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Lubna Mohammed Alshamrani¹

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¹Assistant Professor, Department of Curriculum & Instruction, College of Education, King Saud University, Riyadh, Saudi Arabia



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Lubna Mohammed Alshamrani¹

¹Assistant Professor, Department of Curriculum & Instruction, College of Education, King Saud University, Riyadh, Saudi Arabia

ABSTRACT

The main objective of this research is to examine secondary school students' perceptions and challenges toward online learning during the Covid-19 pandemic in Saudi Arabia. Through the analysis of suggestions by students, the study sought to extract solutions for improving the learning and teaching experience in the event that the pandemic continues. This process allows for the researcher to identify weaknesses of online learning and thus forge credible solutions. SPSS will be used to examine the data and analyze the findings. Given that the quantitative research method was favored as part of the design, the data was collected using a questionnaire which provided all the information needed to carry out descriptive statistical analysis. The aforementioned tool was distributed to a study sample of (763) male and female secondary school students in Riyadh, Saudi Arabia.

The findings highlight students' perceptions amid the pandemic, and these include a myriad of privileges which are unique to online learning such as flexibility and convenience, the acquirement and mastery of technological skills, as well as greater participation from all types of students, including those who shy away from face-to-face interactions. By contrast, the results also exposed some prominent challenges including feelings of isolation, stress, and ubiquitous forms of distractions. The study recommends that future studies explore the topic of gender and how it affects the outcomes of online learning.

Keywords: challenges, Covid-19, online learning, perceptions, pandemic.

INTRODUCTION

The Covid-19 pandemic is a global outbreak of the coronavirus, an infectious disease caused by the severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2) virus (Fauzi, 2022). The coronavirus (Covid-19) pandemic is an unprecedented humanitarian and health crisis which is widely known and acknowledged for affecting various of areas of life, the most important of which was the field of education. In communities all over the world, people were obliged to stay at home as a result of partial or full lockdowns imposed by their respective governments due to the pandemic.

Educational bodies and institutions were forced to close schools, universities, and other educational establishments in order to preserve public health. Consequently, this posed a great challenge to the educational system in continuing the educational process. Records show that up to 99% of the student population in the lower to lower-middle income range around the world, was directly affected by the closure of educational institutions (The Economic Times, 2020).

As a result, technological solutions appeared to be an effective option in completing the educational process. Distance education and online learning were one of the most important of these solutions. As the pandemic spread across the globe, governments and academic institutions turned to online educational platforms as an alternative to face-to-face interactions in classrooms. This was done to protect all parties involved, including yet not limited to communities, students, teachers and other third parties involved in fostering the continuation of learning and teaching (Sobaih et al., 2020). The activation of distance education and online learning was limited before the Covid-19 pandemic. However, it has gained tremendous importance and played an important role during the pandemic and continues to do so. The active role of distance education and online learning in supporting and continuing the educational process has led to a review of educational policies in universities and various educational institutions (Jurnal Health Sains, 2022). This is in order to support, adopt and activate this type of approach to education and make it parallel and equal to traditional methods of delivering education. Undoubtedly, the Ministry of Education in the Kingdom of Saudi Arabia has made clear efforts to support distance education and online learning during the pandemic (Mahmood et al., 2021). On the 8th of March, 2020,

Saudi Arabia's Ministry of Education stipulated the implementation of virtual classes and distance education to facilitate the continuation of learning during that period of suspension (Desk, 2020).

The Kingdom of Saudi Arabia had a successful experience that was praised by international organizations such as the World Bank Group and others. It became an example to follow in facing potential challenges in the future and dealing with emergency conditions (World Bank Report, 2020). The aforementioned recognition was for the Kingdom's prowess in working to prepare society in dealing with modern technology tools, spreading community awareness of this type of education, its importance, and ensuring the best use of it. Saudi Arabia has begun looking forward to a modern, flexible educational future based on technological foundations that suit the current era and its needs (Singamsetty & Rajyalakshmi, 2020).

Online learning is often defined as the use of numerous multimedia and internet platforms which cater for instruction to be delivered electronically. Although the term is more prominent, other terms such as web-based learning, e-learning, computer-assisted instruction and internet-based learning are also used synonymously. As Godber & Atkins (2021) said, online learning is an educational system that relies on the use of computers, the internet and related technologies through appropriate educational media to provide educational programs at anytime and anywhere for learners. An educational system is subject to electronic management so as to organize the resulting educational processes. In other words, it is designed in an organized manner and with clear educational objectives (Carey et al., 2022). Online Learning can be considered as a mode of learning in which all actions of the pedagogical learning case are done entirely electronically. Therein, it is possible to provide educational content and communicate skills and concepts to students using multimedia and other information and communication technologies. This results in the learner being positive, active, and able to interact with the electronic educational environment, whether synchronously or asynchronously. Furthermore, all educational operations and activities can be managed electronically through electronic systems designated for this purpose (Prakash & Lal, 2021).

The majority of global institutions tend to favour the use of synchronous and asynchronous approaches to online instruction. The former occurs when learners meet their instructor(s) in a pre-scheduled time for their interactive class. As for the latter, the course is delivered as normal but there is no interaction between the instructor and the students. Asynchronous approaches tend to suit learners better as they are able to access the content online at their own convenience (EasyLMS, 2021).

