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RESEARCH TITLE

The Difference Among Blended Learning, E-Learning, and Face-to-Face Learning

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Abstract

Recently, technological advances have led to the emergence of different environments of learning. This research paper deals with three different environments of learning: blended learning, e-learning, and face-to-face learning. The purpose of this research paper is to show the best learning environment from the three mentioned ones. This study is intended and wondering how to elicit and investigate the challenges and problems faced by the online learning especially, during covid-19. In order to obtain the aims of the research, the researcher designed a questionnaire to check the students' opinions and preferences about the best learning environment. The researcher conducted this questionnaire for different Iraqi universities, aiming to cover as many students as possible to get good results and give the students a chance to take part in the questionnaire. Finally, the data analysed and the conclusions will be mentioned with additional recommendations. The findings show that blended learning is the best learning environment.

Key Words: Blended learning, e-learning, and face-to-face learning.

عنوان البحث

الفرق بين التعلم المدمج والتعليم الإلكتروني والتعلم وجهاً لوجه

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المستخلص

في الآونة الأخيرة، أدى التقدم التكنولوجي إلى ظهور بيئات مختلفة للتعلم. تتناول هذه الورقة البحثية ثلاث بيئات مختلفة للتعلم: التعلم المدمج، والتعلم الإلكتروني، والتعلم وجهاً لوجه. والغرض من هذه الورقة البحثية هو إظهار أفضل بيئة تعليمية من بين الثلاثة المذكورة. تهدف هذه الدراسة إلى التساؤل عن كيفية استنباط التحديات والمشكلات التي يواجهها التعلم عبر الإنترنت والتحقيق فيها خاصة خلال فترة انتشار فيروس كورونا (كوفيد-19). ولتحقيق أهداف البحث قامت الباحثة بتصميم استبانة للتعرف على آراء الطلاب وتفضيلاتهم حول البيئة التعليمية الأفضل. قام الباحث بإجراء هذا الاستبيان لمختلف الجامعات العراقية بهدف تغطية أكبر عدد ممكن من الطلاب للحصول على نتائج جيدة وإعطاء فرصة للطلاب للمشاركة في الاستبيان. وأخيرا، سيتم ذكر البيانات التي تم تحليلها والاستنتاجات مع توصيات إضافية. وتشير النتائج إلى أن التعلم المدمج هو أفضل بيئة تعليمية.

الكلمات المفتاحية: التعلم المدمج، التعلم الإلكتروني، التعلم وجهاً لوجه.

Introduction

The purpose of education is to mold a person to be perfect (Radha, 2020). In addition, the main purpose of education is to learn (Radha, 2020). Learning is the individual process of constructing understanding based on experience from a wide range of sources (Pritchard, 2018). There are two main environments for learning: face-to-face learning and virtual learning.

Face-to-face learning is the main style of learning. But any freak accident that happens in the world will always have its impact on education. And so the epidemic of COVID 19 has its footprints on education (Radha, 2020). And thus, it paves the way towards web-based learning, or e-learning, or online learning (Radha, 2020).

When we talk about fully online learning, we mean the distribution of learning and teaching across online, networked modes without campus-based teaching (Nerantzi, 2020). Online learning, or e-learning, should not be viewed as replacing the enormous value of face-to-face educational experience (Ginaya, 2018).

As long as the COVID-19 outbreak is still ongoing and there are no signs of abating (Rachmadtullah, 2020), the situation is ushering educational systems to a "new normal" (Cahapay, 2020). or "third generation" of distance education systems (Akyüz, 2009). Blended learning is an educational system which combines traditional face-to-face instruction with computer-mediated or online instruction, which can provide sustained and rigorous educational discourse (Ginaya, 2018).

The Problem Statement

Today, most teachers are unable to complete the curriculum on time due to the limited time allotted to lessons by school administrations, and some students are dissatisfied with traditional teaching methods because they do not cater to all students' abilities and do not take into account their knowledge backgrounds. As a result, it is critical to develop solutions to these issues. Another cause is the Corona Virus, which forces educational institutions to teach using a blended teaching and learning technique. Teachers must combine traditional and online teaching methods to cover all topics and areas in the course curriculum during this period of dreadful epidemic. The goal of the study is to determine the impact of using a blended teaching technique on student accomplishment (Mezaal, 2021).

