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Immediate transformation to online teaching of the Kingdom University as a consequence of COVID-19

Transformación inmediata a enseñanza en línea de la Universidad Kingdom como consecuencia del covid-19.

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ABSTRACT

Most universities and educational institutions follow conventional learning. E-learning utilizes electronic technologies to deliver curriculum beyond traditional means, which presents many challenges. E-learning is also a way to access all programs and receive awards for certificates and degrees online. It presents a formidable communication media between teachers, professors, and students attending online classes. This paper focuses on the objectives and mechanisms to achieve the necessary changes to accomplish the required learning objectives. It will also highlight the challenges facing the students, instructors, and decision-makers at executive levels in educational institutions.

Keywords: E-learning, Conventional Learning, COVID 19, Educational Change, Digital Technology, learning objectives.

RESUMEN

La mayoría de las universidades e instituciones educativas siguen el aprendizaje convencional. El e-learning utiliza tecnologías electrónicas para ofrecer un plan de estudios más allá de los medios tradicionales, lo que presenta muchos desafíos. El aprendizaje electrónico también es una forma de acceder a todos los programas y recibir premios por certificados y títulos en línea. Presenta un formidable medio de comunicación entre profesores, profesores y alumnos que asisten a clases en línea. Este artículo se centra en los objetivos y mecanismos para lograr los cambios necesarios en los objetivos de aprendizaje requeridos. También en destacar los desafíos que enfrentan los estudiantes, instructores y tomadores de decisiones en los niveles ejecutivos de las instituciones educativas.

Palabras clave: E-learning, Aprendizaje convencional, COVID 19, Cambio educativo, Tecnología digital, objetivos de aprendizaje.

INTRODUCTION

The incredible speed at which the Covid-19 pandemic spread throughout the world during the months of February and March 2020 created a unique situation for all countries around the world in higher education. Namely, all educational institutions suspended attendance of students and stopped physical classes in order to curb the contamination of students and staff members with the virus.

Higher education came to a sudden halt all around the world. This situation is indeed unique in nature and scale, and perhaps it is the first time to occur. The response by all universities around the world was to resort to online teaching. However, the methods used and degrees of success can vary from one university to another. In this paper, the experience of Kingdom University in Bahrain is explained and reflected upon. It is expected that presenting the experience of conventional universities in the sudden transformation to online teaching as a measure to continue the delivery of the educational process, without any stops, is important as this situation is a milestone in the history of higher education and, hence, has to be documented and analyzed.

Current excellence in conventional teaching & learning aims at developing interactive classes where the challenges of foster knowledge and skills at the present ratio of students in classrooms has been controversial during the nineteenth century. This process is feasible and effective when there is a normal situation. Currently, the world is suffering from coronavirus disease 2019 (COVID-19), and the world's education system is under a compulsory shift from conventional learning to e-learning due to the risks associated with the infection resulting from contact with people (Blasco-Arcas et al.: 2013, pp.102-110).

E-learning can be defined as utilizing electronic technologies as a tool to deliver curriculum beyond traditional ways. It is an avenue to access all the programs, certificates, and degrees awarded online. It covers distance education, computer-based electronic learning, and online internet learning. Electronic learning is an effective means for communication between instructors and students in an online class (Ahmed: 2016, pp.104-108). It is also considered very beneficial because your medium or environment of learning is home-based with a semi-flexible schedule. There are various benefits of E-Learning if self-discipline and professionalism are adhered to. Many expenses incurred by the use of classrooms are avoided. There is no problem with parking expenses, housing, and food services using e-learning, and you can access your class from anywhere in the world just with internet access.

Many studies show positive impacts on students from instructor-led classes. In the instructor-led classes, students are taught from various destinations. The delivery is consistent and can be repeated if there is a need for better understanding (Cirulis et al.: 2009, pp. 148-153). Although the word "e-learning" has been used universally in recent years, many are still unaware of its true meaning and its value for successful and improved abilities. Therefore, the purpose of this study is to provide knowledge and highlight the importance of e-learning. This study aims to define the e-learning processes, their effective mechanisms, and their advantages over conventional learning methods. The methods that make it more valuable will also be examined, as well as the shortcomings, which should be improved over time to achieve better results through analysis and research. Baylari & Montazer stated that research reported the capability of the neural network approach to learning material (Baylari & Montazer: 2009, pp. 8013-8021).

