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The Degree of Applying E-learning Standards by Lecturers in Designing Electronic Courses in Jordanian Universities

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A Thesis Submitted in partial fulfillment of the Requirement for the Master Degree in Information and communication Technology in education

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Authorization

I, Ragad Abdullah Ahmad, authorize Middle East University to provide libraries, organizations and even individuals with copies of my thesis upon request.

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Dedication

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The degree of applying E-learning standards by lecturers in designing electronic courses in Jordanian universities

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Abstract

This study is to explore the degree of applying E-learning standards by lecturers in designing electronic courses in Jordanian universities. The sample consisted of (651) lecturers from private and public universities. A questionnaire was used to collect data, and determine the degree of applying E-learning standards in designing electronic courses in Jordanian universities.

Both Validity and reliability of the instrument were assured.

The findings of study showed that the degree of applying E-learning standards by lecturers in designing electronic courses in Jordanian universities was moderate, there are statistically significant differences at (α = 0.05) due to University type variable in all domains and in total score in favor of private universities and on the other hand there are no statistically significant differences at (α = 0.05) due to college variable in all domains and total score, except for the objectives of the electronic course and Multimedia, differences were in favor of Scientific colleges.

Among the recommendations, the researcher recommended the following:

- Organizing courses for lecturers in Jordanian universities on the importance of using elearning and designing electronic courses within the standards of e-learning.

- Motivating and supporting lecturers in Jordanian universities to use different learning systems varieties of e-learning, by giving rewards to them.

Keywords: e-learning, standards of e-learning, electronic courses.

درجة تطبيق معايير التعلم الالكتروني في تصميم المقررات الالكترونية في الجامعات الاردنية لدى أعضاء الهيئة التدريسية إعداد رغد عبدالله أحمد إشراف الدكتور حمزة العساف الملخص

هدفت الدراسة للتعرف على درجة تطبيق معايير التعلم الالكتروني لدى أعضاء الهيئة التدريسية في تصميم المقررات الالكترونية في الجامعات الأردنية، وقد تكونت عينة الدراسة من (651) من أعضاء هيئة تدريس في مختلف الجامعات الأردنية. واستخدمت استبانة لجمع البيانات بعد التأكد من صدقها وثباتها.

وأظهرت نتائج الدراسة:

أن درجة تطبيق معايير التعلم الالكتروني في تصميم المقررات الالكترونية في الجامعات الاردنية كانت معتدلة وان هناك فروف ذات دلالة إحصائية عند مستوى الدلالة ($\alpha = 0.05$) بسبب متغير نوع الجامعة في جميع المجالات وفي الدرجة الكلية لصالح الجامعات الخاصةولا توجد فروق ذات دلالة إحصائية عند ($\alpha = 0.05 = \alpha$) وبسبب متغير الكلية في جميع المجالات والنتيجة الكلية، باستثناء أهداف الدورة الإلكترونية والوسائط المتعددة ، كانت الاختلافات لصالح الكليات العلمية.

من بين التوصيات التي أوصى بها الباحث ما يأتي:

نتظيم دورات للمحاضرين في الجامعات الأردنية حول أهمية استخدام التعلم الإلكتروني وتصميم الدورات الإلكترونية ضمن معايير التعلم الإلكتروني وتحفيز ودعم المحاضرين في الجامعات الأردنية لاستخدام أنظمة مختلفة من التعلم الإلكتروني من خلال منح مكافآت لهم.

الكلمات المفتاحية: التعلم الإلكتروني، ومعايير التعلم الإلكتروني، المساقات الإلكترونية.

Chapter One

Background and Importance of the study

Introduction

In the past technology has been something unusual and not all people know what it is or even when and where it should be used. Over the years people all around the world started to recognize that technology become something essential in many aspects of their lives like practical, commercial, cultural, health and educational aspects. (Alshahat, 2009).

Technology has increased dependence on all of the recent aspects and has spread the knowledge that technology can help us and make our life easier just by using it correctly. Using educational technology in education has a lot and different benefits which encourage the lecturers and educators to use it in many different ways. By using technology in education it made the lecturers life easier and the creation of the term E-learning has become a term of education that all the lecturers' who know what it is they were actually encouraging all the educators to use it by combining e-learning with the traditional way of learning.(Roblyer, 2003).

E-learning is all about transferring education from the traditional way of learning to E-learning and it is a kind of education that depends on using technological devices and the internet to deliver information to educators or learners with the smallest effort and cost. (kittanh, 2008).

Educational technology has two sides' materialistic and programming aspects. Materialistic aspects are all about the tools, devices, and simply anything we can touch as for the programming aspects deals with all the intangible things. All of the recent aspects fall under the components of technology. Technology by itself does not just contain the materialistic and intangible things all about creating a new way of thinking and a way to solve problems so E-learning is a big concept that includes all of the recent components altogether. E-learning has a lot and different benefits which gives the ability to learn in any time and place that the educator wants to learn, it also helps to cover up the shortage in lecturers, enables lecturers to develop the use of different ways and tools to teach the educators in Jordanian universities. Elearning has improved the way of teaching any course and education in general (Alfrehat, 2010).

The problem of the study

Technology and imaginative development have occupied our lives in different aspects. People now are actually depending on it in many different aspects. It is necessary to focus on using E-learning term in all its meaning in the process of learning simply because it's going to improve the way of the learning process, it would decrease the paperwork for the lecturers, it gives the freedom for the educator to study anytime and anywhere he/she wants, by teaching using the E-learning term it will give a lot of varieties for the lecturer to create electronic courses within the standards of E-learning depending on the learners or educators themselves and it builds the courage on the educator's mind to develop self-learning.

By learning in two different universities and working on the field of education in Jordan. The researcher noticed that a lot of lecturers in all the learning places that she was in still depend on the traditional ways of teaching without noticing the advantages and how E-learning takes education in different directions. The researcher noticed the importance of changing the traditional way of teaching in all our universities in Jordan into the E-learning and how important to change the way of presenting traditional books into Electronic courses. As noted from the researcher after an exploratory study in different universities such as Middle East University, Petra University, Zaytoonah University, University of Jordan, The Hashemite University and Mutah University the importance of using the E-learning standards should be spread by encouraging number of lecturers in those universities to use the E-learning standards due to this necessity it is important to do a research about the degree of applying E-learning standards by lecturers in designing electronic courses in Jordanian universities. To support the idea of designing electronic courses by the standards of E-learning Alomari study agreed with the importance of creating and designing electronic courses by the E-learning standards.

The results of the exploratory study indicated the importance of using electronic courses in Jordanian university.

Some of the previous studies indicated the importance of designing electronic courses within the standards of E-learning and sharing it online so all the educators can get benefit depending on their interests, ways of thinking ,their times, their places and how they like to learn such as (Zohee ,2014) and (Zetoon,2005) also some previous studies recommended to support the process of creating and publishing the electronic courses within the standards of E-learning on the online pages like (Alomari ,2008) and (Shbat,2019).

The aim and Questions of the study

This study aimed on The Degree of Applying E-learning Standards by Lecturers in Designing Electronic Courses in Jordanian Universities

The Questions of the study

1- What is the degree of applying E-learning standards by lecturers in designing electronic courses in Jordanian universities?

2- What are standards required to be applied in electronic courses?

3- Are there any statistically significant differences at $(0.05 = \alpha)$ by lecturer's in teaching using electronic courses in Jordanian universities duo to the university?

4- Are there any statistically significant differences at $(0.05 = \alpha)$ by lecturer's in teaching using electronic courses in Jordanian universities duo to the collage?

Significance of the study

This current study is about to be represented from two sides and they are the theoretical aspect and practical aspect.

Simply the theoretical aspect focused on representing the importance of Elearning and how it affects the future of learning. On the other side, the practical side focuses on the process and the new technique of learning.

Besides, the study will focus on the current situation of E-learning in general and the acceptance of changing the traditional way of learning from lecturers' point of view to the new way that includes electronic devices and internet to produce and publish electronic courses within the standards of e-learning in Jordanian universities.

Limitations of the study

The study includes public and private universities in Jordan during the academic year 2019-2020.

Delimitation of the study

The results of the study can be generalized on the population that the sample was taken from and on the other societies that have the same properties, also it depends on the validity and reliability of the tools used in the study.

Definition of terms

The following terms were defined conceptually and operationally.

Lecturers

They are instructors who teach and search at universities and they just free to work and teach in the university and they establish one of the scientific ranks. (Abden , 2003).

For the purpose of the study: they are people who got high certificates and they are teaching either in public or private universities in Jordan and they use the standers of e-learning in their own way of teaching.

Electronic courses

It's about the electronic set of curricula or electronic subjects that is creating and publish or put on the internet pages which is directly linked by computers or smart devices and internet (Aldreresh and Abdalaleem, 2017).

For the purpose of the study: It is all about subjects that the lecturers create and send by using the internet and online pages for the students either in public or private universities in Jordan.

Jordanian Universities

The scientific and educational institutions' purpose is to work on all the students who got their high school degrees and work on humanitarian and social issues (alburadei, 2002).

For the purpose of the study: It is a place where students from different cities or towns in Jordan study and get a higher degree in any major they desire either in public or private universities in Jordan to have a better life in the future.

E-learning standards

It is about several rules that support the basis of E-learning by publishing, importing, modifying, and developing the electronic courses on the different sites of E-learning.(Aboi, 2017).

For the purpose of the study: it's about the basic rules or standards that the lecturer of E-learning needs to use to have the perfect environment of

E-learning gives lecturers the ability to publish and create different courses for different learning styles of students who want to learn. Finally helping the lecturer to create the easiest way of communication and giving feedback for the students and vice versa.

Chapter two

Literature review and previous studies

Introduction

This chapter is concerned with a theoretical background about E-learning in specific about the emerge, the meaning, components, tools, properties, the reason of considering it the new way of learning and teaching, what the difference between traditional learning and e-learning and its benefits.