Research Objectives

The purpose of this study is to elicit the following:

1. Analysing students’ attitudes toward face-to-face learning.
2. Investigate the specific challenges faced by the online learning during covid-19.
3. Testing students' opinions towards applying blended learning/teaching.
4. To suggest remedies for these difficulties or challenges facing the students and put a suitable solutions.

Research Questions

1. What are students’ attitudes toward face-to-face learning?
2. What are the challenges faced by online learning during COVID-19?
3. What are students' opinions towards applying blended learning and teaching?
4. What are the suggested remedies forthese difficulties or challenges facing the students.

Limits

The study is limited to three learning environments (e-learning, face-to-face learning, blended learning). This research paper was conducted at Al-Iraqia University. The current research paper is a modern one, written in 2021-2022. The participants were a group of students from different Iraqi universities, including the following universities: Baghdad, Al-Iraqia, Al-Basra, Kufa, Babylon, Diyala, Al-qadisya, Private College, and others. Whereas the participants ranged from first to fourth year students. The research covers a wide range in order to get reliable results, which can help several instructors in their teaching to follow the best learning environment.

Operational Definitions

Face-to-face learning: is an instructional method in which students are taught course content and learning materials in person. This enables a learner and an instructor to engage live. This is the most traditional method of instruction (SUNY Broom, 2019).

Online Learning: it comprises a range of technologies such as the global web, email, chat, new groups and texts, audio and video conferencing provided across computer networks to impart education (Arora, 2017).

Blended learning: is a combination of traditional (face-to-face) education with online education (Ginaya et al., 2018).

COVID-19: is a disease caused by a new strain of coronavirus. "CO" stands for corona, "VI" for virus, and "D" for disease. Formerly, this disease was referred to as "2019 novel coronavirus" or "2019-nCoV" (Saboowala & Manghirmalani Mishra, 2021).

Face-to-face Learning

Tong et al. (2012) defined face-to-face learning as the primary characteristic of traditional classroom instruction. It is a synchronous learning method in which instructors engage with the students in real time (Chisadza et al., 2021). It is permissible for teachers to present and explain lessons exclusively in class (Stephan et al., 2017). Teacher's talk and actions have an impact on students, and it can improve students' learning effect (Tong et al., 2012). Traditional face-to-face classrooms are arranged in such a way that the instructor may impart knowledge, assess students' comprehension and interest, engage in class activities, and offer quick feedback on clarifying questions throughout the session (Chisadza et al., 2021).

Traditional education does not provide generations with updated educational information since it is incapable of keeping up with current ideas and technology (Stephan et al., 2017). It does not include the use of CD players, projectors, or any other modern device. It is entirely reliant on the use of a marker and a whiteboard (Nuri, 2021). If the Corona pandemic had not occurred, Stephan et al. (2017) say that Arabs would still depend on traditional teaching methods, which are not compatible with modern life.

This approach has a number of drawbacks; one of these is the absence of a student, which precludes the student from learning the lesson due to the absence of any tool that might be used to recreate the lesson (Stephan et al., 2017). Tong et al. (2012) mentions another disadvantage: in a classroom, teachers organize the content and methods of

instruction. Students lost their dominant position, which had an effect on their excitement. Students' interest in learning is weakened, which has an effect on learning performance.

E-learning

E-learning is the process of acquiring and applying information that is largely facilitated and provided electronically (Behera, 2013). Online learning utilizes a variety of technologies such as the worldwide web, email, chat, new groups and texts, as well as audio and video conferencing to impart instruction over computer networks (Arora, 2017). Online education requires a massive deal of time and resources, as well as meticulous planning. Teachers serve as facilitators rather than transmitters of topic information in this way (Arora, 2017). E-learning is frequently referred to as 'online education.' It is designed to help educators apply information technology skills. Connecting to the internet or any other network is required for E-learning (Behera, 2013).

"Learners learn through e-learning tools which are available to all" (Arora, 2017, p. 32). Flynn (2016) argues that they can succeed in online courses if they have the necessary learning aids, online technologies, and psychological awareness of the special features and academic requirements of at-risk students. Mather& Sarkans (2018) say "Convenience and flexibility of online learning fosters continuous learning opportunities, which is particularly important for those who have competing family priorities" (p. 62).

One of the benefits of online education is that it reduces the barrier of distance. A student enrolled online from across the world can have the same degree of access and capacity to contribute as a student in the next room (Allen & Seaman, 2016).