Online learning provides an interactive learning environment between students and teachers on one hand, and between learners and their peers on the other. Moreover, online learning is also distinguished by providing the advantage of suspense and attraction in learning. This is achieved by presenting content in diversified forms using multiple mediums, which breaks the rigidity of the educational situation and encourages students to better-interact and engage with the educational process (Isa et al., 2022).

One of the important features of online learning is flexibility at the right time and place, where the students can learn according to their abilities and circumstances at a convenient time and place for them (Philip et al., 2021). In the concept of online learning, the learner is considered to be the center of the educational process, as he is active, effective, and interacts with the content and the teacher (Mohan et al., 2022). Learners have the opportunity to choose between two approaches; they can opt to engage in cooperative learning with their peers, or they can be autonomous and independent in how they acquire the target information from the content (Ciobanu, 2022). In addition, online learning has the ability to measure the outputs of the educational process by means of a variety of evaluation methods such as short tests and electronic assignments (Isa et al., 2022). It is also possible to provide feedback to learners and evaluate them by way of an electronic form.

Online learning can provide a safe learning environment to a large extent, away from the potential risks that learners may face in traditional classes. Examples of such may comprise conducting dangerous experiments in science and chemistry subjects, or exposure to environmental and health problems such as virus transmissions or sudden climatic conditions (Younas et al., 2022). Here, it is paramount not to overlook the significant role of online learning in supporting continuous learning and encouraging learners to proceed without committing to a specific age, as it provides the possibility of lifelong learning.

In online learning, the costs and expenses required are lower when compared to traditional education; all the learner needs is a computer, the internet, and some of its technical accessories. Within these limits is the possibility of the maintenance and updating of electronic programs easily via the internet, without requiring exorbitant budgets and long procedures to solve problems that usually occur in the traditional educational process (Mahmood et al., 2021).

Despite all these advantages that elevate online learning above traditional education, there are many challenges faced by the learners themselves. Some of them are aspects related to technology (its presence, stability, availability, potential, and content), while others are related to the efficiency of the users (skills, knowledge, and competence). The presence of obstacles to online learning is inevitable, including poor infrastructure and students' lack of familiarity with the methods and skills of modern technologies in an adequate and required manner (Spica et al., 2022). This is in addition to the difficulty of preparing and designing educational content, which requires several skills and time. Likewise, there are real issues of some teachers who are not convinced of

the use of electronic means in teaching ((Mahmood et al., 2021). The presence of these concerns was evident at that time that required the transfer of expertise and online learning experiences between the schools, urging male and female teachers to benefit from the e-Learning system, and working on training and qualifying teachers (Dehghan et al., 2022). Despite the above-mentioned, it is still important to develop and modernize the distance learning experience and complete its shortcomings in preparation for any crisis or any emergency situation in the future. This ought to be completed with the aim of providing the most effective online learning experience which generates the greatest benefit for learners.

Despite various researchers investigating online student engagement in higher education (Jeffrey, Milne, Suddaby, & Higgins, 2014), there is a lack of studies which explore the same topic at school. This prompted the author to research and investigate students' perceptions and the challenges they faced in using online learning during the spread of the Covid-19 pandemic in Saudi Arabia. To this extent, the main question of the study can be determined as: What are secondary school students' perceptions and challenges toward online learning during the Covid-19 pandemic in Saudi Arabia?

Study Questions

1. What are students' perceptions of using online learning during the Covid-19 pandemic in Saudi Arabia?
2. What challenges have they perceived while using online learning during the Covid-19 pandemic in Saudi Arabia?
3. How do students think the experience can be improved in the event of the pandemic continuing?

Objectives of the Study

For objectives, the study first sought to determine students' perceptions of using online learning during the Covid-19 pandemic in Saudi Arabia. The second aim was to establish the challenges which have been perceived while using online learning during the Covid-19 pandemic in Saudi Arabia. Lastly, the study was designed to identify students' suggestions for solutions to improve the experience in the event of the pandemic continuing.

The Study Delimitation

The delimitations comprise four main points of focus; the first of which is the topic. The study specifies that all investigations are particularly for the perceptions and challenges of secondary school students toward online learning during the Covid-19 pandemic. Similarly, the location was a limitation as all aspects of the study were limited to the Riyadh region. The third point of focus is that there were 763 male and female participating students from Riyadh. The last of the limitations was related to the period, which was during the second semester of the 2020 academic year. Although it is good practice to acknowledge such factors which affect the study, they should not overcloud the contributions of the findings.

LITERATURE REVIEW

In current times, various fields are experiencing drastic changes through advancements in knowledge, science and technology. This revolution directly affects all sectors and is therefore not limited to a particular field. When culture, development and advancement is the subject of discussion, few can argue that education is the basic pillar at the root of the aforementioned. It should not come as a surprise that educational institutions show great eagerness to enhance their educational systems in order to keep up with the rapid and successive change and growth in technologies. This is fuelled by the fact that their use has become a common practice in current times. Any societal changes have corresponding effects on the educational process (Alasmari, 2022).

