

# ARAB OPEN UNIVERSITY STUDENTS' PERCEPTIONS AND EXPERIENCES REGARDING AN ONLINE LEARNING DURING COVID-19 PANDEMIC IN SAUDI ARABIA

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## ABSTRACT

*The aim of this study is to explore universities students' perceptions and preferences on online learning, due to the change happened on education process due to the COVID-19 pandemic and universities lockdown. This shift in education from face-to-face to online learning process has become more prevalent in KSA due to COVID-19 pandemic, it becomes particularly important to explore students' experiences, and most important revealing their perceptions and preferences. The study employed a descriptive survey and the data was collected by using an online questionnaire. Simple random sampling was used and the questionnaire distributed to all students in AOU, KSA. Data was collected of 4031 respondents. The main results showed that 57% of the students liked online learning. In addition, 56% of respondents preferred to study in class, while 47% of them liked studying through blended learning. Moreover, 50% of the respondents showed their willingness to continue an online learning in future. The main recommendations that future researches can be conducted in different universities, and examine online learning effectiveness. It is also recommended for universities to shift in to online learning and urged them to offering blended learning.*

**Keywords:** COVID-19; Online learning; Universities; Education.

## INTRODUCTION

The Coronavirus COVID-19 outbreak affected people's life worldwide in 2020, and the disease is highly infections in nature. The first case of Coronavirus COVID-19 in Saudi Arabia was confirmed on March 2, 2020. Many countries in the world applied lockdown of most public and private services in response to the pandemic and implemented effective restrictions and steps to contain the outbreak (Hassounah et al., 2020).

Education sector is one of the main sectors which were affected by COVID19 pandemic. KSA suspended operations in many agencies to hindering the spread of COVID-19 by maintaining social distance, and avoiding face-to-face interaction. All schools, educational institutions, and universities have temporarily closed and shifted from face-to-face teaching to online or virtual classes by using effective and advanced technologies that are available in the country (Alghamdi, 2021).

The current research contributes to knowledge and provides fruitful recommendations in online learning approach that enhances higher education process in the KSA. Blended learning as an effective approach that represents a potential outcome of advanced technology based learning system that AOU follows as learning approach. The idea of blended learning depends on the mix

of adaptation of technology aided learning methods and face-to-face learning. Using blended learning introduces many advantages to education sector and covering e-learning and traditional learning approaches can be utilized (Morgan, 2002 & Reay, 2001). Therefore, one of the aim of this study is to explore students' perceptions on the online learning during the pandemic of COVID-19, as well as to expose their preferences whether to continue the online learning or not.

## REVIEW OF LITERATURE

Since December 2019, when it was first identified in Wuhan, the capital of China's Hubei province, coronavirus disease 2019 (COVID-19) has spread globally, resulting in the continuing 2019-2020 coronavirus pandemic (Hui et al., 2020). Saudi Arabia confirmed its first COVID-19 case on March 2, 2020, and has since has taken many drastic steps to contain the outbreak, including imposing a 24-hour curfew and closing schools and universities (Zitoun, 2020).

Many of scholars around the world highlighted the pandemic effect on different sectors including education sector.

Kawamorita et al. (2022) aimed to determine the impact of the COVID-19 pandemic on the development of entrepreneurial universities and the provision of entrepreneurship education in Turkey. The study used survey to collect data and it consisted of 206 universities in Turkey. The findings showed that Turkish universities have a good understanding about entrepreneurial concept and activities to deal with the COVID19 pandemic. In addition, they involved in the transformation process and expect to have financial challenges of the pandemic. The results found that entrepreneurship and online learning are the main keys to survive in the market and enhance universities' performance.

Hameed et al. (2021) study investigated the effect of business process reengineering on organizational performance in the Malaysian electronics manufacturing industry during COVID19 pandemic. It also aimed to identify the moderating effect of strategic thinking on the relationship between business processes reengineering on organizational performance. Study sample consisted of 103 electronics manufacturing companies listed in the Federation of Malaysia Manufacturers' directory. The results revealed that business process reengineering dimensions, i.e. top management commitment, organizational readiness for change, information technology capabilities and people management have significant positive impacts on organizational performance; whereas organizational structure and other abovementioned dimensions were found to have a much stronger impact on organizational performance whilst strategic thinking exists in the organization.

Additionally, Mizanur et al. (2021) demonstrated the positive consequences of the COVID-19 pandemic. Data was collected through FGD (Focus Group Discussion) via an internet platform from undergraduate students from Bangladesh's Sylhet division. The findings revealed that COVID-19 has positive impacts on people's life, where people spent important time with their families, explored their interests, developed a range of new skills, and appreciated the need for sanitation, hygiene, and social separation. In addition, community can build religious and positive psychology to confront the COVID-19 and any future pandemic.