First: literature Review

Background

Technology has fundamentally changed the way people live, work, and even learns. The growth of computers, networks, the internet, and our ways of communication and our new needs of learning has changed over the years.

This adaption of technology and using it in the field of education has affected a lot of things in our way of thinking towards any new information. That encourages the human to create the new term e-learning which occurred in the mid-nineties of this century because of the need for incorporation technology with the needs of learning. To apply the new term E-learning lecturers need to have the knowledge of using it and emerge it with its components. There are lots of components of the E-learning term such as computers, internet, tools, multimedia, electronic courses, virtual classes finally lecturers and students who can use it and deal with it. Simply E-learning means to have all its components and a learner who is unrestrained with the time or place and who learns according to his/her ability and way of understanding any information (alshahhat, 2009).

The Emerge of E-learning

E-learning is a concept that has been developed throughout four stages over the past forty years. The first stage has been in 1983 and that stage was concerned with the traditional way of teaching so it includes the lecturer, students ,and the subject that the teacher taught inside the classroom.

The second stage was from (1983-1993) and it was called the stage of multimedia, simply it was concerned using disks and something was called Macintosh.

The third stage was from (1993-2000) and it was an important to stage because in those years a lot of new things appeared like internet,e-mail ,and programs that exposure videos and all of these things made the development of technology faster. The last stage began from (2000- till our time now) they called this stage the second internet generation because it consisted of faster internet connection. (Alshahat, 2009).

The Meaning of E-learning

It's all about a complete educational environment that consists of all its important components such as teacher, student, and the subject that has been sent for the students using computers on the learning internet pages without controlling the time and place for the learner to learn (Gloom,2003).

The Components of E-learning

There are two main components of E-learning and they are materialistic things like computes, internet, virtual class or the actual classroom and the programs for the E-learning system on the computers which gives the perfect access to lots of different websites and pages to learn about anything anytime and anywhere the students want. The second component are concerned with humans and simply they are teachers who have the knowledge of using technology for teaching and students who have already had experience using this kind of learning. (Mohammad and others, 2009).

The Tools of E-learning

There are many necessary tools for creating the perfect and successful elearning environment such as:

1-A camera is an electronic device or tool that is important and essential in the E-learning process. Using the camera via video calls, conferences or virtual classes helps the teacher and the student to communicate with each other all the time ,and that gives them the feeling of being at the same place even if they are not.

2- A Headset is one of the important devices that the students need in the process of E-learning. It gives the students the right meaning of E-learning, they can use the headsets to listen to lectures or translations for important speeches.

3- A Blog is a way that enables the teacher and the students to communicate with each other in effective ways, students and lecturers can share their photos, ideas, videos ,and learning experience. The lecturers will give feedback to the students and vice versa. Students will have the ability to ask each other questions and comment on the others' work. A blog is a fruitful way that gives the courage for shy students to express themselves and feelings. 4-Programs (Software) to create virtual conferences and simply a lecturer can create an account and by adding all students to this account they can make video calls and share their learning experience. Those programs save their money, time and effort.

5-Programmes for taking notes that help the student arrange to memorize and go back to the important notes anytime they need them and by that it makes the process of learning easier and effortless.

6-Educational programs that help in organizing effective lessons or even virtual classes to learn more effectively and it also gives the permission for the teachers to create online tests. (Zohi, 2014; Zatoon, 2005).

E-learning properties

E-learning helps to create an interactive environment by using multimedia between the teacher and the student also between the students themselves,

It depends on self-learning to build creative self-independent learners, flexibility in the process of learning and by saying that means the student has the ability to go over any subjects he/she wants anytime and anyplace they want to, It encourages students in an indirect way to learn depending on the student needs or interests, furthermore E-learning system gives the permanent need for technology and development that helps to create a perfect situation for learning, the possibility of developing the learning programs gives the situation of learning a new way of dealing with it every class, and the possibility of giving direct feedback without wasting time and effort for the lecturer (Astetah, Sarhan, 2007; Salman, 2010).

Several reasons to use e-learning today in our life

E-learning gives better chances for the learners to learn, the perfect environment to learn and it helps to improve their critical thinking skills, decision-making skills so they solve the problems that they have in their path of learning, gives every possible way to achieve all the goals that the student needs to achieve in the learning process, always leaves good vibes in the learning process and eliminate the individual differences between the learners to give them the right and safe environment to learn(Alataebi,2006; Middle east klasera,2017).

The difference between traditional learning and E-learning

Traditional learning is a process that depends on the teacher themselves because they are only the source of information or the only way to learn. Traditional learning only happens at the same place which is the classroom in the school or university of all students and teacher needs to be at the same place and time to have the same information only form the source of it and it's the teacher and the student has no rights to argue or even to give or add information to it. That traditional learning does not need a lot of money or devices to have the environment to learn traditionally, you just need to be at a specific classroom with your regular books to learn from the teacher. (De,2018).

As for the E-learning, the term is the perfect way for students to learn in our days because it gives them the ability to think, discuss and to add new information about the topic the student is interested in so that builds the critical and individual way of learning on the student mind. E-learning also gives the real communication between the lecturer and students and the students with each other by that it gives the teacher the ability to give their feedback anytime they want to each student. Also, it saves and manages time for both sides the teacher and the student, by having all these benefits it is not a shock that almost all people around the world would prefer this method of learning (Najem,2019).

Benefits of E-learning

It helps to have an easy and effective communication between the teacher and the student and the students themselves, gives the ability to learn in different ways and sources, gives them time to think and to have direct feedback from the teacher, gives sound and visual effects to have an easy way to learn, delivers the information to the students in a fast and easy way, helps to improve the student's behavior, gives a variety of information in many different ways to get the attraction of the student, helps the one who has difficulties in revising the information for the first time which gives them the time to study as much as they want without any embarrassment, It gives a lot of varieties for the lecturer to evaluate students and helps to courage the shy students to speak up about themselves more(Alhashash, 2017; Aljarf, 2001).

The meaning of electronic courses

It's a group of subjects or materials that teachers create and publish online on the learning pages so students of public and private universities can use anytime and anywhere they want to study. (Aldrweesh,Abd alaleem,2017; coutts,smpson and drinkwater,2001).

Kinds of electronic courses

1-Electronic courses that depend on the internet, from its name it's an online page that depends on multimedia (sound, picture, video and text) and this kind of electronic courses described as an easy way to share information by using it and it focuses on the learner without considering the time and place as well as the connection between the teacher and the student.

2-Electronic courses which don't depend on the internet: it's about courses would be created according to specific student standards and it is delivered to the students by using CD's and it does not need a lot of computer skills to deal with it, one of the benefits of this kind of electronic course It is easy to deal with it and it has different levels depending on the level of the student(Aldrweesh & AbdAlaleem ,2017).

Scorm Standard

Scorm stands for shareable content objective reference model was first developed in 2001, it simply means a set of standards for E-learning software products and it tells the programmers how to write their code so it can do what they want in the correct way. The goal was to create a series of standards that would allow training content to become portable and it could be delivered and measured by different LMS platforms. It describes how to create web-based learning content that can be delivered and tracked. The SCORM standard provides an environment for the creation, integration, and use of E-learning content. Ultimately, SCORM standards help instructional designers and authors focus on what's most important, student learning. No matter which tool you're using (Articulate, Captivate, Camtasia, Lectora or Raptivity), the content and coursework you create will work with your LMS choice (including Litmos). (Bakroo, 2017).

Second: Related previous studies

Alfuqaha'a(2004) the research was about the impact of e-learning on the quality of higher education in public and private universities in Palestine. The sample of the study consisted of (384) student from universities form different majors. The finding showed that there is statistically significant differences on the level of $(0.05=\alpha)$ for teaching using compute, internet, comport programs and for using different tools to teach on the quality of higher education in public and private universities in Palestine. Also that there's no statistically significant difference at the level of significance $(0.05=\alpha)$ for the intermediate variable for the kind for the university on the gender and on the way that students think on

the process and tools of e-learning. The researcher suggested of taking care about the E-learning in the Palestine universities.

Alhabib(2007) study aimed to know the real fact about using technology for teenagers to teach them English from the overview of different educational supervisor and principles of Makka's schools also the difficulties that prevent them of using technology to teach English for the middle stage at schools. The sample of the study consisted of (11)English supervisor and (85) principle from schools all around Makkah Al Mukarama. A survey was used to collect data. The finding showed that the degree of using technology in teaching is medium, the difficulties that teachers have for using technology that there's no hardware maintenance officer even though teachers know how to use technology they have. Also there is no significant differences at $(0.05 = \alpha)$ between how did the supervisors and principles respond on the study tool. The researcher suggested to provide every new tool to use to enable teachers use them while teaching after giving them courses about how to use it and always remind them of how much it is important to use it in the process of learning.

Alomari(2008) aimed a study about submitting a suggestion of Saudi virtual university according to e-learning standards and he used Delphie technique. A survey was conducted a sample consisted of (45) teaching members from different majors. The finding helped the researcher to put the correct and comprehensive standards for the virtual university which consists of the input, output, operation and the feedback. On the process of using the virtual universities to study, finally he builds and published a rating card for the university website.

Aleijluni (2008)carried out a study for knowing the reality of using elearning from the teachers in King Khalied bin Abdalaziz University in KSA, determine their direction towards learning and to determine the difficulties they have that prevent them of using e-learning. The sample of the study consisted of (329) teacher from King Khalied bin Abdalaziz University.

