Perceptions of University Students Toward Blended Learning During COVID-19

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This study investigates Jordanian students' perceptions of Blended Learning during COVID-19 era. An online survey was distributed to 300 students via WhatsApp, Facebook Messenger, and emails to students experiencing both pre- and post-era COVID-19. The study revealed that Jordanian students showed a high level of agreement toward blended learning as a medium to cope with abrupt crises, such as COVID-19. The study also showed that blended learning help enhance academic performance, class flexibility, and time, improves critical thinking and problem-solving skills, motivates students, and increases engagement. On the other hand, the study indicated that the limitations of blended learning are the incompatibility with all subjects, lack of interaction between students and their teachers, inability to receive feedback, the inefficiency of technological means, the lack of training, and negative attitude of society toward blended learning. The findings may help with organizational and governmental decision-making and developing educational materials during social restraint. The design and implementation of face-to-face and online components for more applied, science-based courses may benefit more from these findings.

Keywords: blended learning, perceptions, COVID-19, Jordan, face to face education

BACKGROUND

COVID-19 is considered a global pandemic, and it passed the borders quickly to reach all corners of the world(WHO, 2020). On 17th March 2020, the Jordanian government imposed a complete lockdown to control the spread of COVID-19. The lockdown forced Jordanians to stay home and limit their movements in the light of defense law orders issued by the Prime minister of Jordan. The orders were directed to temporarily close all educational institutions in Jordan and shift education online.

Historically, the Jordanian Education system relied on face-to-face at schools and universities for more than a century. The education policymakers did not adopt the other learning modes such as e-learning and blended Learning in Jordan. The emergence of abrupt crises forced the countries to change their policies to cope with the challenges, such as COVID-19. In light of such changes, the mode of education has changed

drastically to implement a new method of education, distance learning(MOHE, 2021). To cope with COVID-19, all Jordanian universities used online learning as the primary method of instruction. (Stern, 2018) showed that online learning is one of several types of distance learning. He indicates that distance learning includes correspondence, telecourses, CD-Room, Online Learning (synchronous and asynchronous), and Mobile Learning. Online learning is a form of education performed online over the internet. Students sit for education subjects in an entirely virtual environment that connects students virtually regardless of their place. The most common online platforms were used at Jordanian universities, Zoom and Microsoft Teams (Almahasees & Qassem, 2021).

During the pandemic era, the teaching and learning environment has witnessed several advancements; one is blended learning, which involves using technology. This new instructional technique has been quickly adopted though it is still early. Regarding online learning types, the Ministry of Higher Education of Jordan amended the Higher Education Law N. 17 of 2018 to cope with the surge of COVID-19 cases. They added that university courses could be taught face to face through online learning and Blended Learning (MOHE, 2021). Online learning and face-to-face modes have received a lot of research during COVID-19 to highlight the effectiveness and limitations. However, the blended learning method during COVID-19 has recently been applied in the first academic semester of 2021/2022. Unlike online education, blended learning has not received much research since it is newly implemented at Jordanian universities. No previous studies have been done on the effectiveness, disadvantages, and limitations of blended learning during and after the COVID-19 era. Therefore, the current study aims to elicit the perceptions of Jordanian undergraduate students regarding the advantages and limitations of Blended Learning.

(ELM, 2021) indicated that Blended Learning is known as hybrid learning. It combines technology with face-to-face learning, granting students flexibility in customizing their learning preferences. It enhances the learning process for both faculty and students to support course management. It also contributes to increasing the richness of information and engaging students actively in the course delivery process. Blended learning is conducted traditionally- some lectures are conducted on campus, while others are online to enhance students' independent learning. The blended learning technique entails giving learners feedback and providing means of assessment synchronously or asynchronously.

Types of Blended Learning

Blended learning includes face-to-face and online learning, which is considered a hybrid mode. (ELM, 2021) listed types of blended learning, namely flipped classes, enriched virtual model, flex model, and a La Carte Model. The Flipped Classroom Model is a mix of asynchronous and face-to-face learning. The teacher gives students assignments to practice what they learn synchronously and practice independent learning asynchronously. The enriched virtual classes are like flipped classes. Both types still require face-to-face instruction to enhance the learning process. The Individual Rotation Model indicates that the teacher sorts his students based on their needs in the education model. The students will be given the chance of learning opportunities, such as collaboration, taught lessons, group teachings, and independent learning. The Flex Model is a remedial classes program assigned to students who did not complete their high school education. The A La Carte Model is the facility that allows students to attend their classes asynchronously around o'clock.

