Benefits and Challenges of using Blackboard® with Strategies to Overcome Them

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Abstract

This paper addresses the adoption rate and utilization challenges of Blackboard® among lecturers at SEGi College Kuala Lumpur, where the implementation of this learning management system has faced impediments. Despite extensive training sessions, lecturers struggle to fully exploit the features of Blackboard® due to a limited understanding of its advantages. Furthermore, some lecturers resist the technology, preferring traditional teaching methods. The research aims to investigate the benefits that Blackboard® offer as an instructional platform from an innovation adoption perspective and to explore the challenges lecturers face at SEGi College Kuala Lumpur, considering Ely's conditions of change. This study also aims to identify strategies that can be devised to overcome the challenges related to the usage of Blackboard®. Employing a qualitative approach through a single case study, structured interview questions were utilized to delve into the experiences and perceptions of 15 lecturers. Despite encountering technical issues, various benefits emerged from using Blackboard® for educational purposes. Challenges were identified, particularly on technical aspects, and strategies were formulated to address these impediments. The findings underscore the crucial role of ongoing training and support from college management in fostering the successful adoption and utilization of Blackboard® among lecturers. In conclusion, this research sheds light on the intricate dynamics surrounding the adoption of Blackboard® at SEGi College Kuala Lumpur, emphasizing the need for tailored strategies to enhance lecturer acceptance and utilization. The insights gained from this study contribute valuable perspectives for educational institutions seeking to optimize the benefits of learning management systems in the digital age.

Keywords: Benefits, Challenges, Learning Management System (LMS), Lecturer, Strategies

Introduction

Learning Management System (LMS) is used as a platform for delivering a teaching and learning module at an educational institution online (Najib et al., 2017). The use of LMS at SEGi College Kuala Lumpur has started since 2013 through Blackboard® software and it has

resulted in a drastic technological shift through online teaching and learning for students. However, at SEGi College Kuala Lumpur the use of LMS is not something new but also impressive due to the sudden increased usage. Moreover, COVID-19 has forced academic institutions to actively consider LMS because they have no other choice (Mahyoob, 2020). Therefore, the lecturers and students have been pushed into an unprepared situation. Thus, there are various problems and resistance in the effective use of LMS and e-learning.

According to (Al-khresheh, 2021), there are many demands for conducting quantitative research from the perspective of teachers and students, especially in the post-COVID-19 era. In the future, researchers will benefit from a comparison of Blackboard® and other technologies that operate in the same field. Blackboard® is a web-based learning tool that can provide a space for lecturers to upload and update teaching materials, engage with students in forums, and provide links to other websites related to learning. The processes of teaching and learning in educational settings have undergone a revolution due to the quick growth of digital technology. Many studies show that over time, e-learning systems like "Blackboard" have become more prevalent in higher education, both in terms of quantity and quality Lecturers can employ a range of instructional strategies to improve learning chances for students and promote their learning. In this situation, lecturers may employ Blackboard® technology as a tool to help students become more motivated and engaged in their studies (The Effect of Learning Based - Blackboard System in Improving Students' Performance in Learning English - European Journal of English Language and Literature Studies (EJELLS), 2023).

Moreover, it enables students to hand in their homework and assignments, participate in live discussions with their classmates, and keep track of their progress. Blackboard® assists instructors in creating adaptable course materials, creating discussion boards, interesting assignments, and efficiently administering the tests. In addition, many aspects encourage the use of Blackboard® in the SEGi College Kuala Lumpur. Among them are courses based on the latest technology which are given to lecturers to encourage efficient teaching through the latest technology. Meanwhile, there are also other aspects such as infrastructure, perception, and attitude of lecturers in evaluating the benefits and challenges of using Blackboard® in teaching and learning. The use of Blackboard® at SEGi College Kuala Lumpur is crucial to delivering all-day teaching and learning. Especially during the spread of COVID-19 around March 2020 and now in the post-era COVID-19, the use of e-learning is very popular and has become an important trend in the implementation of teaching and learning. Lecturers may therefore have challenges adapting to the new online learning environment and the new norms for online examinations.

In recent years, at SEGi College Kuala Lumpur, has increasingly used Blackboard® in place of more conventional face-to-face instruction. According to Bouznif (2018), Alshehri et al.(2020), and Sultana (2020), the adoption and appreciation of information systems like Blackboard® by end users is crucial to their benefit. Moreover, lecturers' actual and intended use of Blackboard® before, during, and after the COVID-19 epidemic had an impact on their satisfaction and willingness to keep using Blackboard® in higher education (Almogren, 2022). This study looked at the critical factors influencing lecturers' satisfaction and ongoing use of Blackboard® in Saudi higher education both during and after the COVID-19 outbreak.

Meanwhile, both the lecturers and the students had favorable experiences with the learning platform and the creation of its materials (Uziak et al., 2018). This research investigates the view from the lecturers on utilizing Blackboard® and finds that the biggest problem with using the platform is time management. Nevertheless, Blackboard® gives lecturers the tools they need to design adaptable course materials, create interactive assignments and discussion forums, and efficiently administer examinations (Elsayed, 2022). This study focuses on the advantages and drawbacks of students utilizing Blackboard® as a learning tool. This study demonstrated that the difficulties students experience includes a lack of technological expertise and understanding, a slow or unreliable internet connection, difficulty in uploading or downloading data of a substantial size, and password problems. Furthermore, Blackboard® is an ultimate e-learning platform that can manage course curriculum and increase student engagement (Darko, 2021). This study examines the actual average amount of time students spend online over their whole academic careers and explores any potential relationships with their final test scores. The results reveal a strong positive linear association between students' Blackboard® usage and their final grades.

