Exploring the Theory, Benefits, and Challenges of Mobile Web-Based Learning (MWBL) for English as a Second Language (ESL) Learners

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Abstract
The philosophy, benefits, and challenges of mobile web-based learning (MWBL) for English language learners are examined in this paper. MWBL offers dynamic and participatory exercises that are in line with constructivist and behaviorist theories, combining the benefits of mobile learning and web-based learning. Flexibility, personalized learning experiences, more engagement and motivation, and the encouragement of self-directed learning are all advantages of MWBL. Nevertheless, obstacles to MWBL implementation include teachers' openness to new technology, technological problems with privacy and security, and the demand for user-friendly interfaces. Stakeholders, including the Ministry of Education, state education departments, administrators, and teachers, must work together to provide the infrastructure, support, training, and resources necessary to enable successful MWBL implementation. MWBL can improve by resolving these issues and maximizing the advantages.
Keywords: English as a Second Language (ESL), Web-Based Learning (WBL), Mobile WebBased Learning (MWBL), Mobile Learning

Introduction
The beginning of the 21st century was marked by the digitalization of education becoming more common and significant than the previous years. The circumstances during the lockdown brought on by the atrocity of the Covid-19 Pandemic had opened up the possibility for the full implementation of e-learning at all levels of education. Malaysia was one of the countries affected by the abrupt enforcement of the closure of educational institutions ranging from kindergarten to colleges and universities. To assure continuity of education despite the closure of academic institutions, the setting of education needed to be reshaped and embellished with technological advances via the internet (Krouska et al., 2021). The spread of digital technology during the pandemic eased up the path for Mobile Web-

Based Learning to spread and gain a foothold in the education system. Even though the covid19 pandemic is slowly turning into an endemic, many research efforts, investigations, and trials continue to be conducted on WBL due to its capacity for enjoyable, interactive, and stimulating learning.

Mobile-based learning, also known as m-learning, has become a popular and efficient method of disseminating educational content as a result of the widespread availability of smartphones and tablets and the advancements in technology and connectivity. Compact gadgets, such as mobile phones, are capable of performing as much as, and even more than, large machines (Shirmadi et al. 2021). Its inherent characteristics, such as internet access, integrated sensors, contextually sensitive characteristics, Global Positioning System (GPS), and inertial measurement devices, brought an important addition to the technological disciplines in formal or informal education (Giannakas et al., 2018). The innovation of technology in mobile devices is now changing the scene of language learning and demonstrates an exciting opportunity to benefit the teaching and learning of the English Language (Hashim et al., 2019). Web-Based Learning (WBL) is one of the most widely studied and developed areas for English language learning, along with other applications that benefited from mobile learning. It is also referred to as online learning or e-learning, and has gained recognition in the domain of second language acquisition. With the widespread use of technology and the internet, online environments and resources have provided valuable opportunities for students to improve their language skills. Dabas (2018) discovered that integrating technology into the educational system has a number of advantages, including raising the standard of instruction, establishing efficient teaching and learning methods, and to name a few. While the accessibility feature of e-learning allows students to access English content as they wish, regardless of their geographic location, m-learning leverages the portability, connectivity and versatility of mobile technology to deliver educational content and facilitate learning anytime, anywhere. The emergence of Mobile Web-Based Learning is possible with the integration of mlearning and e-learning. Mobile Web-Based Learning alludes to a frame of instructive or preparing substance delivery that's particularly outlined and optimized for getting to on portable gadgets through a web browser. It empowers learners to get to learning materials, assets, and interactive exercises on their smartphones, tablets, or other portable gadgets with a web network. MWBL is believed to be a turning point for second language learning and is now gaining admiration from educators (Blake, 2011; Bashori et al., 2020). Despite the fact that MWBL is becoming more common in language acquisition, many English teachers have not yet accepted MWBL as teachers still opt for physical education compared to online learning due to perceived success (Nambiar, 2020). As a result, we shall discuss the theories underlying MWBL in this paper, as well as its advantages and the implementation difficulties.

