

# Online Education During Covid-19 Outbreak Colleges of Technology in Oman: Students' Perceptions and Challenges

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**Abstract** – COVID-19 has affected students' learning experiences in Higher Education Institutions (HEIs) across the world. This study aimed to explore students' perceptions of online learning during the pandemic in a university located in the Sultanate of Oman using a mixed methodology approach (questionnaire and interview). Participants are 240 university students who studied in different specializations: Business, Information Technology, and Engineering. The findings revealed that students moderately rated teaching materials, online assessment, and lecturers during online education. The study also found that the university did not provide students with sufficient support. Students encountered many challenges during online education, such as weak internet connection and not having a good atmosphere at home to attend their online classes. The study concludes with some recommendations for the university to improve students' experience during online education.

**Keywords** – Covid-19, Online Education, University Students, Teaching Materials, Assessment.

## I. INTRODUCTION

Due to Covid 19 outbreak, online education becomes inevitable. However, learning online is a complex and demanding task. Higher Education Institutions (HEIs) must invest a lot of time and effort to achieve the desired learning outcomes. Therefore, it is vital to examine the status quo of the utilization of online education in HEIs in the Sultanate of Oman during Covid 19 outbreak. This study will shed light on the exact utilization of online education, its effectiveness, and the challenges students encounter during the pandemic.

Undoubtedly, education is considered the “source of national development and economic progress of the Sultanate of Oman.” (AlBakri, 2017, p.28). Therefore, ensuring the continuity of education during a crisis is a must. Online education guarantees such continuity if it is implemented thoroughly and efficiently. Many studies have shown a positive impact of using new technologies in education despite the challenges encountered by students (Yasir & Rais, 2019; Madawi & Tariq, 2016; Merç, 2015). Using online platforms is beneficial to students in developing learners' cooperative, communicative, and problem-solving skills and lifelong learning (Dehghan, Rezvani & Javadi, 2016). However, the teachers need to plan carefully (Gunduz et al., 2017) to gain the earlier benefits.

Historically, Online education has started in the 1980s (Alsied and Pathan, 2013, Moore et al., 2011). Since then, many online tools and soft wares have been introduced and used in teaching, learning, assessment, and evaluation. Numerous research studies have addressed the theories, models, and evaluation of online teaching and learning. However, all of them agreed upon the necessity of efficient planning, detailed design, proper training for staff and students, sufficient infrastructure, and suitable ways of assessment. Otherwise, the quality of online education becomes questionable.

Due to the infectious nature of COVID-19 disease, there has been a significant shift from the traditional lear-

-ning environment to online learning. However, e-learning has grown before the crisis, but many studies have shown that it is still in its infancy (Koochang, 2004 &) since most lecturers need a lot of time to develop an online course. Therefore, this study explores students' perceptions of online education during the pandemic in terms of their perceptions of their lecturers, contents used by them, assessment, the support provided for them by their university, and the challenges they encountered during the pandemic.

This paper is structured as follows: Section 2 discusses the literature review. Section 3 presents the methodology used in this study. Meanwhile, Section 4 explains the results of the questionnaire and the interview. Next, Section 5 discusses the findings. Finally, Section 6 summarizes the study and suggests future research opportunities.

## **II. LITERATURE REVIEW**

There have been many studies that investigated students' experience of online education during the pandemic. For instance, a study was conducted by Khan et al. (2020) in India, and it found that majority of students positively perceived online education during the pandemic since it gave students the freedom to communicate with their classmates and teachers and it provided them with the flexibility of place and time in education. In addition, the study also showed that the students easily accessed class materials. The study concluded that the students' impression of online education was positive, leading to their acceptance. Another study was conducted in Oman by Slimi (2020). He found that most students found online education experience during the pandemic positive. It helped them develop many independent skills, problem-solving skills, communication skills, and technological skills. However, many students encountered challenges related to internet connection and the unpreparedness of staff and students for online education.