Blended learning in developing countries has recently been applied due to the need to adjust the education systems to face abrupt crises. The introduction of blended learning faces challenges in coping with the recent developments. Blended learners face challenges since they have different perceptions (Hofmann, 2017). Some students (16%) had negative perceptions about blended learning, while 26% were worried that students would not pursue their studies in blended learning. On the other hand, blended learning has many benefits. It is described as an effective method to increase students' engagement in class activities, enrich the learning experience, provide thorough comprehension, and provide quality education. Moreover, students have complete freedom to access course activities and materials whenever they desire. Students can learn safely and even in their schedule; they can skip understood topics and go to another problematic issue or idea. Blended learning helps instructors spend more time with their students since teachers spend longer time outside classrooms, such as printing handouts, marking attendance, hand-grading assignments,

and tests. Blended learning also gives the ability for colleges to enroll more students, unlike traditional Learning (Almahasees, 2021; Ahmad S Haider, 2016; Ahmad S Haider & Al-Salman, 2020a; Weitzel, 2021a). The current study elicits the perceptions of Jordanian students regarding blended learning.

Blended Learning in the Arab World

In the Arab world, blended learning is still in its early stages(Almahasees & Al-Taher, 2021; Almahasees, Jaccomard, & Mohammad, 2021; Almahasees, Meqdadi, Albudairi, & Studies, 2021; Almahasees & Qassem, 2021), although it is gaining traction and acceptability after the emergence of COVID-19. In 2000, the first study in the Arab world was conducted to elicit the attitude of Lebanese teachers and school principals regarding the integration of Blended Learning in Lebanese schools. The study showed that online delivery models were received negatively in the Middle East and not welcomed by Lebanese teachers and directors(Alqudah, Barakat, Muflih, & Alqudah, 2021; Nasser & Abouchedid, 2000). The acceptance of models other than face-to-face modes was encountered with social skepticism in the Middle East with the absence of accredited research. On the other hand, the online delivery models were received positively and welcomed in Europe and North America (Ibrahim, Rwegasira, & Taher, 2007; Salehi-Isfahani, 2012).

Moreover, the face-to-face mode was used in all Arab regions to recognize the university programs formally. The surge in the number of higher education seekers in the Middle East opened the doors for integrating Blended Learning(Tamim, 2018). The emergence of COVID-19 shifted education to online learning and, lately, Blended Learning (Ahmad S Haider & Al-Salman, 2020a). Several studies have been conducted on online learning, while blended research has not been researched during the emergence of pandemic in the country of the researcher.

Blended Learning in Jordan

Blended learning was not applied effectively pre the era of COVID-19—the early attempts to integrate Blended Learning in Jordan dated back to 2005. The first attempt to apply in Jordan was by the university of Jordan. The University of Jordan adopted Blackboard Learning to enhance the traditional face-to-face instruction model. The study indicated that the university used the basic edition, perceived as an aid. However, the study revealed that Blended Learning helped facilitate the process of learning, but it could not replace face-to-face instruction (Al-Karimi, 2018). During COVID-19, the online mode was used widely due to the complete lockdown in Jordan. In 2021, the ministry of higher education reviewed the online learning process using online surveys. The Accreditation and Quality Assurance Commission for Higher Education Institutions (AQACHEI) introduced regulations and guidelines to systemize the learning process in Jordan. The new rule suggested that 10-20% of the academic program should be taught online; 40-60% blended; 20-30% face to face. The aim of merging online and blended learning modes into the education system is to form fully hybrid programs (Council, 2022; MOHE, 2021).

LITERATURE REVIEW

Several studies (Almahasees, Mohsen, & Amin, 2021; Almahasees & Qassem, 2021; Ahmad S Haider & Al-Salman, 2020a) have highlighted the role of online Learning during COVID-19. Several studies tackled the concept and used Blended Learning before the emergence of COVID-19 (Albiladi & Alshareef, 2019; Almahasees, Mohsen, et al., 2021; Almahasees & Qassem, 2021; Hrastinski, 2019; Rasheed, Kamsin, & Abdullah, 2020; Singh, 2021; Smith & Hill, 2019). However, few studies have tackled the effectiveness, disadvantages, and limitations of blended Learning during COVID-19.