LITERATURE REVIEW

A Brief History of E-learning

Before the advent of the internet, students could not access remote sources for the learning processes. In the 1840s, a teacher named Isaac Pitman began training his students on communicational learning (Encyclopedia Britannica). He trained them to expand their information and spread it through different communication channels. This method proved helpful to students, and they were able to share their projects and papers with other interested colleagues and experts. This technique initiated by Pitman increased their knowledge and improved the learning processes.

The first machine dedicated to testing teaching and learning was invented in 1924 to facilitate students in their studies (Al-Fraihat et al.: 2020, pp. 67-86.). This machine was able to check the study materials of the students and respond to the changes required for improvements. Further to this innovation, a professor from Harvard University designed a training machine to teach and train students. Through this machine, it was easy

to arrange training sessions and lectures in different institutes for learning purposes. In 1960, the first Computer-Based Training (CBT) program was introduced in the world. This program enhanced the online sessions and training of students and professionals at different institutes globally. It furnished a new era of the learning systems, which impacted the future of learners. This system was invented to facilitate student's access to the various resources and materials for learning processes. Through this system, it was easy to access and study the different courses from advanced institutes and technology. This trend became dominant until the 1970's system was adopted all around the globe. It grew into an important source of learning for students who could not reach eminent educational institutes for effective learning. They were able to reach their instructors through emails and other sources of communication. Furthermore, it increased the learning abilities of the learners.

The computer and internet in the late 20th century expanded and geared learning methods. Thus, the first MAC in the 1980s made it possible for people to have computers in their homes (Evolution & History of E-learning, n.d.). In the following years, virtual learning was initiated ahead with people to enable them to have access to a wealth of online material and e-learning platforms. In the early 90s, most of the schools, universities, and colleges introduced different online courses for students who could not make themselves available for the class physically.

Subsequently, the technological revolution helped educational institutions to rationalize their learning costs for the students and distance learning. Ahmed et al. stated that "the advancements in technology reduced the physical efforts and expenses." However, technology acceptance could be an issue and challenge (Ahmed et al.: 2016, pp. 13-18). In the early 2000's, different businesses started e-learning training of new and experienced employees. It increased the opportunity to advance their business information base. New online programs paved the way for students to attain degrees in various disciplines and enhance their lives through extended knowledge and education (E-learning Market - Global Outlook and Forecast 2020-2025).

Theories of E-Learning

There are many theories of e-learning, and the most prevalent theories are Behaviorism, Cognitivism, and Constructivism (Picciano: 2017, pp. 166-190; Zhou & Brown: 2015).

A. Behaviorism

According to the behaviorism theory, e-learning involves learning new behaviors according to environmental conditions. Conditioning is considered the learning process for behaviorists. Here, conditioning has two different kinds of behavioral patterns.

Classic Conditioning

This type of condition is due to natural responses. As our body system is interconnected, every natural effect can cause a different response. The classic conditioning occurs in the e-learning process when the students or learners experience some irrational fears and worries such as fear of failure, hesitance, and other types of worries. These models understand various cognitive phenomena through multiple parallel associations between inputs (stimulus) and outputs (response), which bear many similarities with the principles of classical conditioning (Rehman et al.: 2020).

Behavioral/Operant Conditioning

This conditioning occurs when the responses are reinforced to stimulus. It is like a simple feedback system. Here, the response is forcedly created in the learners. Therefore, the learners acquire knowledge for the sake of rewards such as positions, grades, prizes, or pride. Skinner stated that "nowadays, most of the students are fighting the war of pride in their studies, and everyone is trying to conquer it (Skinner: 2019)."
It is very simple to understand the behaviorism theory because it depends upon behavior and defines the different laws of behaviors. The techniques of this theory can be very effective for the treatments of human disorders like autism, anxiety, and antisocial behaviors. The instructors, who want to reward or punish the student behavior, follow this type of theory (Harasim: 2017).

B. Cognitivism

This theory is based on e-learning processes rather than behavior. It gives the opposite sense of behaviorism theory. Unlike behaviorism, it only focuses on the internal techniques and processes used for e-learning rather than the external factors. A study defines that it is good to emphasize inner processes rather than external processes for active learning. It explains that the mind should be unlocked and ready for the learning processes of e-learning. The learner is a processor of the information and should get all the information and save it (Mayes & De Freitas: 2007, pp. 13-25; Crook & Sutherland: 2017, pp. 11-27).

