

Challenges in the Implementation of Blended Learning Before and After Covid 19

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Abstract

Since the Covid-19 pandemic hit the world, the way teachers teach has changed, and has had a profound impact on the country's education system. Teachers should implement Blended Learning (BLTc) using digital media using traditional online methods as the main mechanism of knowledge transfer. Therefore, this study was conducted to identify the challenges faced by teachers in implementing blended learning and suggested improvements in the implementation of blended learning (BL) by teachers in their BLTc. The design of this study by analysing documents using data sources from previous studies, secondary data from the e-learning group of the Ministry of Education, websites, quotes, and news from all over Malaysia and abroad. The results show that two main challenges have been identified, namely teachers' readiness to master digital technology skills and teachers' self-efficacy in implementing this approach. This research also provides suggestions for improvements to educators on how digital technology can be used to improve the implementation of blended learning in a creative and innovative way by participating in online courses and internal training. To deal with this problem as well, parents and teachers also need to make a paradigm shift to keep up with the latest technological developments. The Department of Education should also develop or improve the curriculum based on this blended learning.

Keywords: Blended, Learning, Before and After Covid 19

Introduction

In today's world, teaching techniques and methods are constantly evolving in response to the ever-expanding revolution and advancement of the internet. With the COVID-19 pandemic affecting the education sector worldwide, the use of technology is accelerating. According to (Kuppan, 2022), teachers should adopt learning platforms and devices to ensure effective Pedagogy Driven Practice (BLT). In order to keep up with changes in educational norms, teachers must have a positive attitude and be willing to adapt to new approaches.

Teachers should be positive in accepting new norms in education, especially in technology-based learning. From a constructivist perspective, (Syed Lamsah Syed Chear, Muhamad Yusoff Mohd Nor, 2020) argue that new knowledge or experience can provide opportunities for teachers to integrate online activities for blended learning practices. This coincides with the current education landscape which demands that all teachers need to

improve their knowledge, competence, abilities, skills, attitude change and willingness to accept the new normal in education, especially technology-based learning.

The Ministry of Education has set up a Learning Platform called MOE-DL which provides access to Google Classroom, digital textbooks, BLT videos such as EduwebTV and Cikgoo Tube. The platform is designed to make learning more interactive and engaging, with links to BLT applications such as Edpuzzle, Kahoot and Quiziz. There is also a platform developed at the initiative of the State Education Department (JPN), District Education Office (PPD) and schools that provide learning modules. This module can be used to support offline learning, with teachers and students using it to communicate and collaborate. Finally, all learning activities are done through the Telegram or Whatsapp class application.

Noraini Mohamed Noh (2019) found that teachers who have computer skills more easily accept the use of technology in the classroom, while teachers who lack computer skills will limit themselves to use this method in the classroom. Teachers need to take more initiatives to change teaching practices from exam-oriented or "exam-oriented" to more "practice-oriented". Teaching methods that can be implemented at the school level, such as 21st Century learning (PAK21), and technology-based approaches such as blended learning, allow teachers to address student development in terms of cognitive, emotional, and psychomotor dimensions.

In addition, higher education institutions are also experiencing rapid development in information and communication technology (ICT), which has given a paradigm shift in the field of education, especially in the approach to education. Traditional teaching methods such as lectures are no longer considered appropriate or meaningful in the 21st century education system. Introducing a blended learning model that combines the use of technology to attract and motivate students, in line with the intention of the 9th Leap of the National e-Learning Policy and the Malaysian Education Development Plan (Higher Education) 2013-2025 has been implemented. Therefore, today's information and multimedia technology is a very suitable tool for teaching and learning because it helps individuals manage their time, work and daily life tasks.

Problem Statement

The suitability of a conducive environment poses a major challenge to the implementation of effective blended learning. Wan (2020) shows the common digital divide among teachers and students in Malaysia, especially during the Covid-19 pandemic, which emphasizes the inadequacy of digital readiness. According to Najib, Mahat, and Baharudin (2020), synchronous learning poses several challenges, including dependence on internet access and difficulty for teachers to obtain teaching materials online. The use of technology in the BLT process is quite limited due to insufficient technology infrastructure in schools and time constraints (Najwa, 2022).