Another intriguing finding was that students engaged and interacted more with the LMS during specific times of the week as opposed to engaging in unintended activities. The findings supported the constructivism learning theory, which holds that students actively construct knowledge as they interact with learning management systems (LMS). Higher education now has a new dimension thanks to Blackboard®, which offers professors valuable instructional advantages (Almijlad et al., 2022). This study focused on examining the views of lecturers on potential barriers to using Blackboard for instruction. The key topics that arose from the interviews with the instructors include technological, institutional, and cultural impediments, according to the findings. The diffusion of innovation theory was created and introduced by Rogers (2003) as a theoretical framework for researching the elements that influence the uptake of new technology. The goal of the diffusion of innovation theory is to explain how, why, and how quickly new technology spreads (Rogers, 2003). According to a recent study, several crucial success criteria must be satisfied for the use of educational technology and e-learning practices in higher education settings. Many of these factors relate to Rogers' (2003) perceived attributes of innovations: relative advantage, compatibility, complexity, trialability, and observability. Ely's conditions of change model are one of the most often referenced change models that specifically covers the implementation procedure (Ely, 1999). To enable the efficient and long-lasting deployment of technology breakthroughs in a range of educational contexts, including higher education, Ely suggested and improved a series of eight external variables that must exist in the change environment or context. According to Ely, this framework may be employed as a needs assessment or diagnostic tool at any point in the change process to identify any gaps or obstacles to implementation and to launch interventions to build or reinforce the environment's supportive factors. By looking at the previous studies, no study was conducted to determine the benefits and challenges faced by lecturers in Malaysia particularly at SEGi College Kuala Lumpur. However, there is still a modest rate of e-learning solution adoption among lecturers at SEGi College Kuala Lumpur. The adoption rate among lecturers of Blackboard®, which has been implemented as the primary learning management system at SEGi College Kuala Lumpur, is impoverished when compared to the slow utilization of the features offered. Despite many trainings and workshops on the usage of Blackboard® for the lecturers, the utilization is not fully accomplished on the features as

the lecturers could not understand well the advantages of the innovation. Meanwhile, some of the lecturers' acceptance level of the technology and innovation of Blackboard® is still discouraging. This is mainly due to lecturers still practicing and preferring the traditional method of teaching and learning. They feel that the traditional way of teaching and learning is more effective and practical compared to Blackboard®. In consideration of the remarks made, the current study seeks to provide answers to the following questions: a) What are the benefits of using Blackboard® as the teaching platform from an innovation adoption perspective? b) What are the challenges faced by the lecturers based on the perceptions of the presence of Ely's conditions of change at SEGi College Kuala Lumpur? c) What are the strategies to overcome those challenges?

Literature Review
Blackboard® As An E-Learning Tool
E-learning has been steadily growing and spreading across numerous educational institutions, demonstrating its viability as a supplement to or replacement for traditional classroom instruction. According to Coates (2007) and Malikowski et al. (2007), Blackboard® is an instructional system and innovative technology, could offer blended learning, which combines online and on-campus components, and adds the virtual component to traditional face-to-face learning. Therefore, it is crucial to investigate how these technologies are being used and impact the users. According to Garisson and Kanuka (2004), teaching and learning with Blackboard® has become a prominent teaching strategy for engaging students in e-learning. Blackboard® boosts pedagogical output, knowledge accessibility, group collaborations, personal growth, and cost-effectiveness, and simplifies corrections while also resolving issues with attendance (Mustapa et al., 2015).

Meanwhile, Nguyen (2017) stated that Blackboard® is more beneficial and effective than conventional e-learning. Meanwhile, in study done by Kaur (2013) stated that Blackboard® helps lecturers achieve their pedagogical objectives in educating students to develop algorithmic and constructive logical abilities. Moreover, Blackboard® also aids in improving teaching characteristics, and promotes social order, Likewise, Blackboard® uses a combination of face-to-face instruction and online-mediated learning. According to Mohd Kassim & Khalid, 2016, Blackboard® is recommended for colleges with higher budgets who want to use an LMS that fulfills all requirements. Subramanian et al. (2014), claim that lecturers found the complex structure of Blackboard® requires careful course design and administration so that both students and other lecturers are aware of the information contained in each branch or folder.

Furthermore, Cavus et al. (2021) mentioned that Blackboard® demonstrates how to assist and encourage administrative and technological capabilities that are specifically designed to meet the needs of both educators and students during the educational process. In addition, the Blackboard® would most likely encourage more environmentally friendly behaviour by reducing the quantity of paper required for teaching and learning (Mohammadi et al., 2021). For an extensive period, studies regarding the usefulness of Blackboard® and its effects on users have been addressed and discussed in the literature. A study conducted by El Zawaidy and Zaki (2014) which discusses the challenges of using Blackboard® by lecturers at different universities in Saudi Arabia. The study investigated the experiences of lecturers who use e-learning technologies to educate, and it revealed that inadequate IT assistance, issues with connection to the internet, and lack of training in using IT for EL are the primary concerns.