The researcher used a tool and divides it into three ways. The first one is to answer a question, the second is to know how much does the teacher use elearning and the last one is to answer what the difficulties that prevents them of using e-learning. The result of the study showed that aviary ratio of teachers now uses E-learning in their way of teaching in King Khalied bin Abdalaziz University and there is no significant at $(0.05=\alpha)$ Between the degree of using E-learning and the academic degree, teachers now teach in King Khalied bin Abdalaziz University have positive attitude towards E-learning. There are some difficulties of using E-learning at the university on a high rate depending on the scale. The researcher suggested improving the materials for using E-learning at the university.

Al-Kilani's study (2009) aimed to reveal the degree of Arab Open University students using e-learning from the viewpoint of faculty members and students at the university. The sample of the study consisted of (482) students and (24) faculty members. The sample was chosen in a random stratified way from the study community and through the use of two tools, namely, providing a questionnaire and an interview with faculty and students. The validity and reliability of the two tools were verified and results showed that the degree of use by Arab Open University students for e-learning from the viewpoint of faculty members and students themselves at the university was the overall average overall. And the absence of statistically significant differences at the level of significance ($\alpha = 0.05$) between the averages of the responses of the study members to the degree of the use of students of the Arab Open University for e-learning from the viewpoint of students according to the gender variables

and the student's academic level in all fields and the total score in the fields, as well as the absence of differences from one point The faculty members considered according to the variables of experience and branch. And the presence of statistically significant differences at the level of significance ($\alpha =$ 0.05) among the averages of the responses of the members of the study sample to the degree of the use of the open Arab students for e-learning according to the variable of experience, the use of the learning management system in all fields, the total score for the fields, and in favor of the average responses of students who have experience of (2-4 years).

The presence of statistically significant differences at the level of significance ($\alpha = 0.05$) between the averages of the responses of the study members to the degree of the use of students of the Arab Open University for e-learning according to the variable of the branch in the field of student use of Internet services and the total degree and in favor of the Kuwait branch. Finally, there are no statistically significant differences at the level of significance ($\alpha = 0.05$) between the averages of the responses of the members of the study sample for the use of Arab Open University students for e-learning from the viewpoint of faculty members according to the variables of experience and branch, in the three fields and the total score.

Abdo's study (2012) aimed to identify the perceived quality of website services in achieving added value from the viewpoint of students of private universities, and the study used the descriptive and analytical method. The researcher distributed a questionnaire to (500) male and female students from the Middle East University. It has reached several results, namely: A direct and strong relationship between the perceived quality of website services in achieving added value and the extent to which the quality of website services contributes to explaining the discrepancy in the added value and its dimensions ,the presence of a statistically significant effect of the quality of websites services with their dimensions (speed of access, ease of use, sufficiency and comprehensiveness of the information, form and design of the site) on the value added in its dimensions (financial value, utility value) at the level of statistical significance ($\alpha = 0.05$).

Finally, the importance of the university's website's ability to provide credible information indicates the adequacy and comprehensiveness of the information on the website, with the need for programmers and a technical support team for the website.

Altabeb study (2014) focused on identifying the impact of the use of information technologies in the educational process and identifying the most important criteria that should be used in this type of education. The study consisted of a sample that includes (60) faculty members in the College of Arts and Sciences from various departments - Tarhun - Al-Margab University. The study reached several results, which are an affirmation of the importance of organizational aspects as the most important component of investing in information technology. The study indicates the need to consider existing reclamation methods and the use of information technology in the educational process and its impact on the educational process and the response of learners and increase their motivation in the educational process. The study included several recommendations, which are working on looking and renewing existing learning methods, as well as working to rehabilitate the teacher who is intended to use modern technologies in learning and finally clarify the importance of modern technologies to the learner and stimulate his motivation to use them in the educational process.

Al-Ajouri Study (2018) sought to identify the degree of availability of the basic requirements for the use of electronic communication methods in administrative work for principals of private schools in Al-Qweismeh Directorate from the teacher point of view and the difficulty of using them. The random stratified sample consisted of (145) male and female teachers from private schools in the Qweismeh Directorate in the Kingdom of Jordan, and using the descriptive survey method for this study. To achieve the goals of the study, a questionnaire was distributed to the faculty members. The results indicated the absence of statistically significant differences in the degree of availability of the basic requirements. For the use of electronic means of communication in the administrative work of the directors of the targeted private schools due to the variables (educational qualification, gender, experience, and scientific specialization). The requirements were high for eight of the technical requirements for the availability of (electronic) means of communication. The study recommended that plans, programs and policies should be put in place to activate the electronic communication process between all educational institutions from government agencies according to a specific time period and that includes all geographical regions.

Shbat(2019) study aimed to develop a proposal for a Jordanian virtual university in the light of the comprehensive quality standards from the expert's point of view. An intentional sample of (100) faculty members was used in the field of educational technology, curricula, teaching methods, and information and communication technology in education in Jordanian public and private. After the descriptive analytical approach was adopted and the development of comprehensive quality standards for the Jordanian Virtual University consisting of (60) paragraphs were presented to the members of the intended faculty. The results showed that all the criteria that should be met in the virtual university are high scores with an average score of(4.02). As a result of these results, a proposal was made for a Jordanian virtual university in line with these standards, and the leadership recommended that a virtual university be established under governmental establishment at the highest levels, especially academic accreditation.

Japhet (2018) article aimed to identify the factor that influence teacher's adoption and integration of ICT in teaching /learning process. The reason behind this study is the strategic importance of ICT in education in general and the practical way and it's a great way to switch the traditional way of teaching in the regular classroom. This article focused just on the teacher perspective to see what the impact is or difficulties that will appear in the process of examine the theory of the article. The article took a place in Deakin University. The sample of the study consists of (6) teachers but only four teachers who have already come from different universities agreed to participate. A qualitative case study was used. An interview was made with them to collect data. The result of the study was almost all teachers are with the adaption and integration of ICT.

Lee and Suresh study (2015) aimed on the effectiveness of a learner-directed model for E-learning. The sample of the study involved 25 undergraduate students' volunteers from Athbasca University to study and evaluate one unit or adapted content material form introduction to Java programming. The researcher collected data using five data collection (pre-test /posttest, log file data, survey and follow up interviews).

The finding of the study shows that there was no significant difference in performance between the experimental group and control group over the course of this experiment at $(0.05=\alpha)$. Also the analysis shows that there is no difference between the performance of the experimental and control group on pre-test and post-test for both domain knowledge and study skills $(0.05=\alpha)$. One tailed statistic was employed in post-test comparison as it was predicted that the experimental group would perform better than control group. The result of the comparison of the survey results between the experimental and control group show a significance differences in their response $(0.05=\alpha)$.

Alzboon and Hamdi study (2018) aimed to show the effect of teaching by using electronic courses system (Moodle) on the university of Jordan student's achievement of computer skills course and on improving social communication
skills. The sample of the study consisted of (30) students and it was divided into two groups: experimental group with (30) students while the second formed the control group with (30) students.

The researches collected data using a test to measure the achievement of the students and the development of social communication. The tool of the study was an achievement test consist of (30) questions and (22) question to measure the impact of teaching using e-courses in academic achievement and the development and the development of social communication for members of the sample, and the veracity of the study tools and persistence were ascertained. The study reached several results, which there is a significant difference between mean scores of academic achievement and grades on a scale of social communication skills due to the variable method of teaching and in favor of the experimental group which studied the of electronic courses (Moodle). It was found statistically significant differences between the mean scores on the dimensions of the third social communication with the self, lecture and with colleagues, due to the method of teaching and in favor of the experimental group which studied the use of electronic courses (Moodle). The study recommends in urging officials to take advantage of the positive impact of the use of ecourses system (Moodle) in social communication skill development at the university of Jordan students, and educating students of the importance of ecourses system by holding seminars.

Aikina, Sumtsova and Pavlo(2015) article aimed implementing electronic courses based on Moodle for foreign language teaching at Russian technical universities. The reason of this article is to put a special emphasis placed on blended learning as pedagogical approach of high priority. The authors come to the conclusion that electronic courses designed by means of the e-learning platform Moodle are ideally suitable for the efficient blended learning implementations. (Abstract from author).

Alragbi(2019) article aimed on use of massive open online courses (MOOCs) as an electronic training platform for the professional development of science teachers in Jeddah. The researcher used the semi-experimental approach in a one group design. The experiment was applied to the basic sample of research (30) education east Jeddah girls, who received the active learning course through direct training and they were randomly selected unintentionally.

The researcher used two tools to collect data related to the study. Number one is about (20) paragraph tribal dish, in addition to a questioner to measure the sample satisfaction (MOOCS) as a platform for distance training, consisting of (48) paragraph. The study reached several results, the most important of which are: MOOCS achieved an efficiency level in the results of the achievement test with an average of (5.17) score for pre-test compared to (19.63) in the post-test. The size of the calculated effect reached (0.99). This means that the size of the impact is great for the use of open source electronic courses (MOOCs) in the professional development of science teachers in Jeddah. There is satisfaction with science teachers on the use of MOOCs in their professional development, where the mean is 4.37, indicating that there is satisfaction (strongly agree) on the questionnaire of satisfaction with the use of MOOCs as a distance training platform for the professional development of them. The standard deviation of the general arithmetic mean (0.119), which is a value and a sign of the great homogeneity between the responses of the members of the research sample (science parameters) on the expressions of satisfaction questionnaire In light of the results, the researcher presented a set of recommendations, the most important of which are: To promote the culture of e-learning using electronic educational platforms MOOCs. Provide open and continuous training programs for in-service teachers for their effectiveness and development. Taking advantage of the current study tools, namely (the

achievement test- the measure of satisfaction) to assess the impact of professional development for science teachers in Jeddah.