C. Constructivism

This theory is about observation and scientific study that shows how people learn. According to this theory, the learners acquire knowledge through their personal experiences and understanding. This means that when we learn something new, we connect that information with our existing information and knowledge. Sometimes it is accepted as the new addition to the information, and at other times it is discarded by assuming that it is irrelevant to the existing information. This means that we are the creators of the knowledge. Thus, we analyze the information we already have. This type of learning theory is used in e-learning processes through many techniques. The instructor may use real-time examples, case studies, and problem-solving techniques to enhance the information of the learners. Many researchers have found that real-life examples are easy to understand. It is evidenced that "in classroom instruction, there is a need for integration of formal, theoretical, practical, and self-regulative knowledge" (Sharma & Bansal: 2017, pp. 209-212).

Challenges of E-Learning

Along with the many benefits and learner-friendly processes, e-learning is faced with some serious challenges. There is a challenging task for the instructors to present astounding and attractive experiences to the learners. The presentation of the e-learning material online is considered to be dry and unattractive to learners. Therefore, the use of innovations, creativity, and technology to transform the boring material into an interesting one is a complex task.

Due to many internal and external factors, the learners cannot pay attention 100% to the learning process due to busyness, lack of motivation, or engagement. The full attention of the learner is very important in the e-learning process. It is a challenging task for the instructor to motivate and ensure the 100% attention of the learners. This is why it is important to construct the course and material to satisfy the interests of the learners and use innovative techniques to engage them properly. In addition, it is imperative to stay up-to-date with modern technology. Instructors are faced with the challenging task of introducing up-to-date material to the learners since there are many sources of learning for the learners. Hence, the instructor must present innovative and updated material to satisfy the needs of the learners.

Under these circumstances and during the learning process, everyone faces unrealistic deadlines, and this results in stress. In the e-learning process, it is necessary to meet deadlines, which is a difficult task for the learners and instructors. This means that in the e-learning process, most of the participants are unfamiliar with its initiatives, which can be a difficult experience for them. The instructors need to take their learners according to the desired goals. Another challenge exists when the expert has no experience with the e-learning process. With no experience, he has very little knowledge about the design and presentation of the material through e-learning processes. Therefore, this poses a challenge for both learners and instructors in meeting their goals. It is also necessary to balance the e-learning budgets. Universities also have to be careful in selecting and ensuring the effective use of the budget in the e-learning process. Furthermore, e-learning processes may contain massive materials for learning, which can make instructors become confused about where to begin. As a result of this, an expert instructor is required to provide assistance in solving this issue. Therefore, finding the perfect e-learning authoring tool or learning platform is of significant importance. The use of updated and effective tools can also help while learning. (Boelens et al.: 2017, pp. 1-18.; Olaniran: 2008 ; Montebello: 2018, pp. 5-14; Carey: 2020, pp. 39-45.). Most initiatives to date have been limited in scope and relatively isolated; the pandemic could pave the way for much larger-scale and cross-industry coalitions to be formed around a common educational goal" (Carey: 2020, pp. 39-45).

E-Learning Improves the Quality of Education

The e-learning process improves the quality of education by introducing innovative and updated techniques to learners. Decision-makers in the educational sector must monitor the ICT development and work towards building an environment to create the required integration. At university levels, a universal strategy should be developed that concentrates on incorporating ICT for e-learning. E-learning is the best option for learners to access free and quality courses at different institutes around the globe. Through multiple resources, the learners can get the most creative and innovative ways of learning, which will improve the quality of education among the learners (Pavel et al.: 2015, pp. 704-711).

However, students now tend to learn by constructing content instead of absorbing. Students require inter-activity by using modern technologies such as E-learning, M-learning, virtual learning, and web learning as a teaching device that allows this interactivity to occur. Through the development of social media, blogging, and YouTube, students have become more capable of using technology effectively, and their connectivity became widespread (Kalaivani, 2014).

Summary of Review

In the normal routine, the conventional teaching method is considered a proper source of education as it ensures student-centered learning. In a common classroom, it is easy to get attention and train the students in the same direction.

However, due to the current situation of the world, faced with the COVID-19 epidemic, the E-Learning process has become an important requirement for learners. The current situation and time demand the change of conventional teaching to e-Learning teaching methods.

