Highest percentage
Second Highest percentage
The majority of first year participants (approximately 83 per cent) had extremely high anxiety and stress while working on their design project through the online class during COVID-19 pandemic.

The majority of fourth year participants (approximately 81.3 per cent) frequently felt worried and stressed while working on their design project during the pandemic.

Overall, the level of negative feelings and emotions, such as anxiety, stress and nervousness were considered high among first and fourth year participants, which led to difficulties and confusion while they were working on their design projects through online classes. According to many related studies, the pandemic affected human mental health and emotions negatively by causing problems, such as stress, anxiety, depression, anger and fear symptomatology (Carlson 2020; Kang et al. 2020; Lee et al. 2020; Torales et al. 2020; Wang et al. 2020). According to recent studies, in a crisis such as COVID-19 pandemic, females are more defenceless against negative emotions than males (Torales et al. 2020). In fact, the majority of the participants are females (93.8 per cent), as shown in Table 1. The table also showed that more than 80 per cent of the participants suffer from high stress and anxiety.

According to one study, anxiety levels were most frequently seen among first year students in online classes (Kusturica et al. 2019). Most of negative feelings of first year were related to their fear, stress and anxiety, which was in accordance with the online survey results. This finding indicated that their mental health was unstable, which affected their design creativity and was reflected in their performance. This was confirmed by participant A during the focus group one interviews: ‘I noticed the high stress levels among the students during their design brainstorming sessions. The stress increased their uncertainty in their ideas.’ Instructors stated that most fourth year students had stress issues, but they managed to overcome them. This was confirmed by instructor C from group two mentioned: ‘The majority of senior students managed to get over their negative emotions and fears and finished their graduation projects successfully, which exceeded our expectations.’

Part two

The questions examined the impact of these emotions on the students’ creativity and performance in their design courses in an online distance learning environment during the COVID-19 lockdown. Table 4 shows a summary of the comparison between first and fourth year students’ experiences. The outcomes included their overall satisfaction with their performance, which was measured through several aspects of the distance learning environment. The questions related to performance were categorised into four main aspects, as follows:

1. **Motivation:** This aspect included self-efficacy for learning and performance, self-regulation, enjoyment and task value. The overall motivation average showed no significant difference among participants, (that is, 81 per cent for fourth years and 80 per cent for first years). The majority of participants in both levels showed neutral to strong agreement that they were motivated during distance learning.

   Instructors from the two groups claimed to have worked very hard to motivate the students during the pandemic. They knew that the students were experiencing anxiety issues and stress, so they changed their way of communication with
The majority of students considered the online course as motivation and as a challenge to create new ideas. These students presented their project in a very creative way, such as oral presentations with edited videos and music in the background. In addition, the majority of students used the pandemic as an inspiration for their design work on their final project, in which they reflected how COVID-19 influenced the people’s and communities’ life in a very creative way.

2. **Effectiveness:** This aspect included communication, organising ideas, brainstorming, finalising design projects, time management and equal contribution. The overall effectiveness average showed a slight increase of effectiveness among fourth years (77.6 per cent) compared to first years (73.6 per cent).

### Table 4: Summary of participants perceived online distance learning experience and performance

| Subjects                           | 1st Year | 4th Year |
|------------------------------------|----------|----------|
| Motivation                         |          |          |
| Self-efficacy for learning & performance | 83.5     | 82.7     |
| Self-regulation                    | 87.1     | 82.7     |
| Enjoyment                          | 68.9     | 69.1     |
| Task value                         | 71.8     | 83.7     |
| Motivation                         | 80%      | 81.1%    |
| Effectiveness                      |          |          |
| Communication                      | 76.8     | 76.9     |
| Organizing ideas                   | 78.9     | 73.1     |
| Brainstorming                      | 82.5     | 77.9     |
| Finalizing design project          | 64.7     | 69.3     |
| Time management                    | 65.9     | 82.1     |
| Equal contribution                 | 82.4     | 86.5     |
| Effectiveness                      | 73.6%    | 77.6%    |
| Learning                           |          |          |
| Perceived learning through online distance class | 78.6     | 77.9     |
| Performance                        | 73.6     | 71.2     |
| Quality                            | 68.3     | 75       |
| Learning                           | 74.6%    | 79.5%    |
| Overall Satisfaction               |          |          |
| Satisfaction                       | 66.9     | 72.2     |
| Preference                         | 65.4     | 69.2     |
| Satisfaction                       | 66.4%    | 71.25    |
| Overall Percentage                 | 73.7%    | 76%      |

*All numbers are in percentage.*
majority of participants in both levels had neutral to strong agreement on the effectiveness of distance learning.

This was confirmed by instructor E from group one, as follows:

The majority of first year students had negative emotions, such as anxiety and fear. As instructors, we motivated the students to reflect these feelings on their design projects. The majority of the final projects reflected the lockdown situation, human reaction towards the pandemic and so on. The project had creative ideas that exceeded our expectations.

3. Learning: This aspect included perceived learning through distance classes, performance and quality. The overall learning aspect showed a slight increase among fourth years (79.5 per cent) compared with first years (74.6 per cent). The majority of participants in both levels had neutral to strong agreement on distance learning performance and quality.

