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Students' Motivation to Attend Synchronous Online Lectures

دافعية الطلاب لحضور محاضرات متزامنة عبر الانترنت

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Abstract

This study aims to sightsee students' perceptions of how online lectures should be through exploring factors that increase students' motivation to attend live zoom classes. A quantitative approach was used to achieve the purpose of the study. The data was collected through an electronic questionnaire using Google forms to explore students' attitudes and perspectives on influencing their attendance to online learning sessions. Five hundred eighty-five participants (154 males and 431 females) in the study made the decision to answer the questionnaire electronically via Google Drive. The study participants were undergraduate students from two universities located north of the West Bank-Palestine. The findings revealed various factors, which may affect students' motivation to attend online lec-

tures. These factors are; instructional and pedagogical practices, synchronous classroom management, technology characteristics, and continuity to attend online classes. Further research is recommended to validate the tool researchers found to build a model describing the relationship among these factors and predict the learners' motivation.

Keywords: Motivation, Online Learning, Zoom, Synchronous Lectures, Palestine.

ملخص

تهدف هذه الدراسة إلى التعرف الى تصورات الطلاب وانطباعتهم عن الكيفية التي يجب أن تكون عليها المحاضرات الإلكترونية، من خلال استكشاف العوامل التي تزيد من دافعية الطلاب لحضور هذه المحاضرات المباشرة من خلال برنامج زووم. تم استخدام المنهج الكمي لتحقيق أهداف الدراسة. تم جمع البيانات من خلال استبانة تم تعبئتها الكترونيا باستخدام نماذج Google للتعرف الى وجهات نظر الطلاب حول العوامل التي تؤثر على حضورهم المحاضرات الإلكترونية. شارك في الدراسة (585) طالبا وطالبة جامعيين ذكورا (154) وإناثا (431) ينتمون إلى جامعتين من شمال الضفة الغربية وهي عينة عشوائية بسيطة. أظهرت النتائج وجود عوامل مختلفة تؤثر على دافعية الطلبة لحضور المحاضرات الإلكترونية. هذه العوامل هي: الممارسات التعليمية والتربوية، وإدارة المحاضرات المتزامنة، وخصائص التكنولوجيا، واستمرارية حضور الدروس عبر الإنترنت. يوصي الباحثون بإجراء مزيد من البحوث للتحقق من صحة الأداة التي استحدثها الباحثون لبناء نموذج يصف العلاقة بين هذه العوامل والتنبؤ بدافعية المتعلمين.

الكلمات المفتاحية: الدافعية، التعليم عبر الانترنت، زووم، محاضرات متزامنة، فلسطين.

Introduction

Globally, the COVID-19 epidemic has caused widespread academic disruption (Ismaili, 2021; Cahapay, 2020). The United Nations Educational, Scientific, and Cultural Organization (UNESCO) reported that over 1.37 billion students (80% of the global student population) were impacted by the crisis (UNESCO, 2020). This disruption has accelerated the use of virtual instruction across all education sectors (Ismaili, 2021). The quick move to online and remote instruction presented an unprecedented technological and pedagogical barrier for many teachers, particularly those with no prior expertise with online and remote instruction (Sunasee, 2020; Mpungose, 2021).

Palestine was not an exception to this transitional period. Since March 9, 2020, educational institutions in Palestine have been shuttered. Higher education institutions had to use online learning in order to keep in touch with students to avoid the loss of the academic semester. Consequently, the transformation was abrupt and significant, providing distinct problems for teachers and students. Teachers were required to undergo digital transformation overnight, overcome their fear of technology, and work so hard for their children (Bordoloi, Das & Das, 2021; Serhan, 2020).

Higher education institutes in Palestine shifted to online learning by adopting synchronous and asynchronous learning. Synchronous learning is the closest an e-environment can come to a live experience. Asynchronous learning occurs when the teacher and students do not need to engage online in real time. They are separated geographically and temporally. Moodle is the tool used to complete this asynchronous form. The synchronous form, on the other hand, demands the teacher and student to collaborate at a predetermined time utilizing online apps such as Zoom and Microsoft Teams. According to Khan, *et al*. (2021), these sessions must be structured to maintain students' engagement.

Background

During the shift to online learning in higher education, Zoom Meet is the most popular conference platform in Palestine. Zoom is a web-based collaborative video conferencing platform founded in 2011 by Eric Yuan (Wan Hassan, *et al*. 2020; Mpungose, 2021). Zoom Meet is the best substitute to face-to-face where instructors and students may meet synchronously and engage immediately. It offers high-quality audio, video, and screen sharing, making it ideal for virtual conferences, online lectures, meetings, webinars, and other similar events (Serhan, 2020). According to Islam, Kim, and Kwon (2020), the greatest advantage of live Zoom is that it replicates how in-person classes are done. Teachers can see students' motions and students can see teachers' gestures, which increases interaction between instructors and students.

In addition, instructors and students can share PDF files and write and discuss during the process via Zoom (Cheung, 2021). The deployment of

online learning has flaws because students do not find remote learning totally pleasurable and acceptable (Wan Hassan, *et al*. 2020).

All higher education institutions in Palestine adopted emergency online learning, also known as "emergency remote learning" (Affouneh, Salha, & Khlaif, 2020), in order to maintain communication with students and assist them in the new learning environment (Hodges, *et al*. 2020). However, this swift and unexpected transition caused instructors, students, and parents stress, as they were unprepared to handle this new circumstance (Khlaif, Nadiruzzaman, & Kwon, 2017).

Research problem

This epidemic is still unfolding; according to Neuwirth, Jović and Mukherji (2020) the one certainty amid all the unknowns is that it will not be a return to normal but rather a new normal. This claim was supported by (iek 2020, p. 3) as quoted by (Pacheco 2020). Consequently, educational systems prepare for a "new normal" post-COVID-19 period (Cahapay, 2020). This word indicates that something that was not common previously has become typical.

As we approach the new normal in the normal period, it is time to rethink, overhaul, and reinvent our education system to meet the exigent requirements of the current scenario, which is unprecedented. There is also a need to explore rethinking education in light of growing opportunities and problems, as well as learning from the Zoom Meet experience.