Pereira et al. (2021) conducted a study that aimed to investigate the differences of business with their complexity degree, and it aimed to identify the effect of the complexity on the firms' performance during COVID-19 pandemic. 468 businesses cover in the study. The findings indicated to include additional factors to measure the complexity e.g. firms' size, indebtedness and profitability, internationalization, number of employees, and age and leverage.

Salamzadeh & Dana (2021) conducted a study that aimed to identify the major challenges of Iranian startups. The study used interview with co-founders of fifteen well-known startups. The results found that there are six main principal of challenges to be considered that affect the startups which financial challenges are significantly affected the startups, besides that Iranian startups lacked general crisis management, conflict management, as well as entrepreneurial skills, which made them more vulnerable while facing the pandemic. Furthermore, human resources management, support measures and mechanisms, marketing have affected the Iranian startups as well.

Alt wajry et al. (2021) conducted study that aimed to identify academic staff and students experiences toward online learning during COVID-19 pandemic at a faculty of pharmacy in Saudi Arabia. The study used online and face-to-face methods which a survey and focus group discussion with targeted academic staff and students to identify their perception and experiences with online learning during the COVID-19 pandemic. The results showed that 78% of the academic staff and 65% of the students responded to the survey were found a positive perception towards online learning regardless of affected barriers.

Moreover, Henaku (2020) conducted a study that focused on perception of students toward online learning in Ghana. The descriptive study was used in the study to collect data from students of ten faculties. The findings showed that both social media and online learning platforms were used in teaching in Ghana. The results mentioned some problems that faced students with regard to online learning such as internet connectivity problems and financial difficulties because a high bundle of internet is high.

Alhouti (2020) conducted a study to identify Kuwaiti educational experiences during the COVID-19 pandemic by analyzing the response of the Kuwaiti Ministry of Education. Results revealed that education sector faces challenges during the pandemic and was mentioned that pandemic became an opportunity to the ministry of education to online learning and getting its advantages. Findings showed that challenges had not referred to financial resources, but related to the professional capacity of the MOE in the sector in Kuwait to manage education process during COVID19 pandemic.

In the Middle East, Kawamorita et al. (2020) focused on the crucial challenges faced by entrepreneurial universities and how they cope with these kinds of challenges. The qualitative research was used by interviewing 25 experts from different countries in the Middle East, including Iran, Turkey, Iraq, United Arab Emirates, Oman, Jordan, Kuwait, and Lebanon.

Al-Nofaie (2020) presented a study that investigated students' perceptions of Saudi university towards learning via Blackboard as a kind of online learning during Covid-19 pandemic. There were 25 students participated in Taif University (TU) from undergraduate English language. The students' preferences indicated to the asynchronous environment to the synchronous one due to its flexibility.

Additionally, the study of Althubait (2020) focused on the consequences of spread of the coronavirus and its impact on education, and how Saudi Arabia copes with learning challenges during coronavirus pandemic. The main results retrieved that online learning is the core solution and alternatives, whereas national center of electronic learning in KSA plays major role to solve coronavirus effects that lunched before the pandemic. Moreover, the results mentioned that learning process transferred immediately into online learning that reflects the effective infrastructure in KSA.

However, online learning faces some obstacles and barriers in countries that not have sufficient infrastructure. This showed in the Study of Joshi et al. (2020) that aimed to identify the

impact of coronavirus pandemic on the Indian education sector from teachers' perspectives among government and private universities of Uttarakhand, India. Semi-structured in-depth interviews were applied among 19 teachers to collect data. The results showed main barriers that faced teachers during online teaching such as a lack of basic facilities, external distraction and family interruption during teaching, conducting assessments the major issues reported, budget for purchasing advanced technologies, a lack of training, a lack of technical support and a lack of clarity and direction were also reported, a lack of technical infrastructure, limited awareness of online teaching platforms and security concerns, a lack of technical knowledge, negative attitude, course integration with technology and a lack of motivation to their engagement in online teaching and assessments.

Moreover, Gonzalez et al. (2020) conducted a study to analyze the effects of COVID-19 confinement on learning performance of students in higher education. It used a field experiment with 458 students from three different subjects at Universidad Autonoma de Madrid (Spain). The main results indicated a significant positive effect of the COVID-19 confinement on students' performance. In addition, it was found that effect was significant in increasing number of assessment activities.