(Geta & Olango, 2016) researched the impact of blended learning on improving writing and self-study skills. The study employed a quasi-experimental research design, which tested the effect of blended learning in teaching the course material via two groups: blended and face-to-face. The study results showed that the blended learning group outperformed students in control (face-to-face) group in the writing skills course and their self-study skills.

(Aladwan, Fakhouri, Alawamrah, & Rababah, 2018) examined the attitude of the university of Jordan students regarding Blended learning. Two hundred fifty students responded to the distributed questionnaire. The results of the study revealed that blended learning is valuable. The students had a positive attitude since blended learning helped them improve their knowledge and skills. Moreover, blended learning has a tremendous effect on students and enhances their independent learning. (Alsarayreh, 2020) researched the use of blended learning in Jordanian secondary schools. A quantitative method was used to gather data from 161 science teachers working at public and private schools in Al-Karak city.

(Warren, Reilly, Herdan, & Lin, 2020) researched the role of blended learning in enhancing students' experience and academic performance in mathematics. They gathered data via surveys and discussion forums to verify the role of blended learning. The study concluded that blended learning helped increase students' knowledge and understanding since blended learning provided a stress-free environment.

(Priscila, 2020) researched the cons and pros of online learning. She indicated that blended learning helped enhance students' independence, while the main disadvantage of blended learning is that blended learning mode is not suitable for all subjects. Furthermore, (Müller & Mildenberger, 2021) researched the limitations of blended learning. They indicate that blended learning caused frustration due to the lack of interaction between teachers and students, which is also addressed and emphasized (Sorokova, 2020).

(Bouilheres et al., 2020) conducted a study to elicit information about blended learning benefits in Vietnam. They designed a survey to identify the role of blended learning in promoting the interaction between students and their teachers, peers, and course materials. The study's results showed that blended learning boosted students' Engagement, Flexibility of Learning, and Self-confidence. (Fisher, Frey, Almarode, & Henderson-Rosser, 2021) compiled a handbook about simultaneous, hybrid, and blended learning. They differentiated between the three modes of learning. They also highlighted that blended learning increased students' engagement and helped them control their learning process. Blended learning also motivated students to think critically about problem-solving issues.

(Bordoloi, Das, & Das, 2021) researched teachers' and students' perspectives on using online/blended learning modes in teaching and learning transactions. The study was conducted using an academic analytics technique. A structured questionnaire addressed teachers' and learners' perspectives in several Indian institutions and colleges regarding online/blended services. The study found that Blended Learning may serve as a solution to providing Education in India. They showed widespread open educational resources, social networks, and meeting apps that offered users knowledge, academic inputs, and skills during COVID-19. Similarly, (Ghani & Taylor, 2021; Zainon & Yamat, 2021) indicated that blended learning increased peer interaction and communication. It also enhanced students' engagement.

(Jost, Jossen, Rothen, & Martarelli, 2021) researched the role of blended learning on students' personalities and the consideration of the individual difference between students at Swiss Distance University. The study found that blended learning helped teachers consider individual differences by predicting their academic performance. (Alkhatib & Jaradat, 2021) researched the feasibility of using a blended learning tool, idea box (mobile app), in teaching non-formal education to 30 female Syrian refugees in Jordan enrolled in the Culture Promotion Program for Dropouts, second cycle, in the JOHUD Center for Social Support in January 2020. A semi-experimental approach was utilized to assess the effect of using the idea box tool of blended learning on students' motivation toward understanding. They divided the population of the study into two groups. Each group consisted of 15 female students. The first group learned Islamic pillars using the idea box, while the second group learned the same topic face-to-face. The study revealed no significant variations in mean motivation levels between the two groups. This study also highlighted the importance of revising the current program for teaching non-formal education students to include the Ideas Box tool in the curriculum.

(Bruggeman et al., 2021) researched the role of the teacher in implementing Blended Learning in higher education. They indicated that the teacher is at the center of any educational process. The study is a qualitative study that examined teacher characteristics for blended learning implementation from the perspective of experts. It interviewed 12 Flemish experts regarding implementing blended learning in higher education institutions. The study's results revealed that seven experts indicated the importance of changing the education system to cope with blended learning benefits for Flemish students. In comparison, four

experts expressed their concern regarding the lack of understanding and the anxiety of Flemish Students for Blended Learning.

