

**THE EFFECTIVENESS OF USING TECHNOLOGY FOR E-LEARNING AMONG ISLAMIC STUDENTS ON THEIR MOTIVATION DURING PANDEMIC
KEBERKESANAN PENGGUNAAN TEKNOLOGI DALAM E-PEMBELAJARAN TERHADAP MOTIVASI PELAJAR ISLAM SEMASA PANDEMIK**Nadiah Ramlan ¹, Nurul Faqihah Md Rajab ^{2*}¹ Pensyarah Kanan, Universiti Sains Islam Malaysia, nadiahramlan@usim.edu.my² Pentadbiran, Jaw Green Resources,

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Abstract

The use of information technology has resulted in a significant change in all aspects of our daily life and society. As a result, the pace of modern life, as well as the process of interacting with the outside world, is developing quickly. The use of the Internet has enabled the creation and growth of remote jobs, as well as to access digital information and educational resources. These changes have always had an impact on education, as evidenced by teachers' and students' increased use of Internet resources, Internet services, various online educational programme and installed applications, and other forms of distance learning. The purpose of this study is to identify the effects of using technology as e-Learning on the students' motivation among university students. This study is conducted as a quasi-experiment, with quantitative (questionnaires) survey research supplemented by quantitative methods. The findings reveal that online learning presents both advantages and disadvantages. While it offers flexibility and accessibility, it may also reduce students' engagement and motivation. Moreover, students involved in asynchronous learning show significant variations in their attitudes, motivation levels, and academic achievements compared to those in traditional learning environments.

Keywords

Technology, Online Learning, Motivation

Abstrak

Penggunaan teknologi maklumat telah membawa perubahan yang ketara dalam pelbagai aspek kehidupan seharian masyarakat kini. Ini telah mempercepatkan tempoh kehidupan moden serta cara kita berinteraksi dengan dunia luar. Internet, khususnya, telah memudahkan peningkatan kerja jarak jauh, akses mudah kepada maklumat digital, dan sumber pendidikan. Perubahan ini telah memberi impak besar terhadap sektor pendidikan, merangkumi peningkatan penggunaan sumber dalam talian, perkhidmatan Internet, program pendidikan dalam talian, dan bentuk pembelajaran jarak jauh yang lain oleh guru dan pelajar. Kajian ini bertujuan untuk mengenal pasti kesan penggunaan teknologi dalam e-Pembelajaran terhadap motivasi pelajar di kalangan pelajar universiti. Kajian ini menggunakan reka bentuk kuasi-eksperimen dengan kaedah kuantitatif (soal selidik) yang dilengkapi dengan kaedah kualitatif (temu bual). Hasil kajian menunjukkan bahawa

pembelajaran dalam talian mempunyai kesan positif dan negatif terhadap pelajar kerana pembelajaran dalam talian mempunyai kelebihan dan kekurangannya. Manakala motivasi pelajar didapati kurang positif. Selain itu, pelajar yang terlibat dalam pembelajaran secara asinkron menunjukkan perbezaan ketara dari segi sikap, motivasi, dan pencapaian akademik dalam pembelajaran dalam talian.

Kata

Teknologi, Pembelajaran Dalam Talian, Motivasi

Kunci

1. Introduction

Since the COVID-19 epidemic hit the world, all higher education institutions around the world have implemented online learning and teaching methods so that students can continue their studies as usual to avoid delays studies since the current semester is still ongoing. The Covid-19 virus was first detected at Malaysia in January 2020 and began to spread in the local community in March 2020 (Muhammad Irfan et al., 2020; Azman & Abdullah, 2021). When the government announces the implementation of the Movement Control Order (MCO) for the first phase of the movement began on March 16, 2020, and continued until December 31, most higher education institutions have taken the initiative and strategic steps to implement online teaching and learning sessions comprehensive. Therefore, all institutions of higher education have used online learning methods as the only platform to continue the teaching and learning process. In general, online teaching and learning is a form of education that makes use of technological resources such as the internet, satellite power, and interactive network systems to deliver information to students such as lecture materials, assessments, projects, and assignments, and presentations (Atousa, Zahra & Mohammad, 2016). Google Classroom, Microsoft Teams, Webex, as well as other social media platforms like WhatsApp, Telegram, and YouTube are just a few examples of the online tools that 2 can be utilised for this situation (Chung et al, 2020).