Kent A.walstorm(2014)Lessons Learned from Migrating to an Online Electronic Business Management Course. The article describes the lessons learned while migrate an Electronic Business Management course from traditional face-to face delivery to online delivery across a six and a half year time frame. The course under review teaches students how to develop and construct a working information-based online business using free versions of online resources. Over (220) students completed this course as a traditional face-to-face class and over (300) students have completed this course as an online class. Student performance and satisfaction remained mostly consistent across delivery methods. Reflections include lessons learned and suggestions to aid in developing a course for online delivery. Course evaluations remained stable during the migration of the course to an online environment. The Electronic Business Management course migration was considered successful.

Alrntesi, Mahmmoud (2015) The researcher aimed on the effect of using the blended learning and hypermedia on achievement of knowledge and the acquisition of digital photography skills of journalism students at the Al Auma

University in Gaza. The researcher used the experimental method, the sample of the research consist of (30) students were divided equally into experimental and control group, the researcher developed achievement test consisted of (40) questions as multiple choice also the researcher developed observation card consisted of (24) paragraph in order to measure practice skills. The result of the research was that there was a significant difference at the level of results (0.01 = α) between the experimental group students and control group in cognitive achievement test in favor for the experimental group was (0.62). Also there is a significant difference at the level $(0.01 = \alpha)$ in the observation in the observation card between the experimental group students and the control students favor for the experimental group, the effect size of the observation card was (0.76). Finally the researcher recommended using the blended learning and hypermedia when teaching journalism.

Alhnehini,Eman (2013). The researcher aimed on the attitudes of accounting instructors and students at Jordanian universities towards using information technologies in teaching comparative study between public and private universities. A questionnaire was prepared and distributed to the study sample that consist of (39) accounting instructor and (200) female and male students who study accounting at the Jordanian universities. The result of the questionnaires items using the suitable statistical method aimed that the attitudes of accounting instructors and students at Jordanian universities toward using information technologies in teaching are good. The statistical analysis showed that there are no statistical differences between attitudes of respondents at public and private universities. The study recommended the need of university administration to encourage the instructors to use computer in teaching various accounting courses and the need for universities to modify computer applications courses commensurate with accounting systems applicable in practical life to prepare students for the labor market better.

Almlhm,Eman , Aldr,Maha and Almteran,Noora(2018) conducted a study about the reality of using students Blackboard learning management system in electronic courses at King Saud university. A survey was conducted on a sample included (117) students. The researchers used the descriptive approach. The findings showed. With regard to the ratio of the sample treated with a learning management system tools 'Blackboard was as follows: 72.6% of respondents have dealt with the tool download content "lectures" '66.7% tool download duties or otherwise '74.1% of tests '52.1% for the bulletin board '44.4% for the panel discussion "forums" '32.5% tool tasks '35.9% of messages '31.6% Center estimates '13.7% Blogs '11.1%' Virtual Classroom '6% Glossary '0.9% swap files. The highest percentage of the number of decisions that have been studied through the system decisions were by 23.1% · and 96.6% of respondents did not receive training sessions on the system ·59.8% of respondents with desire to study the decisions of the other through the system. Response of the sample on the extent of use of learning management system "Blackboard" in the entry of the active electronic courses was medium ranged between (3.79 - 2.03 out of 5) compared with the arithmetic average of the year (2.66). The most difficulties faced by students when using the learning management system "Blackboard": lack of training courses with an average (4.03), and difficulty in obtaining technical support with an average (4.02) of 47.4% degree.

The researchers recommended that students should be trained in the learning management system, and encouraged to use it.

Abdalwhab,Salwa (2019) The criteria of assessment types and tools in Arabic massive open online courses. Sample was (33) courses at (13) Arabic platform. Results revealed the assessment types were self-assessment, peerassessment and automated assessment and assessment tools were easy electronic tests and tasks. The researcher identified a list of assessment criteria in Arabic massive open online courses, and found that the level of availability of assessment criteria of learners in the Arabic massive open online courses platform was less than required level 80%.

Abo korss, Joelle (2019) The researcher aimed to measure the degree of availability degree of quality standards in the design of electronic tests for the level exams from faculty member's point of view in Jordanian universities. The study used the descriptive method, by developing a questionnaire and verifying its validity and stability. The results of the study showed that the assessment of the faculty members to the degree of availability of quality standards in the design of the electronic tests for the level test was high and the estimates of faculty members for all areas in high degree also. The latter showed that there were no statistically significant differences between the average estimates of the faculty members to the degree of availability of quality standards in the design of electronic tests for the level examination in the Jordanian universities due to gender variables, and academic rank. Also the results showed that there are statistically significant differences between the average of the faculty members estimates for the availability of the quality standards in the design of the electronic tests for the level estimates for the availability of the quality standards in the design of the electronic tests for the level examination in

Jordanian universities due to the variable type of university (government, private).

The study recommended the development of quality standards for the electronic tests in the level test to take into account students with special needs, and the holding of workshops and training courses for faculty members on the quality of electronic tests in the level exams, and the use of different patterns in those tests.

Summary of the previous studies

Previous studies discussed the teacher actual use of e-learning at universities and schools such as Alomari(2008), Al-Kilani's (2009), Altabeb (2014), Shbat (2019), Alhabib (2007), Aleijluni (2008), Al-Ajouri Study (2018) and Abo korss , Joelle (2019).

In addition, studies discussed student's attitudes towards using different ways of e-learning such as Alfuqaha'a (2004), Al-Kilani's (2009), Abdo's (2012), Lee and Suresh study (2015), Alzboon and hamdi (2018), Alragbi (2019), Kent A.walstorm(2014), Alrntesi, Mahmmoud(2015), Japhet (2018),

Alhnehini,Eman (2013), Almlhm,Eman and Aldr,Maha and Almteran,Noora (2018). Lastly Abdalwhab,Salwa(2019) article was on the electronic courses. The sample size of the previous studies ranged from (6) as in Abdalwhab,Salwa(2019) study to (506) as in Al-Kilani's study (2009)study.

The sample size of the current study was (651) private and public university faculty members.

With regard to the instruments used in the previous studies were a questionnaire, focused on students and teachers in different schools but the questionnaire of this study focused on lecturers in public and private universities and in human and scientific collage on them, after finding their validity and reliability.

Thus, previous studies paved the way and helped in the design and methodology of the study. So, the current study will rely on some previous studies to build a questionnaire. Additionally, findings from previous studies will help in making sense of the results of the current study when it is discussed in chapter five. However, the current study differed from the previous studies on the degree of applying E-learning standards in public and private Jordanian universities and on the human and scientific collage.

This study has agreed with some previous studies on whom the study were on and it was on lecturers like: Alomari (2008), Alajloni (2008), Shbat (2019) and Altabeeb (2014).

The current study will rely on some previous studies to have information to build questionnaire additionally, findings from previous studies will help in making sense of the results of the current study.

Chapter Three

Methodology

Introduction

This chapter included the research methodology used in this study, population, the sample of the study, instruments of the study and their validity and reliability. It included also a description of the procedures of the study used in applying the two instruments as well as the procedures of the study and the statistical manipulation in analyzing data.

Research Methodology

A quantitative (descriptive surveying one) research method was used as the appropriate method for this study, and one questionnaire was used applied to collect data, after assuring their validity and reliability.

The population of the study

The population of the study consisted of all male and female lecturers in different Jordanian universities for the academic year 2019-2020. Their total number was (3870) lecturer, distributed on three main districts: North, south ,and middle of Jordan (1). The distribution of the population on the study was according to the university district and the kind of collage (human or scientific).

The sample of the study

Six university districts were chosen randomly from the population a stratified randomly selected method was employed through. Two universities were from south Jordan, two from the center of Jordan, and two from the north of Jordan. The proportional stratified random sample was chosen according to the different kinds of universities variable from these three districts (south, north ,and center of Jordan). The sample subjects were (651) lecturers. The size of the sample was determined after returning to the table of determining the sample size of the population that was prepared by Krejcie and Morgan (1970). As shown in table (1).

Table (1)

The distribution of the sample subjects according to the kind of the university and the collage.

| | | Frequency | Percent |
|----------------|------------|-----------|---------|
| The university | Public | 418 | 64.2 |
| | Private | 233 | 35.8 |
| The college | Scientific | 278 | 42.7 |
| | Humanities | 373 | 57.3 |
| | Total | 651 | 100.0 |

The instruments of the study

The researcher adopted one instrument to collect data which is a selfadministered questionnaire and it consisted of (52) questions. It was to measure the degree of applying E-learning standards in designing electronic courses in Jordanian universities developed from Ahmad and Saeed (2013) study.

The validity of the instrument

Validity refers to the ability of the instrument to measure what was a citation for. (Lynn,19860). To make sure of the face validity of the instrument, the researcher distributed copies of the questionnaire in two different languages to 10 faculty staff members as shown in the appendix (3), to judge the face and content validity of the items, or if they need and modification or deletion. Items that gained 80% of agreement from the jury and more were selected from the questionnaires. The researcher modified the items that the jury suggested modification or delete them. The questionnaire was "the degree of applying E-learning standards in designing electronic courses in Jordanian universities" consisted of (68) items in its initial form and (52) items in its final form.

The Reliability of the instrument

In this research, the reliability of the instrument was tested using the reliability coefficient of Cronbach's alpha (internal consistency), which includes (651) respondents representing the sample of the target population.

| N | Domain | Cronbach alpha | | | | |
|---|---|----------------|--|--|--|--|
| 1 | The objectives of the electronic course | 0.93 | | | | |
| 2 | Methods of learning and teaching | 0.93 | | | | |
| 3 | Electronic course description | 0.94 | | | | |
| 4 | Multimedia | 0.94 | | | | |
| 5 | Students Affairs | 0.94 | | | | |
| | Total Score | 0.96 | | | | |

| Table (2) |
|-----------|
|-----------|

| Cronbach's alpha coefficients values. |
|---------------------------------------|
|---------------------------------------|

The values of Cronbach's α for all research variable ranged from 0.93 to

0.96, which confirms an acceptable level of reliability.

