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Assessing the Acceptance of Virtual Classes Among Arabic Language Student Teachers During and Beyond Covid-19

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Abstract: The aim was to investigate and assess the acceptance of virtual classes among Arabic language student teachers during and beyond covid-19. Quantitative research is carried out with the aim to assess the acceptance of virtual classes among Arabic language student teachers during and beyond covid-19. It uses a survey-based methodology to obtain data from the respondents. An online questionnaire was used to collect data via Facebook and WhatsApp groups. 450 questionnaire responses were received. They were 300 males (66.6%), and 150 females (33.4%). Results indicated that the student behavioral intention to use educational technology is positively affected by perceived usefulness, perceived ease of use. PU, PEOU yielded a coefficient of multiple regression (R) of 0. 450 and a multiple correlation square of 0. 435. This shows that 43.5% of the total variance in student behavioral intention to use educational technology is accounted for by the combination of PU, PEOU. Efforts to integrate educational technology into teacher education and Arabic language student teachers education programs are necessary.

Keywords: *Virtual Classes, Arabic Language Student Teachers, Acceptance, Covid-19.*

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Introduction

Our current era is witnessing a rapid development in various fields, especially the field of information and communication technology(Göktaş& Geçer,2014) , which is characterized by high speed, so that the uses of technology in many fields, including the field of teaching, learning and computerized assessment within higher education institutions, have multiplied (Apsorn, Sisan, & Tungkunanan, 2019; Gokdas & Aynur, 2014; Radianti et al., 2020; Uysal & Kerim, 2019).

It is important during the work of any academic organization to link its members and students with each other, and with this huge technological revolution of information that characterized our world(Gündoğan,2021;Suh and Prophet,2018) .This new world has been transformed into a small village. We become able to exchange, receive and send knowledge to millions of people with just a small step (Alpaslan, Ozgur, & Ridvan, 2021; Wang et al., 2018). That is, with a simple click on the computer. All sectors benefited from this technological progress, especially the education sector (Demirdag, 2016; Mallik & Lakshmi, 2017; Mason & Bacsich, 1998). Technology has have an important impact on the emergence of education (Yakar,2021) and the subsequent computerized evaluation (Kurtdede & Yıldırım,2022), which depends on the use of modern communication mechanisms such as computers, networks, multimedia, audio and video, and mechanisms, whether inside or outside the organization (Radianti et al., 2020)

Through this apparent development of technology and the use of computers in the educational process, it has been revealed that there are many proposed models for predicting the use of technology, including the Technology Acceptance Model (TAM) invented by Davis (Hussain et al., 2021). It is considered one of the most important models explaining the acceptance and benefit of technology, and is characterized by the introduction of external and behavioral factors in assessing the extent of technology acceptance and its flexibility to suit the conditions of academic educational organizations and providing a full description of the dimensions of acceptance of technological systems, taking into account the trends of learners (Alharbi & Drew, 2014). This model has four successive stages before trying to explain the acceptance of the technology, including the stage of external factors (user training), the stage of user perceptions affecting his attitudes towards the system, the user's attitude affecting the intentions of using the system, and the user's intentions determine the level of use (Arumugam, 2011)

In light of the spread of the Corona epidemic to most countries of the world, which forced all organizations, especially educational ones, to switch from face-to-face education to electronic learning (Altun, Salih, Ahmet, & Caner, 2021; Çoban& Yazıcı,2022 ;Dhawan, 2020; Taner, Akyıldız, Gülay& Özdemir,2021), as this virus imposed on about 1.5 billion children and young people the commitment to their homes and the closure of their schools, and the closure of higher education institutions in about 188 countries around the world (Basilaia & Kvavadze, 2020, Ulaş et al.,2021; Yazıcı et al.,2021), where educational institutions have been forced, in order to face this pandemic, to follow electronic educational means to break into the classroom and become a part of it (Sintema, 2020).