In terms of pedagogy, a few educators exhibit a low level of computer literacy and need adaptation to online teaching. Rahayu (2020) and (Najib, Mahat, & Baharudin, 2020) share a similar view. Studies show that dynamic environmental shifts present current challenges in the education sector, which require educators to have a high level of preparedness and sensitivity. Teachers who have a low level of computer literacy face difficulties in online teaching and learning. This situation affects their acceptance and readiness for technology-based learning as an aid to face-to-face teaching. (Vennemann, 2017); (Cuhadar, 2018); (Norizan Abdul Razak, 2018); (Ifinedo et al., 2019); (Kalonde, 2019); (Zamir, 2019) and (Grajek, 2020).

The pressure due to the workload among teachers is increasing because they must learn to adapt educational technology in BLT which takes a long time. There are a few teachers who choose face-to-face learning methods because they are not sure that students understand the context taught virtually or through online learning platforms. (Ishak, 2018) stated that social pressure occurs because of fear and worry of falling behind in technological developments faced by employees from their work environment. At the same time a lack of support from administrators and fellow teachers causes this stress.

There is no doubt that many studies and discussions have been conducted regarding online learning during the Covid-19 pandemic. However, there is still a lack of specific studies on the challenges faced by teachers in implementing blended learning in Malaysia. In addition, research on the relationship between the acceptance of blended learning based on gender and streams or courses are also limited. Therefore, the researcher feels that this study needs to be conducted to give reference to other researchers and open up space to conduct a more comprehensive study in improving the quality of education in this country.

Objectives

Based on the problem statement presented, the purpose of this study is to;

- i) Identify the challenges faced by teachers in implementing blended learning.
- ii) Identify suggestions for improvement in implementing a blended learning approach.

Literature Review

The literature review will begin with a definition of blended learning. Then, an explanation related to the theory and continued by examining the readiness and implementation of blended learning among teachers and finally the relevance of the context of teacher education in implementing this blended learning.

Definition of Blended Learning

Blended Learning refers to the word blend which means mixture or combination while learning means learning. Therefore, blended learning means maximally student-centered learning with the mediation of information technology, communication and multimedia (Azahari, 2022) further through the blended learning approach is able to create effective learning and encourage independent learning (Noh et al., 2019). This blended learning method has become increasingly urgent and is no longer an option when the world is hit by the Covid-19 epidemic and has changed the way the country's education system is processed. however,

Blended learning also means the implementation of learning that contains patterns that combine and the content of learning will be delivered using two methods, namely through face-to-face processes in the classroom, which is the traditional method that has been implemented since long ago and online learning methods using digital applications. As described by (Mamat et al., 2021) in his study, this blended teaching means that teachers practice the teaching and learning process (BLT) that integrates technology elements with conventional learning elements in the process of imparting knowledge. With a more synonymous meaning, blended learning is distance learning that involves two types of modes, namely synchronous and asynchronous. Synchronous learning occurs when the teacher and student are together and the knowledge delivery process takes place face-to-face. This synchronous learning mode is implemented either in the classroom or directly through educational applications such as Google Meet, Zoom, Telegram Video and other applications.

Meanwhile, the asynchronous learning session is a process of self-transfer of knowledge based on materials provided by the teacher through Telegram, Whatsapp and Google Classroom groups. These two learning modes can be implemented separately or combined as BLT activities for one learning topic. This synchronous learning mode is implemented either in the classroom or directly through educational applications such as Google Meet, Zoom, Telegram Video and other applications. Meanwhile, the asynchronous learning session is a process of self-transfer of knowledge based on materials provided by the teacher through Telegram, Whatsapp and Google Classroom groups. These two learning modes can be implemented separately or combined as BLT activities for one learning topic. This synchronous learning mode is implemented either in the classroom or directly through educational applications such as Google Meet, Zoom, Telegram Video and other applications. Meanwhile, the asynchronous learning session is a process of self-transfer of knowledge based on materials provided by the teacher through Telegram, Whatsapp and Google Classroom groups. These two learning modes can be implemented separately or combined as BLT activities for one learning topic.