MWBL: Underlying Theory and Benefits
MWBL is a method of instruction that calls for active participation from the students in the learning process. It suits the narrative of Sensorimotor Intelligence by Piaget which evolves through observation and action cycles (Carpendale et al., 2020). According to Piaget, a constructivist classroom must offer a variety of activities that push students to accept their individual characteristics, grow their capacity for learning, uncover novel concepts, and create their own knowledge. It emphasizes that learners actively construct knowledge through interactions with their environment and their peers. In the context of using MWBL in ESL classrooms, this theory aligns well with the collaborative and interactive nature of the approach. ESL learners need to be actively involved in their own learning because once the

learner's ideas are engaged and concentrated, thinking will occur (Godoy, 2020). Because it offers learners interactive and participatory activities, mobile web-based learning encourages active learning. With the use of mobile devices, students can actively interact with online materials, multimedia information, and interactive tests to build their own conceptual frameworks.

Constructivism emphasizes the value of interpersonal communication in the educational process. Social aspects like forums, team projects, and peer review processes are frequently included in mobile web-based learning platforms (Bakan & Bakan, 2018). With the aid of these elements, students are able to communicate with one another, exchange ideas, work together on projects, and create knowledge all at once. Such social contacts are facilitated by mobile devices, which offer connectivity and communication options. Another beneficial aspect of mobile web-based learning is group projects. In order to finish a task or find a solution, these projects need students to collaborate in groups or teams. Mobile gadgets make it possible for students to work together virtually without regard to where they are physically located. Through group projects, students can combine their knowledge, abilities, and views to co-create solutions. This promotes a deeper comprehension of the subject matter and helps students develop vital communication and teamwork skills. Collaborative learning inspires students to lead their own conversations and create their own knowledge in order to improve teaching and learning (Zakaria et al. 2018).

The behaviorist theory is the other theory in this learning strategy that works effectively to balance the constructivist theory. The behaviorism theory by Skinner focuses on the role of external stimuli and reinforcements in shaping behavior. In the context of using MWBL in teaching in ESL classrooms, behaviorism theory can be related to the use of positive reinforcement and feedback provided through the platform. MWBL offers opportunities for immediate feedback, praise, and encouragement, which are essential elements in behaviorist principles. When students receive positive reinforcement, such as receiving likes, comments, or recognition from their peers and teachers, it can reinforce learning and motivate them to continue practicing and improving their skills (Kirshnamoorthy et al. 2021). By incorporating behaviorist principles through the use of MWBL, ESL teachers can create a supportive and reinforcing environment that promotes active engagement, continuous practice, and positive learning behaviors among their students.

Benefits

Learners of English as a Second Language (ESL) encounter particular difficulties when trying to become proficient in a foreign tongue. Mobile web-based learning has, however, become a potent tool for supporting ESL learners in their language acquisition journey due to the rapid improvements in technology. Mobile technology and the internet present fresh opportunities for learning resource access, interactive activity participation, language practise, and community engagement. Among many benefits of MWBL, it provides unmatched flexibility and convenience (Sadeghi, 2019). Language learning activities can be done by learners at their own pace and on their own schedules. Learners can conveniently access language learning resources on their mobile devices during commutes, breaks, or free time. This adaptability enables personalized learning experiences, takes into account different learning preferences and styles, and smoothly incorporates language learning into learners' daily activities. Thus, it can be considered as a place for an individual's self-actualization (Umedovich, 2023).

Apart from that, anxiety over learning a foreign language has been demonstrated to hinder language acquisition and to be a poor indicator of language proficiency (Bashori et al., 2020).

Thus, it is crucial for educators to consider integrating Mobile web-based learning environments that include interactive and captivating elements that hold the interest of ESL students and encourage active learning. Abrar et al. (2018) suggested media and/or technology support to aid students in acquiring English as a second language. Learners' engagement, motivation, and participation are increased by multimedia-rich information, interactive tests, and gamified aspects. According to Chen & Hsu (2019), these elements would increase in motivation, engagement, and enjoyment, as well as mutual encouragement and a decrease in anxiety and humiliation. Through interactive activities, role-playing situations, and immersive simulations, learners can hone their language abilities while receiving quick feedback. This type of participatory learning encourages greater comprehension, language retention, and skill improvement.