Online learning caters for direct interaction between instructors and learners through simultaneous and unmediated communication. The resources which facilitate distance education are readily available to everyone with no time restrictions. Examples of such resources include specialized university websites for distance learning, access to video recording for faculty, which can then be watched by learners at a time which best-suits their commitments. Additionally, there are also programs that are broadcasted on television or on the internet and they all have educational materials (Khan, 2021).

With the global implications caused by Covid-19, education in Saudi Arabia was not exempt from direct effects of the pandemic, hence the closures of academic institutions across the country as a measure to inhibit the diseases spreading (Alkhouja & Baghareeb, 2022). While certain institutions have been using online learning since the pandemic, public schools had challenges when they initially started using e-Learning. Since then, online learning has evolved to become the main method for pupils to learn. This led to heavy reliance on television channels as students were compelled to complete specific assignments through Future Gate. Similarly, social media platforms became the prominent way of communication between teachers and students. The Ministry of Education then announced that schools would begin using a platform referred to as 'Madrasati' and this declaration was at the beginning of the 20/21 academic year. The implementation of the platform became the first extensive use of online learning in the country's public-school system (Alkhouja & Baghareeb, 2022).

Once initiated, the platform was the main platform through which Saudi school teachers delivered instruction and on January 20, 2021, the Ministry of Education declared the intended continuation of online learning beyond the pandemic's era. This declaration was justified as an effort to keep up with current events and recent technology advancements in the educational sector following the outbreak of the coronavirus, which had put millions of people's lives in danger in many nations across the globe. Every learner had access to daily lessons that were published through this electronic platform. Additionally, all students in the Kingdom were able to receive an education through electronic means during this period of difficulty and uncertainty. It is worth noting that the platform was launched with the aim of providing educational lessons to students for free (Alasmari, 2022).

Distance education is practice which facilitates learning when there is a physical distance between the teacher and the student. With distance education, technology is then employed to bridge this gap and replicate face-to-face interaction. Given that it provides options for educational programs that cater to people who are geographically away from their place of study, distance learning is regarded as one of the most current and effective teaching approaches. Even in present times, distance education relies on modern technological tools such as computers, tablets, and smartphones (Gismalla, 2021).

Given the above-stated, curriculum can be developed in an electronic format which supports easy access for the learner and another benefit of the system is that comparisons can be made between different curriculum. In modern times, this approach to education is based on concept of direction communication via reception devices and internet agents. These resources are conventions through which distant education has recently found the right conditions to grow and develop. This advancement is based on the following (Alkhouja & Baghareeb, 2022):

First, learners are able to acquire the information they desire to obtain, and this can be achieved through self-teaching approaches and learning under suitable conditions. Similarly, there is the flexibility to complete the educational process which allows both, the teacher and the learner, to achieve the intended objectives, especially in light of the different possibilities provided by distance education. Additionally, the teacher can utilize a variety of presenting techniques thanks to the diversity of approaches and contemporary technology in network and virtual site design.

The importance of distance education was never in question as researchers on the topic and specialists in the field of academia unanimously agree on the merit of this approach. It is appropriate for a wide spectrum of students worldwide, regardless of their nations, cultures, interests, or life circumstances. The following section mentions the most prominent advantages that distance education has to offer (Alkhouja & Baghareeb, 2022):

The first of the above-mentioned is that all learners gain equal access to educational opportunities. Another integral benefit is flexibility, which encompasses the continuity of the educational process as this is achieved by providing education in accordance with suitable learning and teaching conditions that meet the needs, situations, and times of the students. Furthermore, the effectiveness of distance education is apparent as investigations through numerous studies have demonstrated that this system is more effective than current traditional systems. The benefits are magnified when multimedia technological resources are used efficiently. There is also the aspect of innovation which results in the presentation of curriculum to learners in interactive ways.

Among the various advantages of distance education, the development of the cognitive attributes of the teacher and the learner stands out. Distance education facilitates a myriad of opportunities for one to familiarize themselves with different sources of information in its different types. This ultimately closes the gap between the learners (Curelaru, 2022). The teacher can use lesson plans from numerous websites that offer them in a variety of subject areas to improve student performance through the teaching process. Outweighing traditional education, distant learning offers several advantages, the most significant of which may be self-education and boosting learner motivation through its various components (Curelaru, 2022).

However, one of the biggest challenges is that the teachers are underprepared for this abrupt transitional phase. In other words, a significant portion of the teachers lack the resources needed to facilitate and implement distant learning. Additionally, some teachers lack the technological background necessary to effectively manage the distant education process and put it into practice (Curelaru, 2022).

The suitability of the instructional material and the resistance of learners and parents to the idea of distant learning are examples of other general reasons. Similarly, there is also the potential for disturbances brought on by the inequalities currently present in educational systems. The aforementioned issues primarily affect parents and students from families with poor and moderate incomes and restricted capabilities. Another difficulty that deserves attention is the inability of students in vocational and technical education to teach in virtual settings because some disciplines call for hands-on experience, formal training, and in-person evaluations in workshops. Naturally, these need for the use of the appropriate materials, tools, and equipment (Asif, 2022).

