



## Academic Semester Activities by Learning Management System during COVID-19 Pandemic: A Case of Jazan University

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**ABSTRACT:** The COVID-19 has led to the shutdown of educational institutions around the world. Over 1.2 billion students are out of school globally. As a result of COVID-19, the education sector is facing a huge impact on universities forcing their teaching to shift to e-learning and mixed learning modes. During the current emergency, the Learning Management System (LMS) has been a vital resource for virtually all higher education institutions, and a driving force in online learning. After the announcement of University closures, Saudi Arabia is one of the nation where students are worried and going through a phase of learning, where they have no tutor, a lot of course work and only themselves to help them study. Jazan University transforms to E-learning mode of teaching after the suspension of regular classes. The primary focus of this study is to examine the academic semester activities of LMS, Blackboard, amongst faculty members of the Faculty of Arts and Humanities at Jazan University, Kingdom of Saudi Arabia. Furthermore, how the faculty members utilize the learning management system to support their students in the learning process, assessment and include them in the content in hand while they are teaching from home in the midst of the epidemic. The main outcomes of this study are: Role in the achievement of instructive information online, Suitable support provided to the students by faculty and teaching assistants and Contingency strategy for addressing unforeseen online educational system issues.

**Keywords:** Blackboard, e-Learning, Faculty Members, Higher Education Institution, Learning Management System, Learning Technologies, University.

**Abbreviations:** ICT, Information and Communication Technology, LMS, Learning Management System, HEI, Higher Education Institutes, WHO, World Health Organization, UNESCO, United Nation Educational Scientific and Cultural Organization.

### I. INTRODUCTION

There are essential factors for building a strong nation and education is one of those factors. Education serves as a cornerstone of every nation in the world. However, while governments are typically engaged in situations of crisis, they too often close colleges, hospitals, and other government agencies. The entire world is fighting this unique and dangerous virus known as COVID-19, and it has spread to many countries including China, Italy, Spain, Iran, and others [1].

Many countries' governments have declared lockdowns and told people to live in their homes because of the threat this epidemic presents to human life. In response, teachers in various countries have started to use e-learning to educate the students at this period. Technology has progressed and we can say we are living in a technological revolution. This technology plays a vital role in numerous areas such as business, medicine, and education, etc. e-learning can be described as the use of computer and internet technology to offer a wide variety of solutions for learning and enhance performance [2].

For a long time, educators have wanted to infuse new technologies into teaching and learning. Print, audio, video, and computer technologies have been incorporated into education and training over the years. These tools have become more seamless with each wave of technological innovation, and instructional practices have evolved. As the Internet became larger, the infrastructure of LMS became readily accessible, allowing teachers with little technological knowledge to offer distance learning to students [3].

Today's students (usually under the age of 25) are known as digital natives – such digital natives are accustomed to interactive forms of study, including group interactions, field research, case studies, and simulations [4]. Higher Education Institutions (HEI) have historically lectured through face-to-face courses using written texts, though, and many persist to do so. There seems to be a misalignment between how some higher education institutions educate and what the modern digital natives perceive the process of learning to be. Although the institutions focus on the curriculum process, digital natives are more curious with the educational results. To keep up with the technologically

savvy students they serve, academic staff of HEI must transform their tactics in teaching [5, 6]. To achieve this, many higher education institutions have and will continue to invest in online learning technologies to meet this expectation.

Demuyakor [7] attempts to determine whether Ghanaian foreign students in China are happy with online "mass" learning at Beijing, China's higher education institutions. This research therefore used an online survey to examine the level of online learning satisfaction in higher education institutions and how Ghanaian foreign students deal with this 'new initiatives'. The findings from this research will significantly help university administration and managers in making potential emergency decisions on incorporating electronic learning services with the diverse experiences of the students.