Blended Learning is a teaching approach that combines traditional face-to-face teaching with technology-based learning. This method aims to create an interactive and interesting learning experience for students, encouraging independent and memorable learning (Noraini Mohamed Noh, 2019). The importance of blended learning has become more critical given the Covid-19 pandemic which has forced the education system to adapt to the changing landscape. The implementation of this approach requires a systematic design that integrates digital and face-to-face learning, which allows the effective learning process to continue (Khalid N. N., 2016)

Nevertheless, teachers have a significant influence in any process of change in education (Hargreaves, 2002). The changes required by teachers to implement blended learning are not limited to mastering new skills or changing the teacher's role from a pedagogical perspective (Philipsen, et al., 2019). Addressing teachers' beliefs about technology and pedagogy is equally important (Gerbic, 2011); Philipsen et al., 2019). In addition, teachers' emotions during the transition from new teaching styles to teaching practices are also inseparable, such as feelings of lack of self-confidence among teachers (Mozejko, 2015).

Blended learning is the concept of a combination of synchronous and asynchronous learning, or a combination of face-to-face learning and technology-based learning. Tsarenko (2020) states that synchronous learning occurs when teaching content is recorded simultaneously in various forms, such as video. Next, through an asynchronous learning platform, learning materials are uploaded so that students can review and discuss during and after class. This simultaneously increases the efficiency of students in managing their own learning (Fresen, 2018) and (Tsarenko, 2020). This is supported by Simah Mamat (2021) which states that these two learning modes can be implemented separately or combined as BLT activities for learning. Synchronous learning occurs when teachers and students are together, and the process of imparting knowledge takes place face-to-face. This synchronous learning mode is implemented either in the classroom or directly through learning applications such as Google Meet, Zoom, Telegram Video and other applications. While the asynchronous learning session is a self-knowledge transfer process based on materials provided by the teacher through Telegram, WhatsApp and Google Classroom groups.

In conclusion, Instructors have to face many challenges when implementing blended learning such as teaching new technology skills, coping with changing roles in pedagogy, and

overcoming the risks associated with delivering courses in a blended format. At the same time, it is important for teachers to refer to the National Education Philosophy (NEP) and the Standard Curriculum and Assessment Document (SCAD) to emphasize the element of teaching clarity before teaching. According to Yusup, teachers need to know pedagogical knowledge, field knowledge, and technology skills in today's teaching approach.

Human-Computer Interaction Theory

This theory refers to the science that studies how humans interact with computers and the influence of interactions between humans and computers. Schneiderman (1998) states that this theory focuses on human and computer interaction is the planning and evaluation of the user interface. Human and computer interaction (HCI). While Khalid S. S. (2017) stated that HCI is a branch of science related to the planning, evaluation, and implementation of interactive computer systems for use by humans as well as the learning of large phenomena related to it.

In the context of the study, teachers plan BLTc throughout BLTR through a blended learning approach. Teachers build relationships between students that are supported by computers or learning devices such as smart phones, allowing learning to take place optimally as well as reducing the teacher's burden in providing learning tools or materials. At the same time, students are exposed to ICT facilities in the process of gaining knowledge. For example, sixth form students are usually exposed to Microsoft Presentation software to prepare presentation slides. This coincides with the statement of (Bitter, 1999) that throughout the BLTc process, teachers have encouraged students to learn and explore the computer and its functions on their own. In today's educational context, learning devices such as iPads and smartphones are among the popular gadgets used in addition to laptops. For reinforcement activities, students will explore on their own how to use learning applications such as google form or gamification in answering quiz questions or doing assignments given by the teacher.

After examining the previous discussion about blended learning and its integration into the BLTC process, this approach can have a positive impact. Constructivism Learning Theory is widely used in BLTC and BLTR, and active learning strategies can help students learn. By using tools such as Google Classroom and social media applications such as WhatsApp, Telegram, Chanel or YouTube, teachers can share teaching materials before meeting with students online or offline. This allows for self-directed learning and pre-class preparation. By taking advantage of these theories, students are given opportunities for exploratory learning and can combine new knowledge with existing knowledge through activities.

