https://www.doi.org/10.34120/0382-049-189-010

Attitudes of faculty members towards applying e-learning in the applied colleges in Kuwait in light of Covid-19 pandemic from their perspectives*

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Abstract

Objectives: This study aimed to identify the attitude of faculty members at the PAAET Colleges toward e-learning and to reveal the technical and educational challenges as well as the requirements that must be met according to the professors' point of view. **Method**: This study was based on an interpretive worldview. The research strategy is a large-scale survey based on a mixed methods approach, questionnaires and semi-structured interviews. Out of the 137 faculty members who participated in completing the questionnaire, 18 faculty members were interviewed. **Results**: The study found that the professors hold neutral views and at the same time acknowledge the existence of great educational and technical difficulties and challenges; they also emphasized the need to provide the necessary requirements for the educational and technical level. The educational challenges that emerged included classroom management, class size, unethical behaviors, interaction, and mental and social presence. The technical challenges were internet coverage, server stress, technical support, training, and user interface. **Conclusion:** Recommendations were raised after discussing the results of the study considering previous studies and reviewing the relevant literature.

***Keywords*:** attitude, COVID-19, e-learning, educational challenges

* This study was supported by the Kuwait Foundation for the Advancement of Sciences (KFAS; PN20-19TT-03).

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- Submitted: 1/4/2021, Revised: 17/8/2021, Accepted: 24/8/2021.

To Cite p.469

اتجاهات أعضاء هيئة التدريس نحو تطبيق التعليم الإلكتروني في الكليات التطبيقية بدولة الكويت في ضوء جائحة كوفيد -19 من وجهة نظرهم*

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ملخص

الأهداف: هدفت هذه الدراسة إلى تعرف آراء أعضاء هيئة التدريس حول تطبيق التعلم الإلكتروني في الكليات التابعة للهيئة العامة للتعليم التطبيقي والتدريب. **المنهج**: تعتبر هذه الدراسة دراسة مسحية؛ حيث اعتمدت على المنهج المختلط من خلال استخدام الاستبانات والمقابلات شبه المنظمة لجمع البيانات. شارك في استكمال الاستبانة 137 من أعضاء هيئة التدريس، وتمت مقابلة 18 عضو هيئة تدريس من مختلف الكليات. **النتائج**: وجدت الدراسة أن الأساتذة لديهم آراء محايدة ويقرون في الوقت نفسه بوجود صعوبات وتحديات تعليمية وتقنية كبيرة؛ كما أكدوا ضرورة توفير متطلبات تعليمية وتقنية. شملت التحديات التعليمية: إدارة الفصل، وحجم الفصل، والسلوكيات غير الأخلاقية، والتفاعل، والحضور الذهني والاجتماعي. بينما تمثلت التحديات التقنية في: تغطية شبكة الإنترنت، وضغوط الخادم، والدعم الفني، والتدريب، وواجهة المستخدم. كما ظهرت فروق ذات دلالة إحصائية تشير إلى أن أعضاء هيئة التدريس الذين يستخدمون التقنيات

* هذا العمل مدعوم من قبل مؤسسة الكويت للتقدم العلمي (KFAS; PN20-19TT-03).

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– تُسلّم البحث في: 1/4/2021، عُدّل في: 17/8/2021، أجيز للنشر في: 24/8/2021.

للاستشهاد بهذه المقالة انظر ص.469

التعليمية أو يستخدمون وسائل التواصل الاجتماعي في تدريسهم أكثر تفاؤلاً من الأعضاء الذين لا يستخدمون هذه التقنيات. وقد كشفت نتائج الدراسة وجود فروق دالة إحصائياً بين بعض المتغيرات الديموغرافية في مقدار الثقة بوسائل التواصل الاجتماعي متمثلة في العمر، والنوع، والمستوى التعليمي، والحالة الاجتماعية. **الخاتمة:** رفعت التوصيات بعد مناقشة نتائج الدراسة مع مراعاة الدراسات السابقة ومراجعة الأدبيات ذات الصلة.

الكلمات المفتاحية: الاتجاهات، التعلم الإلكتروني، التحديات التعليمية، كوفيد 19

Introduction

As a consequence of the coronavirus (COVID-19) pandemic, most countries have been forced to transfer their learning system from traditional classrooms to online learning systems to ensure the continuity of education in their higher education institutions, and this also applies in Kuwait, the e-learning system was implemented in different universities and colleges. It is noteworthy that digital transformation requires special requirements to successfully implement e-learning.

The digital transformation occurring at all levels of education systems has allowed the incorporation of e-learning. E-learning refers to a learning system that utilizes electronic technologies to acquire an educational curriculum when learners are not physically present in a traditional classroom (Nortvig et al., 2018). According to recent studies, the COVID-19 pandemic resulted in the closure of classrooms around the globe and forced 63 million educators and more than 1.5 billion students to modify their teaching and learning practices (Dhawan, 2020). The situation has revealed the strengths and weaknesses of education systems around the globe, which include digitalization challenges in classrooms. The digital breach remains a big challenge in the modern day.

The COVID-19 pandemic brought challenges to the learning system for both learners and educators as the crisis forced them out of their traditional learning methods. The shift to online learning came with massive technology challenges (Carrillo & Flores, 2020) as it is entirely dependent on the internet and technological devices; thus, educators experienced challenges in bringing all students on board due to bad internet connections and outdated technological devices (Moorhouse, 2020). Research also shows that the provision of the technological equipment that would enable e-learning was not smooth. Some students' social-economic status made it difficult to

access learning as they had previously relied on free internet and computers in school (Aboagye et al., 2020). School closures made the migration process for these students slow. Some educators and learners also lack the digital competence required to transition fully to online classes. Those with low digital competence are more likely to lag with e-learning.

According to studies, the historical development of e-learning dates back to the 1980s. However, it is becoming more approachable and more viable during this digital era. It evolved from computer-based training to a level where students can take their classes wherever they go. Researchers consider it a natural evolution for what previously started as distance learning (Thorpe & Godwin, 2006). According to existing research, e-learning makes use of the available modern technology to advance and adapt the educational tool framework for shaping education. Mobile technology advancements have led to m-learning, which is a new era in e-learning (Turnbull et al., 2020). Mobile learning enables learners to engage in various learning activities irrespective of their geographical locations. It has enabled access to e-learning through various digital devices, including smartphones, laptops, tablets, handheld computers, and media players.

Studies have shown that the demand for Learning Management Systems [LMS] grew to 7.8 billion dollars by 2018. The global e-learning market continues to grow. The education sector comprises more than 21% of the LMS market, while other areas like manufacturing (Castro & Tumibay, 2019), healthcare, and technology account for smaller percentages. Massive open online courses [MOOC], a new educational phenomenon, enabled the technology of e-learning that emerged more than a decade ago. MOOCs provide a massive and free online education system that involves self-learning courses and open-access courses (Roumell & Salajan, 2016). Studies

have shown that online e-learning websites such as Udemy provide massive online instruction-orientated courses. According to research carried out in 2015, more than 35 million students had enrolled in at least one online course.