Dhawan [8] covers the importance of online learning and analysis of e-learning modes in a time of crisis, Strengths, Weaknesses, Opportunities, & Challenges (SWOC). This report also shines some light on the rise of EdTech Start-ups during the time of pandemic and natural disasters, and provides advice for academic institutions on how to address electronic learning related challenges.

Ali [9], results show that universities around the world are heading even further towards online learning or e-learning. The results also reveal that ICT integrated learning plays an important function apart from resources, staff readiness, confidence, student accessibility and motivation. This experimental research suggests that staff members should use technology and technical devices particularly during these excellent periods to enhance learning. In periods of lockdowns and social distancing due to COVID 19 pandemic, Findings also suggest electronic and remote learning as a requirement.

Adnan and Anwar [10] investigates Pakistani higher education students' attitudes towards compulsory university courses in digital and distance learning with Coronavirus (COVID-19). Undergraduate and postgraduate students were polled in Pakistan to find out their views on online education. The study results demonstrated that online learning cannot result in interest in underdeveloped countries such as Pakistan, where the vast majority of students are unable to access the internet due to both technological and monetary issues. Among some other concerns raised by higher education students is the lack of face-to - face contact with the teacher, the reaction time and the absence of conventional classroom socialization.

Moawad [11] review aims to recognize academic stressors by examining the worries and fears that are faced by students at the College of Education (King Saud University) during the COVID-19 era. The findings reveal that the problem with the greatest proportion of student tension is their anxiety about the end of the term tests and evaluations. This study examined reports about the introduction of online learning at KSU during the first week.

Rapanta *et al.*, [12] provides some expert insights into this Pedagogical Content Knowledge (PCK) related to online learning, with the goal of helping non-expert university teachers (i.e. those who have little online learning experience) navigate in these difficult times.

Findings refer to the nature of learning experiences with other features, the integration of three participation styles (social, cognitive and facilitative) and the need to adapt assessment to the current learning needs.

This study aims to investigate the academic semester activities of Blackboard in teaching and learning among the faculty members of Arts and Humanities, especially during the coronavirus pandemic. In fact, how faculty members use the learning management system to help their students in the learning process, assess them and involve them in the material in hand when teaching at home for the duration of lockdown. Furthermore the research makes a significant contribution by highlighting the disparity between different classes and their attitudes towards the inclusion of ICT in teaching and learning through its findings. Notably, the results will be of great benefit to the teachers because they are in direct communication with the students and will be able to fully understand their actions and to resolve problems relating to online management. In a similar way, it would also provide valuable knowledge about the advantages of ICT enabled learning to educational institutions encouraging them to implement them into education as pedagogical reforms. Specifically, they may need to revisit their curriculum to include ICT knowledge in their text at primary and secondary levels. This adaptation would better prepare the students at HEIs for integrated ICT pedagogy. Instead, if adopted, the study findings would allow HEIs to create an immersive and fun learning experience for all students in the middle of the national COVID-19 pandemic lockdown.

An overview of the literature related to Quick Overview of Coronavirus/COVID-19, Learning Management System (LMS), and the effective role of LMS are explained in the next section, followed by a methodology. Section IV describes the results and discussions and lastly, the conclusion and future scope are presented in sections V and VI respectively.

## II. LITERATURE REVIEW

Literature shows that online learning improves knowledge processing and takes less time, which means that coronavirus improvements could have induced remaining here. As a result of a growing number of nations, provinces, and even whole countries shutting learning facilities as a reaction to the COVID-19 pandemic, almost 70 percent of students worldwide are not attending school according to the UNESCO website. In response to this challenge, the curriculum has radically improved with the distinctive emergence of e-learning, where instruction is carried out online and on digital platforms [13].

Overall, the previous research indicates that technology is not adequately incorporated into HEI, resulting in these organizations struggling to draw on the promise that modern technology provides. Technology resources, HEI failure to provide support personnel and lack of confidence amongst faculty members in implementing emerging technologies are some of the first ranked obstacles facing HEIs in this endeavor. In addition, faculty members have been listed among several other factors as one of the main and critical success features for e-learning and a significant factor for the incorporation of information and communication technology into the educational environment [14].