Using a survey which participants could access from a designated website, Khan (2022) conducted research on the perceptions of students toward an e-learning system used in Saudi Arabia by various educational institutions. The investigation was carried out during the Covid-19 pandemic and the subjects of the study comprised 294 university students who were randomly selected to help determine the utilities and credibility of

the adopted e-learning mode of education. The study revealed findings which highlighted how invaluable e-learning was during the pandemic period, hence why students viewed the online approach to education in positive light. The findings also included numerous benefits of this approach, including and yet not limited to flexibility, convenience and suitable conditions for self-learning, as well as reduced costs overall.

During the Covid-19 pandemic, a psychosocial analysis was conducted on a sample of 209 Romanian university students participating in a study which sought to establish the experiences of the learners regarding the switch from in-person instruction to online learning. This study was conducted by Curelaru (2022) who invited the subjects to complete five specific tasks and some of the prominent themes extracted from the findings demonstrate the hindrances of online learning, including health and psychosocial issues as mentioned by the participants. The results state that the transition to online learning was interrelated to several beliefs, behaviours and experiences. An example of such is that the responses from the participants were split and sent mixed messages, which can ultimately be categorized under two themes. As highlighted in previous research, there were positive aspects which were evident in the responses and these include comfort, savings on time and money (lower costs), and personal development. The other theme was built on some negative perceptions due to learners feeling isolated and experiencing loneliness, high levels of stress, low motivation and losing focus.

Various academic institutions have turned to online learning as a response to the effects of the COVID-19 pandemic. However, in countries with limited resources like Sudan, the transition to online learning required for numerous adjustments to be made to ensure the desired implementation of processes needed to facilitate online learning. In 2020, 358 undergraduate university students enrolled in the Faculty of Medicine, University of Gezira, participated in a study by Gismalla (2021). The researcher, using a cross-sectional survey, investigated the medical students' perceptions toward the implementation of online learning and how such a process is applied during a global pandemic in countries like Sudan, which are considered to be at a disadvantage. The results, obtained from the self-administered questionnaire made available on numerous social media platforms, demonstrated that given the conditions brought forth by the pandemic, closing down the university was a vital decision which impeded the spread of the virus as mentioned by the majority of the students. These students (approximately two-thirds of the sample) also stated that online learning was the most effective response during the lockdown, which was a result of the pandemic. It is worth noting that the stage of the student at university as well as their residence strongly influenced their perceptions toward online education. Another collection of factors influenced some responses by the participating medical students, and these included the bandwidth of the internet and connectivity limitations, the absence of prior exposure to systems used for online learning, the difficulties in getting help in relation to technical issues, especially when online exams are being conducted, as well as the loss of interactions which are face-to-face. These were examples of the points the students used to justify their stance against the implementation of E-learning.

Given the circumstances of the global pandemic referred to as Covid-19, online classes replaced the traditional face-to-face learning and to establish the impressions of students, Setoningsih (2021) conducted research on 173 secondary school students in Malang. The descriptive quantitative study was designed to include a survey which was then analyzed to extract data on the students' perception of online learning, including the platform used, the ease of accessibility, how the content and assignments were delivered, as well as the level of participation. The findings were then condensed into tables, charts, and descriptive text. The study identifies two key difficulties that students in online English programs experience. Regarding the delivery of materials and directions by teachers, they include the deadlines for the assignments.

A study by Friedman (2020), revealed some of the most common challenges faced by high school learners when participating in online learning. This study was conducted on South Korean students aged between 15 and 19 and their responses were collected using a quantitative survey. The goal was to investigate distractions which the students encounter when engaged in studying English online, and these included watching online videos and the struggle to stay focused and avoid falling asleep at the screen.

Another study by Mahyooob (2020) aimed to analyze the first-hand experiences of 184 EFL students enrolled at Taibah University in Saudi Arabia. The study sought to expose the common challenges reported by the students after they switched to online learning for the second semester of the 2020 academic year. After evaluating the responses which were gathered using a questionnaire, it was established that the major issues that directly affect EFL learning are linked to technical and academic aspects and as well as communication. The findings also exposed the lack of satisfaction with the concept of continuing the application of online learning. This is due to the fact that the expected progress in language learning performance was not achieved. Numerous reports point to the fact that learners experienced the feeling of being isolated which stemmed from a lack of fellowship within their respective online learning communities. Along the same lines, Vonderwell (2003) stated that participants in online learning often reported that they were deprived of personal connections to their instructor during their interactions. This is supported by other studies which produced similar findings and to present an example, Woods (2002) uncovered that learners were deeply affected by the changes in the instructor-student relationship, which were brought about by the conditions of online communication. The reoccurring theme in

the studies mentioned is how online learning is an environment which creates and sustains feelings of isolation and estrangement.

METHODOLOGY

Introduction

The main objective of this research is to determine secondary school students' perceptions and challenges toward online learning during the Covid-19 pandemic in Riyadh, Saudi Arabia.

This section details the research procedures taken to achieve the study's objectives, including the identification of the methodology used, the population, the sample, the tool and verification of its validity and reliability, and the statistical approaches used in the analysis of the results.

Study Approach

In order to achieve the objectives of the study, the descriptive analytical method was used for data collection, compilation and tabulation. This includes a degree of interpretation of these results and therefore uses measurement, classification and interpretation methods in order to extract significant and meaningful conclusions.