The stability of the study tool

To ensure the stability of the study tool the test-retest method was checked by applying the scale, and re-applying it after two weeks to a group outside the study sample consisting of (30), and then the Pearson correlation coefficient was calculated between their estimates both times.

The stability coefficient was also calculated by the method of internal consistency according to the Cronbach alpha equation, and table (2) shows the coefficient of internal consistency according to the Cronbach alpha equation and the stability of the tool and all the standards after distributed it again, and these values were considered appropriate for the purposes of this study.

Table (3)

The internal consistency coefficient of the Cronbachalpha ,and the return stability of the domains and the total score.

| Domain | Test retest | Cronbach alpha |
|---|-------------|----------------|
| The objectives of the electronic course | 0.92 | 0.90 |
| Methods of learning and teaching | 0.91 | 0.91 |
| Electronic course description | 0.94 | 0.90 |
| Multimedia | 0.90 | 0.93 |
| Students Affairs | 0.93 | 0.91 |
| Total Score | 0.95 | 0.95 |

The questionnaire uses the 5-point Likert scale ranging from very high (5), High (4), medium (3), Low (2) and Very low (1), to measure the sample perceptions on the study variables. Table (3.3) shows the distribution of three categories (High, Medium, Low) according to the scale used in the research instrument for the five-dimensional Likert scale based on equation 1.

The variable of the study:

Independent mediator variables: The university: (public and private) The college: (human and scientific) Dependent variable: The degree of applying E-learning standards by lecturers in designing electronic courses in Jordanian universities.

Data analysis

To find out the degree of applying e-learning standards in designing electronic courses in Jordanian universities in the government of the three regions: south, north and central of Jordan, the following formula was used:

Number of categories

Therefore the scale unit

5-1

____ = 1.33 the range 3

Table (4): Distribution categories

| Description | Term |
|-------------|----------|
| 1.00-2.33 | Low |
| 2.34-3.67 | Moderate |
| 3.68 – 5 | High |

To answer question one, means, standards, deviation and ranks were used.

- 1- To answer question three and four, t-test were used to show the differences according to the university and college variables. While one-way ANOVA were used.
- 2- Pearson correlation coefficient and Cronbach Alpha were used to find out the reliability and the internal consistency of the questionnaire.

Procedure of the study

After determining the study population of the study and drawing the sample, the researcher conducted the following procedures:

1- Developing the questionnaires to collect data.

2- Obtaining one letter for facilitating the task of conducting the study from the Middle East University for the universities. As seen in appendix (4)

3- Distributing the questionnaires on the sample subject.

4- Collecting all the copies of the questionnaires after filing them from the sample subjects.

5-The researcher will distribute the achievement of the resolutions to the sample that will be chosen.

6- Presenting and discussing the results with the supervisor and discussing those results by comparing them with previous studies.

7- The data was processed on the computer using the SPSS program in the process of unloading, analysing and processing data through.

8-Arithmetic averages and standard deviations were used in order to answer the first question.

9- A T-test was used to show the differences according to the university and college variables, and to answer the second and third questions.

10- Building appropriate recommendations in accordance with the results that will be reached.

Findings

Introduction

This chapter presents the findings of the study, in light of its questions, as the following:

To answer the first question of the study, "What is the degree of applying E-learning standards by lecturers in designing electronic courses in Jordanian universities?"

To answer this question means and standard deviations, ranks and the degree of applying E-learning standards in designing electronic courses in Jordanian universities were computed as presented in tables below.

1- What is the degree of applying E-learning standards by lecturers in designing electronic courses in Jordanian universities?

Table (1)

Means and standard deviations of the degree of applying E-learning standards in designing electronic courses in Jordanian universities, ranked in a descending order.

| Rank | N | Domain | Mean | Std. Deviation | Degree |
|------|---|---|------|-------------------|----------|
| 1 | 1 | The objectives of the electronic course | 3.48 | .824 | Moderate |
| 2 | 2 | Methods of learning and teaching | 3.44 | .885 | Moderate |
| 2 | 4 | Multimedia | 3.44 | .852 | Moderate |
| 4 | 3 | Electronic course description | 3.37 | .861 | Moderate |
| 5 | 5 | Students Affairs | 3.06 | .870 | Moderate |
| | | Total Score | 3.35 | .775 | Moderate |

Table (1) shows that "The objectives of the electronic course" receives the highest mean (3.48) regarding the degree of agreement followed by "Methods of learning and teaching" and "Multimedia" with mean (3.44) while "Students Affairs" was ranked last with mean (3.06). This table also shows that the Total Score mean is (3.35).

Mean and standard deviation of each item in each standard were calculated as shown in the following tables.

1. The first standard: The objectives of the electronic course

Table (2)

Means and standard deviations of the objectives of the electronic course items, ranked in a

| Rank | N | Item | Mean | Std. Deviation | |
|------|---|--|------|-------------------|----------|
| | | | | Deviation | |
| | | The message of the electronic course in | | | |
| 1 | 2 | the planning process starts from the | 3.66 | .903 | Moderate |
| | | university's message. | | | |
| | | | | | |
| 2 | 6 | The objectives focus on learning | 3.53 | .950 | Moderate |
| | | outcomes, not the learning process itself. | | | |
| | | The message of the electronic course in | | | |
| | | The message of the electronic course in | | | |
| 3 | 1 | the planning process starts from the | 3.49 | 1.040 | Moderate |
| | | college's message. | | | |
| | | | | | |

descending order.

| Rank | N | Item | Mean | Std. Deviation | |
|------|---|--|------|-------------------|----------|
| 4 | 3 | The message of the electronic course in the planning process starts from the university message. | 3.48 | 1.022 | Moderate |
| 5 | 4 | The objectives are clear in the electronic course description. | 3.45 | 1.028 | Moderate |
| 6 | 7 | The Objectives include a description of the learning content expected to be achieved by the students. | 3.41 | .951 | Moderate |
| 7 | 5 | The objectives of the electronic course are formulated in a measurable way. | 3.36 | 1.078 | Moderate |
| | | The objectives of the electronic course | 3.48 | .824 | Moderate |

Table (2) shows that Item 2 "The message of the electronic course in the planning process starts from the university's message" receives the highest mean (3.66) regarding the degree of agreement followed by item 6 "The objectives focus on learning outcomes, not the learning process itself" with mean (3.53), while item 5 "The objectives of the electronic course are formulated in a measurable way" was ranked last with mean (3.36). This table

also shows that the objectives of the electronic course means as a whole is (3.48).

The second standard: Methods of learning and teaching

Table(3)

Means and standard deviations of Methods of learning and teaching items, ranked in a

descending order.

| Rank | N | Item | Mean | Std. Deviation | Degree |
|------|----|---|------|-------------------|----------|
| 1 | 10 | The use of electronic courses works to develop self-learning for the learner. | 3.66 | 1.061 | Moderate |
| 2 | 11 | Students are assigned to do some activities related to e-courses through the process of learning. | 3.66 | 1.079 | Moderate |
| 3 | 9 | There are a lot of Teaching methods vary such as :(lecture, discussion, brainstorming, projects, etc.). | 3.57 | 1.068 | Moderate |

| Rank | N | Item | Mean | Std. Deviation | Degree |
|------|----|---|------|-------------------|----------|
| 4 | 14 | The electronic courses include tools suitable for students' interaction, such as forums, chat and e-mail. | 3.57 | 1.105 | Moderate |
| 5 | 13 | There are various examples that facilitate the process of learning by electronic courses. | 3.41 | 1.053 | Moderate |
| 6 | 8 | There is an announced plan for the e- learning strategy at the university. | 3.31 | 1.213 | Moderate |
| 7 | 12 | There is a guiding system for students that explain how to work in electronic courses. | 3.30 | 1.103 | Moderate |
| | | Methods of learning and teaching | 3.44 | .885 | Moderate |

Table (3): shows that Items 10 and 11 "The use of electronic courses works to develop self-learning for the learner", and "Students are assigned to do some activities related to e-courses through the process of learning" receive the highest mean (3.68) regarding the degree of agreement, while item 12 " There is a guiding system for students that explain how to work in electronic courses" was ranked last with mean (3.30). This table also shows that the Methods of learning and teaching mean as a whole is (3.44).

Third standard: Electronic course description

Table(4)

Means and standard deviations of Electronic course description items, ranked in a

| Rank | N | Item | Mean | Std. Deviation | Degree |
|------|----|---|------|-------------------|----------|
| 1 | 25 | The online course contains links to other learning resources that help to achieve learning goals. | 3.54 | .975 | Moderate |
| 2 | 23 | The electronic course is provided with scientific references and sources. | 3.53 | 1.014 | Moderate |
| 3 | 24 | The course content takes into account individual differences between students. | 3.52 | 1.038 | Moderate |
| 4 | 22 | Availability of scientific accuracy in the offered electronic courses. | 3.51 | 1.004 | Moderate |

descending order.

| Rank | N | Item | Mean | Std. Deviation | Degree |
|------|----|--|------|-------------------|----------|
| 5 | 27 | The e-course contains links to other learning resources that help achieve the learning goals. | 3.39 | 1.034 | Moderate |
| 6 | 20 | The pages of the electronic course are clear. | 3.37 | 1.112 | Moderate |
| 7 | 17 | The design of the decisions shall take into consideration the observations of the specialists and the beneficiaries. | 3.36 | 1.010 | Moderate |
| 8 | 18 | The course includes a documentary bag that includes (course description, a copy of student assignments, exercises, projects, tests, and distribution of grades). | 3.32 | 1.047 | Moderate |
| 9 | 15 | The electronic courses align with the philosophy of higher education in order to achieve its mission. | 3.31 | 1.040 | Moderate |
| 10 | 21 | Layout of electronic course pages appropriate for educational content. | 3.29 | 1.060 | Moderate |

| Rank | Ν | Item | Mean | Std. Deviation | Degree |
|------|----|--|------|-------------------|----------|
| 11 | 19 | The use of electronic courses meets the skills of the labor market. | 3.18 | 1.055 | Moderate |
| 12 | 16 | The use of electronic courses meets the needs of society. | 3.17 | 1.037 | Moderate |
| 13 | 26 | The course content takes into account individual differences between students. | 3.10 | 1.041 | Moderate |
| | | Electronic course description | 3.37 | .861 | Moderate |

Table (4): shows that Item 25 "The online course contains links to other learning resources that help to achieve learning goals" receives the highest mean (3.54) regarding the degree of agreement followed by item 23 "The electronic course is provided with scientific references and sources" with mean (3.53), while item 26 "The course content takes into account individual differences between students" was ranked last with mean (3.06). This table also shows that the Electronic course description mean as a whole is (3.37).