Mahmood's study (2020) aimed to determine the role of online education in solving the problems of the Coronavirus. The results showed that online learning is considered one of the successful style in dealing with the problems of education due to COVID19 pandemic for both students and teachers in education sector. Online learning becomes a modern phenomenon of education that has evolved with the rapid technological development in the world, and aimed to give education an opportunity and provide it to students who cannot obtain it in traditional conditions and almost daily.

Online learning experiences investigated in the study of Oyabah (2020) that aimed to identify the students experience after the transition into online learning due to Covid-19. The Study population was all students on the Faculty of Economics' students in Ghardaia University in Algeria. The study used a questionnaire in collecting data from a sample of 100 students. It was found that the university adapted COVID19 pandemic and it was willing to transfer the teaching style into online approach. Face to face style perception was varying between different grades and specialties. The result also indicated that there were material and human obstacles that limit student's interaction with the activities available on different platforms.

Safi (2020) presented a study that aimed to identify university ability to cope with the Corona pandemic at Larbi Tebessi University by using online learning during the period of the spread of Covid-19 to complete the educational and teaching curriculum remotely. A sample was applied of students in the Faculty of Humanities and Social Sciences as a model. The main results showed that reliance on online learning at the Algerian University in the light of the spread of COVID19 pandemic was the most effective technique adopted in communication between the university and students by utilizing Internet with its various applications besides to the courses placed in the websites. Furthermore, online learning has been positive through lectures, lessons and real time interactive communication between the tutors and students.

Moreover, Ziaul Hoq (2020) conducted a study among faculty members of Management and Information Technology (MIT) Department of Jubail Industrial College (JIC) in KSA. A questionnaire was used to collect data in the study. The main results indicated that education program is going through a significant amendment with the expansion of innovative technologies and speedy expansion of the Internet. Education is supported by advanced technology that

facilitated the use of online learning to keep flexible instructions and continuity of learning process.

## METHODOLOGY

This study employed the descriptive survey design using the quantitative research. It was carried out at Arab Open University (AOU) in Saudi Arabia, spring semester 2020-2021 with a population of 17172 students according to the registration department. The online questionnaire was sent to students via email.

### Sample

The study was conducted among the students studying at AOU in KSA. Random sample was used to collect data. A total sample size consisted of 4031 students out of the total population of 17172, representing 23.5%, which is adequate for statistical analysis (Bullen & Brack, 2013; Cohen et al., 2002).

### Data Collection

The questionnaire comprised two sections, the first one contained questions of demographic variable (gender, age, work, and college), and the second part included twelve items related to students' perception toward learning approach. The questionnaire was made up of close-ended items for the students to respond close-ended questions, according to Cohen et al. (2002), are quick to compile and straight forward to code, easy to answer and analysis. The five Likert scale which ranged from Strongly agree, Agree, Neutral, Disagree, to Strongly Disagree was used. It is one of the most widely used techniques in descriptive survey studies (Ary et al., 2018).

## DATA ANALYSIS AND RESULTS

| Table 1<br>DEMOGRAPHIC INFORMATION |                             |            |            |
|------------------------------------|-----------------------------|------------|------------|
| Item                               | Detail                      | Percentage | Percentage |
| Gender                             | Male                        | 1368       | 34%        |
|                                    | Female                      | 2629       | 66%        |
| Age                                | 18-24                       | 2769       | 69%        |
|                                    | 25-31                       | 790        | 20%        |
|                                    | 32-38                       | 317        | 8%         |
|                                    | 39 and above                | 129        | 3%         |
| Working                            | Yes                         | 1407       | 35%        |
|                                    | No                          | 2588       | 65%        |
| College                            | Faculty of Business Studies | 1816       | 46%        |
|                                    | Faculty of Computer Studies | 1534       | 39%        |
|                                    | Faculty of language Studies | 620        | 16%        |

Table 1 indicates that the majority of the students were female (66%) and the rest (34%) were male. This is because the majority of students in the Arab Open University-KSA are

females. In terms of age, the age group of 18-24 years represented (69%), followed by students whose ages to 25-31 years (20%), and 32-38 years (8%), and the remaining students are 39 years and above who represented (3%). The result showed that most of students were youth category, this indicated to the most students come from secondary schools and other educational institutions in the same level. In addition, the results revealed that (65%) of the sample don't have jobs, whereas (35%) who have jobs. This result explained the university policies toward registration process that reflect flexibility of admission and learning to allow students to complete their bachelor studies regardless their age or whether they have job or not.

Additionally, Table 1 also shows the respondents the three faculties of AOU; Faculty of Business School (46%), Faculty of Computer Studies (39%) and Faculty of Language Studies (16%). It appears that faculty of business studies represents about 50% of the university's students.