One of the most difficult variables in virtual learning that might affect comprehension levels is lecture time duration. According to Gupta et al. (2021), a study was carried out in medical institutions in India to investigate lecturers' and students' perceptions and experiences with online teaching environments during COVID-19, resulting that the most desired duration of a class lecture spans between thirty minutes and one hour. Moreover, the study also discovered that virtual learning in programs is more feasible when classes resume back after the pandemic. Interaction between lecturers and students is seen as a major challenge in any E-learning, impacting the level of understanding. Afshari et al. (2020) conducted a study to assess how medical students reacted to E-learning during the COVID-19 in Iran. The study focuses on several aspects of content quality, communication efficacy, IT support accessibility, E-learning platform management, and student motivation. The analysis demonstrated that a lack of communication, low-skilled lecturers in e-learning usage, and a lack of desire have impacted the e-learning process.

Factors Related to Adoption of Innovation in Using Blackboard®
Previous studies in e-learning focused mainly with the diffusion of innovations, the change process in the initial stages of e-learning adoption, and implementation. Many universities have already undergone this stage of e-learning use which results in the existence of e-learning platforms in place and focuses on emphasis on technology-based hardware, software, and learning management systems (LMS) like Blackboard®.

Rogers' (1995) theory of diffusion of innovations is a well-known theory that can be used to explain why lecturers adopt or resist new technology. Diffusion is described as the process by which an innovation is conveyed to lecturers over time through certain routes. Rogers' theory of individual innovativeness proposed that people are predisposed to be inventive. According to Rogers, five characteristics of innovations influence an individual's attitude toward an innovation during the adoption process: relative advantage, compatibility, complexity, trialability, and observability. The following explains the five characteristics of innovations:

Relative Advantage
It is the extent to which an invention is judged to be superior to the idea it replaces. In simple terms, if the innovation has a bigger advantage, it has a greater probability of being implemented. For example, lecturers could expect advantages like user-friendly, convenience, interactivity, and cost-saving while using Blackboard® as a teaching platform.

Compatibility
It is the extent to which a potential adopter perceives an invention to be consistent with what they already believe, past experiences, and media. Essentially, if an innovation is congruent with current needs and expectations, it is more probable to be implemented. Likewise, lecturers could adopt the use of Blackboard® when there is proper accessibility, relevance, intensity, and persistence for teaching and learning purposes.

Complexity
It refers to exactly how difficult an innovation is believed to be to fully understand and use. Moreover, it indicates that if the innovation makes things quicker rather than more difficult, it is more likely to be implemented. For instance, lecturers would like to use Blackboard® when they understand online functions and web features in a better context.

Trialability

It is the extent to which an innovation can be tested on a small scale. Therefore, if an innovation can be tested without committing to changing present practises, it is more likely to be accepted. Lecturers would be happy to trial test the function of Blackboard® concurrently with the current practices.

Observability

It is the extent to which the benefits of an innovation are evident to others. Basically, if peers and friends can see and observe the invention, it is more likely to be accepted. It's like one faculty lecturers using Blackboard®, then lecturers from other faculties will also start to use Blackboard® as the teaching platform.

Ely's Conditions to Facilitate the use of Blackboard®

Ely (1990, 1999) established a list of eight conditions discovered to promote the implementation of educational technologies (ET). This is a well-known theory that is based on the comprehensive perspective of ET integration and implementation. These eight conditions are availability of time, dissatisfaction with the status quo, knowledge and skills, availability of resources, rewards or incentives, participation, commitment, and leadership. The following explains the eight conditions:

Availability of Time

This theoretical factor refers to work time and the ET integration process. Lecturers' time is always limited, and they believe that they do not have enough time to complete all the tasks. Numerous research studies on faculty time management demonstrate that lecturers must allocate their time for teaching, evaluation, course preparation, research, and service.

Dissatisfaction with the Status Quo

This theory aspect relates to dissatisfaction with the environment or with a particular situation at work. Overall, dissatisfaction can be attributed to a variety of causes, including a lack of time or resources, remuneration or incentives, the quality of technology, and a lack of ET knowledge. The absence of one or more of these factors can have a detrimental impact on instructors' ET integration process, leading to some resistance to adoption, collaboration, and implementation.

Knowledge and Skills

One of the most important components in the ET integration process is knowledge of educational technology. ET literacy is frequently a barrier to educational innovation and technology application. This element is significantly associated with inadequate goals and objectives, inadequate instructional design, resources, rewards, leadership, and personal dedication.

Availability of Resources

The availability of resources is a crucial issue in both the integration of educational technology (ET) and the training of the workforce to acquire essential technological skills. Hardware, software, financial sponsorship, educational technology support systems, and training are available options. To combat the lack of available resources, departments should collaborate closely to use all available monies and form successful networking organizations where

resources may be shared. Departments may collaborate to purchase necessary hardware and software, as well as schedule necessary training courses.