The fourth standard: Multimedia

Table (5)

Means and standard deviations of Multimedia items, ranked in a descending order.

| Rank | N | Item | Mean | Std. Deviation | Degree |
|------|----|---|------|-------------------|----------|
| 1 | 32 | The font size is suitable for learners' characteristics. | 3.63 | 1.002 | Moderate |
| 2 | 35 | All images used in electronic courses are read and clearly defined. | 3.61 | .992 | Moderate |
| 3 | 36 | The images used represent the electronic course clearly. | 3.57 | 1.000 | Moderate |
| 4 | 33 | The audio files used in the course help to clarify the electronic course. | 3.54 | 1.080 | Moderate |
| 4 | 34 | Sound meets other media objectives of the online course. | 3.53 | 1.039 | Moderate |
| 6 | 28 | Multimedia is used to display electronic courses. | 3.50 | .985 | Moderate |
| 7 | 31 | Headlines are distinct from sub-text in electronic courses. | 3.46 | 1.051 | Moderate |

| Rank | N | Item | Mean | Std. Deviation | Degree |
|------|----|--|------|-------------------|----------|
| 8 | 29 | The use of multimedia is consistent with the nature and objectives of the offered courses. | 3.42 | 1.001 | Moderate |
| 9 | 30 | Multimedia is presented in an integrated manner within the content of the electronic course. | 3.42 | 1.002 | Moderate |
| 11 | 40 | The use of calm colors and backgrounds related to the topic. | 3.39 | 1.014 | Moderate |
| 12 | 39 | Video of suitable size is used in electronic courses. | 3.37 | .995 | Moderate |
| 10 | 41 | The multimedia elements are combined in a way that attracts the attention of students. | 3.36 | .975 | Moderate |
| 13 | 37 | Moving images move at a time convenient for students to learn quickly. | 3.26 | .991 | Moderate |
| 14 | 38 | More than one mobile image is displayed at the same time in teaching the electronic course. | 3.04 | 1.021 | Moderate |

| Rank | N | Item | Mean | Std. Deviation | Degree |
|------|---|------------|------|-------------------|----------|
| | | Multimedia | 3.44 | .852 | Moderate |

Table (5): shows that Item 32 "The font size is suitable for learners' characteristics" receives the highest mean (3.60) regarding the degree of agreement followed by item 35 "All images used in electronic courses are read and clearly defined" with mean (3.59), while item 38 "More than one mobile image is displayed at the same time in teaching the electronic course" was ranked last with mean (3.04). This table also shows that the Multimedia mean as a whole is (3.44).

Fifth standard: Students Affairs

Table(6)

Means and standard deviations of Students Affairs items, ranked in a descending order.

| Rank | N | Item Mea | | Std. Deviation | Degree |
|------|----|---|------|-------------------|----------|
| 1 | 46 | Taking students' opinions through using electronic courses in the quality of teaching and learning. | 3.24 | 1.041 | Moderate |
| 2 | 45 | Take into account the tests the nature of students' abilities. | 3.19 | 1.032 | Moderate |
| 3 | 50 | The use of the electronic course works to evaluate the performance of teachers at the end of the course's teaching. | 3.17 | 1.105 | Moderate |
| 4 | 47 | The use of the online course is based on the academic achievement level of students. | 3.12 | 1.069 | Moderate |
| 5 | 42 | The course is based on high quality standards for student selection. | 3.09 | 1.062 | Moderate |

| Rank | N | Item | Mean | Std. Deviation | Degree |
|------|----|--|------|-------------------|----------|
| 6 | 48 | The online course is concerned with class activities. | 3.02 | 1.082 | Moderate |
| 7 | 51 | The electronic course includes a formative evaluation followed by immediate feedback. | 3.01 | 1.074 | Moderate |
| 8 | 44 | A guidebook for students will be distributed with the course. | 2.99 | 1.076 | Moderate |
| 8 | 49 | Teaching the electronic course takes into consideration the individual differences of students. | 2.99 | 1.130 | Moderate |
| 10 | 52 | The online course is designed by a group of specialists in education technology, psychology and languages. | 2.94 | 1.141 | Moderate |
| 11 | 43 | Numbers of students are accepted in the initial studies according to the plan for teaching the courses. | 2.91 | 1.093 | Moderate |
| | | Students Affairs | 3.06 | .870 | Moderate |

Table (6): shows that Item 46 "Taking students' opinions through using electronic courses in the quality of teaching and learning" receives the highest mean (3.24) regarding the degree of agreement followed by item 45 "Take into account the tests the nature of students' abilities" with mean (3.19), while item 43 "Numbers of students are accepted in the initial studies according to the plan for teaching the courses" was ranked last with mean (2.91). This table also shows that the Students Affairs mean as a whole is (3.06).

2- Are there any statistically significant differences at $(0.05 = \alpha)$ for the lecturer's in teaching using electronic courses in Jordanian universities due University Type variable?

To find out whether there are statistical significant differences (α =0.05) between the means of the lecturer's in teaching using electronic courses in Jordanian universities due University Type variable, t-test for independent samples analysis was conducted and the results are shown in table(7).

Table (7)

t-test results of the lecturer's in teaching using electronic courses in Jordanian universities due University Type variable.

| | The university | Ν | Mean | Std. Deviation | t | df | Sig. (2- tailed) |
|--------------------------------|----------------|-----|------|-------------------|--------|-----|---------------------|
| The objectives | Public | 418 | 3.36 | .843 | -5.144 | 649 | .000 |
| of the electronic course | Private | 233 | 3.70 | .742 | | | |
| Methods of | Public | 418 | 3.29 | .917 | -5.999 | 649 | .000 |
| learning and teaching | Private | 233 | 3.71 | .752 | | | |
| Electronic | Public | 418 | 3.24 | .915 | -5.261 | 649 | .000 |
| course description | Private | 233 | 3.61 | .698 | | | |
| Multimedia | Public | 418 | 3.36 | .907 | -2.976 | 649 | .003 |
| Wutthinedia | Private | 233 | 3.57 | .727 | | | |
| Students | Public | 418 | 2.93 | .899 | -5.173 | 649 | .000 |
| Affairs | Private | 233 | 3.29 | .764 | | | |
| Total Score | Public | 418 | 3.23 | .819 | -5.273 | 649 | .000 |
| | Private | 233 | 3.56 | .639 | | | |

Table (7): shows there are statistically significant differences at (α = 0.05) due to University type variable in all domains and in total score in favor of private universities.
3- Are there any statistically significant differences at $(0.05 = \alpha)$ for the lecturer's in teaching using electronic courses in Jordanian universities due College variable?

To find out whether there are statistical significant differences (α =0.05) between the means of the lecturer's in teaching using electronic courses in Jordanian universities due College variable, t-test for independent samples analysis was conducted and the results are shown in table (8).

Table (8)

T-test results of the lecturer's in teaching using electronic courses in Jordanian universities due college variable.

| | The college | N | Mean | Std. Deviation | t | df | Sig. (2- tailed) |
|------------|-------------|-----|------|-------------------|-------|-----|---------------------|
| The | Scientific | 278 | 3.56 | .768 | 2.065 | 649 | .039 |
| objectives | Humanities | | | | | | |
| of the | | | | | | | |
| electronic | | 373 | 3.43 | .860 | | | |
| course | | | | | | | |
| | | | | | | | |

| Scientific | 278 | 3.50 | .886 | 1.487 | 649 | .138 |
|------------|---|---|--|--|--|---|
| Humanities | 373 | 3.39 | .882 | | | |
| Scientific | 278 | 3.39 | .862 | .292 | 649 | .770 |
| Humanities | 373 | 3.37 | .861 | | | |
| Scientific | 278 | 3.55 | .777 | 3.098 | 649 | .002 |
| Humanities | 373 | 3.35 | .895 | | | |
| Scientific | 278 | 3.06 | .871 | .098 | 649 | .922 |
| | | | | | | |
| Humanities | 373 | 3.06 | .871 | | | |
| Scientific | 278 | 3.41 | .743 | 1.593 | 649 | .112 |
| Humanities | 373 | 3.31 | .797 | | | |
| | Humanities Scientific Humanities Scientific Humanities Scientific Humanities Scientific | Humanities373Scientific278Humanities373Scientific278Humanities373Scientific278Humanities373Scientific278Scientific278Scientific278Scientific278 | Humanities3733.39Humanities2783.39Humanities3733.37Scientific2783.55Humanities3733.35Scientific2783.06Humanities3733.06Scientific2783.41 | Humanities3733.39.882Humanities2783.39.862Humanities3733.37.861Scientific2783.55.777Humanities3733.35.895Scientific2783.06.871Humanities3733.06.871Scientific2783.41.743 | Humanities3733.39.882Humanities3733.39.862.292Humanities3733.37.861.292Scientific2783.55.7773.098Humanities3733.35.895.292Scientific2783.06.871.098Humanities3733.06.871.098Scientific2783.06.871.1593 | Humanities 373 3.39 .882 Image: second secon |

Table (8): shows there are no statistically significant differences at (α = 0.05) due to college variable in all domains and total score, except for The objectives of the electronic course and Multimedia, differences were in favor of Scientific colleges.