(Zeqiri & Alserhan, 2021) conducted a study to identify students' satisfaction regarding Blended learning at Southeastern European University (SEEU) of North Macedonia and Princess Sumaya University for Technology (PSUT) of Jordan. Three hundred sixty-nine students participated in the study from both universities. The study results showed that students were satisfied with the flexibility of Blended Learning. Blended learning also enhanced independent learning and increased students' access to sources. The study concluded that there are differences in university readiness to integrate Blended Learning.

(Hawwash, 2021) researched the attitudes toward employing blended learning in teaching university courses at the school of medicine at the University of Jordan. The study included 400 male and female third-year medical students from the Faculty of Medicine. The study showed that faculty and students had a positive attitude toward employing blended learning in teaching university courses. The study concluded that because of the positive impact of blended learning on the educational learning process should be integrated into the study plans at Jordanian universities.

(Ayasrah, Aljarrah, & Alnsasraween, 2022) conducted a study to identify the perceptions of schoolteachers and students in Northern directorates of Jordan regarding blended learning use in schools. The sample of their study consisted of 69 teachers and 201 outstanding students. The study showed that teachers' and exceptional students' satisfaction was average. Moreover, there were no statistical differences between teachers' and students' attitudes since their population includes male teachers and students. They also indicated the education experience helped teachers to perform blended classes. They also highlighted that the schools are not equipped well with the necessary tools and internet to facilitate teaching via blended mode. They concluded that training should be provided to teachers and incentives to teach using blended learning since blended learning entails rigorous follow-up for students.

(Julien, Tangalakis, Hayes, & Lexis, 2022) conducted a study on the role of blended learning in enhancing physiology students' autonomy and academic performance. They used a Likert scale to measure the impact. The study found that students preferred blended learning than face to face mode. Moreover, blended learning increased students' independence and performance. On the other hand, (Tucker, 2022) researched the limitations of blended learning. She indicated that giving feedback is of great importance, but in many cases, students do not receive feedback due to the burden of teaching teachers.

METHODOLOGY

The survey participants were undergraduate students attending Blended Courses at the undergraduate level at three Jordanian universities, one public university: Yarmouk University, and two private universities: Applied Science Private University and Isra University. The size of respondents to our survey is 300, deemed significant to provide students' perceptions of Blended Learning. The survey was created using Google Forms and then shared with students via WhatsApp groups created by the tutors. The survey was open from 1st December to 30th December 2021. It was completed by 300 Jordanian students at three Jordanian universities.

Two specialists assessed the survey. They asked for a few changes and sentence reformulations. The requested amendments were incorporated before distributing the survey. For reliability, Cronbach's alpha was calculated to verify the study's reliability and ensure the internal consistency of the results. The analysis of a sample of 30 responses indicated that the respondents' reactions were consistent. The alpha coefficient for 20 items is 0.910, indicating a high internal consistency. (Mockovak, Yu, & Earp, 2015) showed that the acceptable reliability coefficient is 0.70 or higher.

ANALYSIS AND DISCUSSION

Demographic Information

This section of the questionnaire presented gathered information on the population of the participants. The participants of the study showed that female participants were 211 (70.3%) and 89 (29.7%) male

participants, which is in harmony with (Hewitt, 2020) that the number of female students is higher than male students at higher education institutions. The study revealed that most respondents were sophomore students, 146 (48.7%), while the lowest number of respondents were seniors, 34 (11.3%). Moreover, the highest number of respondents, 126 (42%), had an accumulative average of 80-89, and the lowest number of respondents were of satisfactory average (23%). On the other hand, 189 (63%) of the respondents resided in cities, and 111 (37%) lived in villages.