The e-learning process has many benefits: it reduces the expenses for going to institutes, reduces the parking and transportation problems, learning from home ensures the safety and reduces risks, and many more. Along with these advantages, it also faces some challenges such as lack of attention, technology, experience, and many others mentioned earlier in this study. In order to ensure the proper and effective use of the e-learning processes, there are some defined international standards for e-learning.

Therefore, by analyzing these factors, it is better to shift towards the e-learning techniques for education. It gives more flexibility and reliability to learners for learning. Through e-learning, the students can access several resources for effective learning with more updated and innovative techniques. This improves their creativity and the quality of education.

Research Problem

Similar to another corporate sector (Darwish et al., 2020, pp. 1927-1934), universities all over the world also faced issues due to the COVID-19 pandemic. Academic institutions were forced to suspend studies due to the COVID-19 pandemic outbreak. Universities are committed and should continue to deliver their programs and obligation to their students. This was a sudden, unpredictable occurrence that made the academic leadership and decision-makers act fast to offer a remedy to the situation. E-learning was the Lifejacket that hoped to help universities and students to continue marching on. This problem made universities work hard to meet up with the risks and issues associated with the suspension. For this purpose, the impact of the suspension will be identified as well as the transformation of the delivery, while highlighting the experiences associated with this episode (See Figure 1) using the experience of Kingdom University in Bahrain as a case study.
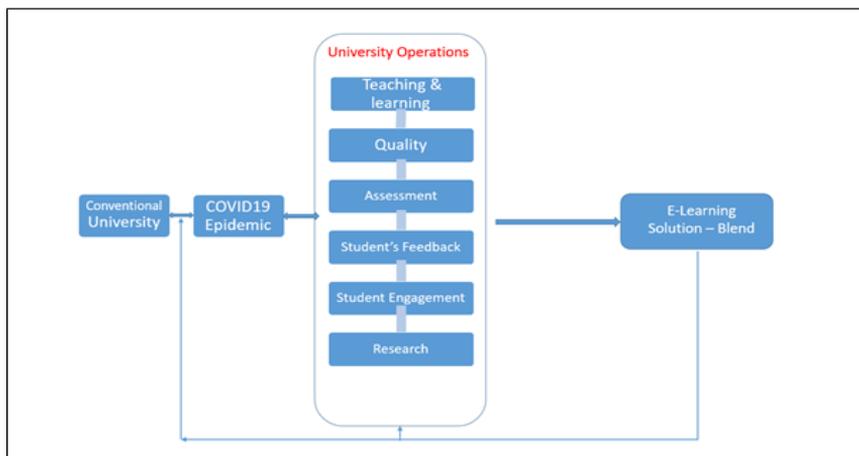
Figure (1). Research model showing the Influx of COVID19 on University Operations

Importance of the Study

This study will shed light on the importance of the actions taken by Kingdom University to continue its mission in achieving the required strategic objectives in learning and teaching. Ideas discussed in this paper will be shared to exchange knowledge about the experiences of dealing with the risk of the epidemic COVID-19 on university operations. The literature review shows that e-learning can achieve the same objectives if used rationally.

The objective of the Study

The main objective is to learn from this Covid19 pandemic and how the education system must be flexible enough to meet all the unexpected measures with the same efficiency in terms of quality. This study shows how we can continue with the same rhythm without disturbing our quality processes but continue to preserve our quality culture.

METHODOLOGY

This will be a case study analysis reflecting on experiences of Kingdom University, Bahrain, with the critical analogy that shows where one can go wrong and how to rectify our transformation steps. Case study research strategy is one of the most authoritative approaches used by scholars to comprehend both applied and hypothetical goals. Skilled researchers have recognized this as a unique technique for treating qualitative methods. It is designed to ensemble the case and answers the research questions at hand based on real-life situations.

Hypothesis Development

The main hypothesis of the study is that the rapid temporary transformation to fully online teaching of all the programs offered by the university will result in the successful delivery of the teaching material, coverage of the intended learning outcomes, learning of the students, and their achievements of the outcomes. Furthermore, it is hypothesized that online teaching will have additional benefits in the form of peace of mind and comfort of the students without compromising the quality of teaching and learning as they can attend classes without being exposed to the risks of being unprotected to Coronavirus and Covid-19 infections.