Teachers

Teachers are the backbone of the education system and should continue to strive to improve their own skills and professionalism in teaching. They must remain adaptable to change and keep themselves updated with the latest technological advances and career requirements (Iksan, et al., 2018). It is important for teachers to align themselves with the evolving educational landscape. Their skills in technology and teaching strategies play an important role in fostering student understanding during the learning process (Ee, 2003). Therefore, teachers must have a strategic approach and effective planning techniques to optimize their teaching methods and achieve greater learning outcomes for their students.

Preparedness for Implementation of Blended Learning among Teachers

Blended Learning is an educational approach that involves the use of various techniques and models to convey knowledge and is implemented by skilled educators who have a high level of self-efficacy and professionalism. Extensive research has shown that this approach is highly effective in developing adaptable and forward-thinking students. However, the mastery of teachers in blended learning is important because they are the driving force behind changes in the education system. Although teachers' understanding of blended learning is currently modest due to the poor implementation of technology integration in schools, they have a high level of internet usage and exposure to various websites, according to a study conducted by (Simah Mamat, 2021),

Teachers in Malaysia are being equipped with a teaching training program based on ICT while they are in the teacher training college. This is important in the current era of globalization 4.0 where a borderless world requires the use of ICT to replace traditional teaching methods. As a result, teachers need to have strong technological skills to effectively apply ICT in the classroom. According to recent studies by (Yeop, 2016) and (Simah Mamat, 2021), blended teaching methods require teachers to have a deeper understanding of pedagogical skills, learning styles, and activity assessors. However, the integration of technology in the teaching and learning process is limited in schools due to insufficient technology infrastructure and time constraints (Najwa, 2022).

Much has been said about whether teachers are ready or not to implement the policy and circular BLT of the teaching and learning mode that has been set. Squire (2006) suggests that teachers' willingness to implement the BLT process is only at a moderate level. In addition, the idea of blended learning requires teachers to have sufficient technological skills (Bluestone et al., 2012).

In summary, the blended learning approach involves an interesting method that combines virtual and face-to-face teaching to achieve the desired learning outcomes for students (Simah Mamat, 2021). Therefore, educators must take an active role in enhancing their creativity, professional development, and commitment to lifelong learning. By constantly updating their skills and fostering a strong drive for innovation, teachers can be a catalyst for change and help raise the standard of education in their country to match that of more developed countries.

Implementation of Blended Learning among Teachers.

The use of Google Classroom for teacher learning is very suitable and aligned with the blended learning approach, which has gained increasing popularity in addressing issues related to student behaviour, engagement, development, and challenges related to internet access and educator competence in handling the 21st century learning (Aris, 2017). To address the problem of limited internet access, the Ministry of Education has taken the initiative to use various platforms such as WhatsApp, YouTube, Facebook, Zoom, Google Meet, and Telegram for teaching and learning purposes. Besides,

By combining blended learning strategies that combine technology with conventional teaching techniques, educators are encouraged to be more innovative and proactive in exploring new technological advancements. This is especially important during the current pandemic, as much of this learning is done remotely through online platforms. Consequently, parents must also strive to understand and master the latest technological tools and methods. Furthermore, the Ministry of Education is committed to continuing to improve the education curriculum to better support blended learning practices.

According to the latest data from Google Trends as of 3.15pm on 16 April 2020, teachers in Malaysia are among the top users of Google Classroom globally, showing their dedication to achieving the goals set by the Ministry of Education (Simah Mamat, 2021). To further improve their understanding and expertise in blended learning, it is recommended that teachers be educated on the importance of implementing this method based on solid principles and theories.

Blended learning is a student-focused learning approach that can effectively address student needs and improve the overall quality of education (Najwa, 2022) and (Salleh, 2017). The Ministry of Education and Culture's endorsement of the widespread use of blended learning methods has made teachers more aware of their responsibilities and enabled them to be more innovative and effective in imparting new knowledge by combining it with their existing expertise to create interesting and relevant techniques. which is in line with the needs and culture of students and schools.