Participants of the Study

In this study, the population was made up of high school students in Riyadh (aged 16–18), Saudi Arabia. The sample comprised 763 (221 male, 542 female) secondary school students randomly chosen from various high schools in the city of Riyadh in the Kingdom of Saudi Arabia (KSA), and they provided valuable feedback on their perceptions of the online learning mode.

Study Tool

The study tools included perimeter sources which comprised books, periodicals, and scientific journals that dealt with the variables of the study. The second tool is represented by a questionnaire designed by the researcher and consists of three axes. It was distributed to a study sample of (763) male and female secondary school students in the city of Riyadh.

Validity and Reliability of the Research Tool

After the completion of the preparation of the questionnaire and the formulation of the statements, the initial tool was presented to a group of experts in order to ascertain the extent to which each statement was related to the domain to which it belongs. Likewise, this was done so as to check the clarity and integrity of the statements' formulation until the questionnaire took its final form.

The internal consistency was obtained by calculating the Pearson correlation coefficient between each phrase and the axis that it belonged to. This is shown in the following table:

Table 1: Pearson Correlation Coefficient Between Each Phrase and Axis

Students' perceptions of using online learning during the Covid-19 pandemic in Saudi Arabia		Challenges perceived while using online learning during the Covid-19 pandemic in Saudi Arabia		Students' suggestions to improve the experience in the event of a continuing pandemic	
N	correlation coefficient	N	correlation coefficient	N	correlation coefficient
1	.446*	1	.716**	1	.519**
2	.681**	2	.811**	2	.653**
3	.746**	3	.678**	3	.580**
4	.797**	4	.588**	4	.790**
5	.418*	5	.498**	5	.726**
6	.740**	6	.722**	6	.627**
7	.670**	7	.716**	7	.739**
8	.702**	8	.628**	8	.484**
9	.743**	9	.690**	9	.434*
10	.658**	10	.878**	10	.516**

** Correlation is significant at the 0.01 level (2-tailed).

* Correlation is significant at the 0.05 level (2-tailed).

From Table (1), the researcher concludes that all Pearson correlation coefficients between each phrase and the domain that it belonged to, showed high values and significance (where the significance value is less than 0.05). In turn, this indicates a high degree of validity in relation to the internal consistency of the questionnaire items. To ensure of the reliability of the questionnaire, a Cronbach's Alpha test was used as shown in the following table:

Table 2: Cronbach's Alpha Coefficients

Axis	Cronbach's Alpha	N of Items
Students' perceptions of using online learning during the Covid-19 pandemic in Saudi Arabia	.898	10
Challenges perceived while using online learning during the Covid-19 pandemic in Saudi Arabia	.799	10
Students' suggestions to improve the experience in the event of a continuing pandemic.	.842	10
Total degree	.871	30

From Table (2), we conclude that the reliability coefficients values of all the domains of the questionnaire were of high scores. These values were closer to recommended target of 1. The findings revealed that the total degree of reliability was (.871), which is considered to be a high value and highlights the reliability of the questionnaire for the application as well as the reliability of its results.

Statistical Methods

To achieve the goals of the study, we used the (SPSS) program by calculating the following:

- 1- Frequencies and percentages
- 2- Means and standard deviations
- 3- Person correlation
- 4- Cronbach's Alpha
- 5- Equation of the range as the following

Degree	1-1.66	1.67-2.33	2.34-3
Agreement	Disagree	Neutral	Agree

RESULTS

The questionnaire was prepared to achieve the objectives of the study and answer the questions of the study as follows:

The first question: What are students' perceptions of using online learning during the Covid-19 pandemic in Saudi Arabia?

To answer this question, we calculated the mean, standard deviation and the rank of each statement for the first domain in the questionnaire as follows:

Table 3: Means and Standard Deviations for the First Domain

No	Statement	Mean	Std. Deviation	Rank
1	In online learning, I have a flexible schedule and freedom to organize my personal time.	2.67	.381	2
2	Online learning improves my technical skills.	2.45	.613	4
3	Online learning allows for easy access to online material.	2.56	.748	3
4	Online learning reduces costs and travel time to school.	2.37	.555	6
5	Online learning allows for continuous access to online materials.	2.15	.510	8
6	Online learning encourages shy students to participate and feel more comfortable with asking questions.	2.39	.593	5
7	Online learning allows students to learn in a more comfortable	2.71	.598	1

	environment.			
8	Online learning allows me to spend more time with the family.	2.08	.548	10
9	Online learning allows me to record a meeting.	2.17	.629	7
10	In online learning, educational platforms facilitate the presentation of educational material in an interactive design.	2.09	.649	9
General mean		2.36	0.58	

From Table (3), we conclude that the students' perceptions of using online learning during the Covid-19 pandemic in Saudi Arabia, was highlighted through the (Agree) option. The mean was (2.36) and the standard deviation was a low value of (0.58), indicating homogeneity amongst the opinions of the study sample on the statements of this domain. The same indication also applies to all the statements as they all had low values.

In relation to rankings, first place was item number 7 which stated that: (Online learning allows students to learn in a more comfortable environment), with a mean of (2.71), a standard deviation of (0.598) and this was highlighted through the selection of (Agree).