However, the current pandemic situation demands the use of applications and technology latest and more comprehensive to make teaching and learning activities successful synchronous or asynchronous. In relation to that, when online learning takes place, this can be closely related to the student's motivation towards academic performance. The motivation of students is an important issue in higher education, particularly owing to importance of academic performance in their professional life. This study is focused on discovering the elements that will assist educational theorists in understanding students' attitudes toward learning, what supports learning and what impediments it. This will help the education community predict higher student academic performance and identify students before their grades start to fall (Kamauru, 2000). Lumsden (1994) discovered that student's desire to learn diminishes as they grow older.

According to e-learning, a study by Brown and Liedholm (2006) revealed that students still comprehend the lesson whether it is taught virtually or in a face-to-face setting. Despite being online, students don't learn a different fundamental understanding of the subject matter. The students put in less effort on the course, so it is taken into consideration. Unexpectedly, online students performed significantly worse on the

lecturer's task than in-person students. These findings indicate that devoting more time to a task result in more thorough learning (Brown and Liedholm, 2006). The lecturer should create more engaging online courses to encourage students to learn concepts in-depth and to increase their motivation. In a nutshell, motivating factors are indicators of academic success. The impact of intrinsic and extrinsic motivational factors on academic achievement will be examined in this study. It is predicted that students with high intrinsic motivation will have stable performance and a higher-grade point average (GPA). Students who are intrinsically motivated will have higher GPAs, although their performance may vary

1. Literature Review

2.0 An Overview of E-Learning

Although it has long been used in the world of education, the word digital learning difficult to define clearly. According to Yoon and Shim (2012), digital learning has first introduced in 1999 by Jay Cross. With the development and technology on that time, digital education was classified with various terminologies including internet-based learning, web-based learning, upper learning online and distance learning. American Society of Training and Education (ASTD) defines digital learning as the process of applying digital media into the process teaching and learning (PdP). This application includes network-based learning, computer-based learning, virtual classrooms, and digital collaboration. Antilla, Valimaki, Hatonen, Luukkaala, and Kaila (2012) consider digital learning as a method obtain digital teaching materials to implement online learning or face-to-face through a wired or wireless network.

E-learning is defined as an educational process that employs information and communication technologies to create training, distribute learning content, communicate with students and teachers, and manage studies" (Wagner, 2005). eLearning challenges traditional methods of training and learning and offers novel solutions to problems. For example, teachers' roles are likely shifting from importers of knowledge to expeditors of knowledge (Haverila & Barkhi, 2009). And it can be a very good learning practise that can outperform education in a crowded classroom. It is a self-paced, active learning course (Obringer, 2002). E-learning also includes a variety of educational tools for learning and teaching.

E-learning is synonymous with "technology-enhanced learning (TEL), computer-based instruction (CBI), computer based training (CBT), computer-assisted instruction (CAI), internet-based training (IBT), web-based training (WBT), online education, virtual education, virtual learning environments (VLE) (also known as learning platforms), e-learning, and digital educational collaboration" (E-learning, 2013). In this paper, researcher use the term e-learning to refer to almost any learning environment in which electronic media, such as computers, are used as a component of an educational delivery system. These can range from using email to supplement print-based materials distributed over long distances to courses delivered entirely through technology such as computers or the World Wide Web.