The integration of different applications can increase the use of information and communication technology (ICT) for effective learning outside the classroom, according to (Suzlina, 2016). This blended learning approach was found to make BLT sessions more interesting and beneficial to student development. In today's digital era, students are frequently exposed to various applications, making digital learning approaches more familiar to them. As a result, students are more likely to adapt to this blended learning approach. Education experts around the world believe in the learning environment created by integrating technology, and this approach is in line with the Malaysian Education development plan, making learning strategies more effective and widespread (Aris, 2017) and (Yeop, 2016).

Blended Learning in the Context of Teacher Education

When blended learning (PT) is used in teacher education courses, it has been observed that students tend to have positive experiences and are more involved in the learning process (Soylu, 2006) Despite this, a meta-analysis conducted by (Means, et al., 2013) revealed that there is a lack of research on the implementation of blended learning especially in teacher education.

There is a significant study conducted on the use of blended learning (PT) in the context of teacher education, especially on Educational Technology (Bozoglan, 2014). This research has explored the implementation of BL in various fields, including educational technology, language learning, pre-service English teachers, general pre-service teaching skills, in-service teachers, educational leadership, and science courses. However, only two studies specifically focused on the use of BL in preservice science methods courses (Jahjouh, 2014) and its impact on secondary science teachers' academic achievement and peer collaboration. Overall, (Mamat, 2021) research on BL in teacher education has shown encouraging results, but much remains to be explored and understood in this area.

Methodology

A qualitative research method based on document analysis was conducted by collecting and synthesizing journal articles. The selected articles include articles from within and outside the country. The scope of the study is not only limited to research articles on primary school teachers, but secondary school teachers and trainee teachers are also studied. Research questions are built through past research problems and recommendations in addition to proposals for research opportunities that need to be refined. In addition, own

experience and observations are also used as a guide so that this study can be more related to the problems faced. The journals are then arranged according to the research objectives that are built based on the problem statement identified. The assessment of the main issues that can answer the research question is synthesized to be in line with the purpose of this study. The writing of the article according to the chapter is started by considering the input from the researcher himself.

Findings And Discussion

Based on the literature highlights, there are two main challenges in implementing this blended learning. That is, the teacher's willingness to master digital technology skills and the teacher's own motivation in implementing this learning method. As a result of this finding, some suggestions were also put forward for improvements in the implementation of blended learning among teachers.

Teacher Readiness in Mastering Digital Technology Skills Before Covid-19

The government provides a large annual budget to implement technology-related projects, including the provision of networks, equipment, security, and application systems. The PPPM 2018 report revealed that more 4G broadband has been installed in schools to facilitate the smooth implementation of the BLTc process using technology. Furthermore, the Malaysian Ministry of Education has introduced the Malaysian Education Development Plan, which aims to integrate ICT into teachers' BLTc under the 21st century learning approach.

Using technology as a medium for BLTc offers many advantages. Incorporating ICT into BLTc can produce a more student-centred learning approach, where the teacher plays a role mainly as a facilitator. The use of technology in BLTc has been proven to foster positive behaviour in students, such as increased confidence, motivation, and enthusiasm for learning, by providing various materials and resources. In addition, Cahyana (2017) stated that technology allows students to master knowledge and encourage independent learning. By using technology, students have access to up-to-date information and can easily share existing materials with their peers, enabling a more collaborative learning experience.

Many experts in pedagogy believe that incorporating technology into the teaching and learning process is very beneficial, important, and indispensable for efficient functioning in educational institutions. Nevertheless, many teachers are still hesitant to accept technological innovation, while students lack the drive to explore and experiment with the latest advances in technology (James 2017). This view is reinforced by Noriyani (2017), who mentions the insufficient competence of teachers in using Google Apps as one of the main reasons behind their reluctance to use technology in pedagogy.