Chapter five

Discussion of the findings

Introduction

This chapter included the discussion of the findings of the study in light of its questions, as the following:

The discussion of the findings related to question one: " What is the degree of applying E-learning standards in designing electronic courses for lecturers in Jordanian universities?"

Findings in table number (1) showed the degree of applying E-learning standards by lecturers in designing electronic courses in Jordanian universities in the three regions were moderate. The mean was 3.35 with a standard deviation of (0.77). All the standards were moderate, the first one is the objectives of the electronic course" receives the highest mean (3.48) regarding the degree of agreement followed by "Methods of learning and teaching" and " Multimedia " with a mean (3.44) while "Students Affairs" was ranked last with a mean (3.06). This result can be attributed to the belief that lecturers are using the E-learning standards to design the electronic

courses to create a better and easier of the learning process in Jordanian universities. This result agreed with Alfuqaha'a (2004)and Aleijluni (2008).

A discussion about the results of the first question "What is the degree of applying E-learning standards by lecturers in designing electronic courses in Jordanian universities?"

The first standard is the objective of the electronic course in table number (2) that "The message of the electronic course in the planning process starts from the university's message" receives the highest a mean (3.66) regarding the degree of agreement followed by item 6 "The objectives focus on learning outcomes, not the learning process itself" with mean (3.53), while item 5 "The objectives of the electronic course are formulated in a measurable way" was ranked last with a mean (3.36).

Using E-learning standards in designing the electronic courses would give lecturers the ability to achieve all their objectives in the long term goals. This result may be also attributed to the positive behavior of the lecturers towards the electronic way of submitting the material for the students. This result agreed with Al-Kilani's study (2009)andAltabeb study (2014). The second standard: Methods of learning and teaching, table number (3) shows that Items 10 and 11 "The use of electronic courses works to develop self-learning for the learner", and "Students are assigned to do some activities related to e-courses through the process of learning" receive the highest mean (3.68) regarding the degree of agreement, while item 12 " There is a guiding system for students that explain how to work in electronic courses" was ranked last with mean (3.30). This result agreed with Abdo's study (2012).

The third standard: electronic course description, table number (4) shows that Item 25 "The online course contains links to other learning resources that help to achieve learning goals" receives the highest mean (3.54) regarding the degree of agreement followed by item 23 "The electronic course is provided with scientific references and sources" with mean (3.53), while item 26 "The course content takes into account individual differences between students" was ranked last with mean (3.06). According to lecturers in Jordanian universities, technology is the new way of learning and communication between them and their students so it's a must to have the knowledge of using the right tool for that. By creating electronic courses and different connect to different sources by the lecturers it gives a positive attitude for the students towards the new creative way of learning in our day. By crating electronic courses according to E-learning standards and giving it to the students in different majors and universities that would give them the opportunity to use computers and many different ways of learning more effectively in a very creative way. The fourth standard: Multimedia, table number (5) shows that Item 32 "The font size is suitable for learners' characteristics" receives the highest mean (3.60) regarding the degree of agreement followed by item 35 "All images used in electronic courses are read and clearly defined" with mean (3.59), while item 38 "More than one mobile image is displayed at the same time in teaching the electronic course" was ranked last with a mean (3.04).

From a psychological point of view, using different ways to presents the electronic courses by the lecture while teaching any subject in the university would give them the right support and satisfaction that they need to improve their ability to teach better. At the same time, lecturers in different Jordanian universities think that using technology during the process of teaching and learning is a must and it would make the process more effective. As well as, lecturers in different universities can facilitate their subjects and even create new objectives every semester to suit the students' need. This result agreed

with Aikina ,Sumtsova and Pavlo (2015), Alzboon and hamdi study (2018), and Kent A. walstorm (2014). The fifth standard: student affairs, table number (6) shows that Item 46 "Taking students' opinions through using electronic courses in the quality of teaching and learning" receives the highest mean (3.24) regarding the degree of agreement followed by item 45 "Take into account the tests the nature of students' abilities" with a mean (3.19), while item 43 "Numbers of students are accepted in the initial studies according to the plan for teaching the courses" was ranked last with a mean (2.91).

In general, in spite of the importance of using electronic courses according to the standards of E-learning in teaching students in Jordanian universities despite of their majors the lecturers need to give the students more faith in using this new way of learning to improve their skills in it. Using different and creative ways to encourage students in Jordanian universities to achieve their goals and objectives in all their subjects will give the students the courage to improve themselves by using different ways of learning. This result agreed with Lee and Suresh study (2015), Kent A. walstorm (2014) and Alzboon and hamdi study (2018). The discussion of the findings related to question two: "What are the standards required to be applied in electronic courses?"

The most important standard in the E-learning system is SCORM standard. SCORM standards stand for sharable content objectives reference model. It is a standards-based on an electronic system which allows lecturers to a designee, import, and publishes electronic courses online for the educators to use any time and ant place according to their needs in the correct and easiest way possible. Also, SCORM standards would reduce the paperwork for the lecturers and the flexibility to designee new and creative courses for their educators every semester in Jordanian universities. By saying that SCORM standards give the educators the easiest way to communicate with their lecturers and their colleges anytime they has any problem or even to share new information's by any online sites.

The discussion of the findings related to question three: "Are there any significant differences at $(0.05 = \alpha)$ for the lecturer's in teaching using electronic courses in Jordanian universities due University Type variable?"

Table number (7) shows there are statistically significant differences at (α = 0.05) due to University type variables in all domains and in total score

in favor of private universities. The t-test was (-5.273). This result agreed with AbouKorss (2019). The results indicate the effort that lecturers in private universities give for their educational quality which gave it the preference over public universities in all domains and total score.

The discussion of the findings related to the question number (4)"Are there any significant differences at $(0.05 = \alpha)$ for the lecturer's in teaching using electronic courses in Jordanian universities due to College variable?"

To find out whether there are statistically significant differences (α =0.05) between the means of the lecturer's teaching using electronic courses in Jordanian universities due College variable, t-test for independent samples analysis was conducted and the results are shown in table(8).

Table (8) shows there are no statistically significant differences at (α = 0.05) due to college variables in all domains and the total score is (1.593) except for the objectives of the electronic course and Multimedia, differences were in favor of Scientific colleges. This result agreed(Alhnehini,2013).

Recommendations

In light of the findings the researcher recommended the following:

- The findings of question one showed that the degree of applying E-learning standards by lecturers in designing electronic courses in Jordanian universities was moderate, so it was recommended to organize courses for lecturers in Jordanian universities on the importance of using e-learning and designing electronic courses within the standards of e-learning.

-The findings of question three indicated that there are statistically significant differences due to University type variables in all domains and favor of private universities, so it was recommended to motivate and support lecturers in Jordanian universities to use different varieties of E-learning, by giving rewards to them.

-The findings of question four indicated that there are no statistically significant differences due to college variables all domains, except for the objectives of the electronic course and multimedia, differences were in favor of scientific colleges, so it was recommended to conduct a similar study on intermediate and secondary schools.

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Appendix (1)

حضرة الدكتور/ة

تحية طيبة وبعد

تقوم الباحثة بأجراء دراسة بعنوان "درجة تطبيق معايير التعلم الالكتروني في تصميم المقررات الالكترونية في الجامعات الأردنية"

وذلك استكمالاً لمتطلبات الحصول على درجة الماجستير في تخصص تكنولوجيا المعلومات والاتصالات في التعليم من جامعة الشرق الأوسط في عمان / الأردن.

ولغايات تحقيق أهداف الدراسة أعدت الباحثة استبانه.

ونظراً لما نعهده فيكم من خبرة ودراية ومعرفة متعمقة في هذا المجال و نضع بين أيديكم الاستبانة راجية منكم تعبئتها وذلك بوضع أشارة (√) بالحقل الذي ترونه مناسباً عند كل فقرة من فقرات الاستبانة, علما بأن الإجابات التي ستعطيها سوف تستخدم لأغراض البحث العلمي فقط.

تفضلوا بقبول فائق الاحترام والتقدير ...

الباحثة : رغد عبد الله أحمد

أولا : الخصائص الديمو غرافية لأعضاء هيئة التدريس : الرجاء وضع√ أماما العبارة المناسبة فيما يأتي :





الكلية



ثانياً: استبانة عن درجة تطبيق معايير التعلم الالكتروني في تصميم المقررات الالكترونية في الجامعات الاردنية الرجاء وضع اشارة √ في مربع الاجابة المناسبة :

المعيار الأول : أهداف المقرر الألكتروني

| منخفضة جداً | منخفضية | متوسطه | مرتفعه | مر تفعه جداً | الفقرة | الرقم |
|----------------|---------|--------|--------|-----------------|---|----------|
| | | | | | تنطلق رسالة المقرر الالكتروني في عملية التخطيط من رسالة الكلية. تنطلق رسالة المقرر الالكتروني في عملية التخطيط من رسالة الجامعة. | .1 .2 |
| | | | | | تتسم الاهداف بالوضوح في توصيف المقرر الالكتروني. | .3 |
| | | | | | تمت صبياغة اهداف المقرر الالكتروني بطريقة قابلة للقياس. | .4 |
| | | | | | تركز أهداف المقرر الألكتروني على مخرجات التعلم وليس عملية التعلم نفسها. | .5 |
| | | | | | تتضمن الاهداف وصف محتوى التعلم المتوقع أن يحققه الطلبة. | .6 |
| | | | | | نتسم الأهداف بالمرونة لتكيف مع التطور الألكتروني. | .7 |

المعيار الثاني : أساليب التعليم والتعلم

| | | توجد خطة معلنة لاستراتيجية التعلم الالكتروني في | |
|--|--|---|-----|
| | | الجامعة. | .8 |
| | | تتنوع طرائق التدريس مثل (المحاضرة والمناقشة | |
| | | والعصف الذهني والمشاريع وغيرها). | .9 |
| | | استخدام المقررات الالكترونية تعمل على تنمية | .10 |
| | | التعلم الذاتي لدى المتعلم. | |
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| | | استخدام المساق الالكتروني يقوم مستوى تحصيل الطلبة الاكاديمي. | .47 |
| | | يهتم المساق الالكتروني بالأنشطة الصفية. | .48 |
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| | | استخدام المساق الالكتروني يعمل على تقييم أداء المدرسيين في نهاية تدريس المساق. | .50 |
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| | | يتم تصميم المساق الألكتروني من خلال مجموعة من المختصين في تكنولوجيا التعليم و علم النفس واللغات. | .52 |
| 1 | 1 | - | |

Appendix (2)

Honorable Doctor.....