Liu and Pu (2020) examined factors that affected students' willingness to continue using online learning. They found that lecturers' quality, course design, and accessibility of online platforms are among the factors that affected students' during online learning. Due to the pandemic, teachers shared as many materials as possible with students and expected students to choose the best materials for themselves, which negatively affected students' learning. In a study conducted in India (2020), Amita found that learners in HEIs struggled to choose the best source amongst many sent by their teachers, which negatively affected their academic performance.

Guangul et al. (2020) examined the difficulties of online assessment encountered by students during the pandemic. Their results revealed that technical issues and failure to maintain academic integrity are the two concerns students in HEIs experienced. Similarly, Salceanu (2020) found that many students were not happy with online assessment since their teachers gave them a lot of assignments, quizzes, and tests, which caused a lot of pressure.

Several studies are investigating the support provided by HEIs during the sudden shift to online education. For example, Abu Shekhadim, Awad, Khalilah & et al. (2020), in their study in Palestine, found that their participants reported the support provided by the university to be moderate since the university did not train students to use e-learning and no guidelines were provided to students on how to use the virtual platforms. However, Shawaqfeh et al. (2020) found that 61.4% of the students agreed that the College of Pharmacy in Saudi Arabia was well-prepared and ready for online education during the emerging COVID-19 pandemic with a complete transition into online education. Whereas, Baticulon et al. (2020) found that 44% of their participants

said their schools were well-equipped to support online teaching. Furthermore, Draissi & Yong (2020) found that the support provided to students in Morocco was not sufficient due to the lack of infrastructure needed for the successful implementation of online education.

On the other hand, many studies show that students encounter massive challenges during online classes. One of the most common challenges reported by many studies worldwide is a weak internet connection (Baticulon et al., 2020; Mahdy, 2020; Aristovnik et al., 2020; Huang et al. 2020; Khalil, Mansour, Fadda, et al., 2020). Another challenge students face, as described by many studies, is the availability of equipment needed for online classes, including laptops, personal computers, webcams, and speakers (Kim et al.,2020; Abbasi et al., 2020; Mahdy, 2020;). Limited social interactions with teachers and little collaborative work with classmates have been reported by many studies conducted worldwide (Means and Neisler 2020; Almuraqab;2020; Baticulon et al., 2020). In addition, plenty of empirical studies have found that students' motivations have been reduced during online education (Yilmaz et al., 2020; Atmojo& Nugroho, 2020). Other challenges reported in other studies related to students' home environment since students cannot find a quiet atmosphere to attend their classes and interact with their lecturers (Lassoued et al., 2020, Means & Neisler, 2020).

### III. METHODOLOGY OF THE STUDY

#### *The Study Site*

This study took place in one of the government universities in Oman. The university offered diplomas, higher diplomas, and Bachelor's degrees in various specializations: Information Technology, Business Studies, and Engineering. It includes students from different places in Oman, especially the eastern areas of Oman. The students' ages are 19-23 years old, and they are studying their specializations in English. Their programs include 40% theoretical and 60% practical, which means that the university focuses more on the practical sides of the students' specializations. Students spend more time in Labs, workshops, and trip fields.

Like other institutions in Oman, the university was forced to move online during the academic year 2020/2021. The university experiences the first online instructions during Spring Semester for the academic year 2019/ 2020. The data was collected during the first semester of 2020/2021. This means that the university was expected to have enough preparation for online education since they have already experienced it for one semester immediately after the study suspension in Oman in March 2020. The university used Microsoft Teams to conduct online classes and the Learning Management System (Moodle) to conduct online assessments. The courses were undertaken synchronously, and the recordings were made available to students on the university server. The data was conducted between November and December 2020.

Students witnessed various reactions to the new practice during the online education phase, which entails looking at this operation from different aspects. Therefore, the general aim of this study is to investigate students' experience in shifting from face-to-face education to online education within COVID19 in one public University in Oman. Specifically, the study aims to examine students' perceptions of teaching materials, online assessment, their lecturers, their university's support, and the challenges they encountered during online classes in Spring 2021.

