

See, think, wonder

Using the cultural collections to bring breadth to education

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I have taken for granted the soundness of the principle that education in order to accomplish its ends both for the individual learner and for society must be based upon experience—which is always the actual life-experience of some individual.

—John Dewey, *Experience and education*, 1938

One of the rich aspects of the Melbourne Model degree structure at the University of Melbourne is the opportunity for undergraduate students to select from a diverse range of 'breadth subjects'. These offerings encourage students to engage with curriculum content, conceptual thinking and pedagogical approaches that differ from their main academic discipline and hence have the potential to broaden their knowledge and ways of thinking. One such breadth subject is Knowledge, Learning and Culture, offered through the Melbourne Graduate School of Education. Students from any discipline can work with cultural collections on campus, while also learning about theories of learning and teaching, particularly those encompassing the value of direct experience with objects as a way to enhance learning



and understanding. Tutorials are held in the Classics and Archaeology Collection (part of the University of Melbourne Art Collection), Ian Potter Museum of Art, Grainger Museum, Medical History Museum, Henry Forman Atkinson Dental Museum, Tieg's Zoology Museum, University of Melbourne Archives, Special Collections in the Baillieu Library (including the Baillieu Library Prints Collection), Rare and Historic Maps Collection, University of Melbourne Herbarium and Law Rare Books Collection.

Students value the opportunity to encounter objects, artworks, artefacts and specimens in new ways and they enjoy learning through considering ideas that are challenging and that provide new perspectives on knowledge and understanding. The opportunity for direct experience

and guided discussion is crucial to this outcome. The pedagogical approach in Knowledge, Learning and Culture is grounded in the ideas and practice of experiential and social constructivist learning theories and contemporary approaches to museum education. John Dewey, a foundational theorist of experiential learning, posed several questions in his 1938 publication *Experience and education*. Crucially, he asked: 'How shall the young become acquainted with the past in such a way that the acquaintance is a potent agent in appreciation of the living present?' and he observed: 'It is not enough to insist upon the necessity of experience ... Everything depends upon the *quality* of the experience ...'¹

Dewey believed that learning environments that are stimulating and varied, that provide opportunities for the learner to interact with their environment and to solve problems, develop the most engaged learners and engender the most effective learning outcomes. Interest, engagement, discovery and enquiry are crucial in this pedagogical approach but, in the museum or collection context, the best results occur when discovery is guided and expert knowledge is available. Following social constructivist ideas, in our tutorials we endeavour to build

Opposite: The Savory and Moore Pharmacy display in the Medical History Museum, University of Melbourne.

Below: Left: skeleton of Australian emu (*Dromaius novaehollandiae*), reg. no. 2840. Right: Skeleton of New Zealand moa (*Dinornis robustus*), reg. no. 2179, gift of Dr George Armstrong 1935. Tiegs Zoology Museum, University of Melbourne.



on the students' prior knowledge and to pose questions that lead to the discovery and incorporation of new knowledge and new ways of thinking about the many possible meanings embodied in artefacts, artworks and specimens. Both John Dewey and Lev Vygotsky, a key theorist of social constructivist pedagogies, believed that the social, cultural and experiential context of learning was crucial. Vygotsky argued that cognitive development occurs through social interaction and that the most powerful 'cultural tool' is language.

To this end, tutorials held among the cultural collections use simple but effective strategies to help students formulate relevant questions, develop their skills of observation, critically analyse evidence and use appropriate language to express their understandings. One such strategy is the See, Think, Wonder routine of visible thinking, developed by an educational research group at Harvard University known as Project Zero.² In this routine, students are asked to approach an object or artwork by first asking three questions:

What do you **see**?
What do you **think** about that?
What does it make you **wonder**?

This is a powerful tool for developing skills of observation and reasoned interpretation, leading to the formulation of questions, the answering of which leads to deeper and broader knowledge and understanding. Students in Knowledge, Learning and Culture practise this routine when looking at objects such as Egyptian shabtis in the Classics and Archaeology Collection, paintings at the Ian Potter Museum of Art, early instruments in the Henry Forman Atkinson Dental Museum and the Medical History Museum, or letters written on the Victorian goldfields, now held in the University of Melbourne Archives. In fact, there are numerous items in each collection to which students could apply this approach. Students look at the object and carefully describe their observation without interpretation;

next they think about what its meaning or significance might be and support this interpretation with reasons; and finally they propose further lines of investigation to find out more about the object. This process leads to rich discussion and the construction of new knowledge for the group through the sharing of ideas and information.

The cultural collections of the University of Melbourne are a vast treasure store of opportunities for engagement and rich learning.

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1 John Dewey, *Experience and education*, New York: Simon & Schuster, 1997, pp. 23 and 27.

2 Harvard Graduate School of Education, Project Zero, www.pz.harvard.edu, accessed 2 August 2014.