Vinathan (2016) suggested that the level of teacher motivation in utilizing ICT is still low due to various challenges faced during BLTc, such as lack of knowledge, limited internet access, time constraints, and insufficient infrastructure facilities. Despite attending the course, (Mazalah et al., 2015) stated that teachers still lack knowledge in integrating ICT. The use of technology in BLTc has been introduced for a long time, but some teachers are still not ready due to a lack of technology mastery (Padmavathi, 2017).

Rais (2015) shared the view that teachers are not sufficiently prepared to fully apply technology in their teaching practices. They still stick to traditional teaching methods and are not comfortable with technology. Prieto (2015) reported that many teachers are dissatisfied with the use of digital devices, making it a challenge to implement technology in the classroom. Norhiza et al. (2016) also found that many teachers lacked interest in teaching

using computers. Similarly, Halili (2017) stated that the use of technology among BT teachers is not yet widespread. Despite these obstacles, it is important to acknowledge the importance of integrating technology into teaching practice.

Many research studies have shown that teachers are not yet fully equipped with the necessary skills to integrate technology into their teaching practices. According to Rais (2015), many educators still use traditional teaching methods and are not comfortable with the idea of incorporating technology into their daily teaching routine. Prieto (2015) found that teachers are not satisfied with using digital tools, which hinders their successful implementation.

The government has taken various measures to increase the use of technology among teachers, but the willingness to use the facility is still a major question. Teacher readiness is important in producing effective teaching and learning practices. Teachers must be mentally prepared to accept any changes in education, especially in the use and acceptance of technology. However, studies show that teachers are still not fully prepared to use modern technology in teaching such as fourth revolution technology. The use of technology such as the Internet also failed to meet the targeted expectations in terms of quality and quantity. Many teachers still rely on conventional teaching methods and are not comfortable with integrating technology into their teaching practices, poses a challenge to its implementation according to Nur Nadirah et al. (2019). Despite these challenges, incorporating technology into teaching practice remains important.

With this, teachers do not have enough equipment to apply technology in their teaching practice. Teacher readiness is critical in determining the success of integrating technology into the classroom. Teachers' trust and readiness for educational technology and pedagogy can have a significant impact on how they use technology in their teaching methods.

Teacher Readiness in Mastering Post-Covid-19 Digital Technology Skills

The implementation of blended learning has raised concerns among teachers about its preparedness and effectiveness, especially during the pandemic (Bahasoan, 2020). Several studies have been conducted during the pandemic to identify the barriers faced by teachers and students, focusing on teachers' perceptions of online BLT implementation rather than identifying specific elements that require improvement to make online BLT successful (Alhumaid, 2020) and (Awofala, 2020).

Following the post-pandemic period, it was found that many teachers are still hesitant to fully embrace technology. A study conducted by Lapada et al. (2020) revealed that only 58% of 2300 teachers are willing to use materials such as online modules, YouTube, Ted Talk, and Khan Academy for teaching purposes. This finding is supported by König et al. (2020), who found that almost 70% of 165 teachers did not incorporate digital tools into their online teaching. Thus, it is evident that the potential of online technology has yet to be fully realized. However, Mallillin et al. (2020) argue that teachers' willingness to adapt to online learning is not significantly affected by their familiarity with using technology in teaching.

According to a study conducted by Ungku Khairul, Muhammad Syafiq, Izzati Firdiana in 2020, although teachers are familiar with online teaching platforms such as Google Classroom, they do not take full advantage of it. In addition, teachers do not use other online applications such as Google Slides, Google Docs and Google Sheets. The study shows that teachers' knowledge and skills in using online teaching applications are still insufficient. This

lack of knowledge and skills in ICT and online applications may hinder teachers' willingness to fully integrate technology into their professional development and teaching practice.

In a study conducted by Kalaiselvi (2020) it was found that the attitude of teachers towards the use of technology in BLTc at SJKT is quite positive. According to most respondents, the use of Power Point software has helped a lot in effectively delivering BLTc. This is because Power Point is considered easy to use and has various benefits such as the ability to include pictures, animations, videos and sounds, which help in better visualization.