Despite the numerous benefits of e-learning, students face a number of obstacles that eventually result in restricted or unfavourable outcomes. Al Rawashdeh et al. (2021) highlighted what Islam, Beer and Slack (2015) said that the most visible disadvantage of e-learning is the lack of vital personal connections, not just among colleagues but also between instructors and students. "students need dialogue with their teachers and with other students in order to consolidate and check on their own learning" (Kirkup & Jones, 1996, p. 278). Furthermore, Miliszewska et al. (2007) list one of the three most significant weaknesses of distance education as the inability to offer dialogue in the way that traditional face-to-face education does; the remaining two weaknesses are inflexibility of content and study method, as well as isolation and individualization of the student. "To help students become engaged in an online lecture, the instructor must be both a content expert to guide students in their knowledge acquisition and a facilitator of the learning process" (Mather & Sarkans, 2018, p. 64). While e-learning is inherently adapted to distant and flexible learning, it may also be used in conjunction with face-to-face instruction, a system known as blended learning (Behera, 2013).

Online Learning during Coronavirus

COVID-19 is a disease caused by a new strain of coronavirus. "CO" stands for corona, "VI" for virus, and "D" for disease. Formerly, this disease was referred to as "2019 novel coronavirus" or "2019-nCoV" (Saboowala & Manghirmalani Mishra, 2021).

Gherheş et al. (2021) stated that the outbreak of the new coronavirus pandemic presented the most significant challenge to the worldwide education system in the last century at the end of 2019. During the outbreak of this pandemic that has a significant impact on educational activities all across the world (Onyema et al., 2020), developing an online information gain design or continuity of a learning interface is critical (Tarihoran et al., 2021).

Technology proved to be the most powerful ally in protecting all those involved in the educational system, as well as providing the prospect of an alternate didactic method. It was a response to some broad and dominating governmental policies that desired to be robust and ready to provide an alternative to face-to-face learning. As a result, the Internet became the primary instrument (Gherheș et al., 2021). In universities, online education was introduced in the form of distant courses or online support for normal courses. Teachers and learners needed proper training on computer-based instruction before it can be effectively implemented as teaching methods (Mahaye, 2020). But this shift was not gradual; rather, it happened all at once (Ploj Virtic et al., 2021). Whether they were prepared or not, teachers were suddenly thrust into a scenario where they had to begin online teaching with a great deal of improvisation (Ploj Virtic et al., 2021). It was more difficult to monitor students' knowledge in an online environment, and there is a major risk that classes will be poorly arranged and that too much material will be presented too early, leaving learners confused (Martin, 2020).

Suspension of entire systems and the transfer of instructional activities to the internet has never happened before, regardless of whether students, teachers, and support personnel were pedagogically and materially prepared for the change (Ploj Virtic et al., 2021). When students are learning a new or difficult subject matter, it is critical that online training be as explicit, systematic, and well-organized as possible (Martin, 2020). Also, according to Martin (2020), online classes must be highly clear and well-structured, provided in digestible chunks, provide ample opportunities for students to practice what they've learned, and allow the teacher to view and provide timely feedback on students' work. If students are not constructively engaged, it may lead to idleness, which may result in young involvement in criminal activity or a loss of interest in learning, and poor academic performance (Onyema et al., 2020). Martin, (2020) confirmed that the importance of interpersonal ties in learning cannot be overstated. Teachers should keep in touch with their students in an online setting using a variety of methods, including email, the online learning platform, and video, blogs, and class chat groups.

If a more dependable remedy for coronavirus is not found in a timely manner, and the disease spreads, the disruption caused by COVID-19 in the educational sector may endure longer than expected (Onyema et al., 2020). On the other hand, Gherheş et al. (2021) reported that creative and constructive interventions are required in order to streamline the educational process, particularly in the university setting. These would address specific issues and help to ensure the long-term viability of education. If a pandemic strikes in the future, a well-thought-out lesson plan will be used to expand and improve online learning or online courses on a global scale (Tarihoran et al., 2021).