Rewards or Incentives

Rewards and incentives can be used to motivate innovation, creativity, and the incorporation of technology into teaching and learning. This aspect is highly related to workplace leadership, involvement, resources, time, and worker fulfillment. Leadership in any department is crucial in establishing some form of motivation, whether intrinsic or external. Unfortunately, measuring the impact of incentives and rewards on faculty instructional technology integration is quite difficult.

Participation

Faculty involvement in educational technology (ET) integration is an important component of teaching and learning. During administrative meetings and roundtable talks, managers, lecturers, and colleagues can be seen participating. This condition is strongly related to the faculty's time, dedication, expertise, abilities, and incentives. Participation is also tied to academic positions and contracts of hire, with certain lecturers able to devote time to specific ET integration and implementation activities.

Commitment

Lecturers' dedication and educational institution leadership are two of the most important aspects of effective ET integration and implementation. To ensure the project's effective completion of teaching and learning practices, all participants in the ET integration initiative must endorse and support it. Choosing the relevant stakeholders, establishing good communication, and communicating the aims, needs, goals, and incentives of the educational technology integration program to all members are all strategies for controlling faculty lack of commitment.

Leadership

Leadership is the most significant of the eight conditions in educational technology integration and deployment. According to Ely (1999), leadership is defined as a source of support and includes both executive and project leadership. According to Ehrmann (2001), leaders can solve project-related challenges and successfully engage all project participants to complete the project. The executive leader is frequently regarded as the organization's and the board's chair. Project leaders are people who assist, supervise, and carry out ET integration projects. Both types of leaders are critical in ET integration efforts. Faculty dedication, time, involvement, resources, awards, and incentives are all significantly linked to leadership.

From Figure 1.1 below, the conceptual framework for this paper based on the benefits and challenges of using Blackboard®, along with strategies to overcome them, draws upon three key theoretical perspectives as mentioned earlier: Rogers' Diffusion of Innovations theory, Ely's Conditions of Change, and Michael Fullan's insights on educational change. Fullan's (1993) work provides insights into the dynamics of educational change, focusing on the role of leadership, the importance of a shared vision, and the need for continuous improvement. The framework considers Fullan's perspectives to assess how leadership within educational institutions, particularly the role of college management, influences the successful integration of Blackboard®. It explores how a shared vision among educators, continuous support, and

a culture of innovation contribute to sustained change. Nevertheless, only Roger's Diffusion of Innovation theory and Ely's Condition of Change will be integrated into this study. Michael Fullan's insights on educational change will not be integrated as they can be covered through the eight Ely's conditions as well. By integrating these two theoretical frameworks, the conceptual framework aims to explore the benefits of using Blackboard® as a teaching platform from an innovation adoption perspective, the challenges faced by the lecturers based on the perceptions of the presence of Ely's conditions of change at SEGi College Kuala Lumpur and the strategies that can effectively overcome these challenges. This holistic approach recognizes the interplay between individual attitudes, institutional support, and broader educational change dynamics, offering a robust foundation for the exploration and analysis undertaken in the study.
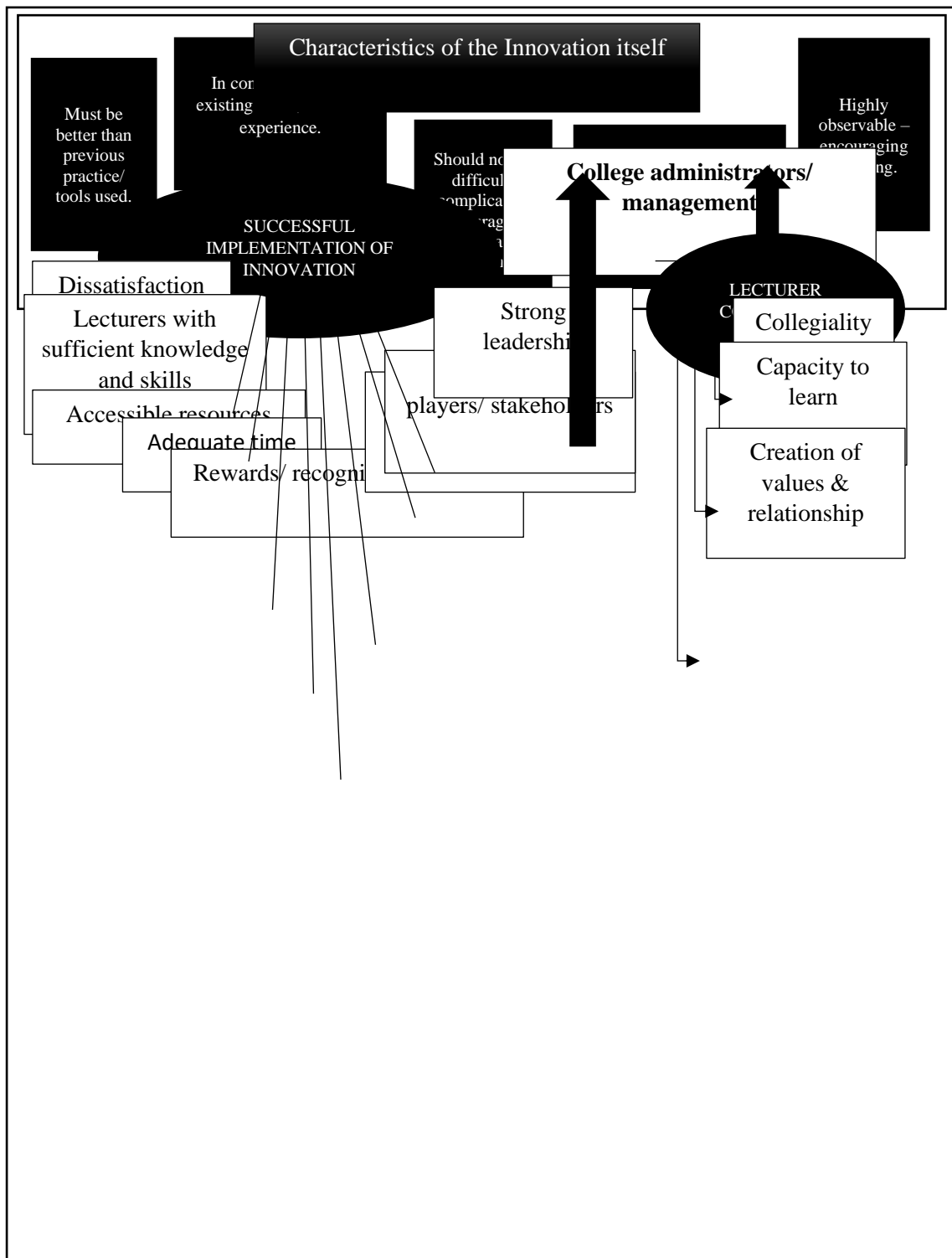
Figure 1: Conceptual framework based on Roger's Diffusion, Ely's condition of change, and educational change by Fullan.