TABLE 1
DEMOGRAPHIC INFORMATION

Questions	Classification	Frequency	Percent %
Gender	Male	89	29.7
	Female	211	70.3
University Year	First	73	24.3
	Second	146	48.7
	Third	47	15.7
	Fourth	34	11.3
Accumulative Average	90-100	42	14
	80-89	126	42
	70-79	125	41.7
	60-69	7	2.3
Place of Residence	City	189	63
	Village	111	37

Learning Experience

First, the study aimed to identify students' experience of learning post-COVID-19. It is axiomatic that students become acquainted with Online Learning during COVID-19. The study showed that all respondents know Online learning platforms. This result is in harmony with (Szopiński & Bachnik, 2022) (Gupta, 2021) that students' awareness of online learning platforms is high due to the complete shift to online Learning during COVID-19. The second statement elicited information about the preferred mode of learning. The results of the study showed that 172 (57.3) preferred face-to-face instruction, 79 (26.3) for blended learning, and 49 (16.3%) for online learning. This finding concurs with (Arsyad & Villia, 2022; Koenig, 2022) that face-to-face instruction is still the preferred teaching domain. Moreover, Blended Learning occupied the second rank after face-to-face instruction. This result (Awal Kurnia Putra Nasution, 2022). The fourth statement gathered information about the mean of instruction via Blended learning classes. The respondents to the study showed that the primary source available to students is assignments 185 (61.7%) followed by recorded lectures, 52 (17.3%), 45 (15%) quizzes, 9 (3%) giving presentations, 7 (2.7) virtual classes and 2 (0.7) video learning.

TABLE 2
ONLINE LEARNING EXPERIENCE

Questions	Classification	Frequency	Percent %
Online Learning Experience	Yes	300	100
	No	0	0
The preferred mode of learning	Face to Face	172	57.3
	Blended Learning	79	26.3
	Online Learning	49	16.3
What are the most resources available to you inthe blended learning system by your professor?	Recorded Lectures	52	17.3
	Assignments	185	61.7
	Presentations	9	3.0
	Virtual Classes	7	2.3
	Video Learning	2	.7
	Quizzes	45	15.0

Advantages of Blended Learning

The shift to online Education during COVID-19 highlighted the role of online in coping with abrupt crises. Many countries adjusted their mode of instruction to include new modes of learning: online and Blended. This section is meant to highlight the advantages of blended learning according to the perceptions of Jordanian students.

First, the statement elicited information about the role of blended learning in increasing the communication between the students and their teachers. The analysis of the responses showed that 84 (28%) strongly agreed and 60 (20%) agreed, bringing a total of 48% agreement with this statement. On the other hand, 50 (16.7%) of the respondent were neutral. However, 72 (24%) showed their disagreement, and 34 (11%) disagreed strongly, bringing 35% disagreement. This result is in harmony with (Bouilheres et al., 2020; Ahmad S Haider & Al-Salman, 2020a) that blended learning helped increase student interaction and instructor interaction.

The second statement of the survey aimed to verify the impact of blended learning on saving the learners' time. The study respondents showed that 124 (41.4%) strongly agreed and 106 (35.3%) agreed with this statement, bringing a total of 76.7% agreement. However, 34 (11.3%) of the respondents were neutral. The disagreement rate among respondents was 36 (12%), bringing 12% disagreement.

The third statement illustrates the role of blended learning in making the learning process fun. The respondents indicated that 94 (31%) showed strong agreement and 76 (25.3%), bringing a total agreement of 55.3% with this statement. On the other hand, 344 (14.7%) were neutral. 60 (20%) of the respondents disagreed, and 26 (8.7%) disagreed strongly with the statement. This result is in harmony with (Weitzel, 2021b) that blended learning increases students' engagement.

The fourth statement highlighted the role of blended learning in enhancing self-study skills. The survey results showed that 116 (38.7) agreed strongly and 96 (32%) agreed with this statement, totaling 70.7% of agreement. On the other hand, 16% of the respondents were neutral. Moreover, 26 (8.7%) disagreed, and 14 (4.7%) disagreed strongly with this statement. This result indicated (Geta & Olango, 2016) that blended learning develops self-study skills.

The fifth statement elicited information about the role of blended learning in increasing students' academic performance. The study's respondents showed that 96 (32%) declared their strong agreement, and 78 (26%) agreed with this statement, bringing 58% of agreement. However, 60 (20%) were neutral. 40 (13.3%) showed strong disagreement, and 26 (8.7%). This result favors (Warren et al., 2020) that Blended Learning increases academic success and enhances students' learning abilities.

The sixth statement aimed to elicit information about the ability of Blended Learning to help students in controlling their learning process. The study results showed that 96 (32%) agreed strongly and 98 (32.7%) agreed with this statement, making a 64.7% agreement. However, 48 (16%) were neutral. Moreover, 44

(14.7) disagreed, and 14 (4.7%) disagreed strongly. This statement is in line with (Fisher et al., 2021) that blended learning encourages students to manage and control their learning habits.

