UNIVERSITI TEKNOLOGI MARA

BULETIN APB

EDUCATION FOR BETTER FUTURE



EDISI 17

OKTOBER 2026

AKADEMI PENGAJIAN BAHASA
UNIVERSITI TEKNOLOGI MARA
CAWANGAN NEGERI SEMBILAN
KAMPUS SEREMBAN

Transforming Teaching and Learning for a Sustainable and Equitable Future

NORASHIKIN MOHD MOKHTAR & MOHD FAIZ ISMAIL
UiTM CAWANGAN NEGERI SEMBILAN KAMPUS SEREMBAN

Education plays a vital role in individual and social development, yet twenty-first-century challenges require new approaches to teaching and learning. Climate change, technological advances, socioeconomic inequalities, and evolving workforce demands highlight the need for education that is sustainable, equitable, inclusive, and responsive. Higher education must therefore align curriculum and pedagogy with sustainability-oriented learning while preparing students not only for employment but also to think critically, make informed decisions, and contribute responsibly to society (Vargas-Merino et al., 2024).

1. Sustainability, Equity, and Inclusive Learning

Schools should integrate sustainability into educational thinking and practice, rather than treating it solely as an environmental topic. This entails understanding the connections between environmental, social, and economic well-being and recognising how individual and collective decisions affect communities, resources, and future generations. Classroom discussions, interdisciplinary projects, community engagement, and problem-based learning can help learners connect sustainability to real-life responsibilities. Participatory and transdisciplinary approaches also support inclusive, transformative education for sustainable development (Fernando & Tajan, 2024).

At the same time, sustainable education must be equitable. Although access to education has expanded, learners differ in socioeconomic background, ability, experience, resources, and digital access. Providing everyone with the same support may therefore fail to address existing inequalities. An equitable approach recognises these differences and provides appropriate learning opportunities and support, enabling all learners to participate meaningfully and succeed.

2. Technology and the Changing Role of Educators

Digital platforms, artificial intelligence, open educational resources, and flexible learning environments have expanded opportunities to access knowledge, personalise learning, and improve teaching and learning. Artificial intelligence, in particular, is being applied in areas such as adaptive learning, personalised tutoring, assessment, prediction, and educational management. At the same time, research identifies key challenges in its adoption and implementation (Wang et al., 2024). Educational technology should therefore be implemented carefully and inclusively to support meaningful learning rather than create additional barriers.



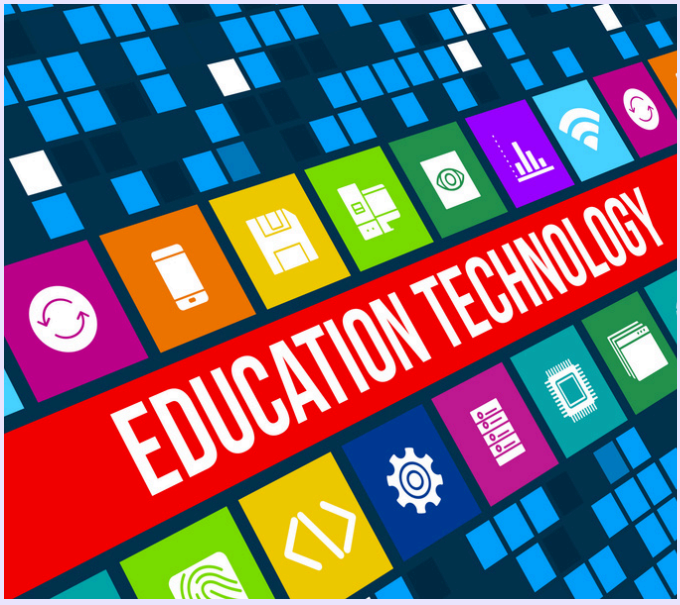
These developments also change educators' roles. Teachers are increasingly expected to facilitate learning, encourage inquiry, guide students in evaluating information, and create environments that foster questioning, exploration, and collaboration. They also play an important role in developing empathy, ethical awareness, resilience, creativity, and critical thinking. As artificial intelligence becomes more prominent, educators require appropriate preparation and professional development to use emerging technologies effectively and responsibly (Aljemely, 2024).

e-ISSN : 2682-7948

3. Future-Oriented Curriculum and Authentic Assessment

Curriculum and assessment must evolve alongside these changes. A future-oriented curriculum should connect disciplinary knowledge to authentic problems and real-world contexts, giving students opportunities to apply knowledge rather than simply reproduce information for examinations. Learning should develop competencies such as problem-solving, communication, creativity, collaboration, critical thinking, and reflection.

Assessment should likewise become an integral part of learning rather than functioning only as a final measure of achievement. Authentic tasks can encourage students to apply knowledge, reflect on their learning, and take greater responsibility for their development. Evidence suggests that authentic assessment can support critical thinking, problem-solving, collaboration, and other twenty-first-century competencies by engaging students in meaningful real-world tasks (Vlachopoulos & Makri, 2024).



Conclusion

Transforming teaching and learning for a sustainable and equitable future requires integrating sustainability and equity, using technology responsibly, strengthening educators' roles, and adopting a future-oriented curriculum and authentic assessment. Success should extend beyond academic achievement and employability to learners' ability to think critically, adapt to change, make responsible decisions, and contribute meaningfully to society. Ultimately, education should empower learners to help build a more sustainable, equitable, and inclusive future.

References

Aljemely, Y. (2024). Challenges and best practices in training teachers to utilize artificial intelligence: A systematic review. *Frontiers in Education*, 9, 1470853. https://doi.org/10.3389/feduc.2024.1470853

Fernando, A. R. R., & Tajan, G. P. (2024). Education for sustainable development (ESD) through participatory research (PR): A systematic review. *Journal of Cleaner Production, 482*, 144237. https://doi.org/10.1016/j.jclepro.2024.144237

Vargas-Merino, J. A., Rios-Lama, C. A., & Panez-Bendezú, M. H. (2024). Critical implications of education for sustainable development in HEIs—A systematic review through the lens of the business science literature. *The International Journal of Management Education, 22*(1), 100904. https://doi.org/10.1016/j.ijme.2023.100904

Vlachopoulos, D., & Makri, A. (2024). A systematic literature review on authentic assessment in higher education: Best practices for t he development of 21st century skills, and policy considerations. *Studies in Educational Evaluation, 83*, 101425. https://doi.org/10.1016/j.stueduc.2024.101425

Wang, S., Wang, F., Zhu, Z., Wang, J., Tran, T., & Du, Z. (2024). Artificial intelligence in education: A systematic literature review. *Expert Systems with Applications, 252*, 124167. https://doi.org/10.1016/j.eswa.2024.124167