

Partner or Surrogate? Generative AI and Constructivist Learning: ?Scaffolding vs. Dependency in Higher Education

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Abstract

The rapid integration of Generative Artificial Intelligence (GenAI) in higher education ?necessitates a rigorous evaluation of its alignment with constructivist pedagogy. This study ?explores whether GenAI facilitates active knowledge construction and critical thinking. ?Utilizing a qualitative methodology, semi-structured interviews were conducted with 23 ?participants, comprising 13 lecturers and 10 students. The findings indicate that GenAI can ?function as a dynamic scaffold that provides critical emotional support by reducing learning ?anxiety and facilitating cognitive development within the Zone of Proximal Development ??(ZPD). Furthermore, encountering the inherent limitations of GenAI was found to promote ?critical thinking. However, the results also reveal a significant tension: while GenAI reduces ?cognitive load, it may inadvertently foster dependency and bypass the constructive struggle ?essential to deep learning. The study concludes that while GenAI can enhance constructivist ?processes, its effectiveness depends on the implementation of iterative prompting, continuous ?reflection, and a robust critical framework.?

Keywords: Generative Artificial Intelligence (GenAI), constructivist learning, Zone of Proximal ?Development (ZPD, cognitive load, scaffolding