The seventh statement addressed the role of blended learning in enhancing critical thinking skills among students. The study respondents showed that 85 (28.3%) agreed strongly and 91 (30.3%) agreed with this statement, bringing 58.6% of agreement. However, 54 (18%) were neutral. 52 (17.3%) disagreed, and 18 (6%) disagreed strongly. This finding favors (Fisher et al., 2021) that blended learning improves critical thinking skills among students.

The eight-statement aimed to gather information about the role of blended learning in enhancing peer learning and cooperation among students. The survey results showed that 76 (25.3%) strongly agreed with this statement, and 85 (28.3%) agreed, bringing 53.6% of agreement. However, 43 (14.3%) were neutral.

Moreover, 72 (24%) disagreed, and 24 (8%) disagreed strongly, bringing 32% disagreement. This result agrees with (Ghani & Taylor, 2021) that blended learning is the interaction and communication between peers.

The ninth statement focused on students' motivation to learn in the blended learning environment. The survey results showed that 82 (27.3%) strongly agreed with this statement, and 67 (22.3%) agreed, bringing 49.6% of agreement. However, 55 (18.3%) were neutral. Moreover, 61 (20.3%) disagreed, and 35 (11.7%) disagreed strongly, bringing 32% disagreement. This finding aligns with (Zainon and Yamat 2021) that blended learning enhances students' engagement and motivation.

The tenth statement focused on the role of blended learning in considering the individual differences between students. The study's respondents showed that 79 (26.3%) agreed strongly and 78 (26%) agreed with this statement, bringing 52.3% agreement. However, 49 (16.3) showed their neutrality. 63 (21%) disagreed, and 31 (10.3%) disagreed strongly with this statement. This statement is in harmony with (Jost et al., 2021) that blended learning considers individual differences since blended learning is a mixture of face-to-face and asynchronous modes.

The eleventh statement elicited information about the role of blended learning in promoting self-independence in learning. The survey results showed that 101 (33.7%) agreed and 84 (28%) strongly agreed with this statement. However, 48 (16%) were neutral. 34 (11.4%) disagreed, and 33 (11%) disagreed strongly with this statement. This result is in line with (Julien et al., 2022) that blended learning encourages independence in learning.

TABLE 3
ADVANTAGES OF BLENDED LEARNING

Question	Strongly Agree	Agree	Neutral	Disagree	Strongly disagree
Blended learning increases interaction between students and academic staff.	84 28%	60 20%	50 16.7%	72 24%	34 11%
Blended learning saves a lot of time	124 41.4%	106 35.3%	34 11.3%	18 6%	18 6%
Blended learning increases the fun of Learning	94 31.3%	76 25.3%	44 14.7%	60 20%	26 8.7%
Blended learning develops my self-learning ability	116 38.7%	96 32%	48 16%	26 8.7%	14 4.7

Blended learninghelped me increase my academic achievement	96 32%	78 26%	60 20%	40 13.3%	26 8.7%
Blended learning increases my ability to have more control over the learning process	96 32%	98 32.7%	48 16%	44 14.7%	14 4.7%
Blended learning develops my critical thinking ability	85 28.3%	91 30.3%	54 18%	52 17.3%	18 6%
Blended learning increases my ability to communicate with my peers	76 25.3%	85 28.3%	43 14.3%	72 24%	24 8%
Blended Learning Increased mymotivation to learn	82 27.3%	67 22.3%	55 18.3%	61 20.3%	35 11.7%
Blended learning considers individual differences between students	79 26.3%	78 26%	49 16.3%	63 21%	31 10.3%
I feel independent in blended Learning	101 33.7%	84 28%	48 16%	34 11.4%	33 11%

Disadvantages of Blended Learning

The third construct of the survey aimed to identify students' perceptions regarding the pitfalls of blended learning. The first statement focuses on the students' perceptions of the available resources for blended learning. It elicited information about the resources, whether they were tedious or inefficient. The survey results indicated that 68 (22.7%) agreed and 73 (24.3%) agreed strongly with this statement, bringing a total of 47% agreement. However, 80 (26.7%). 46 (15.3%) disagreed, and 33 (11%) strongly disagreed with this statement.

Item 2 elicited whether blended learning is suitable for all courses. The survey results indicated that 105 (35%) agreed strongly and 77 (25.7%) agreed with this statement, bringing 60.7% of agreement.