Second place was for the first item: (In online learning, I have a flexible schedule and freedom to organize my personal time). The calculated mean was (2.67), the standard deviation was (0.381) and (Agree) was the generic option chosen.

Item number 3 was in third place: (Online learning allows for easy access to online material). Here, the mean was (2.56) with a standard deviation of (0.748) and the option of (Sometimes) was the representative answer.

The last place was reserved for item number 8 which stated the following: (Online learning allows me to spend more time with the family). The mean was calculated as (2.08) and the standard deviation was (0.548). (Neutral) was the generic selection by the participants for this item. The rest of the items showed results of approval by the participants through the selection of the (Agree and Neutral) options.

The second question of the study was as follows: What challenges have they perceived while using online learning during the Covid-19 pandemic in Saudi Arabia?

To address this question, we used the mean, standard deviation and the rank of each statement for the second domain in the questionnaire as follows:

Table 4: Means and Standard Deviations for the Second Domain

No	Statement	Mean	Std. Deviation	Rank
1	Lack of Technical Equipment.	2.30	.555	6
2	Lack of or delayed feedback from the teachers.	2.43	.535	3
3	Internet issues.	2.23	.561	7
4	Lack of motivation.	2.36	.538	5
5	Difficulty applying electronic tests.	2.21	.515	9
6	Lack of in-person interactions makes me feel isolated.	2.63	.486	1
7	Getting distracted by online notifications from blogs, videos, and social media platforms.	2.43	.517	4
8	Difficulty in time management.	2.45	.538	2
9	Feeling more stressed.	2.09	.655	10
10	Lack of technological skills.	2.23	.526	8
General mean		2.34	0.54	

From Table (4), we conclude that students have perceived challenges while using online learning during the Covid-19 pandemic in Saudi Arabia, and this is highlighted by the selection of the (Agree) option. Here, the mean was (2.34) and the standard deviation was a low value of (0.54), also indicating homogeneity amongst the opinions of the study sample on the statements of this domain. In fact, the same indication applies to all statements as the values were all low.

As for the rankings, the first place was taken by item number 6: (Lack of in-person interactions makes me feel isolated), with a mean of (2.63), a standard deviation of (0.486) and a generic selection of the (Agree) option.

Item number 8 was worded as: (Difficulty in time management), and this was placed in second place according to the rankings. The mean was (2.45) with a standard deviation of (0.538) and a generic response of (Agree).

Item number 2 was in third place: (Lack of or delayed feedback from the teachers). For this item, the mean was (2.43) with a standard deviation of (0.535) and a generic selection of the (Agree) option.

Item number 9 was ranked last: (Feeling more stressed) with a mean of (2.09), a standard deviation of (0.655) and a generic response of (Neutral) by the participants. The rest of the items also showed some level of approval through the (Agree and Neutral) options as selected by the participants.

The third question: How do students think the experience can be improved in the event of the pandemic continuing?

To answer this question, we used the mean, standard deviation and the rank of each statement for the third domain in the questionnaire as follows:

Table 5: Means and Standard Deviation for the Third Domain

No	Statement	Mean	Std. Deviation	Rank
1	Guide parents and give them access to resources which allow them to support the students.	2.44	.549	5
2	Provide training programs for students on online learning platforms.	2.52	.473	3
3	Modifying the content of curriculum to make it more flexible when used in virtual classrooms	2.38	.563	8
4	Train teachers in all disciplines to design interactive lessons and use online learning platforms	2.40	.430	7
5	Design interactive learning activities.	2.26	.483	9
6	Consider new learning methods to enhance students' motivation and excitement about learning.	2.16	.576	10
7	Provide opportunities for collaboration and social learning.	2.64	.521	1
8	Provide course materials that are systematically structured to avoid any ambiguity.	2.42	.552	6
9	Provide opportunities for students to have individual connection with the teacher.	2.47	.534	4
10	Provide regular feedback.	2.62	.552	2
General mean		2.43	0.52	

From Table (5), we conclude that students think the experience can be improved in the event of the pandemic continuing. This is demonstrated through their selection of the (Agree) option, where the mean is (2.43) with a low standard deviation value of (0.52). Thus, this indicates homogeneity amongst the opinions of the study sample on the statements of this domain. To this extent, the same indication applies to all the statements as they carried low values.

For the rankings, item number 7 was placed first: (Provide opportunities for collaboration and social learning), with a mean of (2.64), a standard deviation of (0.521), and a generic response through the (Agree) option.

Second place was reserved for item number 10: (Provide regular feedback.). This item had a mean of (2.62), a standard deviation of (0.552) and (Agree) was the generic selection by the participants.

Item number 2 was ranked third: (Provide training programs for students on online learning platforms), with a mean of (2.52), a standard deviation of (0.473) and a common selection of the (Agree) option.

The last in ranking was item 6: (Consider new learning methods to enhance students' motivation and excitement about learning) The mean was (2.16) with a standard deviation of (0.576) and (Neutral) was the generic response. The rest of the items had signs of approval from the participants as they selected the (Agree and Neutral) options.

DISCUSSION

The purpose of this study was to obtain students' perceptions of online learning, their challenges, and suggestions to improving the experience of online learning.