In the past, e-learning, distant education, and correspondence courses were commonly categorized as non-formal education. Nonetheless, it appears that it will progressively supplant the official education system if the current conditions prevail (Mishra, Gupta & Shree, 2020).

Despite their efforts to urge students to attend, many instructors in Palestine and worldwide struggle with low attendance rates in their synchronous classes (Perets, *et al*. 2020; Sunasee, 2020). This study attempts to investigate how students perceive Zoom lectures to be conducted. It also investigates characteristics that motivate students to attend live Zoom lectures.

Contribution of the study

Numerous researchers view online education as the future of schooling (Al-Hashmi, 2021). This modality will soon replace on-campus education; therefore, the present study addresses sensitive topics in teaching and learning related to student motivation, as it is intimately associated to achievement and intended outcomes (Meşe & Sevilen, 2021). Consequently, this study is essential for comprehending the aspects that affect students' motivation and dedication to online learning. There has never been a time on a global scale when nearly all institutions of higher education transitioned entirely to online instruction via electronic platforms (Al-Hashmi, 2021). In light of this, the findings of the present study may disclose crucial concerns that will help all stakeholders, including students, academics, and policymakers, make educated judgments regarding the course and organizational designs.

Research questions

Based on the literature review, the current study was led by three research questions:

– How motivated are undergraduates to attend online classes during the pandemic crisis?

– What factors influence the motivation of students to attend online classes during a time of crisis?

– What factors influence the continuation of online class attendance following a crisis?

Context of the study

During COVID 19, both synchronous and asynchronous learning were employed as instructional tools in both higher education and secondary schools. During the COVID-19 pandemic crisis, the study was undertaken at two large universities in northern West Bank-Palestine. To combat the spread of COVID-19, both universities shifted their teaching and learning from face-to-face to online learning, utilizing various forms of online

learning, including Zoom Meet. Both universities utilized Zoom as a platform for synchronous online material distribution and real-time instruction in order to simulate face-to-face learning. Despite the fact that students were heavily encouraged to attend Zoom lecture meetings, Students' attendance in these sessions was low. All synchronous Zoom sessions were recorded and made available to all students, including those who were unable to attend.

Students may check in to zoom classes using their phones or any other device of their choosing. To prevent unwelcome visitors from entering and disturbing Zoom sessions, instructors were encouraged to utilize the "waiting room" feature. These sessions were planned concurrently with the in-person class time. The "chat" and "screen sharing" aspects of Zoom can boost student participation and engagement in online learning activities. During synchronous learning via zoom, instructors may utilize PowerPoint and the "screen sharing" function of Zoom. The majority of students have access to audio and video (webcam) features, students are unwilling to keep the video "on" capability enabled during Zoom live sessions.

Many Palestinian students lacked a laptop or desktop computer when instruction moved online. According to the Palestinian Central Bureau of Statistics, just 33.2% of homes have a computer (desktop, laptop, tablet) in 2019, whereas 72.3% of individuals over the age of 18 use the Internet (Palestinian Central Bureau of Statistics [PCBS], 2021). For public teaching, live sessions, images, and large text downloads demand a high bandwidth. In addition, siblings have to usually share the available device, and they may not have their own room. According to PCBs, the average number of rooms in a house in 2019 is 3.6, with an average of 1.4 people per room (PCBS, 2021).

Universities utilize Moodle for asynchronous mode in addition to synchronous mode. Consequently, students can connect with their peers and professors and upload their assignments from any location.

Conceptual Framework & Literature Review

Motivation and learning cannot be separated since they influence one another (Lumbantobing, 2020). Kholifah, *et al*. (2020) defined motivation as "the goals people choose to pursue and the degree to which they pursue them actively or intensely" (p. 4). According to Lumbantobing (2020), learning is a generally permanent change in behavior that may occur as a result of practice or reinforcement based on the desire to attain specified goals.

Literature demonstrated the need to characterize motivation as intrinsic and extrinsic in order to comprehend the notion of motivation (Meşe & Sevilen, 2021). Intrinsic motivation entails voluntarily engaging in pleasurable tasks that offer novelty and ideal difficulty. Intrinsically driven actions are those conducted solely for the enjoyment of the activity itself (Keller, 2008). In contrast, extrinsically driven activities are completed for the rewards that result from the action, and not necessarily for the enjoyment of doing the activity itself (Keller, 2010).

The motivation model (ARCS-V model) was developed to investigate what variables encourage people to learn and to find tactics and strategies that influence learning motivation (Keller, 1987). The ARCS-V model was chosen for this research due to its simplicity and orderly flow of instructional processes, both of which can be applied to the design of zoom meetings lectures. In addition, this research acknowledges that student motivation is a crucial influence in student perseverance in attending zoom lectures. To further comprehend the ARCS-V paradigm, it is necessary to examine each category (Li & Keller, 2018).

Attention encompasses study pertaining to curiosity and arousal, interest, boredom, and other related topics such as sensation seeking. (Keller, 2016). Strategies for gaining attention during zoom include including communication tools, such as chat boxes in online classes, technical tools, or gamification, such as using Khahoot to create fun and excitement to the meeting (Li & Keller, 2018). Utilize a virtual whiteboard and interactive pads to construct a collaborative thought process (Rivera, *et al*. 2021), uti-

lize breakout rooms, catch their attention with online surveys, and use interactive videos to provide feedback or spark debates. Studies indicate that. Using the same sequence of events throughout a course can be uninspiring and monotonous, and teachers risk students tuning out or putting minimal effort in class (Turel & Sanal, 2018).

The second category guarantees that the student perceives the learning experience to be personally meaningful (Keller, 2010). Relevance for online learning and synchronous meetings in terms of knowing why students need to study the knowledge and attend zoom classes is crucial for student motivation. Students will be more motivated to attend lessons if they comprehend the significance of synchronous encounters. Instructors can tie course material to real-world and work-related situations, allowing students to comprehend how the curriculum will benefit them now and in the future. According to Keller (2010), instructors can also establish a pleasant and engaging online environment by addressing students by their first names and encouraging them to share instances of how the course material is relevant to their current surroundings.