After Greetings.....

The researcher conducts a study entitled "The degree of applying E-learning standards in designing electronic courses in Jordanian universities.

In order to complete the requirements for obtaining a master's degree in the field of information and communications technology in education from the Middle East University in Amman / Jordan.

In order to achieve the aims of the study, the researcher prepared a questionnaire.

In view of what we entrust you with in-depth expertise, know-how and knowledge in this field, and we place in your hands the questionnaire requesting you to fill it out by placing a sign ($\sqrt{}$) in the field that you consider appropriate at every paragraph of the questionnaire, knowing that the answers that you will give will be used for scientific research purposes only

Researcher: Raghad Abdullah Ahmad

Department: Degree of applying e-learning standards in designing electronic courses in Jordanian universities

First: the demographic characteristics of the faculty members:

Please put $\sqrt{}$ in front of the appropriate phrase as follows:

The university



Public

Private

The college



Human

Scientific

Second: A questionnaire about the degree of applying e-learning standards in designing electronic courses in Jordanian universities.

Please put a sign $\sqrt{}$ in the appropriate answer box:

The first standard: the objectives of the electronic course

| number | Paragraph | Very high | High | medium | Low | Very low |
|--------|--|--------------|------|--------|-----|-------------|
| 1. | The message of the electronic course in the planning process starts from the college's message. | | | | | |
| 2. | The message of the electronic course in the planning process starts from the university's message. | | | | | |
| 3. | The message of the electronic course in the planning process starts from the university message. | | | | | |
| 4. | The objectives are clear in the electronic course description. | | | | | |
| 5. | The objectives of the electronic course are formulated in a measurable way. | | | | | |
| 6. | The objectives focus on learning outcomes, not the learning process itself. | | | | | |

| 7. | The Objectives include a description of | | | |
|----|---|--|--|--|
| | the learning content expected to be | | | |
| | achieved by the students. | | | |
| | | | | |

The second standard : ways of learning and teaching

| 8. | There is an announced plan for the e- learning strategy at the university. | | | |
|-----|---|--|--|--|
| 9. | There are a lot of Teaching methods vary such as :(lecture, discussion, brainstorming, projects, etc.). | | | |
| 10. | The use of electronic courses works to develop self-learning for the learner. | | | |
| 11. | Students are assigned to do some activities related to e-courses through the proses of learning. | | | |
| 12. | There is a guiding system for students that explain how to work in electronic courses. | | | |
| 13. | There are various examples that facilitate the process of learning by electronic courses. | | | |
| 14. | The electronic courses include tools suitable for students' interaction, such as forums, chat and e-mail. | | | |

Third standard: electronic course description

| | | | 1 | , |
|-----|--|--|---|---|
| 15. | The electronic courses align with the | | | |
| | philosophy of higher education in order | | | |
| | to achieve its mission. | | | |
| 16. | The use of electronic courses meets the | | | |
| | needs of society. | | | |
| 17 | The design of the decisions shall take | | | |
| | into consideration the observations of | | | |
| | the specialists and the beneficiaries. | | | |
| 18. | The course includes a documentary bag | | | |
| | that includes | | | |
| | (course description, a copy of student | | | |
| | assignments, exercises, projects, tests, | | | |
| | and distribution of grades). | | | |
| 19. | The use of electronic courses meets the | | | |
| | skills of the labor market. | | | |
| 20. | The pages of the electronic course are | | | |
| | clear. | | | |
| 21. | Layout of electronic course pages | | | |
| | appropriate for educational content. | | | |
| 22. | Availability of scientific accuracy in | | | |
| | the offered electronic courses. | | | |
| 23. | The electronic course is provided with | | | |
| | scientific references and sources. | | | |
| 24. | The course content takes into account | | | |
| | individual differences between | | | |
| | students. | | | |
| | | | | |

| 25. | The online course contains links to other learning resources that help to achieve learning goals. | | | |
|-----|---|--|--|--|
| 26. | The course content takes into account individual differences between students. | | | |
| 27. | The e-course contains links to other learning resources that help achieve the learning goals. | | | |

The fourth standard: multimedia

| 28. | Multimedia is used to display electronic courses. | | | |
|-----|--|--|--|--|
| 29. | The use of multimedia is consistent with the nature and objectives of the offered courses. | | | |
| 30. | Multimedia is presented in an integrated manner within the content of the electronic course. | | | |
| 31. | Headlines are distinct from sub-text in electronic courses. | | | |
| 32. | The font size is suitable for learners' characteristics. | | | |
| 33. | The audio files used in the course help to clarify the electronic course. | | | |

| 34. | Sound meets other media objectives of the online course. | | | |
|-----|---|--|--|--|
| 35. | All images used in electronic courses are read and clearly defined. | | | |
| 36. | The images used represent the electronic course clearly. | | | |
| 37. | Moving images move at a time convenient for students to learn quickly. | | | |
| 38. | More than one mobile image is displayed at the same time in teaching the electronic course. | | | |
| 39. | Video of suitable size is used in electronic courses. | | | |
| 40. | The use of calm colors and backgrounds related to the topic. | | | |
| 41. | The multimedia elements are combined in a way that attracts the attention of students. | | | |

Fifth standard: students Affairs

| student selection. 43. 43. Numbers of students are accepted in the initial studies according to the plan for teaching the courses. 44. A guidebook for students will be distributed with the course. 45. Take into account the tests the nature of students' abilities. 46 Taking students' opinions through using electronic courses in the quality of teaching and learning. 47. The use of the online course is based on the academic achievement level of students. 48. The online course is concerned with class activities. 49. Teaching the electronic course takes into consideration the individual differences of students. 50. The use of the electronic course works to evaluate the performance of teachers at the end of the course's teaching. 51. The electronic course includes a formative evaluation | |
|---|--|
| according to the plan for teaching the courses. according to the plan for teaching the courses. 44. A guidebook for students will be distributed with the course. according to the tests the nature of students' 45. Take into account the tests the nature of students' abilities. abilities. 46 Taking students' opinions through using electronic courses in the quality of teaching and learning. according to the online course is based on the academic achievement level of students. 48. The online course is concerned with class activities. according the electronic course takes into consideration the individual differences of students. 50. The use of the electronic course works to evaluate the performance of teachers at the end of the course's teaching. according to the course's teaching. | |
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| 49.Teaching the electronic course takes into consideration the individual differences of students.Image: Consideration the individual differences of students.50.The use of the electronic course works to evaluate the performance of teachers at the end of the course's teaching.Image: Constant of the electronic course works to evaluate the performance of teachers at the end of the course's teaching. | |
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| performance of teachers at the end of the course's teaching. | |
| teaching. | |
| | |
| 51. The electronic course includes a formative evaluation | |
| | |
| followed by immediate feedback. | |
| 52. The online course is designed by a group of | |
| specialists in education technology, psychology and | |
| languages. | |

Appendix (3)

| No. | Name | Specialization | University |
|-----|------------------------|----------------------------------|--------------------------------------|
| 1 | Prof. Mansour Alwrekat | Educational technology | The University of Jordan |
| 2 | Prof. AbdAlmahdiAljrah | Educational technology | The University of Jordan |
| 3 | Prof. MonenAlsaaeda | Administration and Curriculum | The University of Jordan |
| 4 | Prof.YouseefAljraida | Educational technology | Jerash University |
| 5 | Dr.Mustafaalkhwalda | Educational technology | The University of Jordan |
| 6 | Dr. khaleelAlsaeed | Educational technology | Middle East University |
| 7 | Dr. FadiAlayasra | Educational technology | Middle East University |
| 8 | Dr. ManalAltwalba | Educational technology | Middle East University |
| 9 | Dr.SaniAlkwasna | Educational technology | Middle east university |
| 10 | Dr. Mustafa Jwafel | Educational technology | King Hussein Bin Talal University |

Appendix (4)

جـامـعـة الــشـرق الأوسـط MIDDLE EAST UNIVERSITY Amman - Jordan

> كلية العلوم التربوية Faculty of Educational Sciences

التاريخ:16\2020

السادة الكرام والمدراء المحترمين ،،، الجامعات الخاصة والحكومة ف الاردن جامعة الشرق الاوسط و الاردنية والبترا واليرموك ومؤته وجرش تحية طيبة ويعد،

بالإشارة إلى الاستدعاء المقدم من الطالبة رغد عبدالله أحمد، الرقم الجامعي: 40081084 لنلطفكم لتسهيل المهمة للطالبة في اجراء تطبيق أداة دراستها في الجامعات الاردنية الخاصة والحكومة منها، ومجتمع الدراسة هم الهيئة التدريسية في الجامعات المشار إليها.

وتفضلوا بقبول فائق الاحترام

عميد كلية العلوم التربوية

الأستاذ الدكتور عاطف مقابلة