Teacher Self-Efficacy

Self-efficacy refers to an individual's belief in their own ability and competence to give instructions (Awanis Binti Mohd, 2016). According to A. Tirmizi, J. Rokhmat, and S. Sukardi (2020), a teacher who has a high level of self-efficacy is likely to improve their skills and have the assurance to implement diverse teaching approaches, further lead to student academic success. Therefore, self-efficacy plays an important role in determining the level of teacher effectiveness in the classroom. Teachers who have a high level of self-efficacy are more likely to be innovative and creative in their teaching methods, and they are also more likely to persevere in achieving their teaching goals despite the challenges they may face. Conversely, teachers with low self-efficacy are more likely to doubt and doubt their abilities, which can hinder their performance in the classroom and hinder their students' learning outcomes.

Therefore, it is important for teachers to develop their self-efficacy to ensure they are efficient and confident in carrying out their teaching duties. This can be achieved through various means, such as professional development programs, mentoring, and self-reflection. Overall, self-efficacy is a critical factor that affects teachers' effectiveness in the classroom and ultimately affects their students' academic success.

In addition, the efficiency that exists in a teacher makes the teacher try hard to form and plan the best strategy according to the student's ability and in blended learning practices, information and communication technology becomes an additional element towards achieving learning objectives. Self-efficacy also greatly influences a person's motivation in terms of developing their potential, improving performance, and influencing a person's confidence to socialize with society. In the context of blended learning practices, the way of interacting with students is a social element that is highlighted, which is the extent to which teachers can make their students interested in exploring knowledge more deeply (Mahamod et al., 2020).

Furthermore, the effectiveness of teachers motivates them to develop the most suitable approach for each student based on their abilities. Technology plays an important role in blended learning because it helps achieve learning objectives. Self-motivation is also important because it increases an individual's confidence in their potential, improves their performance, and allows them to interact better with society. In the context of blended learning, the social aspect of how teachers engage with their students is emphasized, and their ability to spark interest to explore knowledge more deeply is important (Mahamod et al., 2020). In addition, positive self-motivation in teachers can improve the learning outcomes of their students by increasing the level of motivation.

Blended learning is a teaching approach that involves combining face-to-face and online learning, usually using tools such as Google Classroom and Google Meet. Teachers who practice blended learning are confident in their ability to find the most effective teaching strategies and are always looking for new technologies to enhance their students' learning experiences. These teachers are also resilient and able to overcome challenges such as limited

internet access and large numbers of students. According to research by Nancy Leong and Dg Norizah (2019) the concept of self-efficacy is essential to a teacher's success and plays an important role in their ability to contribute to the intellectual and spiritual development of their students.

In contrast to the findings of previous studies, Farah (2011) study shows that male teachers have better technology integration skills than female teachers. In addition, Farah (2011) has identified several factors that may affect the effectiveness of teachers integrating technology into their teaching practices. These factors include the level of support provided by the school, teachers' knowledge of technology-based teaching methods, the amount of time used by teachers to implement technology-based teaching, teachers' beliefs about the potential benefits of technology integration, teachers' personalities and attitudes towards technology, and the availability resources and technology.

Suggestion

There are two suggestions put forward to face the challenges of implementing blended learning which are as follows:

MoE Initiatives in the Implementation of Blended Teaching and Learning

During an episode of TV1's Narrative Talk program with YB Senator Dr Radzi Jidin, former Senior Minister of Education, several questions were asked about the role of MoE in developing mixed BL as an alternative education during the MCO phase. He responded by explaining that the Ministry of Education and Culture has established guidelines for the implementation of BL, which allow teachers to use teaching methods appropriate to the specific situation and location of their students to access online learning. In addition, the Ministry of Education and Culture offers a two-hour learning session on the Okey channel every day designed specifically for students in exam classes. This gives them extra support and guidance as they prepare for their exams.