The third element, confidence, refers to the consequences of positive expectations for achievement, experiences of success, and attributing triumphs to one's abilities and efforts rather than to luck or to too easy or demanding task challenge levels (Keller, 2016). Even if students believe the material is pertinent and are eager to learn it, they may not be suitably motivated due to insufficient or excessive confidence or success expectations. They may have ingrained anxieties about the topic, ability, or circumstance that impede them from learning efficiently (Keller, 2010). In these circumstances, teachers must construct the learning materials and environment, as well as their own behavior, such that students are satisfied they can master the material and achieve genuine accomplishment on an assignment. Confidence in a virtual classroom is a difficult topic that involves addressing expectations in each zoom meeting and constructing an asynchronous environment in which concepts are scaffolded.

Students will be motivated to learn if teachers meet the first three motivating objectives (attention, relevance, and confidence). Next, students

must have sentiments of pleasure with the method or outcomes of the learning experience in order to retain a desire to learn. Extrinsic and intrinsic variables can both result in happiness. Extrinsic variables are well-known to humans (Li & Keller, 2018). They include grades, advancement prospects, certificates, and other tangible prizes. Although intrinsic aspects are often neglected, they can also be persuasive. People like accomplishments that boost their emotions of self-worth, positive relationships with others, having their opinions heard and respected, and overcoming obstacles that boost their feelings of competence (Keller, 2010).

There are techniques instructors can use to increase learner satisfaction, such as permitting students to demonstrate how new knowledge has helped them (Keller, 2010), activating discussion boards and chat boxes, and giving students time to reflect on their learning. Bawa (2016) asserts that positive acknowledgment and feedback increase student satisfaction. Students value being recognized for their diligence and academic performance, and they are treated fairly and equally (Keller, 2010).

According to Keller (2016), highly driven pupils will persevere until they achieved their objective. Those who were not as strongly motivated, on the other hand, would postpone or give up even if the eventual objective was vital to them. A fifth category was established to describe the disparities between these students and to offer a foundation for motivational support actions (Keller 2008; Keller, 2016). It was referred to as volition, and it included variables and methods associated with persistence.

Multiple research demonstrate that student motivation is the most important factor in determining academic achievement (Martn-Somer, *et al*. 2021). According to a study conducted by Wang, Shannon, and Ross (2013), students with a higher degree of motivation had a higher level of course satisfaction, which contributed to higher academic achievement.

Other research have investigated the association between mobile technology and higher education parameters. Using AMOS 18, Aburub and Alnawas (2019) created a structural equation model to examine the factors influencing mobile technology use in higher education. The data demonstrated that perceived utility had the greatest impact on attitudes toward

mobile technology integration. Using the Unified Theory of Acceptance and Use of Technology, Abu-Al-Aish and Love (2013) built a model to investigate the interactions between the factors (UTAUT). Authors noted that quality of service, individual inventiveness, usability, and instructor influence were major variables influencing mobile technology integration.

Maphosa (2021) conducted a research to analyse the perspectives of university students regarding the deployment of e-learning during COVID-19 and the factors that influenced utilization. The quantitative research was guided by an adapted version of the Unified Theory of Acceptance and Use of Technology paradigm. The study indicated that Moodle adoption rates are higher when students believe that its use will enhance their performance while requiring less effort. Consequently, the student's Moodle usage was influenced by variables such as access to devices, lack of assistance, low efficacy, high data costs, and lecturer feedback, among others. The facilitating conditions were also important predictors of the student's inclination to use Moodle.

Many individual and institutional factors influenced learners' motivation to use online learning in higher education, according to the findings of prior research. However, this research did not examine the intricate interrelationships between the variables (direct, indirect, and total effects). The majority of these research collected data using pre-existing instruments, but the present study built an instrument based on students' perspectives. Moreover, the conclusions of prior studies in higher education were based on instructors' opinions rather than students' perspectives.

Cheung (2021) presented a case study of an English as a Second Language (ESL) instructor in Hong Kong who taught via Zoom during the COVID-19 outbreak. The research found that the teacher's educational ideas, context, and professional growth influence technology integration in her Zoom classes. Although there were less interactions between the teacher and her students in the synchronous online model, the teacher was able to use certain online characteristics to enhance student comprehension, according to the findings.

Meşe and Sevilen (2021) conducted a qualitative case study to investigate students' perceptions of online instruction and how it influences their motivation over the course of seven weeks. The data was acquired via semi-structured interviews and samples of creative writing from 12 students in a single classroom. Both interviews and creative writing assignments highlighted the learners' motivating trajectories. Internal and external causes appeared as the two most prominent topics. Internal elements included course satisfaction, self-determination, and the desire for socializing as subthemes. External influences included subthemes on instructors, students, their distance learning situation, and the arrangement of online courses. The qualitative findings revealed that students believe online education negatively impacts their motivation because of a lack of social connection, a mismatch between expectations and information, organizational issues, and the organization of learning settings.

Serhan (2020) examined students' views on the use of Zoom in remote learning and their perceptions of its effects on their learning and engagement in comparison to face-to-face learning. According to the findings, students had a negative perception of Zoom and its impact on their learning experience and motivation to learn. Students identified flexibility as the primary benefit of using Zoom for education. Numerous variables may have influenced the findings of this study, including the teachers' preparedness for the abrupt shift that necessitated the use of a new platform and the development of alternative activities and delivery methods. In addition, some customers encountered technical and unanticipated obstacles when utilizing the new platform, including as internet access issues and Zoom attacks.

Bao (2020) identified five principles of high-impact teaching practice for efficiently delivering online education on a big scale. The principles of online education are as follows: (a) appropriate relevance between online instructional design and student learning; (b) effective delivery of online instructional information; (c) adequate support by faculty and teaching assistants to students, including timely feedback, tutoring, and email guidance after class; (d) high-quality participation to improve the breadth and

depth of student learning; and (e) contingency plan to deal with unanticipated incidents of online education (Bao, 2020).

Wang, Shannon, and Ross (2013) proposed some practical considerations to enhance student etiquette and professional conduct in virtual classroom formats, such as Zoom. Some of these factors involved providing clear directions for online remote/distance learning classes, such as turning on their computer cameras, utilizing the hand tools, conversing, unmuting their microphones, and responding to or asking questions during the synchronous lectures.