Methodology

Purposive sampling and a qualitative technique were utilized in this study, to obtain useful replies from the study's real participants. For this qualitative study, a case study was adopted to gather data from the lecturers working at SEGi College Kuala Lumpur where each of them was interviewed individually to explore the benefits and challenges of using Blackboard® with

the strategies to overcome them. In the following sections details on research design, sampling method, research instrument, and data analysis are presented.

Research Design

This case study was conducted among the lecturers working at SEGi College Kuala Lumpur where each of them was interviewed individually to explore the benefits and challenges of using Blackboard® with the strategies to overcome them. According to Stake (2000), a case study is a common framework for conducting qualitative research. One of the most significant types of case study evidence (Yin, 2009) often involves interviews, which are structured dialogues. Effective interviewing is still a highly challenging task, despite the interview dialogue being defined as a "pipeline for imparting knowledge'.

Sampling Method

The number of interviews needed will depend on the study's breadth, the phenomena being investigated, the size of the unit of analysis (such as an organization or department), and the timescale available (Pan & Tan, 2011). The purposive sample of this study included 15 lecturers from SEGi College Kuala Lumpur due to limited timeframe. The respondents' ages ranged from 28 to 50 and the lecturers were both female and male. They have been using Blackboard® for at least the past one year. The respondents were chosen based on their enthusiasm for taking part in the study. Therefore, the views are stated according to the themes of using Blackboard®. Exemplary and verbatim quotes from the interviews are labeled in terms of Respondent 1 (R1) until Respondent 15 (R15).

Instrument

According to Miles and Huberman (1994), the interviewer codes the answers following a pre-established coding method, making it relatively comparable to written surveys. Therefore, structured interviews with the respondents were utilized to get data from them. Interviews are regarded as effective techniques for acquiring information since participants are free to share their opinions on a given subject (O'Reilly, 2005). Meanwhile, the lecturers were given the chance to share their thoughts, feelings, and attitudes openly and verbally. Respondents were given the structured interview protocol to discuss the benefits and challenges of using Blackboard® with the strategies to overcome them. The interview audio was recorded by the researcher using a voice recorder through the mobile phone application.

Data Analysis

The interviews audios were recorded by the researcher using a voice recorder through the mobile phone application. The interviews audios were transcribed by the researcher manually. Then, the transcript was analyzed using the NVivo application to organize the according to the theme and code. Thus, reading over the interview data and detecting, classifying, and interpreting themes based on the participants' replies comprised the coding procedure.

Result and Discussion

According to some of the lecturers, the platform serves as a centralized hub for academic resources, course materials, and communication. Lecturers also found that they can organize and manage their content efficiently, providing students with easy access to lectures, readings, assignments, and other learning materials. Nevertheless, some lecturers mentioned

that the platform facilitates seamless communication between the lecturers and students. Announcements, discussions, and feedback mechanisms within Blackboard® create an interactive environment, fostering effective teacher-student and student-student communication. The findings seem to agree with Lonn and Teasley (2009) who found that Blackboard® increased the efficiency of communication.