The response of Kingdom University to Suspension of Conventional Classes

Towards the end of February 2020, the Ministry of Education in the Kingdom of Bahrain imposed a lockdown for students in all schools and higher education institutions in order to control the spread of the Covid-19 pandemic. Kingdom University's management decided to shift immediately to online teaching using Microsoft Teams. The choice of Microsoft Teams was based on campus-wide ownership of licensing of Office 365, excellence in performance, and safety of security features. The main challenge was the timely execution of the project and the need for immediate training of both staff and students on the use of MS Teams. Since the term was already underway, all classes needed to be created on MS Teams following the announced academic schedule. There was no room for making any changes to the announced academic schedule. Hence, classes for all courses offered at the university needed to be converted to online using the MS Teams platform whilst adhering to the regularly scheduled timetable that was in effect prior to the suspension. Information and Computer Technology Department (ICT) conducted a number of workshop sessions to train faculty members on mastering the use of MS Teams. Training videos were also recorded to provide further offline support to faculty and students. Students' names and emails were added to each class created on MS Teams, based on the information from the registration department. We immediately informed students by email about the start of the online classes. The effective use of online classes through MS Teams since the date of suspension was only one week. To avoid any void or gap in our teaching operations during this first week, our faculty members uploaded course materials to the students using our existing Learning Management System (LMS). LMS, the standard e-learning medium at KU, has been used for several years for uploading course materials, posting grades, and communicating between students and faculty members. To facilitate the process, faculty members were supplied with all required technology tools such as laptop devices, headphones, microphones, and webcams.

The next challenge was to ensure during the first week after the implementation of the MS Teams classes that all faculty members were able to operate online classes effectively and that all students are able to access the MS Teams platform and communicate during the classes without difficulties. ICT department, in collaboration with the Deans of Colleges, worked on this task laboriously and effectively through surveys and upload of supporting soft material. The technical support team in ICT assisted faculty members that had some difficulties or resisted the transformation at the beginning and supported students with difficulties in accessing or using MS Teams. By the first week after launching the MS Teams classes, all technical issues were resolved, and difficulties were addressed to ensure that our online teaching process proceeded smoothly for the remainder of the second semester.

RESULTS

Most of our online classes consisted of direct theoretical lectures. The basic model used in online lectures is for the instructor to present the lecture in a live online MS Teams session, whilst participating students are encouraged to be proactive during the course of the lecture. Lecturers normally interact with students with the video option turned so that students can see them, and they share their screen with students to include various teaching tools and material such as PowerPoint slides, video clips, Excel sheets, and AutoCAD drawings.

Some instructors choose to focus their webcam on the blackboard and write on it as in a normal classroom environment. In any online class, the first step was to establish the classroom environment and create a bond with students by the time most have joined the class and a quick check of attendance which remained a compulsory requirement. Microsoft Teams provides the full list of students in the class and offers the ability to show attendance, which could be documented for grading purposes. Invitations to join the class are automatically sent to all students ahead of the scheduled time. However, both the instructor and some students normally send invitations to late students to remind them to join. Before starting the subjects designed for lectures, the instructor normally follows up with students on the submission of their assignments and projects in addition to other activities. One of the main challenges in our online classes was that instructors could not see students since they do not turn on their webcams, and, hence, his lecturing tone can drift into a monotonic

rhythm that may result in students losing interest. Technical issues may also be present without the knowledge of the instructor, e.g., unclear voice due to problems in the network, the students' computer, or in the instructor's microphone. It is important to keep communicating with students throughout the lecture by either addressing the whole class or addressing individual students to maintain their interest. An additional challenge could be that students can easily get bored and lose concentration during the course of a lecture, in particular for purely theoretical topics where the instructor relies solely on verbal styles or PowerPoint presentations. Therefore, instructors were advised to use a variety of presentation styles and supporting techniques that can help in attracting students' attention and focus and enhance their motivation.