According to research, rapid developments in technology have simplified distance education. It allows students to learn and interact with other students and instructors from different parts of the world. It is a learning environment with no live sharing of content in classes or lectures. Instead, students access learning content through different learning forums and systems (Bawa, 2016). However, immediate response and immediate feedback are not present in these environments. According to previous research, e-learning provides numerous opportunities that students can utilize for social interactions. Individuals can now clearly see the benefits of e-learning, especially during this pandemic period (Aboagye et al., 2020). Online platforms during this period enable video conferencing where more than 40 students can hold discussions, thereby keeping classes organic even without physical meetings. Students can comfortably access their lectures through portable devices like mobile phones.

Scholars argue that e-learning is no longer an option but a necessity. The severity of the COVID-19 pandemic forced the whole world into quarantine, and its effects are evident in many learning institutions, including colleges and universities (Dhawan, 2020). The pandemic has forced these institutions to shift from the offline to online mode of schooling. The crisis has pushed institutions that were previously reluctant to accept rapidly-changing modern technology. Studies have shown that the catastrophe will contribute to reveal to the world the lucrative side of e-learning. Most universities around the globe are working on fully digitalizing their operations as a move to cope with this current situation. Studies have indicated that Chinese universities tremendously increased online enrollment after the

coronavirus outbreak (Dhawan, 2020). There has been a massive shift from traditional classrooms to e-classrooms. Educators have responded by shifting their pedagogical approach to enable them to meet the changing market conditions. The debate has now moved from the quality of e-learning education to how academic institutions can quickly and massively adopt online pedagogy.

Although there are numerous issues attached to e-learning, its significance, especially in such times of crisis, is immeasurable. Possible solutions can help in solving some challenges that come with online learning, such as prerecording video calls and testing the content (Nortvig et al., 2018). Learning institutions need to work on making their online classes interesting, interactive, and dynamic. Researchers have suggested that educators should make efforts to humanize the online learning processes as much as possible (Carrillo & Flores, 2020). It is important to ensure continuous improvement in the quality of courses for quality education. Researchers recommend that educators should design online programs that are relevant, self-centered, interactive, and group-based.

The concept of e-learning has existed for more than two decades. What began as a radical idea has now grown into a mainstream phenomenon since the outbreak of COVID-19. The fundamentals for e-learning include the platform, technological infrastructure, participants, and e-learning content. The current pandemic has revealed the strengths and weaknesses that face education systems around the globe, which include digitalization challenges in classrooms. According to existing research, e-learning makes use of the available modern technology to advance and adapt the educational tool framework for shaping education.

Study Problem

Although a number of universities apply e-learning as one of their programs, many universities around the world still do not apply e-learning as an accredited program or have included only limited

practices of e-learning. However, there is an increasing need to conduct studies related to distance education and e-learning, particularly today, as digital education is no longer a secondary source of education but rather has become one of the main patterns of learning, especially after the remarkable growth in the number of those enrolled in distance learning programs (Moore & Fodrey, 2018). As is well known, the world is currently experiencing circumstances that forced many governments to suspend studies in all stages due to the COVID-19 pandemic. Therefore, many governments, including the Kuwaiti government, have activated e-learning as an alternative to traditional learning to adapt to the current global circumstances.

Significance of the Study

- The current study aspires to provide the educational research community with results on the attitudes of university professors toward e-learning and on the most prominent educational challenges and requirements while also extracting the most prominent technical challenges and requirements.
- As for the local level, the study aspires to provide recommendations that contribute to improving university e-learning in Kuwait, especially in the applied colleges that rely on practice-based learning in the first place.

Study Questions

- What are the attitudes of lecturers toward e-learning in Kuwaiti applied colleges?
- What are the most prominent educational and technical challenges resulting from learning through electronic platforms?
- What are the most prominent educational and technical requirements that must be met to achieve the quality of education in e-learning from the perspective of lecturers?
- Are there statistically significant differences in the attitudes of the participants as well as the educational and technical challenges and requirements according to the variables of the study?

Definition of Terms

E-learning: refers to a learning system that utilizes electronic technologies to acquire an educational curriculum when learners are not physically present in a traditional classroom (Nortvig et al., 2018).

Attitude: the procedural definition of attitude is the score that the participants of this study will obtain according to their responses on the online questionnaire which measures the attitudes toward e-learning, the educational and technical challenges confronting them in e-learning, and the educational and technical requirements needed to provide quality e-learning.

COVID-19: is a disease that emerged in December 2019 caused by a newly discovered coronavirus (World Health Organization, 2021).

Methodology

Study Design

This study is based on an interpretive worldview. The study strategy is a large-scale survey based on a mixed methods approach, where both quantitative and qualitative methods are applied. The proposed study adopted the sequential explanatory strategy from Creswell (2003), which can be formulated in two main phases. This design relies primarily on quantitative data to answer research questions while qualitative data are a secondary source for interpreting quantitative results (Creswell, 2009). However, this design does not diminish the importance of qualitative tools; rather, it provides rich data that interpret digital data.

Participants

The participants were derived from five applied colleges in Kuwait: the College of Basic Education, the College of Technological Studies, the College of Business Studies, the College of Health Sciences, and the College of Nursing. The population of the study consisted of 2065 faculty members working in these five colleges.

Table 1
Population of Faculty Members at the Five Colleges

College	Faculty from teaching sector	Faculty form training sector	Total members
College of Basic Education	426	653	1079
College of Business Studies	370	38	408
College of Health Sciences	85	29	114
College of Technological Studies	324	87	411
College of Nursing	33	20	53
Overall	1238	827	2065

The participants consisted of 137 faculty members chosen using a simple random method. These participants represent 6.63% of the population of the study and is considered an acceptable percentage according to Richard Geiger's statistical formula.

The participants hold various job titles & years of teaching experience. More than half of the participants were professors at the College of Basic Education (N = 76), with the remaining participants working at the other colleges. There is also a convergence between the number of males (N = 74, 54%) and the number of females (N = 63, 46%). Yet a clear disparity exists between the participants in terms of e-learning training, use of smart boards, and use of interactive programs (see Table 2).