2.1 The Transition from Face-to-Face Learning to Online Learning

The Transition from Face-to-Face Learning to Online Learning Most governments have demanded that face-to-face classes be phased out immediately, forcing students and teachers to quickly transition to online teaching and virtual education (Daniel, 2020). Online learning has long been thought to be inferior to traditional face-to-face instruction. The unplanned transition would have had a negative impact on the perception of online learning. This difficult transition would eventually cement online learning as the weaker experience (Hodges et al., 2020). Even before the pandemic, some institutions were utilizing educational technology. As a result, the transition was very smooth and easily accepted by both teachers and students Most governments have demanded that face-to-face classes be phased out immediately, forcing students and teachers to quickly transition to online teaching and virtual education (Daniel, 2020). Online learning has long been thought to be inferior to traditional face-to-face instruction. The unplanned transition would have had a negative impact on the perception of online learning. This difficult transition would eventually cement online learning as the weaker experience (Hodges et al., 2020). Even before the pandemic, some institutions were utilizing educational technology. As a result, the transition was very smooth and easily accepted by both teachers and students.

2.3 Advantages of E-Learning

The use of e-learning in education has been beneficial in a variety of contexts. Previous research has identified several benefits associated with the incorporation of eLearning technologies into university education (Raspopovic et al., 2017). E-learning has been defined as the ability to tailor instruction to the needs of individual students. Focusing on the needs of individual learners, for example, can deliver knowledge more effectively in the digital age than focusing on the needs of educational institutions or instructors (Huang and Chiu, 2015). E-learning allows you to achieve your goals in the shortest amount of time with the least amount of effort. The effect of managing the eLearning environment on educational learning can be seen in providing equal access to information regardless of the users' locations, ethnic origins, races, or ages. The eLearning environment also encourages students or learners to rely on themselves, so that instructors are no longer the sole source of knowledge, but rather serve as guides and advisors (Joshua et al., 2016).

Several studies have demonstrated the positive effects of e-learning based on learner or student insights (Gautam and Tiwari, 2016; Martnez-Caro, Cegarra-Navarro, and Cepeda-Carrión, 2015; Chang, 2016). For example, e-learning allows for much more flexible learning methods to go for classes with much less need for travel. Learners can gain a deeper understanding of the information by participating in classroom activities using an interactive video facility (Gautam and Tiwari, 2016; Martnez-Caro, Cegarra-Navarro, and Cepeda-Carrión, 2015). This enables learners to respond quickly to activities.

2.4 Students` Motivation

In general, motivation is stimulated by two aspects which include motive and incentive (Nurul and Azizi, 2012). Incentives are encouragements that urge individuals to strive to obtain rewards such as marks, grades, prizes, certificates and so on, while the motive consists of from needs and impulses (Nurul & Azizi, 2012). According to (Nurul & Azizi, 2012), motive arising from natural impulses or interests derived from dynamic forces which affect thoughts, emotions and behaviour. "Motivation is a series of attempts to provide certain conditions, so if someone wants or wants to do something, and he doesn't like it, then will try to negate or avoid that feeling of dislike," writes Sadirman (2011). According to the above opinions, motivation is a good power from within or without that pushes someone to achieve certain predetermined goals (Mardianto, 2017).

The effectiveness of implementing e-learning is significantly increased by motivation, an internal drive. According to earlier research, motivation is a phenomenon that is the outcome of multiple (multi factorial) components that might support learning that is more effective and developing (Siti Hajar Bidin et al., 2019). However, in the context of this study, motivation is a force that directs thoughts, feelings, and actions meant to state needs and fulfil wants until they are satisfied. This statement is supported by several findings from both domestic and international investigations. Oxford and Shearin (1994) identified several variables that influence the development of motivation, including attitudes, self-confidence, objectives, involvement, environment, and self-worth. According to earlier research, students' attitudes positively influence their degree of enthusiasm for studying (Abdul Hakim, Ab. Aziz & Wan Ismail, 2015).