And in the current situation after the world shocked by the Corona virus and the widespread encouragement of the spread of Internet services for many educational organizations to adopt information and communication technology, integrating it with education, and focusing researchers on studying all relevant models for the success and acceptance of technology to issue the Technology Acceptance Model (TAM) three separate versions (Amiruddin, Dewi, & Widodo, 2021). The first version adopted by Davis in 2009, through which it was possible to explain the model acceptance factors, which are the expected benefit, ease of use, and the behavioral tendency to use, which is a major factor in determining the behavioral intention to use or refrain from technology, while the second version of the Technology Acceptance Model (TAM2) was modified and expanded (Alzubi, Al-Dubai, & Farea, 2018). By Venkach and Davis and adding new variables to the first version, such as social influence and useful cognitive processes, while the third version of the Technology Acceptance Model (ATM3), which goes back to Venkatesh & Bala, revealed the perceived benefit in the model, which included several factors such as personal criterion, social image, and functional relevance (Bhattacharyya, Verma & Sampath, 2020). Several key factors were added to the perceived ease of use variable, such as computer adequacy, control, computer anxiety, and ease of use. Topical experience was added as a factor influencing behavioral intention (Dewi & Kharisma, 2020).

Problem Statement

The world faces many challenges in the era of the massive and accelerating technological revolution, and this, in turn, is reflected in the education system, which is of great importance to all segments of society. Everyone believed that the educated individual is the basis of progress and advancement in a developed society, and it was necessary for educational

institutions to search for new ways to invest in these developments. Computer applications have entered the field of education, and technology has been invested in facilitating the process of teaching and learning in universities, and schools as an educational tool for years. The number of schools and universities connected to the Internet is increasing day by day. VCs are tools, techniques and software on the World Wide Web "The Internet" enables the teacher to publish lessons and objectives, set assignments and study tasks, and communicate with his students through multiple techniques. Reviewing literature, I found that the TAM model is widely applicable. However, the majority of studies come from western societies. Rare studies are found in the Arabic world.

The following question was posed, and the study seeks to answer

How acceptable is Virtual Classes as perceived by Arabic Language Student Teachers During and Beyond Covid-19?

Aims

The aim was to investigate and assess the acceptance of virtual classes among Arabic language student teachers during and beyond covid-19

Significance

This study could contribute to the literature on VCs. The study is concerned with assessing the acceptance of virtual classes among Arabic language student teachers during and beyond covid-19. This may provide guidelines for Prince Sattam bin Abdulaziz University, and other higher education universities in the kingdom to implement VCs effectively, hoping to facilitate students learning.

Hypotheses

The following hypotheses were tested

Hypothesis 1: There is a positive correlation between perceived usefulness, perceived ease of use and student behavioral intention to use educational technology.

Hypothesis 2: There are combined effects of perceived usefulness, perceived ease of use on student behavioral intention to use educational technology.

Hypothesis 3: Perceived usefulness and perceived ease of use contribute to student behavioral intention to use educational technology.

Hypothesis 4: Men and women will show no differences in their Acceptance of VCs.

Method

Quantitative research is carried out with the aim to assess the acceptance of virtual classes among Arabic language student teachers during and beyond covid-19. It uses a survey-based methodology to obtain data from the respondents.

Design

A survey method was used. The independent variables are PU, PEOU, while the dependent variable is student behavioral intention to use educational technology.

The research model then as follows

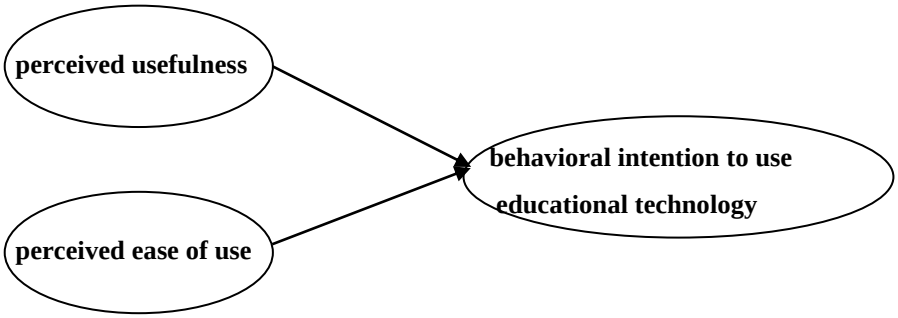


Figure 1. Research Model

Participants and procedure

Sample and data collection

Students from Prince Sattam bin Abdulaziz University were targeted. They all are from college of education. They follow Arabic Literature, Educational and psychological courses as undergraduate programs . All were from Prince Sattam bin Abdulaziz University. An online questionnaire was used to collect data via Facebook and WhatsApp groups. I received a total of 450 questionnaire responses. They were 300 males (66.6%), and 150 females(33.4%).