Blended Learning

Initially, Blended learning is a term used to describe knowledge that attempts to combine face-to-face and online learning. The concept of blended learning began to take shape with the help of numerous professionals who established and defined the concept (Dakhi, 2020). Mahaye (2020) stated that researchers were unable to come up with a universally agreed definition of Blended learning because it is seen as a notion that is dependent on its application or the conditions in which it is used. This strategy promotes active and independent learning and has been adopted in a variety of educational settings as a supplement to traditional teaching (Barzani, 2021). "Thoroughly blended learning means learning patterns that contain elements of mixing or merging between one learning pattern and another" (Dakhi, 2020, p. 51).

Blended learning combines face-to-face classrooms, live e-learning, and self-paced learning with a variety of event-based activities. Traditional instructor-led training, synchronous online conferencing or training, asynchronous self-paced study, and organized on-the-job training from an experienced knowledge management professional or mentor are frequently used (Singh, 2021). Auster (2016) stated that in theory, Students who take blended learning courses, which include synchronous and asynchronous learning, may get the best of both worlds. Blended learning has a large and beneficial influence on overall performance, and instructors and students alike are enthusiastic about it (Nuri, 2021). In addition, blended learning appears to be an attempt to address the drawbacks of e-learning (Stephan et al., 2017).

The current pandemic has fuelled the flames by forcing educators to adapt BL as one of the best-fit pedagogies to use once things return to normal (Saboowala & Manghirmalani Mishra, 2021). The COVID-19 crisis is ushering in a "new normal" for educational systems. The situation is nearing a tipping point, causing educational institutions to adopt new instructional delivery (Cahapay & Anoba, 2020). Adaptation is something that all living species learn to do. This indicates that they are fitted to live and reproduce in their habitats due to their appearance, behavior, structure, or style of life. During the COVID-19 epidemic, which began in November 2019 and has been spreading globally since January 2020, teachers are becoming learners themselves and experimenting with new ways to adapt to the online style of teaching-learning (Saboowala & Manghirmalani Mishra, 2021). Blended learning (BL) was launched during the academic year 2021 as an innovative response to the issues encountered during the introduction of online learning in Iraq as restrictive limitations were eased (Al-Mendalawi, 2022). Few lessons were learned from BL implementation in Iraq. Despite the difficulties encountered, pupils generally responded positively to this method of instruction (Al-Mendala wi, 2022).

Research Design

The design of this research is descriptive research. According to Ary et al. (2006), descriptive research studies are aimed to collect information about the status of phenomena. The purpose of descriptive research is to describe what exists in a situation in terms of variables or circumstances (p. 332). This research uses quantitative methods. Quantitative research is a means for testing objective theories by examining the relationship among variables. These variables. in turn, can be measured. Typically

on instruments, so that numbered data can be analysed using statistical procedures (Creswell, 2009, p. 4). The purpose of this research is to describe three e-learning environments: learning environments (e-learning, face-to-face learning, blended learning).

Participants of the Study

The participants were a group of students from different Iraqi universities, including the following universities: Baghdad, Al-Iraqia, Al-Basra, Kufa, Babylon, Diyala, Al-qadisya, Private college , and others. whereas the participants ranged from first to fourth year students. The research covers a wide range in order to get reliable results, which can help several instructors in their teaching to follow the best learning environment.

Research Procedures

The researcher conducted a questionnaire at Al-Iraqia University college of . To scale the responses of the students, the researcher used the format of a typical five-point Likert scale. Each item was rated by respondents from 1 ("Strongly disagree"), 2 (“disagree"), 3 ("Neither agree nor disagree"), 4 ("agree") 5 ("Strongly agree"). The chosen participants were a group of students from different Iraqi universities, including the following universities: Baghdad, Al-Iraqia, Al-Basra, Kufa, Babylon, Diyala, Al-qadisya, Private College, and others. Whereas the participants ranged from first to fourth year students. The researcher used google form to create the questionnaire due to its simplicity for students. Then the researcher collects the data and analyse it by using SPSS and the descriptive analytical method to show the results and the students’ points of views and attitudes toward each learning environment from the three discussed ones (e-learning, face-to-face learning, blended learning). Finally, lists of suggestions and recommendations will be listed according to the questionnaire’s results.

Questionnaire

The researcher uses a questionnaire as a research instrument. The designed questionnaire consists of a series of questions to measure the students’ opinions and attitudes about the different learning environments. The questionnaire was designed for the purpose of showing the students’ preferences about the best learning environment. It was designed as an English Language Department, randomly chosen from different universities. The total sample who responded to the questionnaire was 211 female and male students. It consisted of two parts: the first part contained gender, stage, and university’s name of each student. The second part includes seven questions about e-learning, face-to-face learning, blended learning. To see the students’ opinions about them. Each question is scaled by 5 response options depending on five-point Likert scale (Agree, strongly agree, neutral, disagree, and strongly disagree).