From the students' perceptions regarding the use of online learning during the Covid-19 pandemic, convenience was their most cited advantage. Online learning allows them to learn in a more comfortable environment, they have flexible schedules and freedom to organize their personal time and can easily access online materials. The most prominent justification given for online learning was 'convenience' and this is supported by a myriad of studies with similar findings (Cole et al., 2014; Bailey & Lee, 2020). Similarly, many influential experts have also cited convenience as a privilege of online education (Petrides, 2002; Vonderwell, 2003; Poole, 2000; & Murphy and Collins, 1997). In other words, the term is ubiquitous in the relevant literature and an example of this is the work of Poole (2000). The study revealed that learners of a discussion-oriented course delivered online, chose to participate in online discussions only at times which were most convenient to them, of which were mostly weekends. Furthermore, Poole also relates that the majority of students were able to access the course through their home computers as this was the most convenient approach for them. Similar findings from

other researchers have shown that interactions between the instructors and learners occur at times which are most convenient for both parties and these include early mornings and late nights (Murphy & Collins, 1997). The next cited reason perceived as an advantage of online learning was that during the pandemic, online learning helped the students to improve their technological skills. In the midst of the pandemic, the ability to use technology became a prerequisite to learning rather than a privilege. With spending so much time online, learners immersed themselves in a new environment which required that they invest their time and efforts in learning how to navigate and operate as learners, and this ultimately contributed to the betterment of their technical literacy. These findings support what was revealed in a study by Almahasees et al. (2021). By investing so much of their exertion in the use of software and hardware tools, as well as navigating around the digital learning materials, learners were able to master numerous technical skills and this is one of the gains of online learning.

The following cited reason perceived as an advantage of online learning was that it encourages shy students to participate and feel more comfortable with asking questions. The findings indicated that some students, especially those who are timid, found online learning to be beneficial. This finding is also confirmed by the literature, according to Sun and Chen (2016), who noted that the nature of online environments encouraged higher engagement from shy students who, due to their personality features, do not prefer to attend face-to-face classes.

The next cited advantage was that online learning reduces cost and travel time to school. By not having to commute to school every day, not only would the students have saved on transportation costs, but also saved their time. The benefits of remote access were only fully appreciated during the Covid-19 pandemic (Stain et al., 2005; Ameese et al., 2008).

Undoubtedly, students have perceived challenges while using online learning during the Covid-19 pandemic in Saudi Arabia. The most cited reason for challenges was feeling isolated because of the lack of in-person interactions. Looking beyond education and knowledge acquisition, classroom activities are crucial because they support students in developing social skills that will be vital for their future personal and professional development (Goodman et al., 2015). The learners' capacity to work efficiently and collaboratively with classmates as well as developing positive self-esteem and self-confidence all depends on the interaction the students have with their instructors and peers (De Souza Fleith, 2000). Numerous studies have shown a high association between social contact and a sense of community among learners and their impact on having a successful online learning experience, as related by Sun & Chen (2016). These results are in line with a study by Curelaru (2022), which found that students linked online learning to high levels of stress, decreased motivation, loss of interest and focus, as well as unfavourable emotions like feelings of loneliness and isolation.

The second cited reason for challenges was difficulty in time management which is considered to be a self-regulatory issue that students face with online learning. Although online students benefited from the convenience and flexibility of online learning, they also had to be attentive and responsible for their own education. Self-regulation is crucial for students to succeed in online courses because learners can easily get derailed due to the misapplication of flexibility and convenience benefits. When a student lacks self-control, he or she may miss the deadlines for assignments or even test dates. Online learning success demands self-control, time management, and organization (Kauffman, 2015). Due to their more independent nature, researchers argue that self-regulated learning strategies are particularly crucial in online learning settings (Dabbagh & Kitsantas, 2004). To accomplish a particular learning and performance objective, a self-regulated learner makes use of metacognitive, motivational, and behavioral processes (Zimmerman, 2008; Zimmerman, 2011). Goal-setting, time management, and self-evaluation are a few examples of such procedures. By avoiding procrastination, self-regulated learners effectively manage their time to finish the assignment. Reminding students about their assignments beyond the constrictions of the online learning environment may be beneficial. An example of such could be text messages, which serve as reminders that can have an impact on students' performance during the self-regulation period. By encouraging students to concentrate on what has to be done in the course, this method can aid them with their time and task management abilities.

The third cited reason for challenges was the delay of immediate feedback from the instructor. This finding is in line with a study by Hara & Kling (1999), who conducted a qualitative case study of a web-based distance education course at a prominent U.S. university. Participants in that study expressed frustration about how slow the instructor responded to their enquiries. Recent studies such as the work of Vonderwell (2003) have produced similar findings by reporting delayed instructor feedback as one of the stand-out drawbacks of online learning when the premise is that communication is supposed to be instant. Many academics have noted that one shortcoming of online learning is the delayed communication between students, and between students and the instructor (Howland & Moore, 2002; Petride, 2002; Hara & Kling, 1999; Vonderwell, 2003). Such delays are red flags and real concerns which should not go unresolved (Howland & Moore, 2002). Many students' perceptions were negatively impacted by the instructor's lack of face-to-face engagement with the class. When the instructor's feedback was delayed, students felt apprehensive about the assistance they were receiving. Furthermore, Howland & Moore's study from 2002 indicated that many students felt that it was challenging to

receive clarification on assignments, etc. due to a lack of contact with their respective instructors. Research carried out on online education has emphasised the key role instructors play in online learning (Sun & Chen, 2016; Means & Neisler, 2020).