The first and second interview questions aimed to answer the first research question which is "What are the benefits of using Blackboard® as the teaching platform from an innovation adoption perspective?" Some exemplary and verbatim quotes from the respondents when asked "What are the benefits of using Blackboard® in your teaching and learning sessions?" are shared below:

"Blackboard® has transformed my way of teaching. It facilitates easy communication with students and allows for interactive assignments, enhancing overall engagement."(R1)

"Blackboard® enhances student engagement with its interactive features. It fosters collaborative learning through discussion boards and provides a centralized platform for easy access to course materials." (R7)

"The platform offers tools to track student engagement and progress. Lecturers can monitor participation, logins, and…hmmm completion of assignments, gaining insights into individual." (R15)

Adding to that, some lecturers emphasized that they could upload notes, multimedia content, and supplementary materials, providing students with the flexibility to access resources at their own pace. This accommodates diverse learning styles and allows for greater accessibility, especially for remote or asynchronous learning. Blackboard®'s assessment tools enable academicians to create a variety of quizzes, tests, and assignments. The platform provides instant feedback to students, allowing for a more dynamic and responsive approach to the learning process. The advantages outlined earlier align with the discovery by Malikowski et al. (2007), indicating that the utilization of features and the associated benefits primarily revolved around the transmission of course materials, regular assessment via quizzes, and the facilitation of class discussions.

Nevertheless, the second question was "How is using Blackboard® for teaching and learning compatible with your teaching experiences?". The respondents shared various inputs on the benefits experienced. Below are some of the exemplary and verbatim quotes.

Furthermore, some lecturers did state that tools like discussion boards and collaborative features encourage interactive learning among students. Lecturers can facilitate online discussions, group projects, and peer-to-peer learning, fostering a sense of community even in virtual classrooms. Meanwhile, Blackboard® also streamlines the grading process with features like automated grading for certain assessments. This efficiency allows lecturers to focus more on providing meaningful feedback and personalized support to students. The platform offers tools to track student engagement and progress. From the interview sessions, some lecturers shared that they could monitor participation, logins, and completion of assignments, gaining insights into individual and overall class performance. Blackboard® helps the lecturers to manage their time effectively as the platform is user-friendly. They can schedule assignments, set due dates, and automate certain aspects of course administration, allowing more time for actual teaching and interaction with students.

"As a new lecturer, Blackboard® aligns with my tech-forward teaching approach. It complements in-person discussions with online resources." (R2)

"Blackboard® aligns effectively with my teaching pedagogy. Its flexibility allows me to incorporate multimedia elements, catering to different learning styles and promoting more effective learning." (R6)

"Blackboard® is very compatible from my experiences…as you know even, I am in this age …I value continuous professional development. Blackboard® offers opportunities for lecturers to expand their skills through training sessions, workshops, and access to new features. This aligns with lecturers' commitment to staying updated on best practices in teaching and technology." (R14)

Despite that, some lecturers mentioned that they can integrate multimedia elements such as videos, images, and interactive content into their courses. This multimedia-rich environment caters to different learning styles, making the learning experience more engaging. Blackboard® supports a variety of pedagogical approaches. Other than that, some lecturers find that whether the lecturers prefer traditional lectures, flipped classrooms, or a blended learning model, the platform offers the flexibility to adapt to diverse teaching styles. Similarly, some lecturers said that Blackboard® also provides continuous training and professional development opportunities. This ensures that lecturers stay updated on new features, teaching methodologies, and technology advancements, fostering a culture of lifelong learning. Lecturers can leverage data and analytics tools within Blackboard® to gain insights into student performance. This data-driven approach enables them to identify areas for improvement, tailor teaching strategies, and provide targeted support to students. Blackboard® significantly contributes to the effectiveness and efficiency of teaching and learning in higher education by providing a versatile and interactive online platform. Its features empower lecturers to create engaging learning experiences, facilitate communication, and adapt to the evolving landscape of education.

Nevertheless, most of the lecturers have technical issues while using Blackboard®. Lecturers may encounter technical glitches, server downtimes, or compatibility issues with certain devices. These challenges can disrupt the flow of a lecture and cause frustration among both lecturers and students. Even some new lecturers mentioned that they are new to using Blackboard®, and there can be a steep learning curve. Therefore, navigating the platform's features, understanding settings, and using advanced functionalities may require time and effort. If students are not familiar with Blackboard®, lecturers may face challenges in getting them to navigate the platform effectively. This can affect communication, submission of assignments, and overall engagement. Meanwhile for the questions on "Have you received any training about the use of Blackboard®?", "Do you carefully consider the pedagogical use of Blackboard® as an effective tool for your students' learning?", and "Do you access online material or information from the internet during classes using Blackboard®?" all the respondents answered yes. During the interview, some lecturers stated that organizing and managing course content on Blackboard® can be challenging as well, especially for lecturers with extensive materials. Therefore, ensuring that resources are logically arranged and easily accessible for students requires careful planning. Meanwhile, integration issues with other educational systems or tools can pose challenges. Some lecturers may face difficulties syncing data, grades, or content between Blackboard® and other platforms used in the academic environment. Regular updates and changes to the platform can require lecturers to adapt quickly. Lecturers did mention that staying informed about new features and ensuring that

existing content remains compatible can be time-consuming. Some lecturers and students may resist transitioning from traditional teaching methods to a digital platform. Overcoming this resistance and ensuring smooth adoption can be a significant challenge. In some cases, lecturers may face resource constraints, such as inadequate training or limited technical support. This can impede the effective use of Blackboard® in the teaching and learning process. Understanding and addressing these challenges is crucial for lecturers to harness the full potential of Blackboard® in their teaching experiences. Ongoing training, support, and a proactive approach to problem-solving can mitigate these challenges and enhance the overall effectiveness of using Blackboard as an educational tool. Through this meticulous examination of the responses gathered during the interviews with lecturers, the study unequivocally demonstrates the presence of all eight of Ely's conditions related to technology adoption. The findings shed light on the lecturers' perceptions and experiences regarding the utilization of Blackboard® as a learning management system.