Challenges students face in zoom and online learning:

Due to environmental and situation-specific limitations, students may encounter a number of obstacles when attempting to participate in distant learning through zoom classrooms, diminishing their ability to focus on the subject and actively engage in meaningful discussions (Neuwirth, Jović & Mukherji, 2020)

Access to computers/laptops and consistent Internet access is the most significant challenge or obstacle for students transitioning to online education. Many students do not have stable Internet connectivity with sufficient bandwidth to handle numerous users, as they all work from home and require Internet access simultaneously (Neuwirth, Jović & Mukherji, 2020; Abu-Al-Aish, 2021). For a variety of reasons, many students only have cell phones and either do not own or share access to any other digital device (Neuwirth, Jović & Mukherji, 2020; Abu-Al-Aish, 2021).

Even when students are technologically savvy, the extra demands the pandemic has placed on them make it difficult for them to keep their usual class schedule. Some of the challenges students face and have expressed are as follows: at-home child/parent care, teaching their children full-time schoolwork while juggling other responsibilities, abrupt changes or alterations in work schedules, and in some cases, loss of employment by themselves or other family members upon whom the students depended for financial support (Neuwirth, Jović & Mukherji, 2020).

Some of the challenges faced by students may not be limited to the lack of a private/quiet area in their home, but also to the inability to have someone else supervise their child/parent and the proximity to other household members, which causes distractions. (Neuwirth, Jović & Mukherji, 2020).

Participation in the virtual class is restricted to the student's bedroom. They are concerned about their socioeconomic standing and do not want others to criticize them on the basis of their living situations. In addition, students may have privacy concerns that prevent them from turning on their computer cams because they do not want others to see them or their living surroundings. These elements are worsened by underlying disparities and inequities in resources (Neuwirth, Jović & Mukherji, 2020).

Methodology

A descriptive analytical method was used to elevate to the study and its questions, which was quantitative approach. A questionnaire was used to obtain data on the attitudes and perceptions of students regarding the factors that influence attendance in online learning sessions.

Construction of the questionnaire

This study required the development of a questionnaire, which consists of two sections. The first section focuses on socio-demographic factors of respondents (background characteristics). These variables include gender, residence, education level, GPA, the availability of a private space to attend zoom lectures, the quality of electricity and Internet in students' houses, and the availability of a private space to attend zoom lectures. The second half of the questionnaire consists of 26 items assessed on a 5-point Likert scale from 1 to 5 to determine the level of motivation for each item.

The researchers developed the study tool by making use of previous studies and extensive discussions with undergraduate students regarding what motivates them to attend zoom lectures. As a result of these conversations and previous literature reviews, a pool of 95 items was constructed. The list was emailed to 21 education specialists (reviewers). It was requested to assign a number from 1 to 5 to each statement indicating the

extent to which the statement quantifies their motivation to attend zoom lectures. The correlation between each statement (item) and the total number of items was then determined. Each item having a correlation below 0.60 was eliminated. This was the initial filtering of the items in the pool. We calculated the lower quartile Q1 and the higher quartile Q3 for the judges' scores on each remaining item. Then we used t-test between the lower and upper quartile scores for each item. Each indistinguishable item was eliminated from the pool. This was the second filtering, which resulted in 26 items.

Research population and sample

Using a simple random sampling technique, 585 people (154 men and 431 females) were recruited to complete the questionnaire. The participants were undergraduates from two universities located to the north of the West Bank. The demographic and background characteristics of the participants are displayed in Table 1.

Table (1): The Demographic and Background Characteristics of the Participants.

	Characteristics	n	%
Gender	Male	154	26.32
	Female	431	73.67
Place of living	Village	298	50.94
	Refugee Camp	17	2.90
	City	270	46.15
Marital status	Single	554	94.70
	Married	31	5.29
Faculty	Faculty of Agriculture and Veterinary Medicine	11	18.80
	Faculty of Economics and Social Sciences	60	10.25
	Faculty of Educational Sciences and Teachers' Training	41	7.00

Continue table (1)

	Characteristics	n	%
	Faculty of Engineering and Information Technology	180	30.76
	Faculty of Fine Arts	21	3.58
	Faculty of Humanities	24	4.10
	Faculty of Islamic Law	45	7.69
	Faculty of Medicine and Health Sciences	108	18.46
	Faculty of Science	95	16.23
Year Classifications	First Year	185	31.62
	Second Year	141	24.41
	Third Year	197	33.67
	Fourth Year	34	5.81
	Fifth-year and above	28	4.78

Data collection

Google Forms was used to electronically transmit the questionnaire. The link to the form was distributed to students via multiple avenues, including instructors, social media, and the Learning Management System (Moodle), and students were invited to forward it to their friends and colleagues from both universities. The researchers used Exploratory Factor Analysis (EFA) to study the structure of motivation as an underlying variable in order to classify questionnaire items into domains. The EFA results grouped the domains into four dimensions. These factors are "Instructional and Pedagogical Practices", "Synchronous Classroom Management", "Technology Characteristics", and "Continuity" to attend Zoom lectures post-pandemic, as indicated in Table 2.

Table (2): Representation of each Construct and Loading Factor.

Dimension	Items	Loading factor				Variance %
Instructional and pedagogical practices	I ensure to attend classes for challenging subjects more than attending the others because it is hard to study them independently.	0.392				%48
	Giving me the freedom to open the camera during the electronic lecture increases my motivation to attend the lecture.	0.357				
	The clarity of the instructor's voice increases my motivation to attend the electronic lecture.	0.766				
	Allowing the instructor to ask questions and participate during the lecture increases my motivation to attend the electronic lecture.	0.584				
	Linking the instructor, the lecture content to real-life increases my motivation to attend the electronic lecture	0.696				

...continue table (2)

Dimension	Items	Loading factor				Variance %
	Variation in presenting the content like (short videos, PowerPoint, short recorded lectures ...increases my motivation to attend electronic lectures	0.591				
	The clarity of the writing and the presented material increased my motivation to attend electronic lectures.	0.781				
	My good relationship with the instructor, characterized by mutual respect and appreciation, increases my motivation to attend electronic lectures.	0.767				
	Short lectures and short length of explanation increase my motivation to attend electronic lectures.	0.656				
	The instructor's exciting style, characterized by simplicity, fun, and far from stasis and formality, increases my motivation to attend electronic lectures.	0.836				

...continue table (2)