Table 2
Demographic Information of Participants

Variable	Level	N	Percentage	Total N (%)
Gender	Male	74	54%	137 (100%)
	Female	63	46%	
LMS training	Yes	24	17.5%	137 (100%)
	No	113	82.5%	

Cont. Table 2
Demographic Information of Participants

Variable	Level	N	Percentage	Total N (%)
E-learning program training	Yes	31	22.6%	137 (100%)
	No	106	77.4%	
Use of interactive programs in teaching	Yes	95	69.3%	137 (100%)
	No	42	30.7%	
Use of ICT in lectures	Yes	94	68.6%	137 (100%)
	No	43	31.4%	
Years of expertise	10 years or less	71	51.8%	137 (100%)
	11-20 years	33	24.1%	
	21 years or more	33	24.1%	
Academic title	Trainer	23	16.8%	137 (100%)
	Assistant professor	70	51.1%	
	Associate professor	27	19.7%	
	Professor	17	12.4%	

The researchers also contacted faculty members from the five colleges to request that they participate in the qualitative phase. Eighteen faculty members agreed to participate in distance interviews, including the director of distance learning in PAAET. Further details regarding interviewees are provided in Table 3.

Table 3
Interviewees' Information

N	Job title	College	Department	Years of teaching	Duration mm:ss	Conduction
1	Associate professor	Director of the distance education	Computer science	--	76:08	MS Teams
2	Assistant professor	Technological studies	Electrical engineering	23	39:07	Audio call

Cont. Table 3

Interviewees' Information

N	Job title	College	Depart-ment	Years of teaching	Duration mm:ss	Conduction
3	Assistant professor	Nursing	Nursing	2	28:58	Audio call
4	Assistant professor	Basic education	Computer science	2	39:27	Audio call
5	Assistant professor	Technological studies	Electronic engineering	5	18:35	Audio call
6	Associate professor	Basic education	Curriculum and teaching methods	11	76:00	Audio call
7	Assistant professor	Basic education	ICT	28	49:04	Audio call
8	Assistant professor	Basic education	Educational administration	14	56:00	Audio call
9	Assistant professor	Technological studies	Electronic engineering	14	19:53	WhatsApp call
10	Assistant professor	Basic education	Special education	4	41:46	Audio call
11	Assistant professor	Basic education	Psychology	4	33:06	Audio call
12	professor	Basic education	Educational administration	12	24:53	Audio call
13	Assistant professor	Basic education	Interior design	4	28::42	Audio call
14	Assistant professor	Technological studies	Electronic engineering	6	25:27	Audio call
15	Assistant professor	Technological studies	Mechanical engineering	5	35:42	Audio call

Cont. Table 3
Interviewees' Information

N	Job title	College	Depart-ment	Years of teaching	Duration mm:ss	Conduction
16	Assistant professor	Basic edu-cation	ICT	4	22:31	Audio call
17	Assistant professor	Basic edu-cation	Physical education	4	30:38	Audio call
18	Assistant professor	Business studies	Economy	5	30:01	MS Teams

Method

Multiple methods were developed for the current study's research design-namely, questionnaires and semi-structured interviews. There are many advantages of adopting multiple data collection methods, such as investigating the area of study from different angles and compensating for the weaknesses of an individual study method.

E-Survey

The researchers developed an online questionnaire to elicit faculty members' attitudes toward e-learning, the educational and technical challenges confronting them in e-learning, and the educational and technical requirements needed to provide quality e-learning. The participants responded to the questionnaire through the following link https://docs.google.com/forms/d/e/1FAIpQLSeUO6uVj_itzrEI-TEUklqH2r0Geej5cODj2klVWIHupemdTmA/viewform. The questionnaire included two versions: one for faculty members and the other for students. However, both versions included similar items with narrow modifications except for the demographic information section. The questionnaire comprised, sequentially, a number of demographic questions, 18 closed-ended items focusing on attitudes toward e-learning, 20 closed-ended items examining educational challenges of and requirements for e-learning, and 18 closed-ended items on the technical challenges of and requirements for e-learning. The participants were asked to rate their perceptions using a 5-point Likert scale

ranging from "strongly agree" to "strongly disagree." Some examples of the closed-end items from each section are shown in Table 4.

Table 4

Exemplary Items from Questionnaire Sections

Scale	Domain	N of items	Exemplary item
Attitude toward e-learning	Educational goals	4	Educational goals can be easily achieved through e-learning.
	Student's competencies	5	E-learning improves the student's self-learning skills.
	Interactive learning	4	E-learning provides an opportunity for positive interaction between undergraduates.
	Alternative education	5	E-learning programs offer alternative services to traditional academic services.
Educational challenges and requirements	Social participation	6	E-learning limits students' interactions with the course professor and with their colleagues.
	pedagogical practices	7	It is difficult for the professor to diversify the student-centered activities and teaching methods when applying e-learning.
	Self-study ability	7	Undergraduates are not proficient in using the e-learning resources provided by the college, such as electronic journals.
Technical challenges and requirements	Training courses	4	The student needs LMS training courses, such as for the Moodle platform.
	Synchronous learning	4	College-approved e-learning programs face technical problems due to the increase in the number of users during peak times.
	LMS	4	The course professor does not have a sufficient background in the characteristics and options offered by distance education programs.
	IT support	6	E-learning requires a dedicated technical support unit for distance education programs that maintains and develops them periodically.

Semi-Structured Interviews

The second method was semi-structured interviews through audio and video calls due to the curfew caused by the COVID-19 pandemic. The interviews consisted of 17 open-ended questions divided into four sections, beginning with two ice-breaking questions on interviewees' background and personal information. Five questions focused on attitude toward e-learning and its quality while four questions focused on educational challenges of and requirements for e-learning. The last six questions focused on technical challenges of and requirements for e-learning. The semi-structured schedule enabled the interviewer to ask questions that were not prepared in advance, meaning the schedule was not limited by predefined questions. Some examples of prepared questions include the following:

Q3: What do you think of digital or e-learning?

Q5: How do you evaluate the quality of education provided via digital platforms? To what degree do you find it similar to or different from learning inside the classroom?

Q9: How can a teacher maintain undergraduates' cognitive presence, such as attention and consideration, during online lectures?

Q10: How can undergraduates maintain interaction with each other and with the course professor during the implementation of e-learning in the form of simultaneous presentation or by downloading content via Moodle?

Q13: What are the skills that undergraduates and professors must be trained in before starting an e-learning application?

Pilot Study

The questionnaire and interview schedule were developed by following practical procedures to ensure validity and reliability. First, the researchers reviewed the relevant literature and empirical papers to compare their research methods with the current ones. Second, three experts from the College of Basic Education examined the questionnaires to check their appropriateness in terms of content, language,

style, and typos; changes were made based on their feedback. Third, a pilot study was conducted to test consistencies among items, domains, and scales. The instrument was piloted with 60 undergraduates, who were able to add notes on each item that they believed was not precise. Concerning internal reliability, the Cronbach's alpha results presented in Table 5 ranged from .502 to .907.