The aim of the third, fourth, fifth, sixth, and seventh interview questions was to answer the second research question which is "What are the challenges faced by the lecturers based on the perceptions of the presence or non-presence of Ely's conditions of change at SEGi College Kuala Lumpur?" Some exemplary and verbatim quotes from the respondents when asked "What are the challenges that you faced when you used Blackboard® during your teaching experiences?" are shared below:

"Initially, technical issues were a challenge." (R3)
"Initially, adapting to the platform was a challenge." (R6)
"A lot of challenges. First, if Covid never came I never would have wanted to use this Blackboard®. Before Covid … even now sometimes I still prefer the traditional classroom. But still, now we have no choice, right? We blend it!" (R12)

The lecturers' responses vividly illustrate their awareness of the need for change, a crucial condition emphasized by Ely. Additionally, the study highlights the perceived compatibility of Blackboard® with the existing teaching practices, the existence of supportive infrastructures, and the acknowledgment of the advantages associated with implementing Blackboard®. Furthermore, the challenges identified by the lecturers align with Ely's conditions, indicating the necessity for solutions and strategies to overcome these impediments. The comprehensive nature of the study's findings attests to the fulfillment of Ely's conditions, providing a nuanced understanding of the dynamics surrounding the adoption and integration of Blackboard® in the educational landscape. Blackboard® plays a pivotal role in instructional design by offering a versatile platform for organizing content, promoting collaboration, and supporting diverse pedagogical approaches. Within classrooms, whether virtual or physical, it enhances communication, engagement, and assessment processes, contributing to an enriched learning experience. Despite that, for the question "What is the extent of use of Blackboard® in instructional design and within classrooms?" all the lecturers shared their opinions in the following quotes.

"In class, I use it for…hmm… to conduct synchronous online lectures, discussions, and interactive sessions, replicating a classroom experience in a virtual setting." (R6)
"I use Blackboard® to organize my teaching material in proper flow so that it can ease the students' according to the program structure." (R10)

"I use my course page to upload the course syllabus outline and course assessment plans."
(R13)

The aim of the eighth, ninth, tenth, eleventh, and twelfth interview questions was to answer the third research question which is "What are the strategies to overcome those challenges?". The lecturers shared their valuable thoughts on some strategies to overcome these challenges. Their verbatim quotes were as below for the question "What are the factors that promote or limit the use of Blackboard® teaching and learning from your perspectives?"

"That's the only platform for teaching and learning…hmm…for students to get their lecture notes and …. The limit is the technical issues." (R5)
We had to use it because that's the only platform available…hmm…limitation…. recently I found that I can't keep the recorded lecturer for more than a year in Blackboard®. It got deleted!" (R12)
"The features are good. Like to assign any task or post an announcement." (R13)

Meanwhile, when the researcher ask the lecturers these few questions "Do you feel motivated to change the teaching environment from the traditional classroom to using Blackboard®?", "Were you provided with sufficient resources to implement the use of Blackboard®   in your teaching?", and "Are you expecting any kind of rewards or incentives for using Blackboard®?" all the lecturers answered as yes. Meanwhile, for the question "In your opinion, how is the commitment of the college management in supporting and encouraging you to use in teaching?", the lecturers shared their thoughts as below:

"Training before new staff start class." (R1)
"Encouragement of best practices." (R6)
"Regular support with rewards!" (R7)
"Frequent check-ins on the usage."(R9)
"Provide feedback on the usage, both lecturers and students."(R12)

The emergent theme indicates that there are a few strategies that can be identified from the overall responses from the lecturers such as providing comprehensive training for both lecturers and students on Blackboard®'s features and troubleshooting procedures. These include regular workshops, tutorials, and accessible online resources that can empower users to navigate the platform effectively, reducing technical challenges. Meanwhile, the college management also should establish a responsive technical support system for addressing user queries and issues. Furthermore, having a dedicated support team that promptly responds to user inquiries ensures a smoother experience and quicker resolution of challenges. The technical team also needs to conduct regular system checks and maintenance to address technical issues promptly. Indeed, proactive monitoring of the platform's performance can identify potential problems before they impact the teaching and learning experience.
On the other hand, as some of the lecturers are newcomers the college management also should develop a structured onboarding process for new users to familiarize them with Blackboard®'s interface and functionalities. Likewise, a well-designed orientation program can help new lecturers, especially those new to the platform, feel more confident and competent in using its features. Moreover, the college management also should establish a

community of practice where lecturers can share tips, troubleshoot issues, and exchange best practices. Similarly, through creating forums or discussion groups for lecturers to collaborate fosters a supportive environment and helps address challenges collectively.