3. Methodology

This research utilizes a quantitative methodology with a survey design, and research instruments are used for data collecting, with a focus on numbers for the presentation (Sugiyono, 2014). By describing the amount of usefulness of employing some e-learning during the Covid-19 pandemic, the numbers offered will be compared. The assessment questionnaire contains ten questions designed to assess subject knowledge. The questionnaire to see the effectiveness of e-learning on students' motivation with using technology. The survey is completed using Google Form and distributed to respondents from students who represent each course in the faculty's study of the Quran and Sunnah. The presented figures will be compared by describing the effectiveness of some e-learning during the Covid-19 pandemic.

This study was conducted as a cross-sectional survey where the use of questionnaires is an important indicator to obtain research data. Therefore, this study is more focused on the use of a quantitative approach. According to Creswell (2014), the implementation of a quantitative study is more appropriate when the study population involves a geographically large area. However, there are several open questions asked at the end of the questionnaire to obtain supporting data in strengthening the quantitative 41 data findings. The research was to analyses of the previously proposed e-learning indicators that effectiveness using technology in E-learning on student's motivation

during pandemic. Next, to assess and improve the overall e-learning quality and dissemination of knowledge by defining and measuring e-learning indicators.

4. Findings

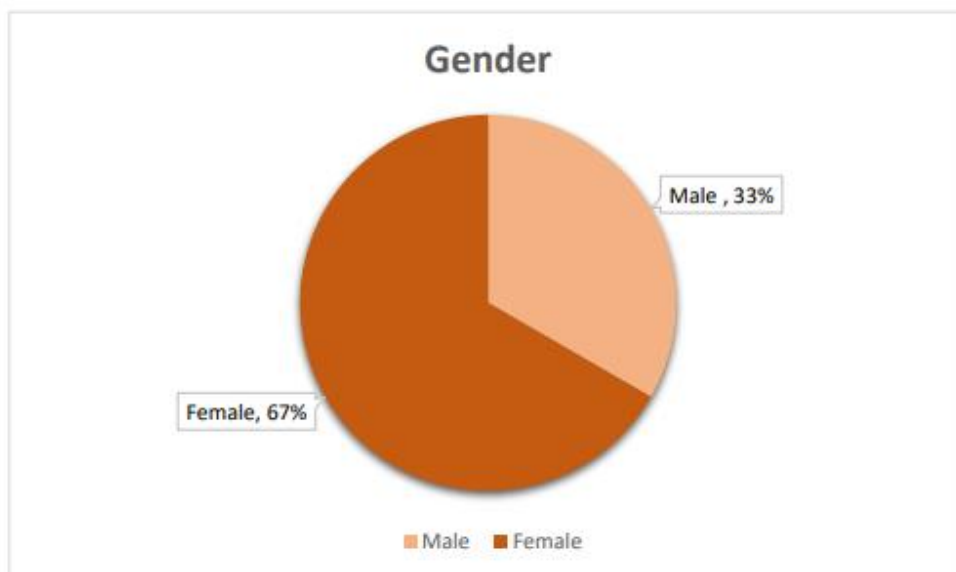


Figure 1: Gender of the respondents

The figure 1 shows about 67% of sample respondents were female, while 33% were male students. This indicated that undergraduate level study was predominantly populated by female students compared to their male counterpart.