Dimension	Items	Loading factor				Variance %
	The instructor's mastery of technology skills (dealing with Zoom, Moodle, various presentation programs) increases my motivation to attend electronic lectures.	0.77				
	The instructor's good management skills increase my motivation to attend the electronic lecture.	0.826				
Synchronous classroom management	Monitoring attendance and absence during the electronic lecture increases my motivation to attend		0.74			%8
	Assigning students tasks and duties directly related to the lecture material increases my motivation to attend the electronic lecture.		0.748			
	Asking random questions directed to students and giving quizzes during the lecture increases my motivation to attend the electronic lecture.		0.828			

...continue table (2)

Dimension	**Items**	**Loading factor**				**Variance %**
	Allocating grades on the lecture attendance increase my motivation to attend electronic lectures.		0.704			
	Engaging students through mentioning their names during the lecture increases my motivation to attend the electronic lecture.		0.715			
	The lack of clarity of the electronic assessment methods reduces my motivation to attend electronic lectures.		0.553			
Technology characteristics	Using the waiting room feature in the lecture reduces my motivation to attend the electronic lecture.			0.556		%6
	Easy material, which I can follow and study independently, reduces my motivation to attend electronic lectures.			0.745		
	Early morning lectures (8-10 am) reduce my motivation to attend electronic lectures.			0.657		

…continue table (2)

Dimension	Items	Loading factor				Variance %
	The availability of recorded lectures reduces my motivation to attend electronic lectures.			0.739		
	E-learning meets my electronic needs and desires, which increases my motivation to attend electronic lectures.			0.633		
Continuity	The university should offer electronic courses in typical situations (post-pandemic).				0.879	%5
	The university should offer blended courses (face + electronic) in typical situations after the pandemic.				0.822	
	Turning the instructor's camera during the lectures increases my motivation to attend electronic lectures.				0.861	

Instructional and pedagogical practices factor comprise 12 items, which explains 48 percent of the variance with loading factor ranging from 0.357 to 0.836. Factor loading is significant when sample size exceeds 300 (Stevens, 2002). Synchronous classroom management factor comprises 6 items, which explains 8 percent of the variance with loading factor ranging from 0.553 to 0.828.

The technology characteristics factor comprises 5 items which explain 6% of the variance with loading factor varies from 0.556 to 0.745. Continuity factor comprises 3 items which explain 5% of the variance with loading factor varies from 0.822 to 0.879.

Data analysis

To summarize and test the data collected for this survey, descriptive statistics, inferential statistics, and multiple regression were used in the Statistical Package for the Social Sciences (SPSS). The researchers, for example, employed descriptive analysis to describe the sample statistics in the study, as well as inferential statistics to determine the motivation levels in the study's population. Multiple regression was used to identify the variables that influenced motivation.

Results

Using a single metric, the amount of motivation for each dimension and the total was determined. Sample t-test analysis, comparing the mean M for the dimension to the standard values (4,2 are extremely high, 3,4 are high, 2,6 are moderate, and 1 are extremely low) as given in table 3.

Table (3): Levels of students' motivation to attend Zoom lectures during a crisis.

	M	Test Value		4.2		3.4		2.6		1.8	
		S.D	df	T	p	t	P	T	p	t	p
Instructional and pedagogical practices	4.21	0.74	583	0.49	0.63						
Synchronous classroom management	3.30	1.13	583	-19.28	0.00	-2.12	0.03	15.05	0.00		
Technology characteristic	2.45	0.91	583	-46.22	0.00	-25.04	0.00	-3.85	0.00	17.33	0.00
Continuity	3.12	1.21	583	-21.63	0.00	-5.65	0.00	10.33	0.00		
Total	3.51	0.53	583	-31.10	0.00	5.17	0.00				

Students' motivation in general (total dimensions) was initially tested against a very high level of 4.2 (M=3.51, SD=0.53), which indicated that

the motivation level is less than 4.2 with a value of t= -31.1, p = 0.00. It was then tested against a high level of 3.4, which indicated more than 3.4 with a value of t=5.17, p = 0.00. This indicates that students' motivation (total) to attend zoom lectures is high, as illustrated in Table 3.

Similarly, the motivation level for instructional and pedagogical practices (Dim 1) is extremely high (M=4.21 SD=0.74 t=0.49, p= 0.63). The most important item in instruction and pedagogical practices was the instructors' characteristics related to style, fun, humor, and familiarity (easy to get along with) as required characteristics for students motivation to attend Zoom lectures.

The test results for Synchronous classroom management (Dim 2) are moderate (M=3.30, SD=1.13), as described in the discussion of the total motivation dimension. Digital interactivity among students-students, students-instructor, and students-content through questions and using the platform's features such as polls, plays a crucial role in motivating students to attend zoom lectures.

The test results related to technology characteristics (Dim 3) are low (M=2.45; SD=0.91), as discussed in the discussion of the total motivation dimension. Using technology that meets students' needs and desires could increase their motivation to attend online classes, whereas recording synchronous sessions, having easy material, and early morning classes demotivate students to attend zoom lectures.

The test results for continuity (Dim4) are moderate (M=3.12, SD=1.21), and it is evident that students prefer to continue with online courses or blended learning. Moreover, turning the lecturer's camera on during lectures positively affects their motivation and increases their intent to continue online learning.

Factors affect students' motivation to attend online lectures

Stepwise regression was conducted to help identify factors that affect students' motivation to attend Zoom lectures. Stepwise regression is essentially a number of iterations of multiple regression, removing the variable

with the weakest correlation. In the end, the remaining variables best explain the trait.

Table (4): Multiple regression of factors affecting motivation of undergraduate students to attend online classes.

Model	B	S.E	β	T	p	R^2	Df	F	P
(Constant)	3.987	0.057		69.765	0.000	0.119	1, 581	78.392	0.000
Family support during online classes	0.278	0.031	0.345	8.854	0.000				
(Constant)	4.232	0.073		57.973	0.000	0.158	2, 581	54.545	0.000
Family support during online classes	0.231	0.032	0.286	7.201	0.000				
Internet quality during online classes	0.171	0.033	0.207	5.212	0.000				
(Constant)	4.130	0.085		48.804	0.000	0.168	3, 581	38.522	0.000
Family support during online classes	0.226	0.032	0.280	7.063	0.000				
Internet quality during online classes	0.180	0.033	0.217	5.460	0.000				
I attend online classes from home	0.096	0.041	0.090	2.368	0.018				

A multiple linear stepwise regression was performed to predict students' motivation to attend Zoom classes based on their family support, Internet quality, university, college, students' Academic level, GPA, place of attending zoom lectures, and sex. A significant regression equation was found (F=38.522, P=0.000) with R^2 of 0.168. Students predicted the equation gives motivation:

Y= 4.13 + 0.226 × (Family support) + 0.18 × (Internet quality) + 0.096 × (location of attending), where all predictors' levels are coded monotonically.