#### *The Study Methods*

To achieve the aims of this study, the researchers used a mixed-methods approach which involves “a mixture

of qualitative and quantitative approaches” (Creswell, Klassen & Plano Clark, 2011, p. 5) to get a better understanding of the implementation of online education during Covid 19 outbreak. For methods of data collection, mixed methods were used, specifically a questionnaire and interviews. The aim behind using mixed methods is to provide a more comprehensive understanding of online education. Further, using more than one research method is commonly acknowledged in research (Cohen, Manion & Morrison, 2018) since it helps the researcher to build up an inclusive picture of the research context (Flowerdew, 2014).

The current study started with a quantitative phase using a questionnaire to explore learners’ perceptions towards the implementation of online education. The questionnaire includes 25 items related to students’ perceptions of teaching materials, lecturers, assessment, the support provided by their university, and the challenges they encountered during online education. Students were asked to express their opinions on a three-point Likert scale: “agree = 3”, “neutral = 2”, disagree. The questionnaire also had open-ended questions that asked students about what they appreciated about their lecturers and institutions and the challenges they encountered during online education in the spring semester. The internal consistency reliability of the questionnaire items was checked through the application of Cronbach's alpha tests of inter-reliability correlations. Table 2 shows Cronbach’s Alpha for the 25 things, which shows that our questionnaire is reliable given that all the items are above the minimum threshold of 0.7.

Table 1. Cronbach’s Alpha of the Questionnaire’s Sections.

	<b>Number of Items</b>	<b>Cronbach’s Alpha</b>
Students' Perceptions on Teaching Materials	5 items	0.825
Students' Perceptions on Lecturers	5 items	0.835
Students' Perceptions on Assessment	5 items	0.885
Students' Perceptions on Support provided by the University	Five items	0.700
Students' Perceptions on the challenges they encountered	Five items	0.874

In the second phase of the study, the researchers used semi-structured interviews, which combine the advantages of structured and unstructured interviews, since they have a specific focus like the structured interviews, but at the same time allow for the interviewees’ freedom to express their thoughts and opinions spontaneity like the unstructured interviews (Braun & Clarke, 2014; Laforest, 2009). Sets of questions have been prepared in which the researchers explored the students’ experience during online education in a more profound way. The interview questions include about ten inquiries related to students' background, their perceptions towards online teaching materials, online assessment, lecturers, the support provided by their university, and the challenges they encountered during online education. Since the students in this study context are native speakers of Arabic, and English is a foreign/second language to them, the interviews were conducted in Arabic, so they would feel more comfortable expressing their feelings, thoughts, and experiences in Arabic without facing language barriers. Then, the interviews were translated into English, and relevant codes and extracts were reported in this paper. Each interview lasted between 25-35 minutes.

### *The Participants of the Study*

Two hundred forty students have responded to the questionnaire. The sample includes 49.6% (n = 119) males and 50.4% (= 121) females. 15.8% (n = 38) of the students were studying IT, 40% (n = 96) were studying

engineering, 22.5% (n = 54) were studying Business studies, and 21.7% (= 52) of the students were studying foundation year, which is the year were students studying English, Mathematics and Computing skills before they moved to their specializations.

Fifteen students have participated in semi-structured interviews: seven males (2 engineering students, two foundation students, 2 IT students, and 1 Business studies) and eight females (3 IT students, 2 Engineering students, 2 Foundation students, and 1 Business studies).

### *Data Analysis*

The questionnaire data were analyzed using Microsoft Excel and performed statistical analysis using Microsoft Excel and SPSS version 22. Descriptive data were reported as the mean for the items. The scales were calculated and interpreted based on suggestions from Terno (2015) as follows:

Table 2. Scales' interpretations.

Range of Means	Interpretation
0.00 -0.69	Low
0.70 - 1.39	Moderate
1.40 - 2.00	High

The researchers followed thematic analysis for the interviews, which requires identifying themes, analyzing them, and reporting the generated patterns within the data (Braun & Clarke, 2014). The coding framework relied mainly on a set of pre- ordinate themes informed by the study aims, which concentrate on students' perceptions of teaching materials, their lecturers, online assessment, the support provided by the university, and the challenges encountered by the students during online education.

## **IV. RESULTS**

This section consists of results related to the main findings: students' perceptions on teaching materials, lecturers, assessment, and support provided for them and the challenges they encountered.