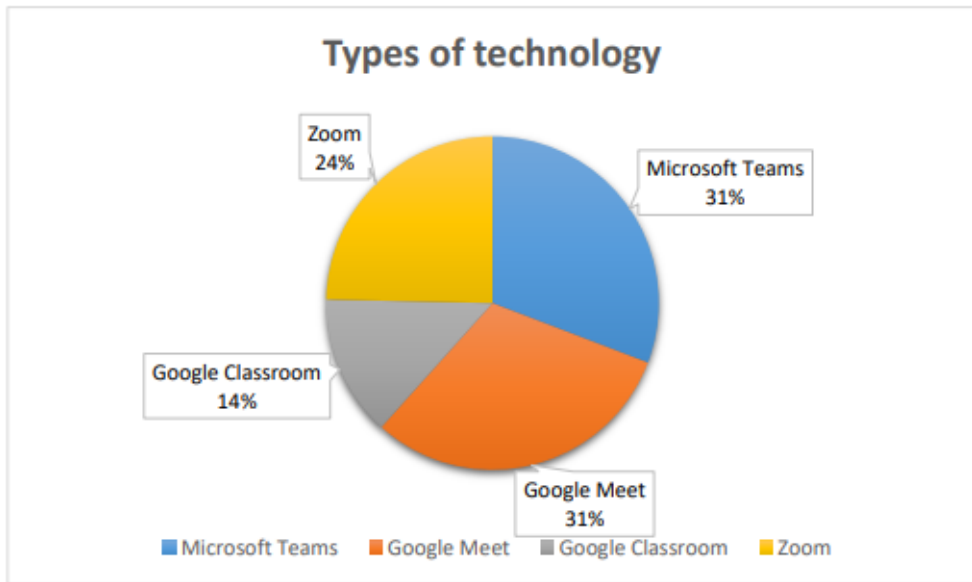


Figure 2: Type of technologies used

Based on Figure 2, most of students are using Microsoft Teams and Google Meet accounting for up to 31%. Following that, up to 24% using Zoom and the last one 14% use Google Classroom for their technology during e-learning session.

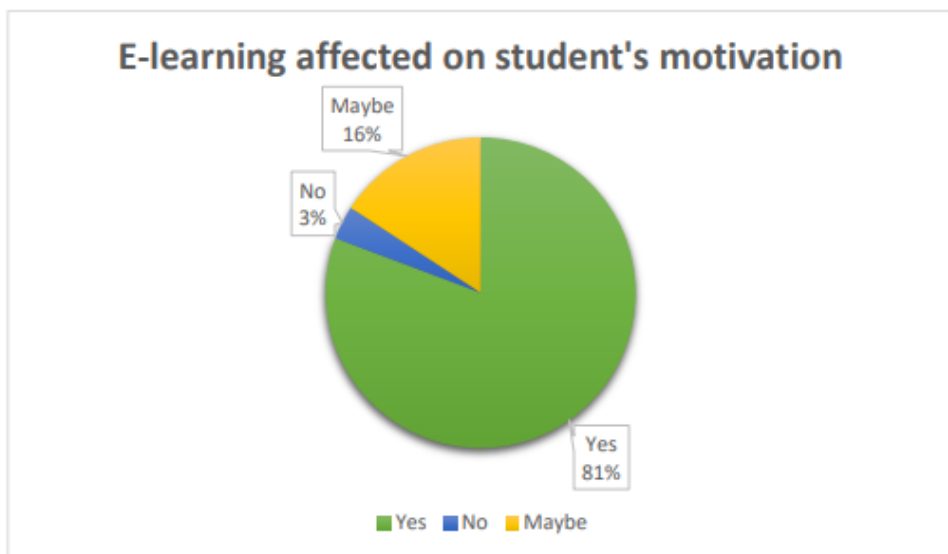


Figure 3: Students` motivation affected by e-learning technology

According to the Figure 3, majority of students agree accounting up to 81% with the question that e-learning affected on student's motivation. Following that, up to 3% disagree and 16% are maybe because everyone has their opinion.