In focus group interviews with the instructors, group two participant E mentioned the following:

This experience was unexpected and new for both faculty and students. The faculty had only 2 weeks of training on how to use several platforms for lecture during online classes. In addition, they had to review and change the course’s assignments, outcomes and projects’ requirements to fit the online classroom’s environment and lockdown limitations. Undoubtedly, we encountered several obstacles regarding the design, material delivery and providing feedback to the students.

Faculty should interact more by being receptive to more feedback, which could help in saving time, preventing mistakes and developing the best practices in online blended learning and on-site courses (Austin 2010).

4. Overall satisfaction: More fourth years (71.2 per cent) were satisfied with online distance learning than first years (66.4 per cent) during the COVID-19 lockdown.

By comparing the results between fourth and first years, differences were found in their attitudes regarding their performance. In general, first years are less satisfied than fourth years, which indicated that they have less experience in using technology and e-learning platforms. It was challenging for the first years to shift to a virtual classroom.

This was mentioned by group one participant A, as follows:

As instructors for year one students, we needed to ensure that this experience will have a positive effect on the students. Certainly, some students had less motivated responses towards their performance, which may be due to their lack of experience in online classes, as is the case for first year students.

For fourth year students, participant D in group two mentioned the following:
Fourth years had more experience in using technology and e-learning platforms because of their previous knowledge in blended learning. Many students supported the promotion of online learning quality. In addition, despite that the students were under stress due to the current situation and their last project was a critical stage of their academic life, their performance exceeded the expectations in general and their final projects were designed well.

Overall, participants perceived their experience as positive. Performance in distance learning was slightly higher among fourth years (76 per cent) than first years (73.7 per cent) during the COVID-19 lockdown.

The pandemic’s impact on the first year students was clearly shown by their creative ideas, which reflected the current time. However, the lack of skills for implementation affected the quality of their work. Therefore, the students had less satisfaction, which affected their creativity and design performance. Despite this difficulty, the students’ motivation and mental health were the instructors’ main concern rather than the quality of the work.

The participants considered their overall performance in online distance learning during the pandemic a success. Definitely, challenges that came with the sudden implementation of online distance learning impacted the teaching–learning process. In addition, mental health and negative emotions had a large influence on the students’ creative performance.

The final project for first year students was creating a table light lamp with storytelling illustrated in two- or three-sided composition. Two examples from these projects in Figures 2 and 3 reflected the pandemic time and humans’ reactions to it.

The final project for fourth year students was creating a unique and innovative opportunity for a novel and inventive approach to interior Architecture. Two examples of the final project presentations are shown in Figures 4 and 5.

**Figure 2**
Project (1) Ydoh [= grandparents] representing the family gathering with the grandparents during the lockdown time virtually for their safety. Student name: Alyah Rashid
Conclusion

During the COVID-19 pandemic, people’s priorities changed. Safety and mental health became the most important considerations. We needed to realise that this difficult time affected people’s lives on different levels physically and emotionally. Empathy and understanding are very important between instructors and students.
to achieve success comfortably even with the difficulties brought on by the pandemic. Universities are considering the safety of students and faculty. During the lockdown, the first year design students had an exceptional experience because of their lack of knowledge in the educational system, online technology and platforms. By contrast, fourth year design students continued their remote learning smoothly, because they had good experience in the educational system and online learning. The students’ reflected their negative emotions and feelings in a creative way, such as in the production of their initiative projects. In addition, the pandemic increased the instructors’ attentiveness towards the student’s engagement, productivity and motivation to establish an effective online learning environment. Instructors put in extra effort to improve interactivity between them and the students by improving socialisation, providing helpful feedback and conducting effective meetings. There are several recommendations for interior design educators who want to teach an online distance course. First, interior design educators must be aware of the strengths and weaknesses of online formats, especially for interior design students. For example, for brainstorming and organising concepts, moodboards work better through the groups and with online tools: for example, ConceptBoard and Canva websites. In online classes, YouTube videos and professional websites had a great impact on the students’ creativity and were considered as an essential part of the online class. The pandemic changed the instructors’ and students’ point of view on how to create designs and presentations via digital methods as videos, clips and voiceover presentations and through social media. Technology provides plenty of opportunities by allowing wider access to high-quality learning materials. The pandemic changed the instructors and students’ perspectives in terms of looking forward to international exposure as jury members, workshops, webinars and online meetings during the online revolution. In general, online technology and blended learning circumstances changed the way design is taught, even if design is traditionally a studio-based discipline that relies on extensive face-to-face teaching, and involved a motivational learning process that improves creativity and design performance in the interior design discipline.

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Figure 5
Project Zootopia: Sharjah Interactive Virtual Zoo. ‘Zootopia’ aims to spread awareness of animals’ natural need for freedom and having maximum liberty to wander in their natural habitat within an undisturbed environment while giving visitors a much more genuine, technological and educational experience integrated in the most natural zoo environment. Student name: Salma Abdelaziz
integrating sustainability in interior design and the influence of culture and heritage on interior design projects. Contact address: College of Fine Arts and Design, University of Sharjah, PO Box 27272 Sharjah, United Arab Emirates. Email: damro@sharjah.ac.ae

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