Table 2 presents student's responses towards learning approach in the universities.

| No. | Item   | Percentage Agree | Percentage Disagree | Mean        | SD          |
|-----|--|------------------|---------------------|-------------|-------------|
| 1   | I am able to study effectively online  | 52.6%            | 33.6%               | <b>3.32</b> | <b>1.58</b> |
| 2   | online learning sometimes is not good enough to get explanation due to face to face interaction limitation | 51.2%            | 33%                 | <b>3.34</b> | <b>1.49</b> |
| 3   | I have internet access, and I am able to learn remotely using any device                                   | 62%              | 21.3%               | <b>3.68</b> | <b>1.36</b> |
| 4   | The online learning is very effective, due to location flexibility   | 49.9%            | 35.7%               | <b>3.25</b> | <b>1.56</b> |
| 5   | I don't have online learning technological resources at home (PC, laptop, camera)                          | 16.3%            | 70.3%               | <b>2.10</b> | <b>1.27</b> |
| 6   | Due to online learning, meeting/working with friends became very limited                                   | 33.2%            | 44.4%               | <b>3.18</b> | <b>1.39</b> |
| 7   | Online learning saves time and effort to reach the campus  | 57.4%            | 31.9%               | <b>3.46</b> | <b>1.57</b> |
| 8   | I don't have internet access   | 18%              | 67.7%               | <b>2.19</b> | <b>1.30</b> |
|     | <b>Item</b>  | <b>Yes</b>       | <b>No</b>           |             |             |
| 9   | Overall did you like the online learning?  | 57%              | 43%                 |             |             |
| 10  | Overall do you like the blending learning?   | 47%              | 53%                 |             |             |
| 11  | Overall do you like in class learning  | 56%              | 44%                 |             |             |
| 12  | Would you like to continue the online learning in future?  | 51%              | 49%                 |             |             |

As mentioned in Table 2, (52.6%) of the respondents agreed of being able to learn effectively online, while (33.6%) disagreed. This indicated the awareness of AOU students toward online learning which consisted with Altwaijry et al. (2021) results who found that most of students and staff have high perception toward online learning. In addition, (51.2%) respondents agreed with their understanding of concepts during online learning and they indicated to the needs of face-to-face learning due to challenging to further explanations and discussion. This result aligned with Henaku (2020) results that mentioned some challenges that face students who use online learnings and their preferences for in class learning.

Moreover, (70.3%) of respondents showed that they have internet access, and they are able to use any device for online learning. This result introduces evidence to the excellent

infrastructure provided by Saudi government (Alghamdi, 2021; Altwaijry et al., 2021), whereas (16.3%) respondents disagreed due to some challenges of online learning. Furthermore, (49.9%) of the respondents agreed that online learning is very effective due to location flexibility, that helps many students attending the class from anywhere, this result is similar to the result of Kawamorita et al. (2022), who supported the importance of online learning, while (35.7%) students disagreed.

In terms of the technological resources for example (Laptop, PC, Tablet), Table 2 revealed that (70.3%) of the respondents disagreed with having issues with technological resources availability, this result indicates the availability of the strong infrastructure and advanced technology in KSA (Alghamdi, 2021; Kawamorita et al., 2022; Altwaijry et al., 2021) that enhance the important role of online learning in AOU and most students adapt online learning and platforms. However, some students (16.3%) showed that they do not have some/all of these technological resources at home and they faced difficult to getting these resources. This result aligned with results of Henaku (2020), Joshi et al., (2020) and Kawamorita et al. (2020) that mentioned challenges that face students to use online learning and difficult to getting sufficient technological resources. To overcome like these challenges, and match students' preferences related to in class learning, AOU adopts blended learning as a combination of online learning and in class learning. This result consisted with the result of Al-Nofaie study's (2020) which indicated that student's preferences toward a synchronous and non-synchronous approach of learning.

Moreover, (33.2%) of participants agreed that online learning made group collaboration among students' less and very limited while (44.4%) disagreed. Besides, (57.4%) of the participants agreed that online learning saves their time and effort to drive to campus and they found it more convenient to study anywhere, while (31.9%) disagree. This result consisted with the result of (Kawamorita et al., 2022; Mahmood, 2020; Altwaijry et al., 2021) who confirmed online learning importance.

Additionally, the result in Table 2 indicates that (67.7%) of respondents disagreed with unavailability of the internet access. This result is supported by many scholars (Alghamdi, 2021; Altwaijry et al., 2021) who mentioned the available an excellent infrastructure and technology services in KSA, though, (18%) respondents revealed that they do not having internet access of these technological resources at home and they faced defaulting to get this kind of support.

