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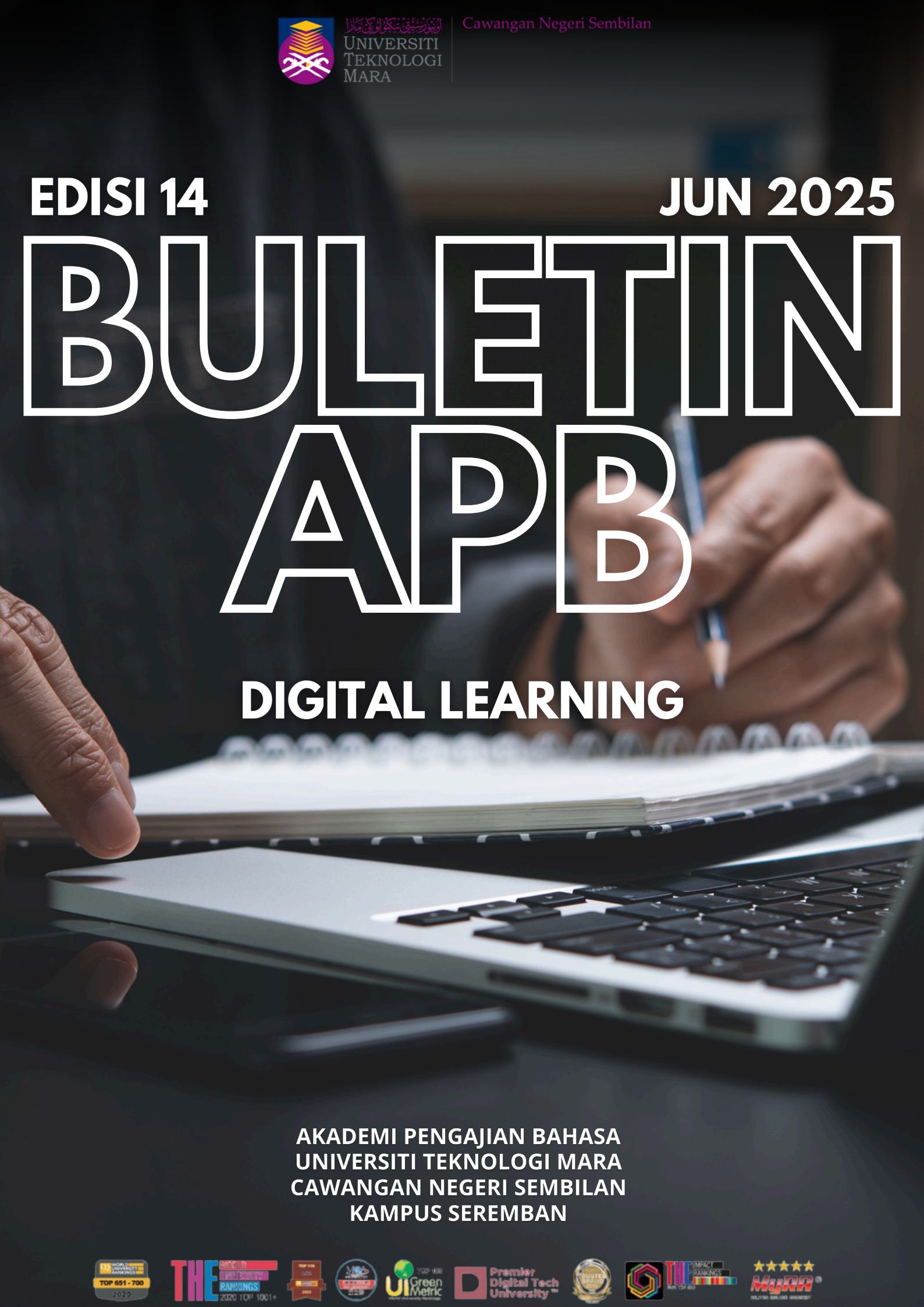
DIGITAL LEARNING



AKADEMI PENGAJIAN BAHASA
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Buffering to Brilliance: Fixing the Digital Learning Divide

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The integration of digital technology in education has grown substantially in recent years, further accelerated by the COVID-19 pandemic. Educational institutions worldwide adopted various digital platforms to ensure the continuity of learning, resulting in a notable shift towards online and blended learning models (UNESCO, 2020). In Malaysia, the implementation of the Movement Control Order (MCO) in March 2020 necessitated a rapid transition to online learning for schools and universities, with limited preparation time. This sudden shift highlighted both the potential and the limitations of digital learning.

While digital learning offers numerous advantages, such as flexibility, accessibility, and the ability to customise educational content, it also underscores existing educational inequalities and introduces new challenges, including maintaining meaningful student engagement.

Digital Divide in Malaysia

The digital divide refers to the disparity between individuals who have adequate access to digital technology and those who do not. In Malaysia, this issue is particularly apparent between urban and rural areas, as well as between high- and low-income households. A study by the Malaysian Communications and Multimedia Commission (MCMC, 2020) reported that while internet penetration in urban areas was above 90%, rural regions, particularly in Sabah and Sarawak, lagged significantly behind. Additionally, many households from the B40 income group lacked access to appropriate devices such as laptops or tablets, relying instead on shared mobile phones, which made participation in online classes difficult (KPM, 2021).