This cluster aims to gather information related to students' perceptions of teaching materials during online education. The grand mean of this cluster is .73, which means that students moderately rated the teaching materials. However, students ranked two statements related to online learning as good in practical courses and online learning quality as good as face-to-face learning with a low mean (.57 and .33, respectively).

Table 3. Results related to teaching materials.

Items	Mean	Interpretation
Teaching materials were effective	.83	Moderate
Assignments were effective	1.2	Moderate
Sending and receiving materials without problems	.74	Moderate
Online learning was good in practical courses	.57	Low
Online learning quality is as good as in face-to-face class	.33	Low
Grand mean	.73	Moderate

During the interview, students highlighted that most teachers depended on PowerPoint slides to explain the content of the course. For instance, a student said, “The lecturer would share his slides and would go from one slide to another. We were bored listening to him reading the slides”.

Another student stated: "our lecturers did not use different ways to present the learning materials; they depend on slides mainly. They did not use interactive ways such as games and video to get us involved during online classes."

When students were asked about how practical courses were taught, one student explained, “the lecturers sent us YouTube clips explaining how the machine worked. The clip was long and the language used was tough. We did not understand the practical side of the course”.

Another student stated, “some lecturers would video the experiment, and they would send us the video. This helped us to visualize the experiment, but still, we preferred face-to-face mode of teaching when it comes to practical courses.”

During the interview, most students highlighted that they preferred face-to-face learning to online learning. For instance, one student said, “I did not really like online learning; it was different when you attended classes, and you see your teacher and classmates. From your face, the teacher would know if you understood the materials. He would repeat the explanation if he saw you with a puzzled face.”

10 of 15 students expressed that online education has negatively affected their academic grades and achievement and wished to go back to the physical mode of learning. For instance, one student said, “my academic grade went down this semester as I did not benefit from online education, and it was hard for me to understand my courses while I was behind the screen. It was completely different when I attended classes, I understood things much better, and my grade was high.”

The below table illustrates students' perceptions of their lecturers, and the results show that students moderately rated their lecturers. However, students highly rated the statement related to having difficulties communicating with their lecturers.

Table 4. Results related to lecturers.

Items	Mean	Interpretation
I am satisfied with my lecturer's performance	0.95	Moderate
The student can ask any question	1.1	Moderate
All lecturers have the skills needed for online	0.9	Moderate
There is difficult to communicate with lecturers	1.4	High
The lecturers answer students questions	0.7	Neutral
Overall mean	1.1	Moderate

During the interview, 11 out of 15 students did not like the performance of their lecturers. They highlighted that their lectures did not have the skills to teach online, and they were not good at involving students and engaging them during online classrooms. For instance, one student said, “the majority of our teachers did not know how to teach online; they would go from one point to another without checking our understanding. They c

-ared more about covering the contents more than making us engaged in the learning process.”

Another student emphasized that “many lecturers would explain the content but did not know how to interact with them. We were only listening for their explanation. They did not use creative ways to present the teaching materials and involve us while they were explaining the course.”

More than half of the students (9 out of 15) claimed that it was hard to communicate with the lecturers during online classes. For instance, one student stated, “*during physical classes, you could talk to the lecturers during the class and after the class, if you do not understand anything but during online classes, you messaged your teacher or sent an email, and he or she would not get back to you immediately, so this interaction between you and your teachers is missed during online classes.*”

Another student said, “*the lecturers were themselves were overwhelmed during online classes since they dealt with students behind the screen and they could not see their students’ facial expressions to know if they understood or not. I feel that communication between my lecturers and me was missing during online classes; rarely my teachers would respond to my emails or messages.*”

Table 5 shows results related to students' perceptions of assessment. The Grand mean of this part of the questionnaire was one which means that students moderately rate the assessment used during online education. Nonetheless, students rated one statement related to teachers using complex assignments with a low mean (0.6).

Table 5. Results related to assessment.