Henceforth, the college management needs to maintain transparent communication with lecturers about system updates, changes, and improvements of the Blackboard® system. Thereupon, regularly updating lecturers on system changes helps prevent confusion and ensures everyone is aware of new features or improvements that can address previous challenges. Consequently, college management also needs to encourage lecturers to diversify content formats and use multimedia elements effectively. Additionally, offering training on how to integrate videos, images, and interactive content can make courses more engaging and cater to different learning styles. The lecturers need to be trained to organize course content clearly and intuitively because a well-organized course structure improves navigation, making it easier for students to find resources and assignments. College management also needs to offer guidance on designing assessments that align with Blackboard®'s assessment tools. Therefore, lecturers can explore various assessment types, such as quizzes, discussions, and assignments, and tailor them to the platform's capabilities.

The college management needs to establish mechanisms for regular feedback from educators regarding their experiences with Blackboard®. Likewise, surveys, focus groups, or feedback sessions can be organized to understand the challenges faced and gather suggestions for improvement, allowing management to address concerns promptly. Despite that, college management also can integrate effective use of Blackboard® into educators' performance evaluations. Furthermore, these evaluations could include metrics related to engagement, innovation, and positive student outcomes achieved by Blackboard®, creating a tangible link between performance and recognition. Similarly, the college management also can demonstrate commitment by publicly recognizing lecturers who excel in utilizing Blackboard® effectively. This can include regular announcements, newsletters, or a dedicated section on the college website highlighting the achievements of lecturers who contribute significantly to the platform. Moreover, college management also can establish incentive programs that reward lecturers for innovative and effective use of Blackboard®. Whereby, the incentives could include financial rewards, professional development opportunities, or additional resources for classrooms. Hence, through recognizing and rewarding efforts encourages lecturers to invest time and creativity in leveraging the platform.

Nevertheless, the college management should also introduce awards for excellence in Blackboard® usage, highlighting outstanding achievements in teaching and learning. This can be done annually or semi-annually, the college can organize award ceremonies to honour lecturers who demonstrate exceptional practices on Blackboard®, fostering healthy competition and motivation. Lastly, the college management needs to commit to providing continuous support and training resources for all lecturers, both new and senior lecturers. Thereby, regular training sessions, webinars, and access to a dedicated support team ensure that educators feel confident and supported in their use of Blackboard®.

Conclusion

Rogers outlines a cycle of innovation adoption, where the initial adopters are innovators, succeeded by early adopters, the early majority, the late majority, and ultimately, laggards or late adopters (Rogers, 2003). Following the notable shift of SEGi College Kuala Lumpur to online platforms during the COVID-19 pandemic, even individuals classified as late adopters now acknowledge the necessity of having a learning management system to effectively

administer and organize online resources for students. The study revealed that using Blackboard® as a centralized learning hub enhanced communication, flexibility, and accessibility with interactive assessments for collaborative learning. Blackboard® also is efficient for purposes like grading assessments and monitoring student progress. Moreover, through the user-friendly features of Blackboard® lecturers find that is easy for them to manage time and deal with various pedagogical approaches. Furthermore, through Blackboard® integration of multimedia which is appropriate for educational purposes was achieved.

However, the study's findings also showed that lecturers faced several challenges, including technical problems, learning curve, student technology literacy, content management, integration with other systems, resistance to change, upkeep, and updates as a lack of comprehension of Blackboard® functionalities. There are some commonalities between the comments given by the lecturers concerning both positive and negative points on the use of Blackboard®. Meanwhile, there were points of difference between lecturers that helped or hindered the teaching through Blackboard®. However, the challenges can be overcome through the strategies suggested by the lecturers and researchers. The key strategies to address the challenges that are in line with Ely's conditions can be technical support and training, enhanced user orientation, frequent updates and communication, diversified content management, peer support and collaboration, regular system checks, strategic content organization, flexible assessment strategies, responsive technical support system, continuous feedback mechanism and through institutional commitments from SEGi College Kuala Lumpur's management to using Blackboard® as the teaching and learning platform involves a multifaceted approach, including the provision of rewards, incentives, and awards. The findings underscore the importance of addressing these challenges systematically. Strategies have been proposed to overcome these impediments, ranging from comprehensive training programs to ongoing support mechanisms. Recognizing the significance of a collaborative and multidisciplinary approach, the research suggests the involvement of diverse stakeholders, including Blackboard® trainers, technologists, curriculum specialists, and education developers, in guiding the integration of Blackboard® into teaching and learning. This research contributes not only to the understanding of the specific benefits and challenges associated with Blackboard® but also offers practical strategies that can be employed by educational institutions to maximize the positive impact of learning management systems. As the digital landscape continues to evolve, the insights from this study can inform policies and practices aimed at fostering a seamless and effective integration of technology into educational environments.

Future research may focus on usage frequencies of Blackboard® and, the level of perception of Blackboard® usage by students, lecturers, and stakeholders of SEGi College Kuala Lumpur. This study was done with only 15 respondents due to time constrain. Therefore, the focus of this qualitative study was restricted to certain lecturers from SEGi College Kuala Lumpur only. In the future, a mixed-method study may be used with a larger sample size to provide more adaptable findings. In essence, the study serves as a roadmap for lecturers and institutions navigating the dynamic terrain of digital education, emphasizing the need for ongoing adaptation, collaboration, and strategic planning to unlock the full potential of Blackboard® and similar learning management systems.

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