Table 5

Internal Reliability

Sub-scales	Domain	N of items	Items	Alpha
Attitude toward e-learning	Educational goals	4	EG4, EG9, EG17, EG18*	.838
	Student's competencies	5	SC1, SC2, SC3, SC5, SC11*	.826
	Interactive learning	4	IL10, IL12, IL13*, IL14*	.502
	Alternative education	5	AE6, AE7, AE8, AE15*, AE16*	.778
Educational challenges & requirements	Social participation	6	SP27, SP30, SP31, SP34, SP36, SP37	.885
	Pedagogical practices	7	PP19, PP23, PP24, PP25, PP29, PP35, PP38	.765
	Self-study ability	7	SA20, SA21, SA22, SA26, SA28, SA32, SA33	.888
Technical challenges & requirements	Training courses	4	TC39, TC40, TC41, TC42	.899
	Synchronous learning	4	SL49, SL50, SL51, SL52	.852
	LMS	4	LMS45, LMS46, LMS47, LMS48	.855
	IT support	6	IT43, IT53, IT54, IT55, IT56, IT57	.907

All the domains exceeded .7 for the Cronbach's alpha test except for the interactive learning domain, which reached .502. The interactive learning domain is still acceptable, as the Cronbach's alpha can be affected by the number of items. Scales that include fewer than 10 items tend to have a low Cronbach's alpha (Pallant, 2013)

Table 6

Internal Consistency Validity

Attitude toward E-learning							
Educational goals		**Student's competencies**		**Interactive learning**		**Alternative education**	
Item	**Alpha**	**Item**	**Alpha**	**Item**	**Alpha**	**Item**	**Alpha**
EG4	.873**	SC1	.895**	IL10	.621**	AE6	.732**
EG9	.886**	SC2	.908**	IL12	.651**	AE7	.658**
EG17	.879**	SC3	.928**	IL13*	.509**	AE8	.797**
EG18*	.624**	SC5	.823**	IL14*	.749**	AE15*	.713**
--	--	SC11*	.265*	--	--	AE16*	.742**

Educational Challenges & Requirements					
Social participation		**Pedagogical practices**		**Self-study ability**	
Item	**Alpha**	**Item**	**Alpha**	**Item**	**Alpha**
SP27	.892**	PP19	.181	SA20	.778**
SP30	.701**	PP23	.662**	SA21	.831**
SP31	.858**	PP24	.824**	SA22	.807**
SP34	.832**	PP25	.784**	SA26	.891**
SP36	.763**	PP29	.696**	SA28	.815**
SP37	.744**	PP35	.593**	SA32	.675**
--	--	PP38	.789**	SA33	.616**

Technical Challenges & Requirements							
Training courses		**Synchronous learning**		**LMS**		**IT support**	
Item	**Alpha**	**Item**	**Alpha**	**Item**	**Alpha**	**Item**	**Alpha**
TC39	.866**	SL49	.721**	LMS45	.921**	IT43	.703**
TC40	.846**	SL50	.888**	LMS46	.822**	IT53	.838**

Cont. Table 6

Internal Consistency Validity

Technical Challenges & Requirements							
Training courses		**Synchronous learning**		**LMS**		**IT support**	
Item	**Alpha**	**Item**	**Alpha**	**Item**	**Alpha**	**Item**	**Alpha**
TC41	.906**	SL51	.854**	LMS47	.821**	IT54	.832**
TC42	.890**	SL52	.865**	LMS48	.775**	IT55	.847**
--	--	--	--	--	--	IT56	.911**
--	--	--	--	--	--	IT57	.866**

Note. ** Correlation is significant at the 0.01 level (2-tailed). * Correlation is significant at the 0.05 level (2-tailed).

According to Table 6, almost all 57 items were significantly correlated with their domains, where the correlations ranged between .593 and .921. Only item 19 was weakly correlated with its domain. Moreover, the correlations between domains and their scales were also significantly correlated, with the results ranging between .750 and .925, as shown in Table 7.

Table 7

Correlations between Domains and Scales

Scales	**Domains**			
Total of perspective	Educational goals	Student's competencies	Interactive learning	Alternative education
	.917**	.925**	.750**	.923**
Total of educational challenges and requirements	Social participation	Pedagogical practices	Self-study ability	
	.916**	.923**	.965**	
Total of technical challenges and requirements	Training courses	Synchronous learning	LMS	IT support
	.882**	.830**	.924**	.908**

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

Data Analysis

The raw data were fed into the Statistical Package for Social Sciences (SPSS) software program, version 23.0. Descriptive statistical analyses such as percentages, frequencies, means, and standard deviations were performed to present participants' demographic information and figure out the means of scales and subscales. The current study also applied inferential statistical analyses, such as variance analysis and correlation analysis, in order to identify possible statistical comparisons and relationships among the overall responses.

The digital data derived from focus groups were transcribed and then fed into Max Qualitative Data Analysis (MAXQDA) 2020. The qualitative raw data were analyzed by adopting the model of categorizing indexing based on Radnor's (2002) analysis strategy. This model provides six stages, starting with topic ordering. Major themes can be ordered after scanning and reading the transcripts many times, especially when the interviews' and focus groups' schedules focused on specific scopes. The second stage was constructing categories under each major theme in order to move to the third stage of reading for content, which identifies and highlights statements from the transcripts by carefully reading the whole text data. The fourth stage was completing the coding sheets, where codes are grouped in the related categories. In the fifth stage, coded transcripts were generated, transferring coded extracts from raw transcripts to the coded transcripts. Finally, analysis to interpretation was the final stage, in which specific descriptions were given to each category to review and select exemplary extracts for presenting the findings.

Results

Quantitative Findings

The statistical results revealed that faculty members hold neutral attitudes toward e-learning ($M = 3.09$, $SD = .87$), where all the domains ranged between $M = 3.23$ and 2.96.

Table 8

Means and Standard Deviations of Subscales and Domains

Sub-scale	Domain	*n*	*M*	*SD*	Descent order	Level
Attitude toward e-learning	Student's competencies	137	3.23	1.00	1	Neutral
	Educational goals		3.06	.95	2	Neutral
	Alternative education		3.01	1.03	3	Neutral
	Interactive learning		2.96	.97	4	Neutral
	Total		3.09	.87	--	Neutral
Educational challenges & requirements	Self-study ability	137	3.90	.76	1	High
	Social participation		3.83	.90	2	High
	Pedagogical practices		3.80	.77	3	High
	Total		3.69	.83	--	High
Technical challenges & requirements	IT support	137	4.57	.59	1	High
	Training courses		4.30	.77	2	High
	LMS		4.11	.80	3	High
	Synchronous learning		3.71	1.00	4	High
	Total		4.22	.63	--	High

As illustrated in Table 8, all the domains of educational and technical challenges showed strong drawbacks. Nevertheless, technical problems ($M = 4.22$, $SD = .63$) appeared to be more challenging than educational ones ($M = 3.69$, $SD = .83$). With respect to the educational challenges, faculty members felt that their students' self-study ability is the greatest educational challenge of e-learning ($M = 3.90$, $SD = .76$), followed by the limitation of social participation ($M = 3.83$, $SD = .90$) and finally the limitation of pedagogical activities ($M = 3.80$, $SD = .77$).