Instrument

A 15- item survey instrument was developed particularly for this research study. Items were constructed according to TAM. The first part concerns with the demographic information, while the second parts concerns with scale items for the three variable: perceived usefulness (e.g., "VCs help me achieve my academic goals," 5 items), perceived ease of use (e.g., "VCs are as important as face-to-face education," 5 items), and behavioral intention (e.g., "I plan to use VCs in the future," 5 items).. The five-point Likert scale (strongly agree, somewhat agree, disagree, disagree, strongly disagree) was used to score the research tool. The internal consistency of the survey was measured through Cronbach's alpha estimated at 0.87, 0.85, 0.83 for PU, PEU, and BI respectively. A group of 5 experts examined the content validity. They indicated whether questions were, irrelevant, or highly relevant. All items were highly relevant. A content validity index at the item level (I-CVI) = 0.90.

Data Analysis

Pearson correlation(R) and multiple regression (MRA), and t-test were used to analyze data.

Ethical Procedures

Participants were volunteer students from Prince Sattam bin Abdulaziz University. They were informed about their role in the study, the purpose of the study and the data collection methods. The author wishes they can continue with him till the end of the study. However, they were free to discontinue at any time.

Results

Descriptive data and inter-correlations

Table 1 shows the means, descriptive statistics and inter-correlations of perceived usefulness, perceived ease of use and student behavioral intention to use educational technology. Table 1 shows that there are significant correlations between PU, PEOU and student behavioral intention to use educational technology. Behavioral intention to use educational technology correlates positively with perceived usefulness (r =.608) and perceived ease of use (r =.580).

Table 1 – Descriptive statistics and inter-correlations of PU, PEOU and student behavioral intention to use educational technology

Variables	1	2	3
student behavioral intention to use educational technology		.608**	.580**
perceived usefulness			
perceived ease of use			

*** P <.01*

Predictors of student behavioral intention to use educational technology

Results presented in table 2 show that PU, PEOU yielded a coefficient of multiple regression (R) of 0.450 and a multiple correlation square of 0.435. This shows that 43.5% of the total variance in student behavioral intention to use educational technology is accounted for by the combination of PU, PEOU. F-ratio value, as shown in table 3, was significant ($F(2, 447) = 28.962$; $P < 0.01$).

Table 2. The regression results of the predictors and student behavioral intention to use educational technology

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change statistics				
					R Square change	F Change	Df1	Df2	Sig. F change
1	.671a	.450	.435	3.02644	. 450	28.962	2	447	.000

a. Predictors: (Constant), PU, PEOU

b. Dependent Variable: student behavioral intention to use educational technology

Table 3 Summary of Multiple Regression Analysis between the predictors and student behavioral intention to use educational technology.

ANOVA

Model	Sum of Squares	df	Mean Square	F	Sig.
1 Regression	795.803	2	265.962	28.962	.000a
Residual	970.888	447	331.277		
Total	1766.691	449			

a. Predictors: (Constant), PU, PEOU

b. Dependent Variable: student behavioral intention to use educational technology

As for results displayed in table 4, PU, PEOU contributed to the prediction of student behavioral intention to use educational technology and beta weights were as follows: perceived usefulness (b = 0.394, t = 4.243; P < 0.01), and perceived ease of use (b = 0.372, t = 4.074, P < 0.01) .

Table 5. Relative Contribution of the Independent Variables to the Prediction of student behavioral intention to use educational technology. Coefficients a

Model	Unstandarized coefficients		Standarized coefficients	t	sig
	B	Std error	Beta		
1 (constant)	8.839	2.897		3.051	.003
PU	0.379	0.091	0.394	4.243	.000
PEOU	0.363	0.090	0.372	4.074	.000

a. Predictors: (Constant), PU, PEOU

b. Dependent Variable: student behavioral intention to use educational technology

T-test results

To test and verify the fourth and last hypothesis which stated that " Men and women will show no differences in their acceptance of VCs", t-test was employed . Results shown in table 5 indicated that Table 1. shows that t- value did not reach significance level . This indicated that the two sexes did not differ in their Acceptance of Virtual Classes

Table 5. Means, standard deviations ,t- value , and significance level for the differences according to gender

Gender	M	SD	T	Sig.
Males	65.78	3.54	-.587	-
Females	65.46	4.02		

Discussion

The aim was to investigate and assess the acceptance of virtual classes among Arabic language student teachers during and beyond covid-19. Results indicated that the student behavioral intention to use educational technology is positively affected by perceived usefulness, perceived ease of use. This is aligned with the existing research examining the TAM (Scherer al., 2019), as these are the two fundamental constructs that play a central role in the adoption process of a system (Liu et al., 2019).