Items	Mean	Interpretation
I feel satisfied with the online assessment	0.9	Moderate
I was assessed continuously during online	0.9	Moderate
The teachers used a lot of critical questions	1.3	Moderate
Quizzes were difficult	1.3	Moderate
The teachers used complex assignments	0.6	High
Grand mean	1	Moderate

During the interview, the students (7 out of 15) expressed that online assessment was more straightforward when it comes to the type of the question as one participant said, “*online assessment was easier than face to face mode of assessment as many lecturers used close-ended questions such as multiple choices, matching, and completion questions.*”

However, half of the students had concerns about academic integrity. For instance, one student said, “*the lecturers gave us a lot of materials to study, and it was tough to study all of them for the exams.*” Another mentioned, “*Excellent students have studied hard, but at the end, they got low marks because weak students are good at cheating.*” Similarly, one student conquered with them and said that “*honest students always got low marks, but dishonest students got high marks because they knew more ways to find the correct answers through asking their friends, experts, and different websites to get the correct answers.*”

Another theme that occurred during the interview was the workload related to doing online assignments. Many students (9 out of 15) highlighted that their lecturers gave them a lot of online quizzes and projects to be completed within a short time. One student said, “*I have learned a lot from online assignments since I searched*

for the information from different books and websites, but we have always been felt stressed because we have a short time to complete the assignment or the report.”

Also, some students during the interview (7 out of 15) mentioned the unclarity of regulations and rules related to the online exam before the start of the exam; for instance, one student said,

*“Online Assessment was not structured in my university since the rules of online exam, the type of questions, the timing and other issues have not been announced at the beginning of the academic semester. We were surprised with new rules for every exam.”*

Table 6 shows results related to students’ perceptions of support provided by the university. The grand mean for this part of the questionnaire was low (.64), which means that students were not satisfied with the support provided by their university. Yet, students moderately rated statements related to training and preparing a manual for online platforms.

Table 6. Results related to Support provided by the University.

Items	Mean	Interpretation
The university trains students	0.8	Moderate
The university provided support	0.7	Moderate
The university prepared a manual on the online platform	0.8	Moderate
University takes students opinions to develop the online learning	0.5	Low
I feel satisfied with the support provided by the University	0.4	Low
Grand mean	.64	Low

Nearly half of the students in the interview believed that their university did not provide them with the support they needed during online education. For instance, one student said,

*“The University sent us what we should do and what we should not do. It did not think of what we needed. It did not support us.”*

6 out of 15 students talked about the rigid rules and regulations online and asked for more flexibility when implementing practices. For instance, one student said, *“We need somebody to understand us. The university needs to be flexible with its rules. If I am late to class, I will not be allowed to join the class. Why? I may have a valid excuse; the rules were very rigorous.”*

Also, about 10 out of 15 students mentioned that their university did not provide them with timely information. They were delayed in announcing rules and regulations and policies related to online classes, attendance, assessment, and appeal. For instance, one student said, *“We have been waiting so long to know rules of absence, lateness, and exams; the university did not communicate them to us on time.”*

Another student also added, *“What any institution should do during an emergency is to prepare a comprehensive plan to deal with a situation like the outbreak of COVID-19, and students should be informed about this plan. We did not see that in my university.”*

8 out of 15 students appreciated the support provided by their university during the online assessment. For in-



-stance, one student stated.

*“The university supported us during online assessment by providing us with a list of numbers to communicate in case we had any technical issues, and whenever we called, they would reply and guide us on what to do, so that would be helpful.”*

Table 7 illustrates results related to the challenges encountered by students during online education. The grand mean of this cluster was moderate (0.7). However, students rated the statement pertaining to experiencing many challenges during online education with a mean of (1.4). Participants rated the statement about having an internet connection with a low mean (0.5).

Table 7. Results related to the challenges.