However, 51 (17%) were neutral. 42 (14%) disagreed, and 25 (8.3%) disagreed strongly, bringing 22.3% of disagreement. The result agrees with (Priscila, 2020) that Blended Learning is not suited to any subject, person, or task.

Item 3 elicited information on whether blended learning helped meet the students' needs and allowed teachers to answer students' inquiries. The statement indicated that Blended platforms do not allow teachers to respond to students' questions. The results of the study showed that 40 (13.3%) agreed strongly, and 77(25.7%) agreed with this statement, constituting 39% of the agreement. However, 51 (17%) were neutral. However, 42 (14%) disagreed, and 25 (8.3%) disagreed strongly. This finding showed that the agreement rate was less than 50%. Blended learning is a mixture of face-to-face and online, which allow students to make inquiries face to face.

Item 4 examined the impact of blended learning on students' boredom and frustration. The results of the study showed a high percentage of an agreement with this statement; 73 (24.3%) strongly agreed and 67 (22.3%), bringing a total agreement of 46.6%. On the other hand, 72 (24%) were neutral. However, a quarter of the respondents disagreed with this statement. This finding incurs with (Müller & Mildenberger,

2021) that blended learning causes frustration and boredom due to the lack of communication on the online side of the blended classes.

The fifth statement aimed to identify the impact of blended learning on the relationship between teachers and students. The survey results showed that nearly two-thirds of the respondents agreed strongly, with 29.3% and 28.7% agreeing that blended learning reduced the communication between the teachers and their students. However, 50 (16.7%) were neutral, while two-thirds disagreed, and one-third disagreed with this statement, equal to 29.4%. This finding aligns with (Sorokova, 2020) that blended learning reduces the interaction between students and their teachers.

The sixth statement researched the impact of blended learning on the feedback provided to students. The statement indicated the students in blended learning highlighted the difficulty of receiving feedback from their teachers. The analysis of the results showed that 88 (29.3%) agreed strongly and 86 (28.7%) agreed, bringing 58% of agreement. On the other hand, 50 (16.7%) were neutral. Moreover, 50 (16.7%) disagreed and 26 (8.7%) disagreed strongly with this statement. This finding is in line with (Tucker, 2022) that some students found receiving feedback from their instructors difficult.

The seventh statement highlighted the means of accessing blended learning platforms. The analysis of the results indicated that 55 (18.3%) agreed strongly, and 80 (26.7%) agreed that they did not have tools to access blended learning courses such as laptops and tablets. However, 73 (24.3%) were neutral. Moreover, 77 (25.7%) disagreed, and 15 (5%) disagreed strongly with this statement, bringing 30.7% of disagreement. This study is in line with (Almahasees, Mohsen, et al., 2021; Almahasees & Qassem, 2021) that access to online platforms is of great importance since it enables students to access around the o'clock.

The eighth statement elicited information about the experience of faculty members in using blended learning platforms. The study highlighted the importance of experience and training faculty members on using blended platforms. In the study analysis, 35 (11.7%) agreed strongly, and 55 (18.3) agreed with this statement. However, 86 (28.7%) were neutral. 90 (30%) disagreed, and 34 (11.3%) disagreed strongly, bringing 41.3%. The analysis of the study highlighted the importance of training for faculty members in giving blended courses. During COVID-19, all faculty members and students received training in the COVID-19 era of closing higher education institutions.

The last statement examined society's view of blended learning. The survey analysis showed that 42 (14%) agreed strongly, and 54 (18%) agreed that blended learning is still negatively portrayed. However. 94 (31. %) were neutral. 76 (25.3%) disagreed, and 34 (11.3%) disagreed strongly with this statement, bringing 36.6% of disagreement.