Data Analysis

In this section, the data collected by the questionnaire will be analyzed using SPSS program:

The Total Number of the Participants and Their Gender

Table (1) The Total Number of the Participants and Their Gender

Gender:

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Female	151	71.6	71.6	71.6
	Male	60	28.4	28.4	100.0
	Total	211	100.0	100.0	

The total number of participants according to their gender was 211. There were 71.6% female participants, which represents about 151 participants. Whereas 28.4% were male participants, which represents 60 participants. This shows that most of the participants were females. Therefore, it is clear that females are more interactive.

Number of the Participants of Each University

Table (2) Number of the Participants of Each University

At which university are you studying?

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Al-Iraqia University	27	12.8	12.8	12.8
	Baghdad University	26	12.3	12.3	25.1
	Al-Basra University	21	10.0	10.0	35.1
	University of Kufa	15	7.1	7.1	42.2
	Babylon University	3	1.4	1.4	43.6
	Diyala University	7	3.3	3.3	46.9
	Al-qadisya University	17	8.1	8.1	55.0
	Private college	8	3.8	3.8	58.8
	Others	87	41.2	41.2	100.0
	Total	211	100.0	100.0	

Among 211 participants there are 12.8% participants from Al-Iraqia University, which represents about 27 participants. whereas 12.3% participants were from Baghdad University, which represents 26 participants. While 10.0% participants were

from Al-Basra University, which represents 21 participants. In addition, 7.1% participants were from University of Kufa, which represents 15 participants. Also, 1.4% participants were from Babylon University, which represents 3 participants. Whereas, 3.3% participants were from Diyala University, which represents 7 participants. Whereas, 8.1% participants were from Al-qadisiya University, which represents 17 participants. On the other hand, 3.8% participants were from Private college, which represents 8 participants. Finally, 41.2% participants were from other universities, which represent 87 participants.

Number of the Participants of Each Stage

Table (3) Number of the Participants of Each Stage

Stage:

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	First Stage	62	29.4	29.4	29.4
	Second Stage	47	22.3	22.3	51.7
	Third Stage	68	32.2	32.2	83.9
	Fourth Stage	34	16.1	16.1	100.0
	Total	211	100.0	100.0	

The total number of participants according to their stage was 211. There were 29.4% of first stage students, which represents 62 participants, whereas 22.3% were second stage students, which represents about 47 participants. In addition, 32.2% were third stage students, which represents about 68 participants. Moreover, 16.1% were fourth stage students, which represents about 34 participants. This shows that third stage students participated more than other stages, then first stage and second then fourth,which means that third stage students are more interactive than other stages

Question One

Table (4) Question One

I believe face-to-face learning is more effective than online learning.

Gender:			Frequency	Percent	Valid Percent	Cumulative Percent
Female		Strongly disagree	11	7.3	7.3	7.3
		Disagree	14	9.3	9.3	16.7
		Neither agree nor disagree	21	13.9	14.0	30.7
		Agree	41	27.2	27.3	58.0
		Strongly agree	63	41.7	42.0	100.0
		Total	150	99.3	100.0	
	Missing	System	1	.7		
	Total		151	100.0		
Male	Valid	Strongly disagree	7	11.7	11.7	11.7
		Disagree	6	10.0	10.0	21.7
		Neither agree nor disagree	5	8.3	8.3	30.0
		Agree	15	25.0	25.0	55.0
		Strongly agree	27	45.0	45.0	100.0
		Total	60	100.0	100.0	

The total number of female participants who answered the first item, "I believe face-to-face learning is more effective than online learning." there were 150

participants. There were 7.3% of female participants, which represents about 11 participants who answered "Strongly disagree," and 9.3% of them, which represents 14 participants, answered "Disagree," and 13.9% of them, which represents 21 participants, answered "Neither agree nor disagree," and 27.2% of them, which represents 41 participants, answered “Agree,” and 41.7% of them, which represents 63 participants, answered “Strongly agree.” On the other hand, the total number of the male participants was 60 participants. There were 11.7% of male participants, which represents about 7 participants who answered "Strongly disagree," and 10.0% of them, which represents 6 participants, answered "Disagree," and 8.3% of them, which represents 5 participants, answered "Neither agree nor disagree," and 25.0% of them, which represents 15 participants, answered “Agree,” and 45.0% of them, which represents 27 participants, answered “Strongly agree”. This means that the number of students who like face-to-face learning is higher than those who do not prefer it .Therefore, the result from the table above indicates that most students believe that face-to-face learning is more effective than online learning.