Kompen et al. (2019) in his study stated that the concept of the learner as a key player in his or her own learning process has become more widely accepted. Adaptive learning technologies are used by mobile web-based learning platforms to personalize learning for ESL students. These tools assess student performance data, personalize training to each learner's needs, and offer focused criticism and suggestions. Learners can keep track of their progress, set objectives, and track the development of their language skills. This individualized method promotes self-directed learning, increases student confidence, and ensures ongoing development. The personalization feature of MWBL will inspire students to learn enthusiastically (Zhang et al., 2020). The MWBL's personalization function encourages learners to participate actively, investigate novel linguistic ideas, and take chances when practicing their language skills.

To conclude, the benefits of MWBL on ESL learners are anticipated to dramatically improve language learning experiences as technology develops. In order to give ESL learners the tools they need to become proficient language users and develop cross-cultural communication skills, educators and institutions should seize the opportunities presented by MWBL. We can open up new worlds for ESL learners and help them succeed in their language learning journey by maximizing the potential of MWBL.

Challenges in Implementing MWBL
Since the early 2000s, there has been a considerable increase in the acceptance and integration of mobile devices in teaching and learning (Stec et al. 2018). Teachers must modify their pedagogical strategies to take advantage of the affordances of digital technologies and online platforms while implementing web-based learning. Teachers, who serve as its primary implementers, must be willing to embrace this method of instruction in order to increase learning opportunities (Pedro et al., 2018). According to Christensen and Knezek (2018), the extent of teachers' awareness or propensity to integrate mobile devices into the teaching and learning environment is known as mobile learning readiness. Nevertheless, when introducing web-based learning in ESL classes, teachers' readiness is a vital factor that needs to be taken into consideration. According to Stec et al., (2018), the adoption of mobile devices like smartphones and the associated pedagogy into education are significantly impacted by teachers' willingness to adopt new technology. It speaks to how ready educators are to use technology well and incorporate it into their lesson plans. Modern education has many advantages for ESL students, but it also has complex issues for teachers that must be addressed (Liu et al. 2020). Teachers' lack of preparation is regarded as the main obstacle and has an impact on their willingness to integrate mobile learning technology (Rikala et al., 2014, as stated in Al-Furaih & Al-Awidi, 2018). According to Martin-del-Pozo et al. (2019), one of the

major elements influencing implementation is instructors' opinions and attitudes towards novel teaching techniques. This is due to difficulties faced by many teachers to acquire the essential technological know-how and proficiency to use web-based learning tools and platforms. They might not be conversant with the capabilities, functions, and possible uses of various digital technologies.

Other than pedagogical issues, it is vital to consider the challenges of MWBL implementation in its technical aspects. Amongst technical challenges of MWBL is the concern of lack of security and privacy. Security issues were viewed as difficult problems (Alimorad et al., 2022). Security risks on mobile devices include viruses, unauthorized access, and data breaches. In mobile web-based learning environments, privacy and sensitive information of learners must be protected. To add to that, distance learning is frequently hampered by students' varying levels of technology access and privacy worries (Mudra, 2021). In addition to privacy and security concerns, the practicality aspect of MWBL is one of the common issues (Giannakas et al., 2018). Designing MWBL programmes that take into account each learner's educational background, experience, and preference would be difficult. Data mining must be used to gather student information in order to create customized learning that contains the desired learning materials. To guarantee a favorable learning experience, mobile web-based learning platforms must be user-friendly, intuitive, and captivating. It can be technically difficult to create a user interface that is responsive, visually beautiful, and usable on a variety of devices. In order to ensure that learners can effectively engage with the learning materials and activities, user experience concerns, such as simple navigation, clear directions, and intuitive interactions, are essential.