KPM and UNICEF are also taking steps to ensure that students with hearing and vision problems do not fall behind. They have implemented the use of technology such as Google Slides and English subtitles to create teaching materials and presentations that meet the needs of hearing-impaired students. In difficult times where schools are closed due to COVID-19, it is important for educators to use technology to stay in touch with students and their parents to ensure continued learning. BL sessions can be conducted online if there is a high commitment from both parties. Education Technology Integration Sector, Education Technology Resource Division, The Ministry of Education and Google for Education are providing online learning resources and technology to help teachers and students adapt to this new learning environment. A webinar program has also been created to help teachers understand and implement various online learning methods. With motion control, students cannot meet their teacher face-to-face, making online BLT sessions even more important.

Therefore, it is recommended that the Ministry of Education should provide regular and systematic courses related to technological progress because technology is constantly evolving. Therefore, teachers must be familiar with the latest technology and techniques. They can also gain expertise in creating their own multimedia software based on the student's level. The Internet provides a variety of resources that teachers can use to improve their knowledge of the latest technology. Therefore, teachers must be prepared to research and explore relevant resources. These findings show that it is important to continue to motivate

teachers to incorporate technology into their teaching practices to improve their teaching techniques and efficiency.

Cooperation of Administrators, Teachers, Pupils and Parents

The successful implementation of the combined BLT requires the cooperation of KPM, administrators, teachers, students, and parents. It is a joint effort to achieve the goals and objectives of BL during the era of the Covid-19 pandemic, using a combination of PAK-21 thinking, Cross Curriculum Elements and online Information and Communication Technology (ICT). The effective use of ICT-based education can produce students who are confident, talented and can succeed in their future careers. Parents cannot rely solely on teachers to implement blended learning at home and should monitor their children's phone use to ensure they are focused on completing assignments. Associate Prof Dr. Zuraidah Abdullah, Senior Lecturer in the Department of Management, Administration and Education Policy at the Faculty of Education, University Malaya, suggests that online learning is flexible and can use various applications, such as Google Meet, Microsoft Team, Zoom, Telegram, and WhatsApp, in addition to Google Classroom. The Covid-19 outbreak forced the government to implement the MCO, which initiated major changes in the Malaysian education system. Therefore, parents and teachers should change their mindset and learn the latest technology to deal with this problem. Smartphones are just learning aids that allow children to continue learning at home. Therefore, parents and teachers should change their mindset and learn the latest technology to deal with this problem. Smartphones are just learning aids that allow children to continue learning at home. Therefore, parents and teachers should change their mindset and learn the latest technology to deal with this problem. Smartphones are just learning aids that allow children to continue learning at home.

Schools face significant challenges in terms of adequate preparation to continue virtual learning and effectively assess students' learning abilities. During a recent Professional Talk webinar session entitled "Learning to Think Outside the Box in Facing the New Norms of the Education World," emphasized the importance of teachers being prepared to face anything new and more difficult situations. He encouraged teachers to continue to explore knowledge and create innovative ways to convey it to today's generation as this generation is highly dependent on their teachers. Therefore, teachers should see the combined BLT assignment as an opportunity to educate the nation's children with dignity and responsibility.

Conclusion

Blended learning pedagogy that is student-centred and integrates technology has been proven to be effective empirically in addition to making teachers able to diversify their teaching methods in the classroom (Mahamod et al., 2020). According to Zulkifli (2021), education field today has prioritized the element of creativity because it is important as an element in human capital development. Although online learning has been popularized, it is important to consider the benefits of conventional learning as well, as this learning allows instructors to guide students in developing skills that are important in the 21st century such as communication, creative thinking, critical thinking, and collaboration.

Therefore, this study has given educators the opportunity to diversify teaching methods so that teaching is always creative and interesting while also being able to continue to attract students' interest in learning. So, current research not only helps local authorities

come up with practical strategies but also motivate students to accept BLT as an essential part of their learning process educational path. This is also able to deal with the dropout problem in the circle of the students. Therefore, the most effective learning approach in the current era is blended learning, which combines face-to-face and online learning to foster these skills and prepare students for future challenges. As awareness of pedagogy among educators grows, blended learning is expected to grow rapidly in the future, with a focus on strong course design and structure to provide a comprehensive learning experience. It is important for education providers, especially educational institutions, to reorganize blended learning strategically and inclusively to ensure that the quality of education can be maintained.

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