Items	Mean	Interpretation
I faced a lot of challenges	1.4	High
Home atmosphere	0.7	Moderate
I have the necessary equipment	1.2	Moderate
I have an Internet connection	0.5	Low
A lot of difficulties using the platform(s)	0.7	Moderate
Grand mean	0.9	Moderate

During the interview, most of the students (12 out of 15) acknowledged that online learning during the pandemic helped them improve their technological skills. For instance, one student mentioned, *“online learning assisted me in developing my skills in using Microsoft word, PowerPoint and developing my skills in navigating different websites to search for what I want.”*

In addition, 7 out of 15 students expressed that taking online courses during the COVID-19 outbreak helped them feel safe and relaxed. For example, one student stated that *“attending online classes from home made me feel safe from catching COVID-19 virus and made me feel that I am investing my time while I was staying home.”*

However, 9 out of 15 students highlighted that they have internet connection problems that negatively affect their online learning experience due to bad internet connection and the internet bandwidth at their home. One student illustrated that, *“internet was a real issue for me. Imagine that I had to take classes and my sisters and brothers had to take classes which made the internet at home very bad. I got disconnected many times during my classes.”*

About a quarter of the participants mentioned home atmosphere as an obstacle during the online classes since they lived in a big family. It was hard for them to find a quiet place to study and concentrate on their studies. For example, one student stated, *“The teacher asked me to open the camera to answer any question, and I felt embarrassed because I was sharing the room with my other two sisters, so it was hard sometimes even for me to open the camera; also, my sisters sometimes had classes, and we were using the same room which made it difficult focusing on my classes.”*

However, most students acknowledged that recording classes have helped them go back to the recording and

watch again. On the other hand, 6 out of 15 students mentioned that having everything recorded and the expectations of their teachers that they could go back and listen to the recording made them feel pressurized as they could not find time to watch all the recorded classes and referred to a plethora of online materials available on the online platforms. For instance, one student mentioned:

*“The teacher thought that having the classes recorded and putting a lot of materials online would help understand their course better. However, I hardly found time to go back to the materials as I had a lot of work, such as presentations, assignments, and reports. I feel that I was overwhelmed with a lot of materials.”*

## V. DISCUSSION

This study aims to examine students' perceptions towards online education during the COVID-19 outbreak. Specifically, the study investigates their perceptions of teaching materials, lecturers, assessment, and support provided by their university and the challenges they encountered during online classes. The results revealed that students moderately rated the teaching materials during online courses. The students stated that their lecturers highly depended on PowerPoint slides to present the teaching materials. The lecturers did not use interactive materials such as games and videos, among others. These results are similar to those reported by Abu Shekhadim, Awad, Khalilah & et al. (2020) and who found that lecturers did not use interactive materials. A possible explanation for this might be that this university is one of the universities that adopt face-to-face learning. It did not plan to adopt online education, so it has suddenly switched to it, which made students' experience during COVID-19 was not that satisfactory. The students also believed that online materials used during online classes were insufficient to teach practical parts of the course since most lectures depended on YouTube clips and recording experiments to explain the practical courses. This is in line with other studies that reported that online classes are inadequate to teach practical courses such as medicine and engineering (Mahdy, 2020; Saddik et al., 2020). The results showed that most students preferred physical classes over online classes since they understood the teaching materials better during the physical classes. Thus results contradict with the study conducted by Bączek, Szpringer, Jaroszyński, and Wozakowska-Kapłon (2020) in their study of a Polish university which found that 73% of respondents enjoyed online learning while 27% did not want it.

On the other hand, this finding is similar to the study of Mishra et al. (2020) in India, who found that students were dissatisfied. A possible explanation for such results might be attributed that these studies were conducted in Poland, which was considered one of the developed countries, and their students were quite familiar with the online mode of learning. However, students in India and Oman, which belong to developing countries, are not customized to the online mode of education, and their first experience was only during the pandemic.

The results related to students' perceptions towards their lecturers indicated that students moderately rated their lecturers. The students also believed that they had difficulties communicating with their lecturers. Blackmon and Major (2012) emphasized that teachers had a substantial impact on students' online education experience, in large part through their being accessible during the course and providing needed support to their students. Additionally, Adnan and Anwar (2020) found that students in HEIs in Pakistan have negative online perceptions since they did not have effective interaction with the instructors and their delay in responding to their inquiries. Therefore, the HEIs need to develop policies and procedures to ensure that teachers provide adequate support for their students during the online teaching mode. This can be done via conducting one-to-one

meetings with individuals or groups of students to address their needs or their efforts to provide opportunities for their students to connect with peers.