Factors affecting continuity to attend zoom classes after a crisis

A multiple linear stepwise regression was performed to predict students' motivation to continue attending online lectures based on their family support, Internet quality, location of attending online classes, university, college, academic year, GPA, and gender. A significant regression

equation was found (F = 18.558, P=0.00) with R^2 of 0.139. Students predicted motivation to continue attending zoom lectures is given by the equation:

Y= 3.463 + 0.332 × (family support) + 0.368 × (Internet quality) + 0.15 × (academic year) + 0.341 × (location of attending zoom classes) + 0.109 × (GPA), where all predictors' levels are coded monotonically. Table 5 explains these results.

Table (5): Multiple Regression of Factors Affecting Student's Attention to Continue Attending Online Classes after Crisis.

	Model	b	S.E	β	t	p	R^2	Df	F	P
1	(Constant)	3.856	0.135		28.638	0.000	0.056	1, 582	34.599	0.000
	Family support during online classes	0.435	0.074	0.237	5.882	0.000				
2	(Constant)	4.327	0.173		24.969	0.000	0.084	2, 582	26.746	0.000
	Family support during online classes	0.344	0.076	0.187	4.522	0.000				
	Internet quality during online classes	0.330	0.078	0.175	4.229	0.000				
3	(Constant)	3.999	0.188		21.229	0.000	0.111	2, 582	24.020	0.000
	Family support during online classes	0.345	0.075	0.188	4.604	0.000				
	Internet quality during online classes	0.338	0.077	0.179	4.388	0.000				
	Students' Academic level	0.195	0.047	0.162	4.133	0.000				
4	(Constant)	3.651	0.209		17.489	0.000	0.131	4, 582	21.837	0.000
	Family support during online classes	0.328	0.074	0.178	4.404	0.000				
	Internet quality during online classes	0.368	0.077	0.196	4.808	0.000				
	Students' Academic level	0.180	0.047	0.149	3.836	0.000				
	Place of attending online classes	0.351	0.095	0.145	3.702	0.000				

... continue table (5)

	Model	b	S.E	β	t	p	R2	Df	F	P
5	(Constant)	3.463	0.225		15.392	0.000	0.139	5, 582	18.558	0.000
	Family support during online classes	0.332	0.074	0.181	4.480	0.000				
	Assessing Internet during online classes	0.368	0.076	0.196	4.827	0.000				
	Students' academic level	0.150	0.049	0.124	3.080	0.002				
	Place of attending online classes	0.341	0.094	0.141	3.605	0.000				
GPA		0.109	0.050	0.089	2.205	0.028				

Discussion

The purpose of this study was to investigate the factors affecting students' motivation to attend online lectures and the intention to continue attending these online lectures. Numerous studies supported the value of online lectures in times of crisis for maintaining contact and providing support for students (Khlaif, *et al*. 2022; Martin & Bolliger, 2018).

The study's findings showed that a number of variables, including family support, the quality of the Internet, and the location of the online lecture venue, might influence students' enthusiasm to attend online lectures. According to the regression table, family support had the greatest impact on students' motivation to participate in online lectures, supporting Park and Choi's findings (2009). According to a study, it's critical for adults to have their families' support when taking online programs. Suliman, *et al*. (2021) also stressed the value of family support for undergraduate nursing students in helping them get through the challenges they face during online courses. Another study discovered that students in online courses had inadequate family support, which had a detrimental effect on the students (Kaden, 2020).

Additionally, the second aspect that affects motivation is Internet quality because a good connection encourages students to participate in online

learning activities (Keskin & Yurdugül, 2019). Internet accessibility improves students' online participation and their capacity for interaction with classmates, instructors, and online materials (Dumford & Miller, 2018). Additionally, pupils are more satisfied and see learning as being more advanced because to the great quality of the internet (Alqurashi, 2019).

One of the elements influencing students' willingness to participate in online classes is the ability to learn from home, which is consistent with earlier research that suggested that students may be able to save time and effort by attending online classes (Owusu-Fordjour, Koomson, & Hanson, 2020). Additionally, students find it convenient to attend lectures at home as a substitute for them when a problem occurs (Fatonia, *et al*. 2020; Irawan, Dwisona, & Lestari, 2020).

However, since we employed stepwise multiple regression and omitted any component, the dependent variable—which measures incentive to attend online lectures—is unaffected by other factors including university, college, academic year, GPA, and gender (Field, 2011).

The results of this study showed that students' intentions to continue attending online courses are strongly influenced by family support. Previous research highlighted the value of many types of support, including assistance from family and coworkers.

According to Li, *et al*. (2020), instructors using blended synchronous learning should hone their instructional skills to match this learning style and make an effort to strike a balance between in-person and online learning. Individual qualities like self-efficacy for online learning are another factor that can motivate students to participate in online sessions, which is consistent with the findings of (Kwon, *et al*. 2019).

Conclusion

Our understanding of why students choose to participate in online courses in times of crisis is expanded by the study's findings. Additionally, a number of factors may have an impact on students' decision to keep attending online lectures. Due to this study's limitations, which include the fact that it is only based on data from two universities, it is crucial to carry

out additional research involving more universities and to create a model to determine the relationship between motivation and consistency for attending online lectures.