Meanwhile, faculty members are most concerned with IT support ($M = 4.57$, $SD = .59$) based on the capability of the IT support unit to offer immediate support, especially in peak hours. Training courses ($M = 4.30$, $SD = .77$) are also a very challenging issue as faculty believed that training courses should be provided on a regular basis for

both tutors and undergraduates. The mean of the learning management system [(LMS] was also high, exceeding 4.10, whereas the problems associated with synchronous learning were the professors' lowest-rated technical concern ($M = 3.71$, $SD = 1$).

Furthermore, an independent-sample *t*-test revealed significant differences between the scores of faculty members who use interactive programs and those who do not in all domains. Tutors familiar with interactive programs were more optimistic than those who do not use interactive programs based on their means. Table 9 shows that tutors not familiar with interactive programs scored low means in all attitude domains, ranging between 2.76 and 2.57.

Table 9

Independent-sample t-test based on Use of Interactive Programs

Sub-scale	Domain	Using interactive programs	*n*	*M*	*SD*	*t(135)*	*p*
Attitude toward e-learning	Educational goals.	Yes	95	3.22	.85	3.116	.002*
		No	42	2.69	1.05		
	Student's competencies.	Yes	95	3.44	.92	3.849	.000*
		No	42	2.76	1.02		
	Alternative education.	Yes	95	3.21	.98	3.433	.001*
		No	42	2.57	1.05		
	Interactive learning.	Yes	95	3.10	.91	2.573	.011*
		No	42	2.65	1.05		
Educational challenges & requirements	Self-study ability.	Yes	95	3.76	.74	-3.317	.001*
		No	42	4.21	.72		
	Social participation.	Yes	95	3.68	.89	-3.069	.003*
		No	42	4.17	.86		
	Pedagogical practices.	Yes	95	3.55	.81	-2.992	.003*
		No	42	4.00	.80		

Cont. Table 9

Independent-sample t-test based on Use of Interactive Programs

Sub-scale	Domain	Using interactive programs	*n*	*M*	*SD*	*t(135)*	*p*
Technical challenges & requirements	IT suppor.	Yes	95	4.54	.60	-1.046	.297
		No	42	4.65	.57		
	LMS.	Yes	95	4.00	.78	-2.354	.020*
		No	42	4.35	.80		
	Training courses.	Yes	95	4.18	.78	-2.795	.006*
		No	42	4.57	.67		
	Synchronous learning.	Yes	95	3.55	1.00	-2.770	.006*
		No	42	4.05	.93		

Note. * $p < .05$, ** $p < .01$.

Similarly, significant differences existed in educational and technical challenges and requirements. Tutors who use interactive programs scored high means, but not higher than tutors who do not use interactive programs. The means of tutors who use interactive programs were 3.76, 3.68, and 3.55 in the poor self-study ability, limited social participation, and limited pedagogical practices domains, respectively, whereas tutors who do not use interactive programs scored higher (4.21, 4.17, and 4.00). The results of technical challenges are similar to those of educational challenges except for the domain of IT support. Both groups scored high and close means, $t(135) = -1.046$, $p = 297$. In other words, tutors who use interactive programs ($M = 4.54$, $SD = .60$) and those who do not ($M = 4.65$, $SD = .57$) believe that providing sustainable and appropriate IT support for users will be the most challenging issue.

Table 10
Independent-sample t-test based on Application of ICT in On-campus Lectures

Domain	Applying ICT	*n*	*M*	*SD*	*t(135)*	*p*
Educational goals	Yes	94	3.18	.94	2.016	.046*
	No	43	2.82	.92		
Student's competencies	Yes	94	3.46	.96	4.044	.000*
	No	43	2.75	.92		
Interactive learning	Yes	94	3.10	.98	2.447	.016*
	No	43	2.70	.89		
Alternative education	Yes	94	3.13	1.1	2.067	.041*
	No	43	2.67	.90		
Total attitude toward e-learning	Yes	94	3.24	.87	3.165	.002*
	No	43	2.75	.78		

Note. * $p < .05$.

Another independent-sample *t*-test was conducted to compare tutors who do not use ICT ($n = 43$, 31.4%) and those who regularly do ($n = 94$, 68.6%), such as smart boards, computers, and smart devices. The results in Table 10 indicated significant differences in all domains of attitudes toward e-learning, where tutors who do not use ICT scored lower means ($M = 2.75$, $SD = .78$) than those who use ICT ($M = 3.24$, $SD = .87$); $t(135) = 3.165$, $p = .002$.

Moreover, a one-way between-groups analysis of variance was conducted to explore the differences among faculty members based on colleges. The results indicated no significant differences in terms of attitudes toward e-learning, although significant differences emerged in terms of educational and technical challenges (see Table 11).

Table 11

One-way ANOVA Test and Tukey HSD based on Colleges

	ANOVA				Tukey HSD		
Position	**Group**	***M(SD)***	***F (4,132)***	***p***	**Other groups**	***M (SD)***	***p***
Self-study ability.	_	_	1.392	.045	_	_	_
Pedagogical practices.	College of Nursing	4.35(.67)	2.187	.012	College of Business Studies	3.27(.61)	.006
Total educational challenges.	College of Nursing	4.32(.65)	1.655	.022	College of Business Studies	3.46(.67)	.026
Training courses.	College of Health Sciences	4.80(.35)	2.337	.002	College of Education	4.24(.71)	.043
					College of Business Studies	4.06(1.03)	.037
					College of Technological Studies	3.98(.91)	.015
IT support	College of Business Studies	4.13(.96)	1.437	.002	College of Education	4.64(.50)	.009
					College of Nursing	4.90(.29)	.004
LMS	College of Technologi-cal Studies	3.39(.79)	3.333	.000	College of Education	4.22(.75)	.001
					College of Health Sciences	4.19(.65)	.021
					College of Nursing	4.58(.67)	.000
Total technical challenges	College of Technologi-cal Studies	3.82(.49)	1.805	.001	College of Education	4.30(.58)	.032
					College of Nursing	4.63(.51)	.008

There were significant differences at the $p < .05$ level in educational challenges: F (4,132) = 1.655, $p = .022$ for total educational challenges; F (4,132) = 1.392, $p = .045$ for weak self-study skills; and F (4,132) = 2.187, $p = .012$. For pedagogical practices. The post-hoc test (Tukey's HSD) revealed that the differences in total educational challenges are located between faculty members at the College of Nursing and faculty members at the College of Business Studies: Members of the former scored $M = 4.32$, $SD = .65$, while members of the latter scored $M = 3.46$, $SD = .67$ ($p = 0.26$). Similarly, limited pedagogical practices showed a significant difference between the two colleges: Members of the College of Nursing ($M = 4.35$, $SD = .67$) found that e-learning limits their pedagogical activities more than the members of the College of Business Studies ($M = 3.27$, $SD = .61$), $p = .006$. Meanwhile, the post-hoc test failed to identify the location of the significant differences in terms of self-study challenges.

