

Student engagement in health professional education using artificial intelligence

Khadija Farrukh

Madam, Student engagement is of significant importance in education for several reasons. Engaged students are more likely to understand and retain the material being taught. They actively participate in class, ask questions, and seek to understand concepts deeply. As a result, they often achieve better academic results.¹ Regardless of the growing interest in the field of student engagement, there is still a gap in research on student engagement in medical education. Previous research studies on student engagement and its impact on learning processes suggests that student engagement is flexible and can be modified by different interventional strategies.¹⁻³ Aim of this letter is to highlight the importance of student engagement in health professional education and suggestion strategies to integrate student engagement models with artificial intelligence tools. Engaged students are more likely to develop critical thinking and problem-solving skills. They are curious, explore topics beyond what is required, and analyse information independently. Students who are actively engaged in learning are less likely to exhibit disruptive behaviour in the classroom. This creates a more conducive learning environment for all students. Engagement fosters a sense of self-efficacy, where students believe in their ability to succeed.⁴ This self-confidence is essential for tackling challenges and pursuing higher levels of education and career goals. Three perspectives of student engagement are Psychological, Behavioural and Socio-cultural perspective. Psychological model is most relevant in educational context. Artificial

Department of Medical Education, Bahria University Health Sciences Campus, Karachi, Pakistan.

Correspondence: Khadija Farrukh. e-mail: khadijafarrukh2010@hotmail.com
ORCID ID. 0000-0002-7331-5316

Submission complete: 08-09-2023

Review began: 20-12-2023

Acceptance: 10-02-2024

Review end: 20-01-2024

intelligence can enhance educational cycle in multiple ways, the teaching and learning process, curriculum development, assessment and the educational content.⁵ In comparison to e-learning methodologies metaverse provides increased accessibility and interactivity and users can access their virtual learning environment from anywhere with an internet connection, and have discussions and work together in real time. It is especially convenient for learners with job commitments or who live in rural remote areas to get an easily accessible educational experience and learn.

Disclaimer: None.

Conflict of Interest: None.

Funding sources: None.

DOI: <https://doi.org/10.47391/JPMA.10875>

References

1. Kassab SE, El-Sayed W, Hamdy H. Student engagement in undergraduate medical education: A scoping review. *Med Educ* 2022;56:703-15. doi: 10.1111/medu.14799
2. Peters H, Zdravkovic M, João Costa M, Celenza A, Ghias K, Klamen D, et al. Twelve tips for enhancing student engagement. *Med Teach* 2019;41:632-7. doi: 10.1080/0142159X.2018.1459530
3. Morton CE, Saleh SN, Smith SF, Hemani A, Ameen A, Bennie TD, et al. Blended learning: how can we optimise undergraduate student engagement? *BMC Med Educ* 2016;16:195. doi: 10.1186/s12909-016-0716-z
4. Stephenson CR, Bonnes SL, Sawatsky AP, Richards LW, Schleck CD, Mandrekar JN, et al. The relationship between learner engagement and teaching effectiveness: a novel assessment of student engagement in continuing medical education. *BMC Med Educ* 2020;20:403. doi: 10.1186/s12909-020-02331-x
5. Alam A. Possibilities and apprehensions in the landscape of artificial intelligence in education. In: 2021 International Conference on Computational Intelligence and Computing Applications (ICCICA). Nagpur, India: IEEE; 2021. DOI: 10.1109/ICCICA52458.2021.9697272.