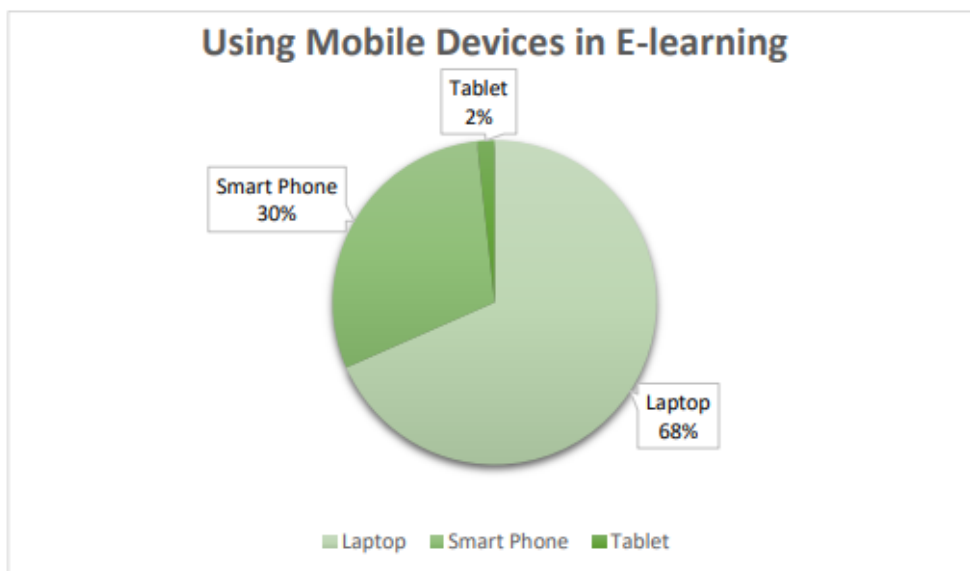


Figure 4: Gadgets used for E-Learning among students

Figure 4 shows the frequency and percentage of gadgets used for E-Learning among students of the Faculty of Quran and Sunnah. Out of 57 respondents, a total of 39 (68%) respondents uses a laptop, while a total of 17 (30%) people uses a smartphone and 1 (2%) only use a Tablet or iPad. Referring to the findings of the study, the type of gadget that recorded the highest percentage was laptop which was 39 (68%) people. The lowest percentage reading is a tablet which is 2% equivalent to 1 person.

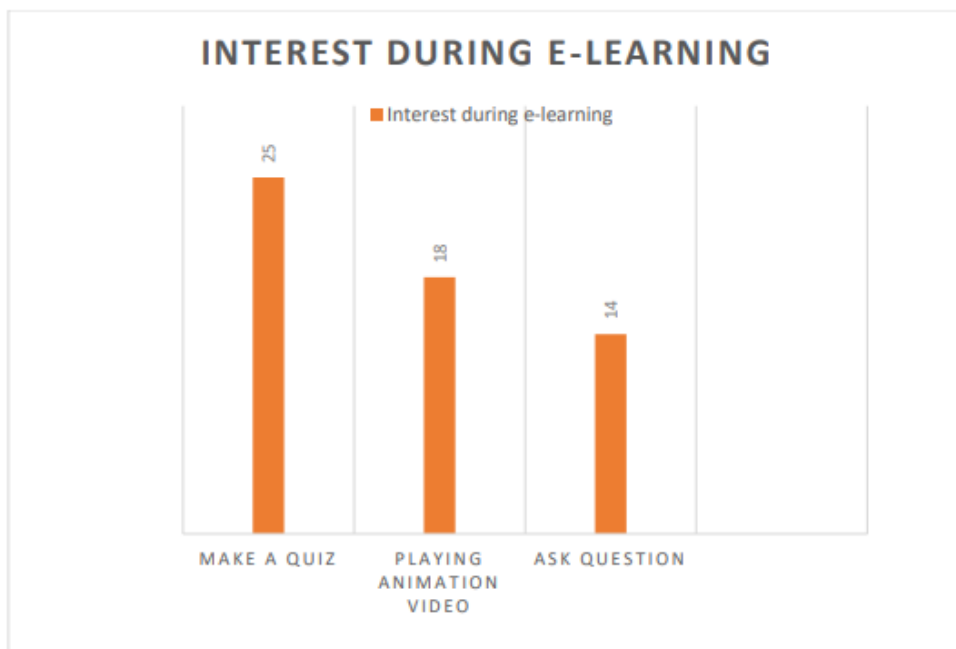


Figure 5: The interest while using e-learning

Figure 5 explains about the question from the Google Forms which is what lecturer must do to interest students by using technology during e-learning majority give their opinion with lecturer doing some quiz or test within Quizlet or Kahoot. Other than that, lecturer can do create interesting online materials like play the animation video during the class. Finally, lecturer also ask a few of questions after finishing the lecture.