### A. Quick Overview of Coronavirus/COVID-19

A pandemic is a disease outbreak that occurs throughout a wide area, for example, several countries or across the globe, and involving a huge number of people. The World Health Organization (WHO) gave an official name to the illness on 11 Feb 2020: COVID-19. The COVID-19 was also declared a pandemic by the WHO. During November 2019, a serious viral outbreak was reported in Wuhan, a town in China's Hubei provinces. The first case of this infection was identified on 17th November 2019. Physicians originally treated it as a mild fever or cold, but one researcher, Dr. Li Wenliang of the Chinese Academy of Sciences (CAS) Institute, believed it was a form of extreme acute respiratory syndrome circulating by a new coronavirus after a wide variety of patients showed similar symptoms. Dr. Li himself became a victim of the virus in January [8].

Due to the World Health Organization's (WHO) announcement of Novel Coronavirus-19 (COVID-19) as a pandemic, all commercial practices were locked down. Since early spring 2020, Chinese universities have responded with unprecedented massive "migration" from traditional face-to-face in-class education to online education. Because of the widespread Coronavirus disease (COVID-19) in China, most Chinese universities have begun online education, following the government's requirements of "nonstop teaching and learning". In a brief amount of time, millions of faculty members have been teaching in front of a computer screen, and their students sit at home to take the classes online. In addition to China, with COVID-19 spreading throughout the world as of March 13, 61 countries in Africa, Asia, Europe, the Middle East, North America, and South America have declared or enforced school and university shutdowns and most universities have imposed localized closures [15, 16].

### B. Learning Management System

The education phenomenon has been a step over the past decade towards online learning and "mixed/blended" learning that substitute elements of face-to-face training.



Fig. 1. Learning Management System.

Mixed/Blended learning is the mixture of face-to-face and online learning and its curriculum is structured to promote teaching and learning, using a learning

management system [17]. Fig. 1 shows a conceptual view of LMS. The introduction of Learning Management Systems (LMSs) brought about a significant transition in e-learning in the late 1990s. Blackboard, Moodle, and WebCT are among the popular examples of LMSs designed to facilitate web-based learning. An LMS is a web-enabled computing interface intended to provide students with efficient control and distribution of learning materials. Communication tools provided by an LMS allow simple connections between students and lecturers. LMS allows instant reviews for various assessments, such as online quizzes, while building a rich learning environment.

Learning management systems use the internet as a medium to allow students to access the material online thus the time and location limitations are overcome. An LMS does much more than simply enabling access to information; it facilitates immersive learning anytime and wherever the user wants. It is therefore not unexpected that learning management systems are at the forefront of e-learning programs in many higher education institutions [18].

### C. The Effective Role of Learning Management System

Today, the implementation and use of LMS in education has become essential and appropriate for improved education and instruction. The acronym LMS can be used synonymously with the word CMS (the course management method of course). However, the features and functions of each style are totally different: CMS supports long-term exercises in the classroom while an LMS facilitates a variety of short educational activities. Utilizing LMS, the teacher exercises different facets of successful learning, such as student-centric learning, self-dependent learning, writing and management skills and interactive learning as shown in Fig. 2. These issues should focus on the comprehension of the subject by the students [19].



Fig. 2. Role of Learning Management System.

These problems cannot be solved until they are approached by using LMS as part of the instruction method and not merely as a resource. Additionally, the implementation of LMS depends on many factors: the educator, the organization, and the technologies involved. The teaching style and professional creativity are among the factors which are contributed by the teacher. Measurement of learning will be achieved by ensuring participant inputs are associated with the goal

of using the LMS. If this problem is answered, the use of LMS will be considered effective learning [20]. The word LMS used here refers to Jazan University's Blackboard Learn platform. The key aim of LMS at Jazan University is to allow faculty members to deliver and upload their course material and to use it through contact and collaboration with students for better education.