Interactive Design Studio Classes in Architecture and Interior Design

Design studio classes in Architecture and Interior Design programs depend on high levels of interaction between the course instructor and students on an individual basis. During a Design Studio class, each student works on their design drawings, and the instructor hovers over their progress to offer comments and feedback advice for improvement. Typically, instructors spend 15 to 20 minutes with each student to discuss their design drawings, usually developed using Autodesk Architecture, 3D Max, and similar software. This interactive communication still needed to be accomplished from a distance using Microsoft Teams platform as all of our online classes. The shared screen option offered the ability for students to individually share their screens with their instructor to present their design progress. Moreover, students were also able to allow their instructors to access their drawings online using the "Give Control" feature in MS Teams. This powerful feature created two simultaneous cursors, one for the instructor and another for the student. The instructor was able to move the cursor from a distance over the student's drawing to highlight the changes required or zoom in, for example, to highlight specific areas of the drawing while giving comments, and the student could interact and explain when necessary. This interactive discussion simulated and mimicked the atmosphere in the actual design studio classes conducted under conventional face-to-face circumstances.

Delivering Practical Laboratory Sessions

The main challenge in online laboratory classes was to offer students the full laboratory experience students where they are usually requested to conduct experiments by themselves. Typically, online laboratory sessions could benefit from virtual lab platforms or online video-controlled remote robot technologies. Both technologies required ample preparations in advance and considerable financial investments. We adopted alternative techniques during the Covid-19 crisis under emergency and sudden circumstances as a temporary solution. Instructors implemented two methods for lab work as alternatives to normal sessions. The first was to prepare and send recorded videos of experiments, whilst the second was to conduct live experiments from a distance. In the first technique, students were sent videos recordings of the experiments together with problem statements having given sets of readings, and they were asked to offer their analyses of the results is prepared experimental reports. In the second technique, live online sessions were held where students would guide the laboratory technician in the steps via MS Teams live video session. In Each step of the experimental procedure, the student tells the technician (who is in the laboratory) what to do to mimic their actual presence inside the lab. The attendance of the laboratory technician using this second technique was possible since the suspension from presence in the university by the government campus only covered students whilst academic and administrative staff were allowed and encouraged to observe necessary precautions.

Assessment and Exams

To take into account the exceptional emergency circumstances during the Covid-19 online teaching period, the university decided to redistribute the grading weights. Under normal conventional circumstances, the final exam grade is 35% to 40%, the midterm exam 30%, whilst the rest goes to assignments and projects. In our redistribution, the final exam had a weight of 20%, whilst the remaining 80% of the marks were given to assignments, essays, homework, small projects, and quizzes. Plagiarism checks using Turn-it-in software were performed consistently to check all submitted works. The final exam was conducted online, and we had to respect privacy and local cultural constraints where using video is still a sensitive issue. Therefore, to avoid or prevent misconduct, three sample versions were prepared for each exam paper, where questions within

each exam sample were automatically shuffled. This multiple exam sample and shuffling of the question was an exceptionally effective mechanism to maintain the credibility of our online exam. The limitation imposed on examination time would also put another constraint on possible cheating misconduct during exams. This system was used across all of our colleges at Kingdom University. The grades at the end of the semester showed normal distribution, which was an indication that the assessment process was acceptable and reflected students' achievements reasonably well.

Involvement of Students and Their Satisfaction with Online Courses

Since we are a student-centered university, it was central to our mission to involve students in developing the process of online teaching. We, therefore, held meetings throughout the semester with faculty and students representing all colleges to discuss their feedback and recommendations on the progress of the online classes. We received many comments from students and instructors, most of which were constructive and instrumental to improving and enhancing the process and increase their satisfaction in our delivery of online teaching and learning. Through such open discussion venues, our students felt a level of ownership and strong engagement in the educational process, which greatly participated in raising their satisfaction in the value added to their academic achievements.

DISCUSSION

This includes the bulk of the students and the faculty members at Kingdom University. A dashboard was developed on our website showing live updated figures on data relevant to our progress in numbers of lectures and meetings that were achieved online, in addition to links to access student information, registration, online tuition, and support. This demonstrated to stakeholders' latest developments in our online teaching and learning journey. Table (1) shows a summary of the online teaching profile at KU for the second semester of the academic year 2019-2020. It gives a summary of the number of lectures and hours of online teaching provided and the attendance ratio of the students in individual courses within each college and across the whole university. The average attendance ratio was 83%, which is similar or even higher than in conventional circumstances. The average satisfaction of our faculty members out of 5 was 3.5. Moreover, the satisfaction of students with the online teaching from our instructors' point of view was 3.5. Although this satisfaction rate is positive (equivalent to 70%), it was still influenced by some resistance from faculty who were not used to modern computer technologies.