On the other hand, three domains of technical challenges have significant differences; F (4,132) = 1.437, $p = .002$ for IT support difficulties; F (4,132) = 3.333, $p = .000$ for LMS difficulties; F (4,132) = 2.337, $p = .002$ for limited e-learning training courses; and F (4,132) = 1.805, $p = .001$ for total technical challenges. The difference in IT support was between the College of Business Studies ($M = 4.13$, $SD = .96$) and both the College of Education ($M = 4.64$, $SD = .50$, $p = .009$) and the College of Nursing ($M = 4.90$, $SD = .29$, $p = .004$). Differences in training courses emerged between the College of Health Sciences ($M = 4.80$, $SD = .35$) and the College of Education ($M = 4.24$, $SD = .71$, $p = .043$), College of Business Studies ($M = 4.06$, $SD = .1.03$, $p = .037$), as well as College of Technological Studies ($M = 3.98$, $SD = .91$, $p = .015$). Meanwhile, the differences in LMS difficulties were between the College of Technological Studies ($M = 3.39$, $SD = .79$) and the College of Education ($M = 4.22$, $SD = .75$, $p = .001$), College of Health Sciences ($M = 4.19$, $SD = .65$, $p = .021$), as well as College of Nursing ($M = 4.58$, $SD = .67$, $p = .000$).

Qualitative Findings

This section explores the educational challenges and requirements as well as technical challenges and requirements. The findings are organized and illustrated with participants' quotes.

PAAET Preparation for Distance Education

The establishment of an integrated and successful e-learning system in the PAAET requires administrators' faculty members' and students' belief in the importance of using an e-learning system. Therefore, as mentioned by the director of distance education (participant 1), the stakeholders at PAAET provided the required support through collaboration with the Measurement and Evaluation Center, the Ibn Al-Haytham Training Center, the Information Systems Center, the Deanship of Library Affairs, the Deanship of Student Affairs, and the Public Relations and Media Department to spread the knowledge of e-learning by offering training courses for faculty, students, and administrators.

In addition, participant 1 explained that PAAET has formed a group of teams called the E-learning Committee to establish guidelines and foundations to effectively transfer from face-to-face learning to online learning. The committees include the Development Committee, Committee for Technical Support, Committee for Training, Committee to Transfer the Content into the E-learning Platforms, Media Committee for E-learning System, the Quality Control Committee for E-learning System, and the E-learning Quality Control and Evaluation Committee.

Participant 1 then declared that PAAET should examine the infrastructure for its colleges:

> [There should be an] inspection of servers and systems, and all related services such as following up, installation and updating of e-learning systems and applications. Provide telephone lines and communication channels to the technical support for faculty to communicate with them. The presence of a qualified technical support team to follow up any technical and emergency problems in colleges at all levels to control the quality of performance of the e-learning system.

As for the technical support, participant 1 said, "there will be a technical support team for students and another technical support team for professors, and there is another technical support team for students with special needs." Participant 1 also mentioned that:

> [the] technical support team will be working inside the college. If any professor needs help during the time of the lecture, the technical support team will come to the place of the lecture and operate the device and make sure that all systems are working properly, and then the technical support team will come after the lecture to shut down the device.

Overall, participant 1 clarified that PAAET must verify the following points before implementing an e-learning system:

- Ensure that the applications used at PAAET such as Banner, TAS, Office 365, and LMS, are merged and linked together;
- Ensure that the networks and servers are always working properly, especially during peak hours;
- Adopt the Microsoft Teams application to create virtual classrooms and to support the principle of distance learning and provide an integrated learning environment; and
- Adopt the Moodle system as an LMS and link it to other systems at PAAET as well as provide the IT support for this system.

The following outlines the stages of PAAET readiness:

- 12 - 3 - 2020: Discuss the options to adopt a platform for distance learning at the PAAET colleges.
- May 2020: Create committees to develop the e-learning system in PAAET.
- 26 - 6 - 2020: Provide training courses for instructors, students, and administrators.
- 27 - 7 -2020: Conduct a trial period for two weeks.
- 6 - 8 -2020: Control the quality of e-learning.
- 9 - 8 - 2020: Resume the second semester classes for the 2019-2020 academic year

Educational Challenges and Requirements

The participants in this study revealed several educational challenges regarding the implementation of e-learning at PAAET colleges, although they also suggested some solutions to overcome these challenges. The participants' educational challenges and requirements are presented in Table 12.

Table 12
Educational Challenges and Requirements

Category	Codes	Frequency (n = 18)	Exemplary code
Educational Challenges	Lack of student support services.	6	"Student support services are almost non-existent, as there are no libraries, online books, or publishers are available. This is the current reality" (participant 2)
	The quality of education.	6	"The quality of online education differs from traditional education due to the limited communication between the teacher and the student in the event of questions or so on, the face-to-face learning is different from online learning" (participant 9)
	Online class size.	7	"The challenge facing the idea of synchronous learning or live online classrooms is how to manage the online classroom; for example if 100-150 students have accessed to this virtual classroom, let's say the number is 120 students, which means that the number of students in the classroom is large... how can we control and administrate this virtual classroom and respond to the students' questions during lecture" (participant 4)
	Lack of interactivity.	6	"The lack of interaction between the professor and students, as the professor cannot interact with students like in traditional education" (participant 12)
	Unethical issues (cheating).	7	"The biggest challenge is that the students will stay at home to do their exams and assignments which may increase the chance of cheating or they may collaborate with each another to solve their assignments" (participant 5)
Educational Requirements	Student's retention and attention.	17	"As for maintaining the interaction among the students and between the students and teachers, this interaction can be implemented through discussions, questionnaires, or quizzes, or in the form of question-and-answer for the benefit of all students... otherwise students will easily lose their attention" (participant 9)