In conclusion, mobile web-based learning is seen as a crucial instrument to provide an engaging and inspiring language learning experience. Furthermore, owing to its utility and mobility aspects, it helps tackle contemporary learning obstacles, particularly during pandemics. To increase its effectiveness for ESL learners, it is critical to recognise implementation issues.

Discussion

For ESL students, the introduction of Mobile Web-Based Learning (MWBL) in the Malaysian educational system may have significant repercussions. Key stakeholders including the Ministry of Education (KPM), State Education Departments (JPN), administrators, and teachers must be involved if MWBL implementation is to be successful.

Stakeholders are essential in providing the infrastructure, policies, and support needed to make it easier to integrate MWBL into ESL courses. Resources and advice can be given by the Ministry of Education (KPM) for the creation and execution of MWBL initiatives. In order to guarantee teacher access to technology, internet connectivity, and other resources, state education departments (JPN) might work with schools. By offering chances for professional growth, fostering a positive learning environment, and promoting teacher cooperation, administrators at the school level may help teachers.

To overcome obstacles and maximize the advantages of MWBL adoption, stakeholders must work together. To solve problems with internet connectivity and technological access, important parties can cooperate. By giving all ESL students equitable access to mobile devices and dependable internet connectivity, efforts can be made to close the digital gap. Stakeholders can work together to develop rules and regulations that guarantee the safety and privacy of student data in MWBL settings. In order to help teachers and students with technical difficulties, they can also offer materials and technical support. Additionally,

stakeholders can work together to develop a positive environment that supports and encourages the successful application of MWBL in ESL classrooms. This may entail exchanging best practices, building communities of practice, and setting up websites for instructors to communicate and exchange materials. Stakeholders can identify areas for improvement and make the required adjustments to increase the success of MWBL implementation with regular monitoring and evaluation of MWBL efforts. According to Clement and Yunus (2021), it is anticipated that Malaysia's e-learning revolution will be successful if the education community supports the creation of digital learning platforms.

Teachers are leading the way in MWBL implementation and are essential to guaranteeing its success. To successfully include MWBL into their teaching practices, they must be sufficiently trained and given the required tools. Teachers can be trained through professional development programmes on using mobile web-based learning platforms, creating interactive and captivating learning activities, and dealing with technical difficulties. In their study, Lefstein et al. (2020) claimed that expert-teacher collaboration revealed and probed difficulties with specific practises while providing new views and skill facilitation. Additionally, it's important to encourage teachers to investigate and use cuttingedge methods of instruction that work with MWBL's advantages.

As a result, the Ministry of Education, State Education Departments, administrators, and instructors must actively participate and work together for MWBL to be successfully implemented in the Malaysian educational system. Together, they can deal with the difficulties, offer the support and materials that are required, and establish an environment that maximizes the advantages of MWBL for ESL students. In the end, this will help ESL students in Malaysia improve their language learning opportunities and grow in their language ability.

Conclusion
The unrivaled flexibility and convenience offered by MWBL enable students to complete language learning tasks at their own speed and according to their own schedules. Other than that, ESL students are kept interested and their anxiety levels are reduced by MWBL's dynamic and compelling aspects. Mobile Web-based learning systems that use adaptive learning technology to tailor instruction for ESL students encourage self-directed learning, boost student self-esteem, and ensure continual improvement. To ensure the success of MWBL, stakeholders and instructors must accept personal accountability for overcoming the significant implementation hurdles.

In conclusion, by making the most of MWBL, we can assist ESL students discover new worlds and succeed in their language learning endeavors. By utilizing the advantages of internet and mobile technology, MWBL has the potential to revolutionize ESL classrooms. The Malaysian educational system can offer ESL learners a successful and enjoyable language learning experience that equips them for success in a globalized society by leveraging the advantages of MWBL and addressing the problems through cooperative efforts. Future research should focus on examining how enhancing teachers' readiness and confidence in implementing MWBL can be achieved through teacher training and professional development programmes. Examine practical methods for giving teachers the pedagogical frameworks, technological know-how, and support networks they need to successfully implement MWBL in their ESL classrooms.

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