TABLE 4
DISADVANTAGES OF BLENDED LEARNING

The resources available for courses in blended learning are tedious and inefficient	68 22.7%	73 24.3%	80 26.7%	46 15.3	33 11%
I think that blended learning is not suitable for all courses	105 35%	77 25.7%	51 17%	42 14%	25 8.3%
My teacher does not allow me to meet him to answer my questions about the course	40 13.3%	77 25.7%	51 17%	42 14%	25 8.3%
In blended learning, I feel lost and frustrated	7.3 24.3%	67 22.3%	72 24%	62 20.7%	26 8.7%

Blended learning reduces personal relationships between teachers and students	88 29.3%	86 28.7%	50 16.7%	62 20.7%	26 8.7%
In blended learning, I find it difficult to receiveappropriate feedback from my teachers	88 29.3%	86 28.7%	50 16.7%	50 16.7%	26 8.7%
I do not have the means to join blended learning	55 18.3%	80 26.7%	73 24.3%	77 25.7%	15 5%
Faculty members do not have enough experience to apply blended Learning	35 11.7%	55 18.3%	86 28.7%	90 30%	34 11.3%
Society's view of blended learning is still negative	42 14%	54 18%	94 31.3%	76 25.3%	34 11.3%

DISCUSSION

The present study addressed the perceptions of Jordanian undergraduate students about the advantages and disadvantages of Blended Learning post-COVID-19 ears and its role in the Higher Education System in Jordan. It also considered previous research on blended learning mode locally, regionally, and globally. From the outset, the students' responses to the first construct of the survey showed that students are competent with technological platforms in line with (Almahasees, Mohsen, et al., 2021; Almahasees & Qassem, 2021). From the beginning, the results indicated that students expressed a high percentage of agreement with the advantages and a moderate agreement with the limitations of blended learning. The study noted that blended learning increased communication between students and their teachers, ensuring students' engagement. At another level, the study's findings showed that blended learning offered a flexible mode of learning where students can have access to the asynchronous tasks provided to students around the o'clock. These findings highlighted the learning flexibility of blended learning contributed to saving students' time, which developed a sense of self-study activities among students which incurred with (Al-Abbas, Haider, & Humanities, 2021; Geta & Olango, 2016).

Similarly, the study highlighted the role of blended learning in enhancing students' academic success due to increasing students' abilities to manage their learning process. This finding indicated that blended learning helps a student-centered educational environment. In this manner, the study also highlighted that blended learning enhanced students' ability to think critically to solve problems encountered in their studies, which agreed with (Fisher et al., 2021). Furthermore, the study indicated that the survey result enhanced students' independence, which increased communication with their peers, increasing the motivation to learn among students who agreed (Al Mahasees, 2020; Zainon & Yamat, 2021). Even though blended learning helped motivate students to learn independently and in pairs, it also considered the individual differences among students, which increased academic performance. These results are in harmony with (Ahmad S Haider & Al-Salman, 2020a; Jost et al., 2021; Julien et al., 2022).

The third construct of the survey addressed the limitations of Blended Learning. The study indicated that the learning sources offered in blended courses are inefficient. Moreover, blended learning is not suitable for all disciplines and courses, particularly those demanding live communication between

instructors and universities. These results were incurred with (Priscila, 2020). The study highlighted the limitations of blended learning: the lack of communication during blended classes, which caused their boredom and frustration due to the lack of communication which is in line with (Ahmad S Haider & Al-Salman, 2020b; Müller & Mildenberger, 2021).

Moreover, the study highlighted that students were suffering from the lack of communication, which impacted giving feedback to students. Furthermore, the lack of communication affected students' personalities since they could not get academic advising and counseling from their instructors(Tamim, 2018). On the other hand, students highlighted that some did not have enough means to access asynchronous curses offered by blended learning such as Laptops and the internet. Similarly, teachers also did not receive proper training to administer blended courses efficiently. The study here disagreed with the result of this item since, during COVID-19, faculty received intensive training, which helped faculty run online courses properly. Lastly, the study showed that society is still negatively dealing with blended learning since it causes carelessness and laziness.

CONCLUSION

The study aimed to identify the advantages and disadvantages of blended learning among undergraduate students in Jordan. The study showed that the main benefits of blended learning are: increasing academic performance and achievement, time-saving, making learning fun, enhancing self-study and learners' independency, developing critical thinking, enhancing problem-solving skills, increasing motivation and engagement, and considering students' differences. On the other hand, the study shed light on the limitations of blended learning. The limitations are the inefficiency of blended learning platforms and learning sources, incompatibility of blended learning for all disciplines and courses, the difficulty of receiving feedback from instructors due to the lack of communication, feeling lost and frustrated, and lack of communication between instructors and students, the lack of technological means to access blended classes, lack of teacher's and students' training, and the negative attitude of society toward blended learning. The study concluded that blended learning would help deliver theoretical courses, but it is incompatible with practical courses that need to be delivered face to face.

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