Cont. Table 12

Educational Challenges and Requirements

Category	Codes	Frequency (n = 18)	Exemplary code
Educational Requirements	Blended education.	5	"I hope that the e-learning system will be adopted as a supportive method even during the normal periods after the end of COVID-19 to reduce the chances of any other risks that disrupt the study, so we will have a permanent supportive system. We must encourage professors to use this system always" (participant 9)
	Self-study ability.	8	"The most important thing is self-electronic learning, which depends on how the student finds all the information electronically by knowing and accessing the application. The student can use scientific study and he can begin to use keywords" (participant 4)
	Prepare student's environment.	5	"The environment of e-learning should be complete and perfect. The infrastructure must be set up and ready. The internet connection must be strong. All supplies, such as modern devices, microphone, and headphones, must be prepared" (participant 7)
	Interactivity between students.	7	"During the online class the instructor assign an assignment that the students would collaborate on to solve it" (participant 15)
	Online classroom management.	10	"... when the teacher exists in the face-to-face classroom, he may request certain things and he may set specific criteria for evaluation; but when the education is electronic, these criteria must be changed and they should not depend on the same evaluation that is adopted in the regular classroom. Second, the evaluation method must be changed. Third, we must focus on the quality and not the quantity, since if education is transformed into an e-learning system, the subject of quality must be taken into account, as students must learn simple but important things, and their skills must be further developed" (participant 13)

As shown in Table 12, the participants discussed the educational challenges associated with the implementation of e-learning at PAAET colleges. The participants viewed students' lack of attention during online classes, individual differences between students, the lack of student support services, and ethical issues as educational challenges that could face the faculty during the implementation of e-learning. However, the participants widely explained the educational requirements, such as ways to help students focus during online classes, apply blended education by using face-to-face teaching along with online materials, prepare students' environment, promote interactivity between students, as points for the faculty to consider to assist them in successfully preparing their online classes and improving students' self-study ability. Participant 6 said, "the professor explains scientific research skills to the student, and the student will acquire problem-solving skills, and then the student will rely on himself to solve problems."

Technical Challenges and Requirements

The most prominent technical challenges and requirements that must be met to achieve the quality of education in e-learning from the perspective of lecturers are presented in Table 13.

Table 13

Technical Challenges and Requirements

Category	Codes	Frequency (n = 18)	Exemplary code
Technical-Challenges	Electronic test application.	14	"However, I am concerned more about students' evaluation in e-learning system. The evaluation may not be fair, or it may have limitations or problems that may harm the student more than the professor" (participant 10)
	Weak coverage of internet connectivity	9	"Internet connection quality is sometimes bad. Some students may have good internet network connection, but others may have not" (participant 11)

Cont. Table 13

Technical Challenges and Requirements

Category	Codes	Frequency (n = 18)	Exemplary code
	Practical courses.	7	"In terms of practical specializations such as interior design, art education, music education and other practical majors, it is almost impossible to turn these specializations into e-learning, because these majors require personal attendance before professors to educate the students, especially in the first two years in college. Because in the first two years, the student must attend in person so the professor can teach the student how to draw the line, how to make the line, how to apply his drawings, how to color correctly or how to play music correctly, and how to hold the instrument in the correct way. Teaching these practical courses electronically is very difficult" (participant 13)
	Pressure on the server.	6	"Imagine the number of students and users who are accessing the server and the large number of downloaded operations, especially if there is a specific capacity for servers that creates huge pressure for the servers. Indeed, I have used the server (Moodle) for 3 academic years now, and I can say that it needs some repairs and maintenance" (participant 10)
	Faculty's and students' readiness.	13	"For the level of readiness, we are not ready, and the evidence which I told you before is the division between the old and new generations, as the new generation is ready enough" (participant 7)
	Interface.	7	"Some LMS programs are complicated and hard to use... Personally, I have struggled to teach my students how to use Moodle... The Moodle interface is not easy to use" (participant 14)
Technical Requirements	Training courses for faculty.	18	"Faculty members and students should receive enough training on all program features and how to use it" (participant 7)

Cont. Table 13

Technical Challenges and Requirements

Category	Codes	Frequency (n = 18)	Exemplary code
Technical Requirements	Providing computer labs in colleges.	10	"There is an urgent need to provide computer labs for students. The college library has computers but, unfortunately, the college library closes approximately at 1 pm, while there are students who finish their classes at 7 or 8 pm" (participant 4)
	The readiness of PAAET.	13	"The decision-makers should have a willingness at the beginning to adopt this idea [e-learning system] seriously, which will help motivate students. Therefore, there must be actual adoption and not just declarations; a plan must be drawn up and followed, and this plan should motivate and encourage students and faculty members to use it" (participant 4)
	IT suppor.	10	"Technical support must be provided, and they must keep up with the updates, they must have appropriate training in order to develop their skills and give them the ability to deal with a large number of students because the number of students in the PAAET colleges is large" (participant 4)

According to Table 13, the technical challenges expressed by the participants were the ability to apply e-learning in laboratories, weak internet network connections for students, students who do not use their e-mails, pressure on the server, and weak network connection in the college. However, nine of the participants repeatedly pointed out the electronic test application as a technical challenge. Participant 7 suggested that the students should have training on the electronic test:

> There is a need to give training at the beginning of the semester for all students. The training must be provided in 3 stages-the first, second, and third trainings. When the professor makes sure that all students are ready for the electronic test, the teacher applies the electronic tests.

> Participant 14 suggested a way to reduce cheating during tests: "If it is possible to take the IP from each student, for example during the test, we can make more than one test and compare the IPs of each test to determine who accessed the test to be sure that no person other than the student accessed it.

In addition, participants expressed their concerns regarding faculty's rejection of using e-learning. Therefore, the participants pointed out the importance of having appropriate training courses for faculty members and students to overcome the challenges and positively change their perspectives and attitudes toward the e-learning system. Participants also stressed the need for legislation and regulations to guide and manage the e-learning system. According to participant 7, "of course we need legislation, and we need a decision and strong support from the administration in the issue of implementing such ideas (e-learning) in PAAET."

Another highly common requirement reported by the participants was IT support as participants expressed the need to increase the number of technical supports for staff at each college. As Participant 15 mentioned, "it is necessary to increase the IT staff members because their number is not enough now. We have only two persons in the college." Participants also identified other technical requirements, such as preparing a place for online classes for faculty in the college, providing instructional design, and implementing a trail period, which are crucial to the success of the e-learning system.

Discussion

Considering the neutral views of e-learning and the high level of educational and technical challenges accompanying it, faculty members noted serious concerns. The first of these concerns lies in the readiness of colleges, faculty members, and students. For example, the study found that faculty members with previous experience using interactive platforms such as Moodle, Google Classroom, and Microsoft Teams are less fearful than faculty members who have not used such technology in their teaching process. Consequently, the

process of training each of the faculty members and students is a basic requirement as indicated in this study and in concurrence with the recommendations of previous studies (e.g., Al-Azawei et al., 2016; Aldowaj et al., 2018; Koçodlu & Tekdal, 2020). Therefore, reducing the challenges and providing the requirements may contribute to improving faculty members' attitudes toward e-learning in the field of higher applied education.