Moreover, the result showed that (57%) of the respondents liked an online learning. This result aligned with Mahmood (2020), Oyabah (2020), Altwaijry et al. (2020) and Althubait (2020) who explained that the majority of students can access and utilize the advanced infrastructure that supported online learning, while (43%) preferred in class learning. This result enhances AOU approach of learning which is blended learning, where (47%) showed preference toward blending learning. This result is consistent with Al-Nofaie results' (2020) that found that students preferred online and face- to-face learning that support blended learning approach.

Furthermore, in terms of students' preferences to continue online learning in present and in future, results indicated that (51%) of students liked to continue the online learning during COVID19 pandemic and in future. This result aligned with Mahmood (2020), Oyabah (2020), Altwaijry et al., (2020) and Althubait (2020) who showed students' high level of preferences for online learning, while of the respondents (49%) don't like to continue online teaching approach even if there is no COVID19. This result supports AOU blended learning approach.

## DISCUSSION

In the wake of the worldwide pandemic, COVID19, which affects all sectors in the world including education sector, many universities face challenges to cope with the pandemic. In KSA, Ministry of Education collaborating with universities provided an excellent overall rules and regulations in order to ensure the continuity of education process in the country. This study, as mentioned early aims to explore university students' perceptions regarding learning process during the COVID19 period at AOU in KSA.

The effective infrastructure of the country plays an active role to facilitate the online learning process. In addition, AOU has advanced technological resources and internet access infrastructure that support online learning as a part of blended learning adopted by the universality to give valuable advantage to students to allow them study anywhere. Transferring the knowledge from one person to others whether via online or in-class has similar objectives, but the communication methods are different. Some of the respondents asserted an online learning rolled out by the university is very effective. This result aligned with the results of Mahmood (2020), Oyabah (2020), Altwaijry et al. (2020) and Althubait (2020).

Learning is effectively achieved when the appropriate instructional materials are used for the right purpose during the process, and the students can get available advantages of material, in different learning sources, especially for those who have issue either on internet access or technological resources (Henaku, 2020; Joshi et al., 2020). In addition, tutors are supposed to get training on how to make the online learning experience more interactive. This study revealed that most of students in AOU have internet access which facilitates and supports an online learning.

To get advantages of both online and in class learning, AOU has adopted blended learning approach with excellent infrastructure that helps the university to shift to online smoothly during the pandemic and in the fact that AOU students and tutors are familiar and involved with the online learning.

Despite the advantages of online learning, challenges may exist that students face to use an online learning, in this study some students showed that there are difficulties to get proper explanation of some materials. This result aligned with Copple & Bredekamp (2006), who reported that in campus there are many hands-on activities which elevate their knowledge such as labs, face to face interactions, Use University facilitates to help them understand subjects, these aspects can be difficult via an online learning.

The most important results of this study that found more than 57% of the university students liked an online learning system, and 43% preferred in class learning supporting AOU learning approach which is blended learning. Moreover, the current study recommends universities in KSA to shift from traditional classroom environment to blended learning, based on students' preferences that help them to keep flexibility and set affective strategies to cope with current and future challenges that may affect the learning process.

## LIMITATIONS AND RECOMMENDATIONS

The study has some limitations; it focused on Saudi context in particular in AOU University and to explore students' perceptions in KSA universities in general with regard to online learning during the COVID 19 pandemic. Future researchers may conduct research in other universities in KSA and different contexts as well to discover more insights on online learning during COVID19. Furthermore, students' performance was not covered, this could be



exposed in future to examine the system effectiveness by comparing students' performance and satisfaction pre and post online learning.

In fact, most of the current assessments in most universities were designed initially for in-class environment, therefore, universities are highly encouraged to innovate new ways aligned with online learning environment, to assess their students' knowledge, keeping in consideration the technology limitations.

Finally, blended learning is one of the effective learning approaches with many advantages during and before the pandemic which is adopted by AOU. It is highly recommended for universities in the KSA to shift from traditional in classroom learning to blended learning that combines in-class and online learning to match students' preferences to address benefits and challenges of other learning during a pandemic and in future.

## CONCLUSION

This study represents a part of the world's concerns associated with the educational shift to online learning during the COVID-19 pandemic. The study has explored the perceptions of AOU students toward online learning. The main results revealed that most students have high perception toward online learning and its benefits, and some students favored in-class learning too. Therefore, one can argue that such system supports the blended learning as an effective approach that has adopted by AOU since its establishment due to its flexibility and achieve students' preferences of learning approach.

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