Findings shown in table 1 indicated that there are significant correlations between perceived usefulness, perceived ease of use and student behavioral intention to use educational technology. Behavioral intention to use educational technology correlates positively with perceived usefulness (r =.608) and perceived ease of use (r =.580). Results of predictors of student behavioral intention to use educational technology showed that perceived usefulness, perceived ease of use yielded a coefficient of multiple regression (R) of 0. 450 and a multiple correlation square of 0. 435. This shows that 43.5% of the total variance in student behavioral intention to use educational technology is accounted for by the combination of perceived usefulness, perceived ease of use. F-ratio value, as shown in table 3, was significant ($F(2, 447) = 28.962$; $P < 0.01$).

The results of this study indicated that learners accepted VCs as shown by employing TAM. The learner continues according to the time appropriate to him and according to his effort, and can repeat the study of the material and refer to it at any time, and is not affected in the event of a power outage or disconnection of the internet line, and it has some negatives, including: the learner does not receive immediate feedback, and the learner needs to motivate himself Study because it is based on self-learning (Chavez & Bayona, 2018).

Consistent with previous studies, perceived ease of use positively impacts behavioral intention to use educational technology was confirmed in our study. This result is supported by empirical studies (Cheung & Vogel, 2013; Grani´c & Maranguni´c, 2019; Hong, 2020).

When the students' virtual classrooms became clear, and their feeling that using the information technology available in the virtual classrooms was not a burden on them, this prompted them to use and rely on them for learning, and even try to master the skills of using them and being creative in them due to their feeling easily to be skilled in using them. Its tools, and that the ease of using virtual classes has helped them to accept the use of virtual classes as a basic alternative to traditional classes due to its easy-to-use features and tools, in addition to being open towards using e-learning tools

and tools and the Internet with its various resources that are employed within the virtual classroom tools. This result is aligned with other studies(e.g. Chang, Hajiyevand & Su, 2017; Önal, 2017).

This indicates that providing the necessary technical support for learners in the learning system in virtual classrooms has helped increase their confidence in these systems and their desire to learn through virtual classrooms, in addition to the availability of methods of communication with technical support, whether direct or asynchronous, has helped the confidence of learners in the classroom system. They were convinced that any problem they might face when using could be solved in more than one way, which helped them rely on virtual classes without fear of system failure, work stoppage, or the inability to continue learning when needed, which helped increase learners' productivity and perform their duties quickly and accurately. With reliance on modern technology in learning.

Conclusion

To conclude, perceived usefulness, perceived ease of use are likely to be vital mechanisms that cause to increase student behavioral intention to use educational technology during emergency conditions such as the Corona pandemic. These factors need to be considered when constructing VCs for college students.

The current study has significant implications for literature. Theoretically, it is one of the first studies which provided information about three interplay mechanisms that play a vital role in determining student behavioral intention to use educational technology during emergency conditions such as the Corona pandemic, namely: perceived usefulness, perceived ease of use. Thus it helps increase our understanding of different factors that are likely to play a role in student behavioral intention to use educational technology during emergency conditions such as the Corona pandemic. Practically, this research study is helpful because the current situation has been imposed on the universities of the world, including the universities of my country to shift to VCs.

Limitations and future research

This research study is without no limitations. First, participants was recruited from only one university, Prince Sattam bin Abdulaziz University. Therefore, the findings cannot be generalized to other universities. Second, survey was used to collect data. Future researchers should use different methods such as personal interview or telephone interview to collect data.

Recommendations

Based on the results of this study, some recommendations are presented below. Strengthening the positive attitude towards employing VCs technology. Training and encouraging teachers to communicate with students through electronic pages and e-mails, given that many students have Internet service at home. The need for the university to offer materials that give the student the skills and techniques of e-learning in order to facilitate the process of interaction and benefit by students with the educational materials presented electronically. Encouraging teachers who employ VCs in education, financially and morally. As for policy-makers, efforts to integrate educational technology into teacher education and preservice teacher education programs are necessary.

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