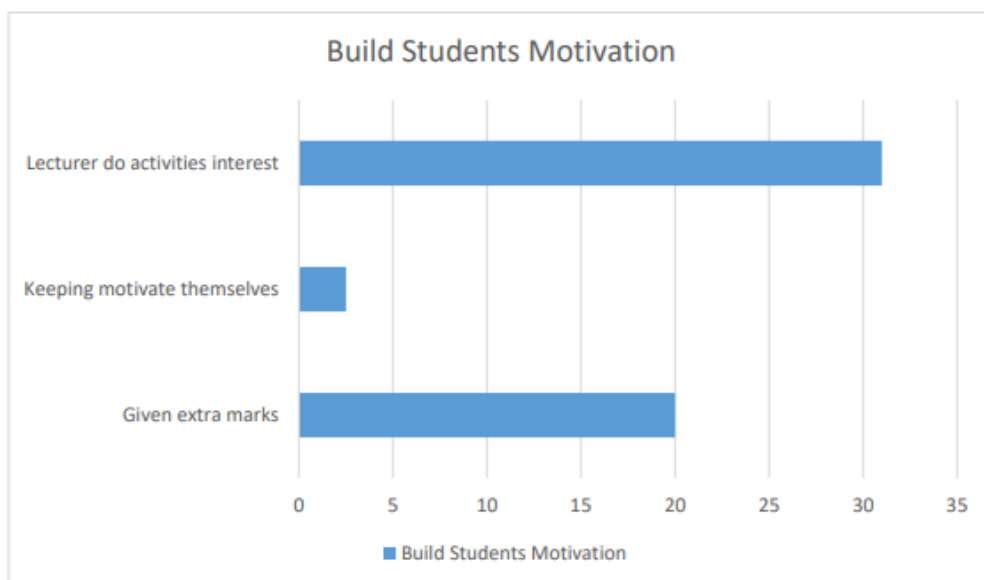


Figure 6: Factors that build students` motivation

Figure 6 shows the factors in building students' motivation during e-learning mostly give opinion with must lecturer responsibility to do some interesting activities during the class and give extra marks for the more effort in work course. Another answer is students must keeping motivate themselves to focus on class to get the pleasure from lecturer and our Creator. To be conclude, the study reveals that online learning offers both strengths and challenges for university students. Its main advantages include flexibility and accessibility, enabling learners to manage their own pace and access digital resources conveniently. However, the findings also indicate that online learning can reduce student engagement and motivation due to limited interaction, lack of immediate feedback, and feelings of isolation. Technical issues and insufficient digital skills further hinder the learning experience. Students involved in asynchronous learning show significant variations in attitude, motivation, and academic achievement compared to those in traditional or synchronous settings. While asynchronous learning supports autonomy and time flexibility, it also demands strong self-discipline and effective time management. Overall, the study suggests that the success of e-learning depends on balancing technological convenience with strategies that foster motivation and meaningful interaction.

Furthermore, the findings of this study align with previous research highlighting the influence of motivation and psychological well-being on students' engagement in online learning. For instance, Abdul Rahman and Asmad (2023) examined mental health and motivation among Islamic university students at UNISSA during the COVID-19 pandemic and found that while online learning provided safety and flexibility, it also led to emotional

fatigue and decreased motivation due to isolation, lack of interaction, and technological barriers. Their study emphasizes that maintaining psychological stability is essential for sustaining student motivation in digital learning contexts. Furthermore, they suggest that incorporating Islamic values such as patience (*ṣabr*), self-discipline (*mujāhadah*), and trust in Allah (*tawakkul*) can strengthen internal motivation, enabling students to adapt more positively to the challenges of e-learning.