Question Two

Table (5) Question Two

In face-to-face learning, if the student is absent, he doesn't have a chance to understand the lesson again.

Gender:			Frequency	Percent	Valid Percent	Cumulative Percent
Female	Valid	Strongly disagree	11	7.3	7.3	7.3
		Disagree	36	23.8	23.8	31.1
		Neither agree nor disagree	28	18.5	18.5	49.7
		Agree	58	38.4	38.4	88.1
		Strongly agree	18	11.9	11.9	100.0
		Total	151	100.0	100.0	
Male	Valid	Strongly disagree	8	13.3	13.3	13.3
		Disagree	11	18.3	18.3	31.7
		Neither agree nor disagree	15	25.0	25.0	56.7
		Agree	19	31.7	31.7	88.3
		Strongly agree	7	11.7	11.7	100.0
		Total	60	100.0	100.0	

The total number of female participants who answered the second item, " In face-to-face learning, if the student is absent, he doesn't have a chance to understand the lesson again." was 151 participants. There were 7.3% of female participants, which represents about 11 participants who answered "Strongly disagree," and 23.8% of them, which represents 36 participants, answered "Disagree," and 18.5% of them, which represents 28 participants, answered "Neither agree nor disagree," and 38.4% of them, which represents 58 participants, answered “Agree,” and 11.9% of them, which represents 18 participants, answered “Strongly agree.” On the other hand, the total number of the male participants was 60 participants. There were 13.3% of male participants, which represents about 8 participants who answered "Strongly disagree," and 18.3% of them, which represents 11 participants, answered "Disagree," and 25.0% of them, which represents 15 participants, answered "Neither agree nor disagree," and 31.7% of them, which represents 19 participants, answered “Agree,” and 11.7% of them, which represents 7 participants, answered “Strongly agree”. This means that the number of students who agree with this idea is higher than those who do not agree with it .Therefore, the result from the table above indicates that most students do not like the idea of being absent from a lesson in face-to-face classroom.

Question Three

Table (6) Question Three

I find it very difficult to study online, especially at the beginning of its application when the pandemic spread.

Gender:			Frequency	Percent	Valid Percent	Cumulative Percent
Female	Valid	Strongly disagree	32	21.2	21.2	21.2
		Disagree	21	13.9	13.9	35.1
		Neither agree nor disagree	10	6.6	6.6	41.7
		Agree	47	31.1	31.1	72.8
		Strongly agree	41	27.2	27.2	100.0
		Total	151	100.0	100.0	
Male	Valid	Strongly disagree	13	21.7	21.7	21.7
		Disagree	8	13.3	13.3	35.0
		Neither agree nor disagree	6	10.0	10.0	45.0
		Agree	17	28.3	28.3	73.3
		Strongly agree	16	26.7	26.7	100.0
		Total	60	100.0	100.0	

The total number of female participants who answered the third item, "I find it very difficult to study online, especially at the beginning of its application when the pandemic spread." was 151 participants. There were 21.2% of female participants, which represents about 32 participants who answered "Strongly disagree," and 13.9% of them, which represents 21 participants, answered "Disagree," and 6.6% of them, which represents 10 participants, answered "Neither agree nor disagree," and 31.1% of them, which represents 47 participants, answered “Agree,” and 27.2% of them, which represents 41 participants, answered “Strongly agree.” On the other hand, the total number of the male participants was 60 participants. There were 21.7% of male participants, which represents about 13 participants who answered "Strongly disagree," and 13.3% of them, which represents 8 participants, answered "Disagree," and 10.0% of them, which represents 6 participants, answered "Neither agree nor disagree," and 28.3% of them, which represents 17 participants, answered “Agree,” and 26.7% of them, which represents 16 participants, answered “Strongly agree”. This means that the number of students who face difficulty in online learning is higher than those who find it easy. Therefore, the result from the table above indicates that most students did not like e-learning at the time of the pandemic because they were not ready enough to study in such an unusual environment.