The next cited reason for challenges was getting distracted by online notifications from blogs, videos, and social media platforms. Here, learners getting sidetracked by other online information, technical issues, and limitations to opportunities for authentic communication are some of the difficulties mentioned in the literature on online education (D. Bailey & Lee, 2020; Friedman, 2020).

The fifth cited reason for the challenges learners encounter was related to their motivation and the lack of it. Rozhkova et. al. (2020) relate that approximately 70% of learners fall short on demonstrating the required readiness for online learning as a result of inconsiderable low levels of motivation. This could be attributed to the teachers opting not to use current and cutting-edge teaching techniques, the absence of face-to-face interactions between the online participants (instructors and students) and deficiency in the means needed supervise students' educational activities. Contrary to what Anwar et al. (2021) discovered, it is widely believed that virtual education actually improved students' motivation.

Due to the limitation of social interaction, students think the experience can be improved in the event of the pandemic continuing was highlighted firstly through the selection of providing opportunities for collaboration and social learning. Since education is fundamentally a social endeavor, it is only logical to incorporate more social components into online classes to help students connect, get involved, and become more motivated. In order to accomplish the educational objectives, the teacher is urged to consider original solutions to this issue. E-learning is crucial in creating an engaging educational environment for learners. If the correct technology and curriculum are used in conjunction with well-designed materials and learning, the result will be learning objectives that are rewarding. (Harefa & Sihombing, 2021; Zimmerman, 2000). Instructors are expected to adapt their roles in virtual classrooms from being propagators of information to practitioners who facilitate learning through the implementation of best teaching practices. This is in hope that such adjustments will facilitate and encourage the authentic participation of learners in the learning process, and once implemented, their motivation will most likely increase.

Students think the experience can be improved in the event of the pandemic continuing and this was highlighted through the selection of providing regular feedback, which was cited as second suggestion. This suggestion was also emphasized in a study by Walters et al. (2022). Improvements in teachers' feedback-gathering skills would help them gauge student interest and comprehension and identify any learning phases that needed to be repeated. On the other hand, students' capacity to subtly express misunderstanding would benefit teachers' formative assessment. When teaching online, teachers must differentiate their delivery to meet the requirements of each individual learner, just as they do in the classroom. It is expected that teachers will expand their repertoire of activities and pedagogical techniques as they gain experience using online learning environments to facilitate effective instruction.

The third point which highlights that students think the experience can be improved in the event of the pandemic continuing was through the selection of providing training programs for students on online learning platforms. Dhawan (2020) closely examines the benefits, drawbacks, possibilities, and dangers of online learning. He demonstrates how the global crisis accentuates the significance of technology proficiency in dealing with the situation and promoting learning. Schools should therefore teach kids the required IT skills. In Malaysia, a different study was done to see how satisfied male and female students were with using e-learning portals. The researcher discovered a strong correlation between user satisfaction and online learning. The quality of the e-service and the information given determine both participants' levels of satisfaction (Shahzad et al., 2020).

CONCLUSION

This study showed that online learning is effective in the opinion of the respondents in that it caters to perhaps what is their utmost need as learners, flexibility and convenience. In other words, online learning highlights a privilege for the learners which does not exist in traditional face-to-face classroom interactions in which both the instructor and the learner have to adhere to the confines of the aforementioned settings. Furthermore, another distinct benefit was that students were able to acquire, practice and master their technological skills as such abilities became prerequisites. One of the other gains from the online learning experience is that there were signs that shy students were more active in their participation due to the type of environment which suited their personality traits. It is also worth noting that remote learning also significantly reduces travel costs.

The challenges comprise of learners experiencing feelings of isolation due to the lack of personal interactions. Feelings of loneliness was not unique as it was accompanied by stress, decreased motivation, anxiety and loss of interest and focus. Other drawbacks revealed by the study include challenges with self-regulation, delays in receiving feedback as well as ubiquitous forms of distractions which interfere with students' ability to focus on a given task.

From the collection of suggestions by learners on how the experience of online learning can be improved, it was revealed that students felt strongly about the need to provide collaboration and social learning activities.

Another salient suggestion was for instructors to provide regular feedback which is instant. Moreover, there is a clear need for professional training programs which orient students on how to use online learning platforms. Here, some restrictions are discussed and the first is that the participants in this study were all from the same city in terms of the study's source and sample size. To ensure that the findings of this study may be applied to a larger spectrum of the population in the nation, different and larger samples must thus be obtained. It is crucial to assess whether a similar pattern of results is produced in a sample of male learners as the majority of the participants in this study were female. Similarly, numerous studies have shown that there are disparities between male and female students' motivation and satisfaction levels, as well as their use of online learning (e.g., McSporrán and Young, 2001; Martin et al., 2018). Future research may therefore explore the topic of how gender affects learning outcomes in online learning.

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