5. Discussion

The observations show that there are significant positive correlations between key aspects of e-learning and students' motivation to learn by using e-learning technology. This demonstrates the significance of using key aspects of e-learning appropriately in relation to students' motivation to learn. In terms of knowledge, the new generation demonstrates a high level of knowledge and awareness of the use of cutting-edge technology in learning. During the Covid-19 pandemic, there were numerous e-learning platforms available. Each platform has advantages and disadvantages, but they all aim to help lecturers in the learning process by sharing resources, teaching materials, and learning activities like discussions, tests, and chat. This application is also available on computers, laptops, tablets, smartphones, and Android. There are two types of e-learning platforms: web-based learning and mobile-based learning. Social media and video conferencing, in addition to web and mobile-based learning, are used in learning. However, by using many quotas, the existing features are complete and can make learning easier for lecturers and students. E-learning is said to be effective when students and lecturers feel at ease and find it simple to deliver material, so that online and offline learning are equal.

The effectiveness of using e-learning during the pandemic must be considered for the learning process to run smoothly. E-learning is said to be effective when users and creators find it easy to use. This finding is supported by a study conducted by Faridah and Zain (2012), as well as a study conducted by Siti Fatimah and Siti Hasmiza (2018), in which students responded very positively to the use of technology for e-learning. Students, too, discovered that they had few problems despite having to learn to use current technology and adapt to the platform in a short period of time due to the COVID-19 pandemic. Nonetheless, the findings show that students' knowledge and skills in using technology effectively and maximally are still at a moderate level. According to the study's findings, Microsoft Teams is the most effective e-learning to use during this pandemic. This is because Moodle has more comprehensive facilities and features, allowing for greater flexibility in utilizing various learning resources.

Furthermore, Microsoft Teams is more widely known at the university level throughout USIM, and several universities use Zoom as their primary e-learning platform. In accordance with that, the study discovered that students are highly motivated to use technology for e-learning while encountering a variety of difficulties, particularly considering the COVID-19 epidemic. The findings of this study are consistent with the most recent study by Sakshi and Jaya Shankar (2020), the results of which demonstrate the utilization of the Zoom application as a learning medium during the COVID-19 epidemic. Many respondents agreed that using the application makes learning engaging

and enjoyable. The results of this study, in which many students agree that using online tools like Microsoft Teams, Google Classroom, Zoom and other learning technologies can save time. So, student feedback has shown that they can accept the use of the Microsoft Teams application as a learning platform virtual and ready if the use of this application is used in the future come

6. Recommendation

Since the researcher's study is limited to focused on e-learning using technology with combination of student's motivation. It is recommended that further study on the remaining other chapters be continued especially in technology for e-learning. This thesis has quite significant differences compared to the view of the scholars. In the social field, a knowledge-based society brings more access to information and new forms of social interaction and cultural expression. Individuals have more opportunities to participate and influence the development of their society. The emergence of a knowledge-based society and the widespread use of technology creates a need for new digital skills and competencies for employment, education and training, self-development, and participation in society.

7. Conclusion

Industry 4.0 revolution has opened many opportunities and benefits to the world education. The rapid advancement of technology has made it possible education is accessible anywhere and anytime. Through deep learning online, the students do not drop out of their studies even in a pandemic situation COVID-19 that does not allow face-to-face meetings. However, from an angle other, the use of technology may not be particularly effective for generations today now if they are not injected with the right elements of digitization in preparation. Therefore, the need of the world of education to make preparation is an important step to face challenges in the world of learning maya can then implement a clear and more directed plan. This study found a significant relationship between e-learning and student motivation, implying that students are more likely to be motivated when using e-learning. Students who are more motivated to learn are more likely to be engaged, and students who are engaged and engaged successfully are more likely to achieve the learning objectives (Kim & W. Frick, 2011). As a result, it would be fascinating to use e-learning as a standard tool in the instruction of university students.

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