### III. METHODOLOGY

The main goal of this study is to investigate the academic semester activities of Blackboard as a learning management system at the university-level for undergraduate distance learning programs of the Faculty of Arts and Humanities. The study is designed to directly assess the utilization of Blackboard on studying and teaching with the help of quantitative and qualitative methodologies of the integrated.

#### A. Research Design

The research methodology incorporates both quantitative and qualitative in essence and has been shown useful in gathering faculty member's information. The fundamental research issue is to determine how well the designs' structure would predict social intent and consequent use of Blackboard.

#### B. Population

The focus audience for this study was a full-time faculty member of the Faculty of Arts and Humanities at Jazan University. A total of 84 faculty members, male and female, were polled. Employees should be computer literate and have an Internet facility to achieve the fundamental aim of the research study. These requirements helped one to increase an educated point of view regarding the sense of the intention of the participants to use or their use of LMS.

#### C. Data Collection

Statistics are gathered through daily, weekly, and monthly evaluation reports from the course lectures. Age groups, computer literacy, internet access, frequency of Blackboard usage by faculty, Blackboard features used by faculty and semester accomplishments are the criteria of a demographical analysis of academic semester activities of Blackboard usage.

### IV. RESULTS AND DISCUSSIONS

This section presents the study results that are based on the information collected to analyze using Blackboard as a university-level learning management system. As stated earlier, the research study was scheduled at Jazan University, KSA to investigate the academic semester activities of Blackboard as an LMS on learning and teaching during the pandemic. The results through the research study are the success of the course subjects and the satisfaction of the subject with the learning process and its skills.

#### A. Age Group of Faculty Members

Data shown in Fig. 3 indicate the age groups of faculty members. These variations are statistically important. There's also a big gap between the second and fourth classes. Therefore, the third group (36-45 years) can be seen to be the strongest at using Blackboard, followed by the second group (26-35 years), and therefore it can

be inferred that age has an impact on Blackboard use. This can be explained by the fact that older people typically use technologies less widely than the younger generation.

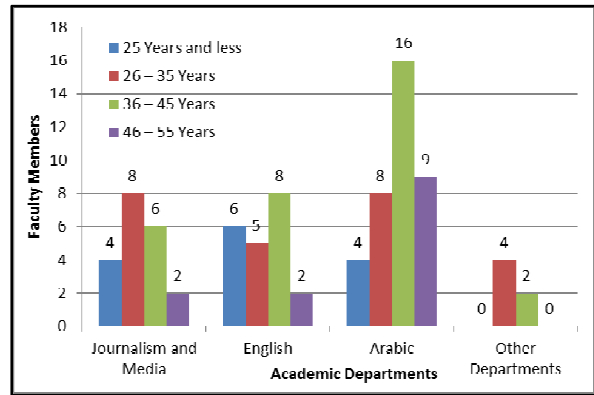


Fig. 3. Age Groups of Faculty Members.

In this research, however, the younger generation (those under the age of 25) are also surprisingly less frequent Blackboard users – an incredible fact and divergent to expectations; It may be viewed in such a way as to indicate that, while younger people may have the expertise and self-confidence to use technology in general, they are still new to Blackboard and thus do not have the unique skill to use it in a realistic manner.

#### B. Computer Literacy of Faculty Members

Statistics shown in Fig. 4 display the computer skills of faculty members.

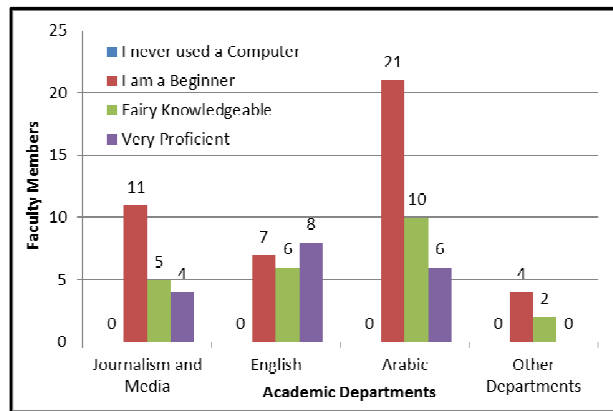


Fig. 4. Computer Literacy of Faculty Members.