References

- Abu-Al-Aish, A. & Love, S. (2013). Factors Influencing Students' Acceptance of M-Learning: An Investigation in Higher Education. *International Review of Research in Open and Distributed Learning*, 14(5), 82–107. https://doi.org/10.19173/irrodl.v14i5.1631
- Abu-Al-Aish, A. (2021). Using E-learning System in Jordanian Universities during the COVID-19 Pandemic: Benefits and Challenges. *Computer and Information Science*, 14(3). 49-63: https://doi.org/10.5539/cis.v14n3p49.
- Affouneh, S. Salha, S. & Khlaif, Z. N. (2020). Designing quality e-learning environments for emergency remote teaching in coronavirus crisis. *Interdisciplinary Journal of Virtual Learning in Medical Sciences*, 11(2), 135-137.
- Aladsani, H. K. (2022). A narrative approach to university instructors' stories about promoting student engagement during COVID-19 emergency remote teaching in Saudi Arabia. *Journal of research on Technology in educaTion*, 54(sup1), S165-S181.
- Alqurashi, E. (2019). Predicting student satisfaction and perceived learning within online learning environments. *Distance Education*, 40(1), 133-148.
- Aburub, F. & Alnawas, I. (2019). A new integrated model to explore factors that influence the adoption of mobile learning in higher education: An empirical investigation. *Education and Information Technologies*, 24(3), 2145-2158.
- Al-Hashmi, S. (2021). A Study on the Impact of the Sudden Change to Online Education on the Motivation of Higher Education Students. *Higher Education Studies*, 11(3), pp. 78-89, URL: https://doi.org/10.5539/hes.v11n3p78.

- Bao, W. (2020). COVID-19 and online teaching in higher education: A case study of Peking University. *Hum Behav & Emerg Tech*, 2:113–115. https://doi.org/10.1002/hbe2.191.
- Bawa, P. (2016). Retention in online courses: Exploring issues and solutions—A literature review. *Sage Open*, 6(1), 2158244015621777.
- Bordoloi, R. Das, P. & Das, K. (2021). Perception towards online/blended learning at the Covid-19 pandemic: academic analytics in the Indian context. *Asian Association of Open Universities Journal*, 16(1), 41-60 https://www.emerald.com/insight/2414-6994.htm.
- Cahapay, M. B. (2020). Rethinking education in the new normal post-COVID-19 era: A curriculum studies perspective. *Academia*, 4(2), ep20018.
- Cheung, A. (2021). Integrating e-learning into process writing: The case of a primary school in Hong Kong. *Innovative approaches in teaching English writing to Chinese speakers*, 19-42.
- Chou, H. L. & Chou, C. (2021). A multigroup analysis of factors underlying teachers' technostress and their continuance intention toward online teaching. *Computers & Education*, *175*, 104335.
- Dumford, A. D. & Miller, A. L. (2018). Online learning in higher education: exploring advantages and disadvantages for engagement. *Journal of Computing in Higher Education*, *30*(3), 452-465.
- Esra, M. E. Ş. E. & Sevilen, Ç. (2021). Factors influencing EFL students' motivation in online learning: A qualitative case study. *Journal of Educational Technology and Online Learning*, *4*(1), 11-22.
- Fatonia, N. A. Nurkhayatic, E. Nurdiawatid, E. Fidziahe, G. P. Adhag, S. Irawanh, A. P. ... & Azizik, E. (2020). University students online learning system during Covid-19 pandemic: Advantages, constraints and solutions. *Systematic reviews in pharmacy*, *11*(7), 570-576.
- Hodges, C. B. Moore, S. Lockee, B. B. Trust, T. & Bond, M. A. (2020). The difference between emergency remote teaching and online learning. Educuse, USA. Retrieved from: facdev-article.pdf (vt.edu)

- Irawan, A. W. Dwisona, D. & Lestari, M. (2020). Psychological impacts of students on online learning during the pandemic COVID-19. *KONSELI: Jurnal Bimbingan dan Konseling (E-Journal), 7*(1), 53-60.
- Islam, M. Kim, D.-A. & Kwon, M. (2020). A Comparison of Two Forms of Instruction: Pre-Recorded Video Lectures vs. Live ZOOM Lectures for Education in the Business Management Field. *Sustainability*, 12(19), 8149; doi:10.3390/su12198149.
- Ismaili, Y. (2021). Evaluation of students' attitude toward distance learning during the pandemic (Covid-19): a case study of ELTE University. *On the Horizon*, 29(1). 17-30. DOI 10.1108/OTH-09-2020-0032.
- Kaden, U. (2020). COVID-19 school closure-related changes to the professional life of a K–12 teacher. *Education sciences*, *10*(6), 165.
- Keller, J. M. (2008). An integrative theory of motivation, volition, and performance. *Technology, Instruction, Cognition, and Learning* 6(2), 79-104.
- Keskin, S. & Yurdugül, H. (2019). Factors Affecting Students' Preferences for Online and Blended Learning: Motivational vs. Cognitive. *European Journal of Open, Distance and E-Learning*, 22(2), 71-85.
- Keller, J. M. (2010). *Motivational design for learning and performance: the ARCS model approach*. Springer Science & Business Media, USA.
- Keller, J. M. (2016). Motivation, Learning, and Technology: Applying the ARCS-V Motivation Model. *Participatory Educational Research (PER),* 3(2), 1-13, http://dx.doi.org/10.17275/per.16.06.3.2.
- Kim, S. S. (2021). Motivators and concerns for real-time online classes: focused on the security and privacy issues. *Interactive Learning Environments*, 1-14.

- Khlaif, Z. N. Sanmugam, M. Joma, A. I. Odeh, A. & Barham, K. (2022). Factors influencing teacher's technostress experienced in using emerging technology: A qualitative study. *Technology, Knowledge and Learning*, 1-35.
- Khan, Z. R. Sivasubramaniam, S. Anand, P. & Hysaj, A. (2021). 'e'-thinking teaching and assessment to uphold academic integrity: lessons learned from emergency distance learning. *International Journal for Educational Integrity*, 17(1), 1-27.
- Khlaif, Z. Nadiruzzaman, H. & Kwon, K. (2017). Types of Interaction in Online Discussion Forums: A Case Study. *Journal of Educational. 3*(1), 155-169.
- Kholifah, N. Sudira, P. Rachmadtullah, R. Nurtanto, M. & Suyitno, S. (2020). The Effectiveness of Using Blended Learning Models against Vocational Education Student Learning Motivation. *International Journal of Advanced Trends in Computer Science and Engineering*, 9(5), 7964-7969.
- Kwon, K. Ottenbreit-Leftwich, A. T. Sari, A. R. Khlaif, Z. Zhu, M. Nadir, H. & Gok, F. (2019). Teachers' self-efficacy matters: Exploring the integration of mobile computing device in middle schools. *TechTrends*, *63*(6), 682-692.
- Li, K. & Keller, J. M. (2018). Use of the ARCS model in education: A literature review. *Computers & Education*, *122*, 54-62.
- Li, X. Yang, Y. Chu, S. K. W. Zainuddin, Z. & Zhang, Y. (2022). Applying blended synchronous teaching and learning for flexible learning in higher education: an action research study at a university in Hong Kong. *Asia Pacific Journal of Education*, *42*(2), 211-227 https://doi.org/10.1080/02188791.2020.1766417.
- Lumbantobing, P. A. (2020). The Contribution of Lecturer Pedagogical Competence, Intellectual Intelligence and Self-Efficacy of Student Learning Motivation. *Budapest International Research and Critics in Linguistics and Education (BirLE) Journal*, *3*(1), 564-573.

