Cognitive Flexibility as a Predictor of Learning Success in Online Higher Education: Evidence from Indian Universities

Richa Vishwakarma
PhD Scholar, Faculty of Arts, Social Science & Humanities, SAM Global University, Raisen, Madhya Pradesh, India

Deepika Agrawal
Associate Professor, English Language and Literature, Faculty of Arts, Social Science & Humanities, SAM Global University, Raisen, Madhya Pradesh, India

Abstract

The rapid growth of digital technologies has transformed higher education through the emergence of learning management systems (LMSs), which enable universities to offer flexible, learner-centred, and technology-enabled learning opportunities. Although there have been studies on technology acceptance, user satisfaction, and system usability, there is a lack of research on the specific cognitive skills that enable effective online learning. This study explores cognitive flexibility as an important predictor of learning success in online higher education, with a focus on the Indian university context. Using a systematic literature review methodology enhanced with narrative synthesis and conceptual analysis, this study critically reviews recent literature on educational technology, cognitive psychology, learning sciences, and higher education. The review highlights key recurring themes in the recent literature, such as learner engagement, self-directed learning, knowledge integration, metacognitive regulation, adaptive problem-solving and academic achievement, as well as their connections to cognitive flexibility. The results show that even though LMSs provide all the technology required for learning, effective learning requires learners' ability to think differently, synthesise knowledge from multiple sources, adopt new learning techniques, and adapt to a more complex learning environment. The review reveals that the field of online learning has neglected cognitive studies, as the existing body of research is highly technology-centred and lacks an understanding of how learners think. In order to fill the identified gaps, this study suggests using the framework called 'Learner-Centred Cognitive Flexibility Framework (LCCFF)' that views cognitive flexibility as an enabling capability that connects adaptive cognitive processing, self-directed learning, learner engagement and successful online learning outcomes.

Keywords

Cognitive flexibility, digital learning, Indian universities, learning management systems, online higher education, learner-centred education.