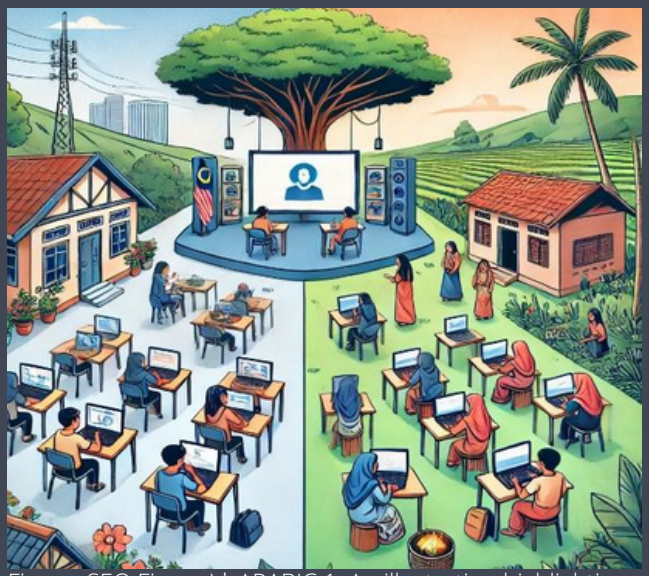

Figure SEQ Figure * ARABIC 1: An illustration highlighting the digital divide contrasting urban students with rural students.

A widely reported case that symbolised this issue involved Veveonah Mosibin, a university student from Sabah, who had to climb a tree to obtain a stable internet connection to sit for her online examinations. Her story, which went viral in June 2020, highlighted the severity of digital access issues in rural Malaysia and prompted nationwide discussions on the importance of developing digital infrastructure in underserved areas.

To ensure equitable access to digital education, the Malaysian government and educational institutions must continue investing in infrastructure improvements, particularly in rural and remote areas. Programs such as the Jalinan Digital Negara (JENDELA) initiative aim to improve internet connectivity and expand broadband access nationwide (MCMC, 2021). In addition, device assistance programmes like Peranti Siswa Keluarga Malaysia, which provides free tablets to eligible students from B40 households, represent positive steps toward reducing device disparities. Universities and schools can also consider setting up localised digital learning hubs or community internet centres, where students from areas with limited connectivity can access learning resources in a safe and supportive environment.

Digital literacy initiatives should also be prioritised to ensure both students and educators are well-equipped to navigate digital platforms effectively. Providing training in digital teaching tools and online classroom management will empower educators to design more effective and inclusive digital learning experiences.

Engagement in Digital Learning

Student engagement is a crucial factor in determining academic success. In conventional classroom settings, engagement is fostered through direct interaction, peer discussions, and immediate feedback from teachers. However, online learning environments often present barriers to such interactions, leading to feelings of isolation, decreased motivation, and difficulties in maintaining concentration (Tan, 2021).

In Malaysia, a study conducted by Looi (2025) revealed that university students faced significant challenges, including internet disruptions, a lack of interactive online lessons, increased screen fatigue, and home distractions, all of which negatively impacted their engagement and academic performance. The study also highlighted that many students preferred a blended learning approach, combining both face-to-face and online elements, as a more effective and engaging alternative. Research suggests that integrating interactive tools, collaborative activities, and multimedia resources can enhance engagement in virtual classrooms (Huda, 2024).

Additionally, considering Malaysia's culturally diverse and socio-economically varied student population, adopting culturally responsive and inclusive digital teaching strategies is crucial to accommodate the differing needs and preferences of students. Maintaining student engagement in virtual environments requires thoughtful instructional design and culturally sensitive practices. Malaysian educators should employ a variety of strategies, including breakout discussions, live polls, interactive quizzes, and collaborative projects, to foster active participation. Incorporating localised content, case studies, and culturally relevant examples can enhance the relevance and relatability of lessons, fostering deeper interest among students.

The use of familiar platforms such as Google Classroom, Microsoft Teams, and local learning management systems like UFuture and OpenLearning has become widespread in Malaysia. By leveraging the collaborative features of these platforms and integrating multimedia resources, such as educational videos, simulations, and virtual labs, educators can create more dynamic and immersive learning experiences. Furthermore, offering a blend of live and recorded learning options is essential to accommodate students with varying internet access and personal responsibilities.

Digital learning represents a significant advancement in the accessibility and flexibility of education in Malaysia. However, the challenges posed by the digital divide and the difficulties in sustaining student engagement must be addressed to ensure that all learners benefit equally from digital education. By investing in digital infrastructure, promoting digital literacy, and adopting innovative, culturally responsive teaching strategies, educators and policymakers can foster a more inclusive and engaging digital learning environment for Malaysian students. Moving forward, a blended approach that combines the strengths of both online and face-to-face learning is likely to be the most effective model in ensuring educational equity and quality in Malaysia.

References

Huda, M. (2024). Between accessibility and adaptability of digital platform: investigating learners' perspectives on digital learning *infrastructure, Higher Education, Skills and Work-Based Learning, 14*(1), 1-21. https://doi.org/10.1108/HESWBL-03-2022-0069

Kementerian Pendidikan Malaysia (KPM). (2021). *Laporan kajian pengajaran dan pembelajaran di rumah (PdPR) 2021.* Putrajaya: KPM.

Looi, K.H. (2025). Transition from emergency ICT-enabled education to blended education for future emergency preparedness and sustainability: A cross-sectional survey in Malaysia. *International Journal of Information and Learning Technology, 42*(2), 129-146. https://doi-org.uitm.idm.oclc.org/10.1108/IJILT-04-2024-0074

Malaysian Communications and Multimedia Commission (MCMC). (2021). *Jalinan Digital Negara (JENDELA) 2021*. Retrieved from https://www.mcmc.gov.my

Tan, C. (2021). The impact of COVID-19 pandemic on student learning performance from the perspectives of community of inquiry. *Corporate Governance*, 21(6), 1215-1228. https://doi-org.uitm.idm.oclc.org/10.1108/CG-09-2020-0419

UNICEF Malaysia. (2021). *Families on the edge: Two-steps forward, one step back*: The new normal for Malaysia's urban poor? https://www.unicef.org/malaysia