Table (1). A summary of the number of lectures / Presented in an interactive live broadcast system   Period 7 March to 30 April 202 Scale- Favorable four and Unfavorable 1

Colleges	Number of Times Students Communicated with Course Instructor Outside Lectures(Total per college and average per course)	Average Course Instructor Satisfaction Scale 1 to 4	Average Students' Attendance	Total Hours of Online Lectures	Total Number of Online Lectures
College of Law	1035	3.8	81%	1321	1052
College of Engineering	1874	3.6	83%	1580	646
College of Business Administratio n	2589	3.2	86%	1038	946
Total Average	5498	3.5	83%	3939	2644

Table (2) shows the results of the students' survey, which was sent to all students, and 100 students responded. The survey aimed to measure the students' feedback regarding the transformation to the online model. The degree of satisfaction varies from 3.36 to 4.0 out of 5.0 (67% to 80%). This satisfaction rate is still a positive indication, and some degree of resistance could be attributed to the general mood of depression and the impact of the economic downturn caused by the global lockdown and Covid19 threat, which is not

attributed to teaching. It can be concluded that the students generally found it simple to use MS Teams and experienced a satisfactory medium for online lectures and interaction during the lectures. The recordings of the lectures were an additional benefit that was not available in normal classroom lectures. This latter benefit was decided to continue as additional support complementary to teaching after the conventional mode of teaching is resumed when the Covid19 pandemic is over.

Table (2). Student Feedback on Microsoft Teams Usage (N=100)

Favorable five   Unfavorable one

1. How satisfied are you with the use of MS Teams as a temporary replacement for classrooms?

Mean =3.35   Standard Deviation =1.53

2. How easy was it for you to use MS Teams?

Mean=4.04   Standard Deviation**=1.15**

3. How clearly do you hear the instructor sound using MS Teams?

Mean= 3.36   Standard Deviation=1.40

4. How easy is it for you to ask questions and give comments verbally using MS Teams?

Mean =3.66 Standard Deviation=1.37

5. How easy is it for you to write comments and send messages to your instructors using MS Teams?

Mean=3.90   Standard Deviation=1.25

6. How useful are the recordings of the online lectures?

Mean= 3.74   Standard Deviation =1.35

The results shown above provide evidence to support the argument that both students and faculty members were mostly satisfied with the online approach adopted by our university. The overall experience of transforming all the classes to online classes using MS Teams as a platform was a successful experience. A key factor that played a major role in effecting a smooth transformation whilst closely addressing emerging problems is the close monitoring by the top executive management. The president, vice president, deans, and

head of departments were invited to all lectures and had access to visit lectures to encourage students and faculty. Faculty members and supporting teams, particularly the ICT group, through regular meetings, students, and instructor feedback contributed to the success of this transformation to online teaching. During the regular monitoring processes and meetings, many individual cases emerged and needed attention and rapid response, which was essential to the process.

CONCLUSIONS

Despite the historical resistance to acknowledging online education, the Covid19 crisis has forced the world to embark on the mechanism that has evolved tremendously over the last two decades due to modern computer technologies coupled with fast and affordable internet connections. Moreover, the job market places considerable emphasis on the computer and "E-Skills" of graduates. Our new endeavor at Kingdom University has equipped our students and instructors alike with formidable "E-Skills," which would enhance the employability of our graduates.

This paper presented a detailed account of the immediate response by Kingdom University to address the continuity of their learning services online in order to comply with the social distancing directives by the government. The transformation from conventional to complete distant learning system has been a journey fraught with challenges, investigation, and successes. The leadership of the crisis by our regulators and the attention to detail by his Excellency the Minister of Education were instrumental in achieving timely success in this academic endeavor in the Kingdom of Bahrain. The strategies adopted at Kingdom University to effect a total and swift transformation from conventional to e-learning modes present a noteworthy example for the exchange of best practices, despite the existence of some environmental factors. Blended modes of learning are also considered as an option to cope with possible scenarios for educational delivery depending on governmental directives.

Since technological developments is a dynamic process, and despite our achievement in achieving success in our online educational delivery, we continue to explore ways to further improve our e-learning model to keep abreast with the latest advances in this field. This exploration shall involve continuous development of our staff, provision of easily accessible support, creation of virtual campus, and regular upgrade of our software, equipment, and facilities.

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