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EXAMINING THE USE OF DISTINCTIVE MOBILE PEDAGOGIES IN AUSTRALIAN UNDERGRADUATE SCIENCE EDUCATION

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Abstract

Mobile devices, such as laptops and smartphones, are central to contemporary teaching and learning. Nevertheless, effectively incorporating these technologies necessitates thoughtful pedagogies. The present study is underpinned by sociocultural theory and explores how mobile learning practices - Personalisation, Authenticity, and Collaboration (Kearney et al., 2012) - are enacted in Australian undergraduate science education. Quantitative and qualitative data were collected from science teachers, learning designers and students. The findings indicate that educators value meaning-making conversations that fostered rich connections, as well as co-creation through data sharing and content development. The data also highlight learner agency through both teacher-led and student-driven initiatives. Authentic mobile learning was most evident when students used discipline-specific mobile applications to perform real-world tasks. Overall, the results emphasise the need for science educators to tailor learning to individual students' needs and to promote more authentic and networked learning in less formal settings with the use of mobile devices.

Keywords:

Mobile devices, Collaboration, Authenticity, Higher education