The interview results showed that students found that their teachers lacked the skills to teach online, and they were not successful in engaging students during online classes. This is in line with other studies such as Zhang, Wang, Yang, and Wang (2020), who have found that most teachers in China are unfamiliar with synchronous and asynchronous online teaching tools and cannot guide their students how to use online platforms and/or learning management systems. This has negatively affected students' learning during the pandemic.

Regarding students' perceptions of online assessment, the results of this study revealed that students moderately rated online assessment. However, students thought that their lecturers used challenging assignments.

The study results show that students believed that their university did not provide sufficient support online, and there was a delay in disseminating rules and regulations related to online classes and assessments. In addition, the study revealed that students appreciated the technical support provided by their university during the online assessment. Yet, they thought the university was too rigid when it came to the implementation of rules and policies. Many studies have reported that students encounter challenges during online classes since they lack self-directed learning skills (Yilmaz, 2020; Karaoglan Yilmaz & Yilmaz, 2019). Therefore, they need to be provided with external support and guidance to benefit from online classes. Similarly, Gonzalez & Louis (2018) stated that students have to be self-directed with high motivation during online education. Hence, the university should provide students with enough support to benefit from online education.

The results of the study indicate that students encounter a lot of challenges during online classes. This is because students had a low internet connection. Also, during the interview, the students highlighted that they do not have quite a place to take online classes at home as they are sharing rooms with their siblings who are also taking online courses in their schools and HEIs. These results are similar to those in other studies (Allily et al., 2020; Lassoued et al., 2020; Means and Neisler, 2020). This result may be explained by the fact that Omani houses, like other Arab houses, include many children and host intergenerational family members, making it difficult for students to find a place to study and attend online classes.

## VI. RECOMMENDATION

To make students' experience more effective and beneficial, the study recommends the following:

- The university should give training courses related to online education for faculty members. These training courses should focus on making their teaching more interactive and communicating with their students using different means, so students will not miss the opportunity to interact with their students during online classes.
- The university should emphasize the need to continue online education after the pandemic and disseminate electronic culture among students and faculty members.
- The university should provide an appropriate educational structure for the application of online education remove all human, material, and technical obstacles that prevent students from getting advantages of online education.

- The university needs to improve the way practical courses are delivered by providing virtual resources and equipment that enable students to acquire practical skills such as online laboratory demonstrations and 3D virtual tools to mimic an actual situation.
- The university should conduct more studies and research to find out the effectiveness of online education and hold conferences and seminars for the development and advancement of online education.
- The university should offer materials that provide students with e-learning skills and techniques to facilitate the process of interaction and benefit from online education.

## VII. CONCLUSION

The study describes students' experience during online education and their perceptions towards online materials, their lecturers, online assessment, the support provided by their university, and the challenges they encountered in a university in Oman. The students in my research were in a position where they informed the study and revealed important data that suggested some recommendations for the university and other similar HEIs contexts enhance students' experience during online education in the future. However, the study has its limitations, of which the most important is the data collected in one university, so the generalizations might not be possible. Having respondents from more than one University in Oman could have added to the study. However, it is hoped that other HEIs could transfer the findings of this study to their consist. Its conclusions can assist them in comprehending students' experiences during online education and use these findings to improve their experience.

Such information could assist educational authorises and institutions to better comprehend students' difficulties and potentially improve their online learning experience. Additionally, most of these recent studies were limited to higher education, Such information could assist educational authorises and institutions to better comprehend students' difficulties and potentially improve their online learning experience. Additionally, most of these recent studies were limited to higher education, Such information could assist educational authorises and institutions to better comprehend students' difficulties and potentially improve their online learning experience. Additionally, most of these recent studies were limited to higher education, Such information could assist educational authorizes and institutions to better comprehend students' difficulties and potentially improve their online learning experience. Additionally, most of these recent studies were limited to higher education. Another limitation is the use of semi-structured interviews since the researchers have planned specific questions and moved from one question to another, making the interviewees feel that the researchers are directing them to answer in particular ways that might not reflect their real perceptions (Hammersley, 2014). Therefore, future research can use other data collections to triangulate the data by using classroom observations and students' journals to get a deeper insight into students' experiences during online classes.

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