Question Four

Table (7) Question Four

In e-learning, I can study anytime, anywhere I can.

Gender:			Frequency	Percent	Valid Percent	Cumulative Percent
Female	Valid	Strongly disagree	13	8.6	8.6	8.6
		Disagree	23	15.2	15.2	23.8
		Neither agree nor disagree	20	13.2	13.2	37.1
		Agree	53	35.1	35.1	72.2
		Strongly agree	42	27.8	27.8	100.0
		Total	151	100.0	100.0	
Male	Valid	Strongly disagree	9	15.0	15.0	15.0
		Disagree	4	6.7	6.7	21.7
		Neither agree nor disagree	7	11.7	11.7	33.3
		Agree	18	30.0	30.0	63.3
		Strongly agree	22	36.7	36.7	100.0
		Total	60	100.0	100.0	

The total number of female participants who answered the fourth item, "In e-learning, I can study anytime, anywhere I can." was 151 participants. There were 8.6% of female participants, which represents about 13 participants who answered "Strongly disagree," and 15.2% of them, which represents 23 participants, answered "Disagree," and 13.2% of them, which represents 20 participants, answered "Neither agree nor disagree," and 35.1% of them, which represents 53 participants, answered “Agree,” and 27.8% of them, which represents 42 participants, answered “Strongly agree.” On the other hand, the total number of the male participants was 60 participants. There were 15.0% of male participants, which represents about 9 participants who answered "Strongly disagree," and 6.7% of them, which represents 4 participants, answered "Disagree," and 11.7% of them, which represents 7 participants, answered "Neither agree nor disagree," and 30.0% of them, which represents 18 participants, answered “Agree,” and 36.7% of them, which represents 22 participants, answered “Strongly agree”. This means that the number of students who like online learning at the current time is higher than those who do not like it. Therefore, the result from the table above indicates that most students now like e-learning due to their previous experiences.

Question Five

Table (8) Question Five

In blended learning, our online activities are connected to what we do in the classroom.

Gender:			Frequency	Percent	Valid Percent	Cumulative Percent
Female	Valid	Strongly disagree	21	13.9	13.9	13.9
		Disagree	21	13.9	13.9	27.8
		Neither agree nor disagree	33	21.9	21.9	49.7
		Agree	57	37.7	37.7	87.4
		Strongly agree	19	12.6	12.6	100.0
		Total	151	100.0	100.0	
Male	Valid	Strongly disagree	5	8.3	8.3	8.3
		Disagree	12	20.0	20.0	28.3
		Neither agree nor disagree	15	25.0	25.0	53.3
		Agree	20	33.3	33.3	86.7
		Strongly agree	8	13.3	13.3	100.0
		Total	60	100.0	100.0	

The total number of female participants who answered the fifth item, “In blended learning, our online activities are connected to what we do in the classroom." was 151 participants. There were 13.9% of female participants, which represents about 21 participants who answered "Strongly disagree," and 13.9% of them, which represents 21 participants, answered "Disagree," and 21.9% of them, which represents 33 participants, answered "Neither agree nor disagree," and 37.7% of them, which represents 57 participants, answered “Agree,” and 12.6% of them, which represents 19 participants, answered “Strongly agree.” On the other hand, the total number of the male participants was 60 participants. There were 8.3% of male participants, which represents about 5 participants who answered "Strongly disagree," and 20.0% of them, which represents 12 participants, answered "Disagree," and 25.0% of them, which represents 15 participants, answered "Neither agree nor disagree," and 33.3% of them, which represents 20 participants, answered “Agree,” and 13.3% of them, which represents 8 participants, answered “Strongly agree”. This means that the number of students emphasized the idea of studying related materials online and in traditional classrooms is higher than those who do not agree with it. Therefore, the result from the table above indicates that most students have the idea of studying the same material in blended learning.

Question Six

Table (9) Question Six

Due to restrictions, I think blended learning is the best option.