One of the most important points faculty members made is educational challenges and requirements, which may in turn affect the quality of education. A number of professors stated that the quality of education will be negatively affected during e-learning due to the absence of a set of factors that improve the quality of education. The rapid transition from education on campus to learning via electronic platforms must be done in an integrated manner, meaning that all campus services are available electronically. Otherwise, the shift to online learning will come with massive technology challenges (Carrillo & Flores, 2020). Yet in the current circumstances, there is a shortage in the provision of electronic services, whether electronic learning resources or even regular student services (Arinto, 2016; Al-Azawei et al., 2016), such as psychological and social support, academic counseling, and student elections.

In addition to some challenges that faculty members face during simultaneous e-learning, such as large class size and decreased class interaction (Siemens et al., 2015), some colleges' deanships have contributed to obstructing e-learning, as they allowed a greater-than-normal number of students to enroll, increasing the number from 40 to 120 students per course. This reduces student-professor and student-student interactions. Although university professors have difficulty maintaining the mental and social presence of students during the virtual session, it is easy for the student to become distracted and not pay attention throughout the lecture. Students have a short attention span during virtual education, based on the results of recent studies (e.g., Geri et al., 2017).

One factor that increases teachers' fears is the increase in unethical

behaviors, such as cases of cheating on electronic exams and increased academic plagiarism in assumptions due to the lack of appropriate programs such as the Lockdown browser, Turnitin, and Ithenticate (Al-Hunaiyyan et al., 2018; Maman Suryaman et al., 2020). Professors also see technical deficiencies in the applications used to test students' performance, which are characterized by the teacher's restriction of the type of questions and the method of answering. Thus, the professor is forced to apply ineffective tests that do not reflect students' true performance level. The lack of appropriate technical and administrative tools will lead to defects in students' evaluations (Al-Hunaiyyan et al., 2018; Maman Suryaman et al., 2020).

Other technical problems include poor internet coverage and pressure on the server due to the large number of users, especially during peak hours, which may reach about 21,000 users, according to the director of e-learning for all colleges. E-learning it is completely reliant on the internet and technological devices, and instructors have experienced challenges in bringing all undergraduates on board due to bad internet connections and outdated technological devices (Moorhouse, 2020). In addition, some scientific departments in various colleges have faced problems in scientific and applied courses, as the adopted platforms lack features that allow the provision of electronic laboratories. At the same time, professors are calling for the use of blended learning instead of e-learning, as some courses require individual training and skill tests.

In the same context, professors have called for providing computer tests in colleges so that students can benefit from laboratories even during emergency situations (e.g., poor internet coverage or problems related to their personal computers). A technical support unit is necessary on electronic platforms and in computer laboratories to solve urgent problems for students and faculty members. This requirement is consistent with the recommendations of recent studies calling for a technical support unit specializing in addressing technical problems of e-learning (e.g., Mishraa et al., 2020; Eunice & Cosmas, 2020; Teymori & Fardin, 2020).

Conclusion

Recommendations and Implications

This study identified a set of challenges and requirements for e-learning in applied colleges that occur at three levels: the college, the faculty member, and the student.

At the college level, decision-makers should create an appropriate virtual educational environment by setting regulations compatible with e-learning, adopting appropriate interface users, providing the necessary programs and applications, providing technical and educational support services, providing computer laboratories, limiting the number of students in the academic divisions, finding practical solutions to server problems that occur at peak times, applying blended learning to specializations that need direct training, and providing training courses for all programs approved by the college.

At the faculty member level, course professors must be well-versed and trained not only on the use of virtual platforms, but also on how to manage the virtual classroom and motivate students to participate and interact through the use of appropriate training methods while paying attention to students and centering the educational process around students instead of using didactic teaching.

At the student level, students must pass training courses in order to be well prepared. Students must also be mentally and socially present during concurrent lectures, and a home climate suitable for distance education must be created.

In conclusion, there is still a need to conduct study on e-learning, especially experimental studies. As e-learning is a new path that many higher education institutions have been forced to adopt due to social distancing requirements related to the COVID-19 pandemic, there is an urgent need to implement studies that enrich the study community.

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To cite:

Al Sahou, H. J., Abbas, Z. A., & Al-Fayly, A. H. (2023). Attitudes of faculty members towards applying e-learning in the applied colleges in Kuwait in light of Covid-19 pandemic from their perspectives. *Journal of the Gulf and Arabian Peninsula Studies, 49*(189), 431-469. https://www.doi.org/10.34120/0382-049-189-010

مركز دراسات الخليج والجزيرة العربية

تأسس عام ١٩٩٢م - جامعة الكويت

مدير المركز

أ.د. محمد غانم الرميحي

يصدر عن المركز

* سلسلة الإصدارات الخاصة.
* سلسلة إصدارات الاستكتاب.
* سلسلة ملخصات الرسائل الجامعية (الماجستير والدكتوراه).
* سلسلة إصدارات لنشر بحوث الندوات والمؤتمرات.
* سلسلة الدراسات الاستراتيجية والمستقبلية.
* سلسلة التقارير الدورية.
* سجل الأحداث الجارية لمنطقة الخليج والجزيرة العربية وجوارها الجغرافي.
* مجلدات وثائق مختارة لمنطقة الخليج والجزيرة العربية وجوارها الجغرافي.
* الفهرس السنوي.

سلسلة الإصدارات الخاصة - سلسلة علمية محكمة

تعني موضوعاتها بمنطقة الخليج والجزيرة العربية، وتهدف إلى إبراز خصوصيتها، ورصد قضايا التنمية بأبعادها الحضارية الشاملة في ضوء المتغيرات الجارية، وتخضع للتحكيم العلمي.

قواعد النشر

أولاً: أن يكون البحث أو (الدراسة) معنية بشؤون منطقة الخليج والجزيرة العربية في المجالات الآتية: السياسة، الاقتصاد، الجغرافيا، التاريخ، علم النفس، الاجتماع، الأنثروبولوجيا، التربية، اللغة العربية وآدابها، الثقافة، البيئة، القانون، الإعلام، التراث (الآثار والحضارة والفنون).

ثانياً: أن تمثل الدراسة إضافة جديدة إلى حقل التخصص.

ثالثاً: لم يسبق تقديمها أو جزء منها للنشر إلى جهة أُخرى.

رابعاً: ألا يقل عدد كلمات الدراسة عن(٢٥,٠٠٠) كلمة (بحدود١٠٠ صفحة) (A4) لسلسلة الإصدارات الخاصة والاستكتاب، و (٨,٧٥٠) كلمة بحدود (٣٥) صفحة لسلسلة الدراسات الاستراتيجية والمستقبلية.

خامساً: يقدم المركز مكافأة مالية رمزية عن كل دراسة.

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المراسلات

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