The expanded creative skills of faculty members in higher education, where hi-tech technologies have a revolutionary impact on learning and teaching, are of focal significance. The importance of ICT skills of educators has been viewed in a number of nations, with various experts suggesting that "Instructors would have the possibility of self-assurance coping with creativity". One of the key rationale strategies for advancing the ICT-related expertise of teachers is to enhance the learning performance of students and develop their ICT skills. This estimate may be due to the fact they are older than the digital natives and could not be open to adopting new technology automatically.

### C. Internet Access of Faculty Members

The results shown in Fig. 5 indicate the various internet access locations for the specified courses to give online lectures.

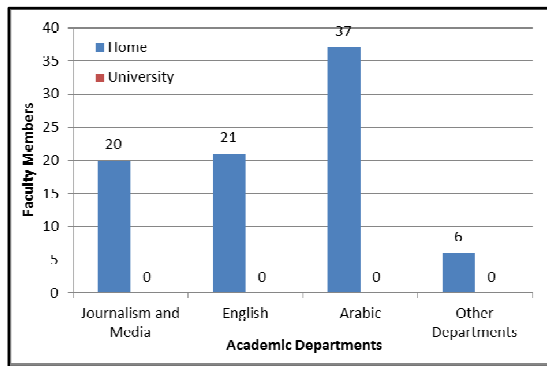


Fig. 5. Internet Access of Faculty Members.

Blackboard is an electronic resource that can function while the internet is available, therefore it is important to ensure internet connectivity for faculty members in workplaces as well as at home. This research study indicates that 100% of the faculty members of these departments conducted their lectures from home because of restricted movement to stem the spread of COVID-19; all faculty members obeyed work from home restriction. This means the Blackboard Learn tool is easily available whenever a faculty member wants to use it.

### D. Frequency of Blackboard usage of Faculty Members

The research study has found that during the academic semester, faculty members have regularly engaged in the use of Blackboard in their teaching process.

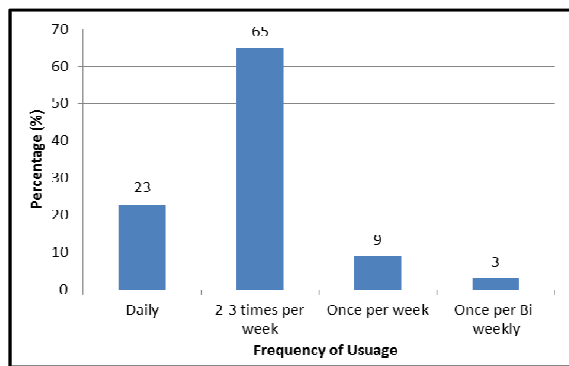


Fig. 6. Frequency of Blackboard Usage of Faculty Members.

Earlier preparation on the use of Blackboard was given to all faculty members during orientation sessions, and they are fully aware of the benefits of using the learning management system (LMS). The outcomes of using Blackboard suggest that most faculty members use Blackboard to accelerate their courses on a daily basis, 2-3 times a week, once per week and once per Bi-weekly as illustrated in Fig. 6.

### E. Blackboard Features used by Faculty Members

Education approaches include a variety of teaching methods that could inspire and improve self-guided pedagogy.