Gender:			Frequency	Percent	Valid Percent	Cumulative Percent
Female	Valid	Strongly disagree	22	14.6	14.6	14.6
		Disagree	21	13.9	13.9	28.5
		Neither agree nor disagree	28	18.5	18.5	47.0
		Agree	45	29.8	29.8	76.8
		Strongly agree	35	23.2	23.2	100.0
		Total	151	100.0	100.0	
Male	Valid	Strongly disagree	8	13.3	13.3	13.3
		Disagree	12	20.0	20.0	33.3
		Neither agree nor disagree	12	20.0	20.0	53.3
		Agree	14	23.3	23.3	76.7
		Strongly agree	14	23.3	23.3	100.0
		Total	60	100.0	100.0	

The total number of female participants who answered the sixth item, “Due to restrictions, I think blended learning is the best option." was 151 participants. There were 14.6% of female participants, which represents about 22 participants who answered "Strongly disagree," and 13.9% of them, which represents 21 participants, answered "Disagree," and 18.5% of them, which represents 28 participants, answered "Neither agree nor disagree," and 29.8% of them, which represents 45 participants, answered “Agree,” and 23.2% of them, which represents 35 participants, answered “Strongly agree.” On the other hand, the total number of the male participants was 60 participants. There were 13.3% of male participants, which represents about 8 participants who answered "Strongly disagree," and 20.0% of them, which represents 12 participants, answered "Disagree," and 20.0% of them, which represents 12 participants, answered "Neither agree nor disagree," and 23.3% of them, which represents 14 participants, answered “Agree,” and 23.3% of them, which represents 14 participants, answered “Strongly agree”. This means that the number of students who prefer blended learning as their preferred learning environment is higher than those who prefer other environments. Therefore, the result from the table above indicates that most students like blended learning as their best learning environment of learning.

Question Seven

Table (10) Question Seven

I believe that high quality learning can take place without face-to-face interaction.

Gender:			Frequency	Percent	Valid Percent	Cumulative Percent
Female	Valid	Strongly disagree	36	23.8	23.8	23.8
		Disagree	33	21.9	21.9	45.7
		Neither agree nor disagree	19	12.6	12.6	58.3
		Agree	43	28.5	28.5	86.8
		Strongly agree	20	13.2	13.2	100.0
		Total	151	100.0	100.0	
Male	Valid	Strongly disagree	14	23.3	23.3	23.3
		Disagree	12	20.0	20.0	43.3
		Neither agree nor disagree	9	15.0	15.0	58.3
		Agree	11	18.3	18.3	76.7
		Strongly agree	14	23.3	23.3	100.0
		Total	60	100.0	100.0	

The total number of female participants who answered the seventh item, "I believe that high quality learning can take place without face-to-face interaction." was 151 participants. There were 23.8% of female participants, which represents about 36 participants who answered "Strongly disagree," and 21.9% of them, which represents 33 participants, answered "Disagree," and 12.6% of them, which represents 19 participants, answered "Neither agree nor disagree," and 28.5% of them, which represents 43 participants, answered “Agree,” and 13.2% of them, which represents 20 participants, answered “Strongly agree.” On the other hand, the total number of the male participants was 60 participants. There were 23.3% of male participants, which represents about 14 participants who answered "Strongly disagree," and 20.0% of them, which represents 12 participants, answered "Disagree," and 15.0% of them, which represents 9 participants, answered "Neither agree nor disagree," and 18.3% of them, which represents 11 participants, answered “Agree,” and 23.3% of them, which represents 14 participants, answered “Strongly agree”. ”. This means that the number of students who believe that high quality learning can take place without face-to-face interaction is higher than those who do not agree with it. Therefore, the result from the table and table of question one indicates that most students believe that both e-learning and face-to-face learning are not the main environments for high quality learning. This means that the higher preferable environment which seems more interactive is blended learning.

Findings

The following represent the main findings of the research:

1. The study revealed that the best learning environment is blended learning due to the restrictions and its high-quality learning and activities in comparison to e-learning and face-to-face learning.

2. The students’ attitudes toward face-to-face learning indicate that they believe that face-to-face learning is more effective than online learning.

3. Some students like e-learning because it has no time or place limit, so they can study wherever and whenever they want.

Recommendations

In light of the findings of the study, the researcher recommends the following:

1. The ministry of higher education has to concentrate on the necessity of preparing a good environment for online teaching for any emergency situation such as COVID-19.

2. During a crisis, raising awareness or disseminating information may help with prevention and rehabilitation.

3. Blended Learning techniques, for example, may help to mitigate the effect of COVID-19 on education. Learners would have access to online learning resources as well as the ability to engage with one another and teachers or instructors via blended learning. This method might be effective for curricular support and recovery during and after the COVID-19 phase.

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