- Maphosa, V. (2021). Factors Influencing Student's Perceptions Towards E-Learning Adoption During COVID-19 Pandemic: A Developing Country Context. *European Journal of Interactive Multimedia and Education*, 2(2), e02109. https://doi.org/10.30935/ejimed/11000
- Martin, F. & Bolliger, D. U. (2018). Engagement matters: Student perceptions on the importance of engagement strategies in the online learning environment. *Online Learning*, *22*(1), 205-22.
- Martín-Somer, M. Moreira, J. & Casado, C. (2021). Use of Kahoot! to keep students' motivation during online classes in the lockdown period caused by Covid 19. *Education for Chemical Engineers,* 36 154-159.
- Meşe, E. & Sevilen, Ç. (2021). Factors influencing EFL students' motivation in online learning: A qualitative case study. *Journal of Educational Technology & Online Learning*, 4(1), 11-22.
- Mishra, L. Gupta, T. & Shree, A. (2020). Online teaching-learning in higher education during lockdown period of COVID-19 pandemic. *International Journal of Educational Research Open*, https://doi.org/10.1016/j.ijedro.2020.100012.
- Mpungose, C. B. (2021). Students' Reflections on the Zoom Video Conferencing Technology for Online Learning at a South African University. *International Journal of African Higher Education*, 8(1), 159-178.
- Neuwirth, L. S. Jović, S. & Mukherji, B. R. (2021). Reimagining higher education during and post-COVID-19: Challenges and opportunities. *Journal of Adult and Continuing Education*, *27*(2), 141-156. https://doi.org/1477971420947738.
- Owusu-Fordjour, C. Koomson, C. K. & Hanson, D. (2020). The impact of Covid-19 on learning-the perspective of the Ghanaian student. *European Journal of Education Studies*.
- Pacheco, J. A. (2021). The "new normal" in education. *Prospects*, *51*(1), 3-14. DOI:10.1007/s11125-020-09521-x

- Palestinian Central Bureau of Statistics [PCBS]. (2021, August 1st). *Indicators*. Retrieved from Palestinian Central Bureau of Statistics: https://www.pcbs.gov.ps/site/881/default.aspx
- Park, J. H. & Choi, H. J. (2009). Factors influencing adult learners' decision to drop out or persist in online learning. *Journal of Educational Technology & Society*, *12*(4), 207-217.
- Perets, E. A. Chabeda, D. Gong, A. Z. Huang, X. Fung, T. S. Ng, K. Y., . . . Yan, E. C. (2020). Impact of the Emergency Transition to Remote Teaching on Student Engagement in a Non-STEM Undergraduate Chemistry Course in the Time of COVID-19. *Journal of Chemical Education*, 97, 2439-2447.
- Rivera, R. Smart, J. Sakaria, S. Wray, A. Wiechmann, W. Boysen-Osborn, M. & Toohey, S. (2021). Planning Engaging, Remote, Synchronous Didactics in the COVID-19 Pandemic Era. *JMIR Med Educ*, 7(2). e25213 https://doi.org/10.2196/25213.
- Serhan, D. (2020). Transitioning from face-to-face to remote learning: Students' attitudes and perceptions of using Zoom during COVID-19 pandemic. *International Journal of Technology in Education and Science*, *4*(4), 335-342.
- Sharp, E. A. Norman, M. K. Spagnoletti, C. L. & Miller, B. G. (2021). Optimizing Synchronous Online Teaching Sessions: A Guide to the "New Normal" in Medical Education. *Academic Pediatrics*, 21(1), 11-15 https://doi.org/10.1016/j.acap.2020.11.009.
- Suliman, W. A. Abu-Moghli, F. A. Khalaf, I. Zumot, A. F. & Nabolsi, M. (2021). Experiences of nursing students under the unprecedented abrupt online learning format forced by the national curfew due to COVID-19: A qualitative research study. *Nurse education today*, *100*, 104829.
- Stevens, J. P. (2002). *Applied multivariate statistics for the social sciences* (4th ed.). Hillsdale, NJ: Erlbaum.

- Sunasee, R. (2020). Challenges of teaching organic chemistry during COVID-19 pandemic at a primarily undergraduate institution. *Journal of Chemical Education, 97*(9), 3176-3181. https://doi.org/10.1021/acs.jchemed.0c00542
- Turel, Y. K. & Sanal, S. O. (2018). The effects of an ARCS based e-book on student's achievement, motivation and anxiety. *Computers & Education, 127*, 130-140.
- UNESCO. (2020, March 13). COVID-19 educational disruption and response. Retrieved from https://en.unesco.org/covid19/educationresponse
- Yoo, D. K. & Roh, J. J. (2019). Adoption of e-books: a digital textbook perspective. *Journal of Computer Information Systems, 59*(2), 136-145.
- Wan Hassan, W. A. S. Ariffin, A. Ahmad, F. Sharberi, S. N. M. Nor Azizi, M. I. & Zulkiflee, S. N. (2020). Covid-19 pandemic: Langkawi vocational college student challenge in using google classroom for teaching and learning (t&l). *International Journal,* 9(3), 3299-3307.
- Wang, C. H. Shannon, D. M. & Ross, M. E. (2013). Students' characteristics, self-regulated learning, technology self-efficacy, and course outcomes in online learning. *Distance Education, 34*(3), 302-323.