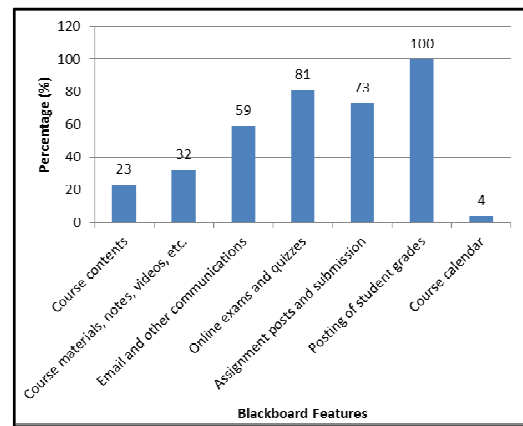


Fig. 7. Blackboard Features Used by Faculty Members.

Today, the use of e-learning systems such as Blackboard as part of their instructional practices has been incorporated among the world's educational institutions. Computer awareness is a significant influence on faculty members in successfully using e-learning platforms. Fig. 7 illustrates the teachers who know the methods they use Blackboard within their courses. The vast majority of them used Blackboard features to post materials, assessments, and assignments for their courses.

### F. Semester Accomplishments by Faculty Members

Fig. 8 illustrates the semester contributions of faculty members during the semester of the academic year of 2019/20. Seven alternate weeks of synchronous e-learning lectures and six weeks of asynchronous e-learning, meaning one week for lecture by virtual lecture and the next week for the events related to this lecture. Maximum semester weeks are twelve weeks of lectures for both male and female students, as well as other events related to such lectures. The final exams are conducted online for two weeks after the successful completion of the lectures.

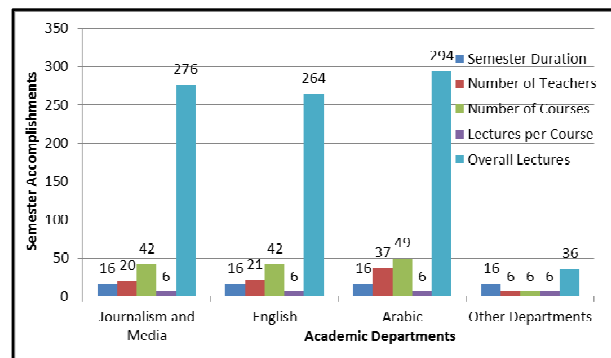


Fig. 8. Semester Accomplishments by Faculty Members.

According to results, the Department of Journalism and Media delivered 276 lectures as some classes had several groups of the same faculty member, with separate lecture times.

## V. CONCLUSION

While the whole planet is facing the unseen adversary (COVID-19), which has killed thousands of people all over the globe, the teaching and learning process is also being carried out using e-learning and its tools. Staying at home is one step towards reducing COVID-19 spread, and technology is an important part of our everyday life. E-learning, the Internet, and computers have been vitally used in the process of teaching and learning.

This research study explores the academic semester activities of Blackboard among the faculty members of the Faculty of Arts and Humanities of Jazan University in the middle of the COVID-19 pandemic. The results include the space for teachers to assess the right Blackboard tools that are ideally suited to improving the success of the students to achieve the learning outcomes they expect. The findings indicated that most faculty use Blackboard to promote their courses on a daily basis and 2-3 per week. The faculty also uses the main resources of the LMS including content sharing (course notes, lesson videos, PPT presentations, etc.), electronic evaluations, quizzes, assignments, and uploading grades. It is also recommended that the results of this study be shared with other higher learning institutions within and outside the country to motivate them to adopt learning management systems such as Blackboard Learn, which would support them by developing methods of pedagogy, educational outcomes in this dynamic market to build a strategic edge.

## VI. FUTURE SCOPE AND SUGGESTIONS

The further scope will also, therefore, need to concentrate on administrative and policy concerns, including technological services, expenses, upgradability, licenses and permits, and campus maintenance.

Implementing e-learning is all about studying, and taking a turn in higher education. We need to be familiar with technology devices and use them for education and knowledge enhancement. In the classroom, the teachers will use e-learning resources and allow students to access various educational applications to make the journey towards learning enjoyable and meaningful.

**Conflict of Interest:** No conflict of interest as the study is based on the literature review and extensive daily, weekly and monthly performance reports of course lectures.

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