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Title

Linking the 'know-that' and 'know-how' knowledge through games : a quest to evolve the future for science and engineering education / A. Vahed ; S. McKenna ; S. Singh

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Abstract

This paper responds to Muller's notions of 'knowing-that' and 'knowing how'. The paper addresses how educational interventions that are designed in line with targeted discipline-specific subjects can enhance the balance between professional practice and disciplinary knowledge in professionally accredited programmes at universities of technology. The context is a Dental Technology programme at a University of Technology in South Africa. Teaching through discipline-specific games, conceptualised from a game literacies perspective, is proposed as an engaging, interactive pedagogy for learning disciplinary knowledge that potentially encourages access to a particular affinity group. The authors use concepts from Bernstein and Maton to investigate whether epistemic relations or social relations are emphasised through board and digital games designed for two Dental Technology subjects. This paper offers valuable insight into alternative pedagogies that can be adopted into science, technology, engineering, and mathematics education with the aim of paving a pathway towards Muller's Scenario 3. (HRK / Abstract übernommen) Vahed, A., E-Mail: anisav@dut.ac.za