

USING TOYS TO INCREASE GRADUATE PRIMARY EDUCATION STUDENTS' CONFIDENCE AND KNOWLEDGE IN SCIENCE AND TECHNOLOGY

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KEYWORDS: scholarship of teaching, collaborative learning, preservice teachers, science, technology

ABSTRACT

A major challenge faced by tertiary science education lecturers is the characteristic lack of confidence and pedagogical content in science of primary preservice teachers. This paper discusses a curriculum based elective unit that was developed to address this problem. The unit was developed as part of a scholarship of teaching project with the goals of enhanced future teaching and learning outcomes by use of student feedback to improve unit design and delivery as well as improved understanding of student needs for developing confidence and expertise in science. Preliminary results at inception provided evidence that perceived confidence towards teaching science and technology was increased along with a moderate increase in background content knowledge. The unit adopts a practical approach in a positive, collaborative learning environment and uses toys as the stimulus for discussion and explanation of underlying science concepts. Examples of toys used will be presented and discussed in the context of university teaching practices capable of supporting preservice teachers developing confidence and expertise for teaching science. Follow up evaluation drawing on student feedback from University Student Experience (USE) questionnaires will be presented as evidence of the continued success of the unit.

Proceedings of the Australian Conference on Science and Mathematics Education, University of Sydney, Sept 26th to Sept 28th, 2012, page 28, ISBN Number 978-0-9871834-1-5.