



Embedding a digital literacy activity in a museum environment in a 1st Year Doctor of Optometry curriculum

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“The integration of museum collections in learning has been the focus of a significant body of works and it is clear that museum objects can inspire, inform, engage and motivate learners at all stages of their education...A core facet of object-based learning is its multisensory nature; the use of objects in teaching invokes a variety of senses and encourages a form of interactive or experiential learning...”

H.Chatterjee, L. Hannan, L. Thomson, ‘An Introduction to Object-based Learning and Multisensory Engagement’, *Engaging the Senses: Object-Based Learning in Higher Education*, 2015.



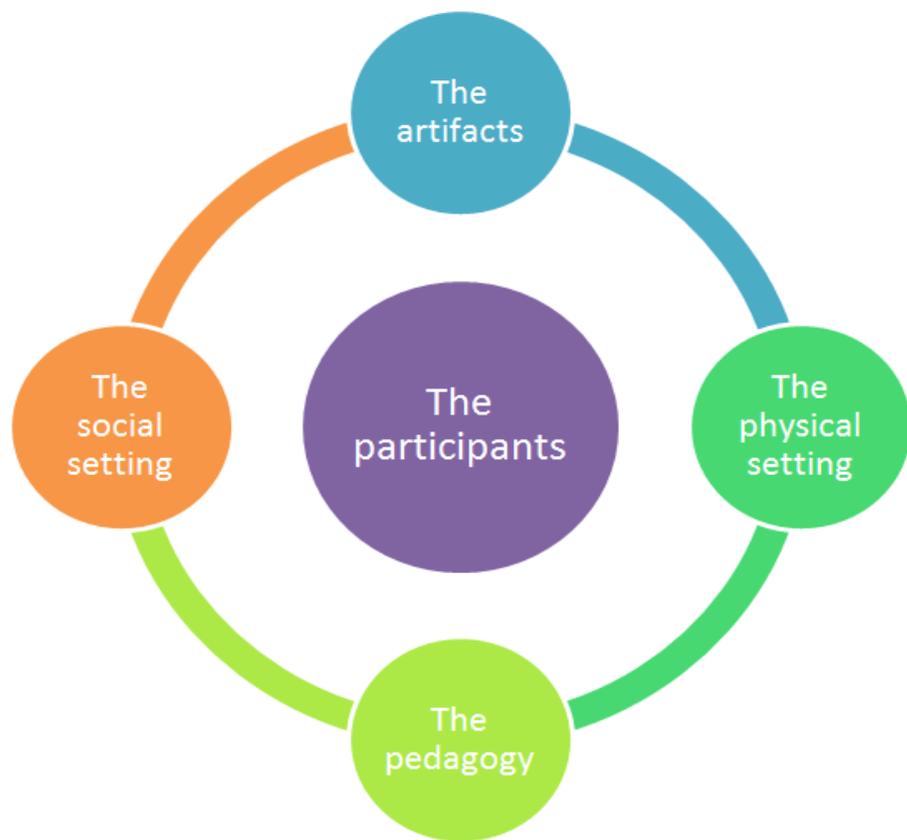
CONCERT

IN AID OF

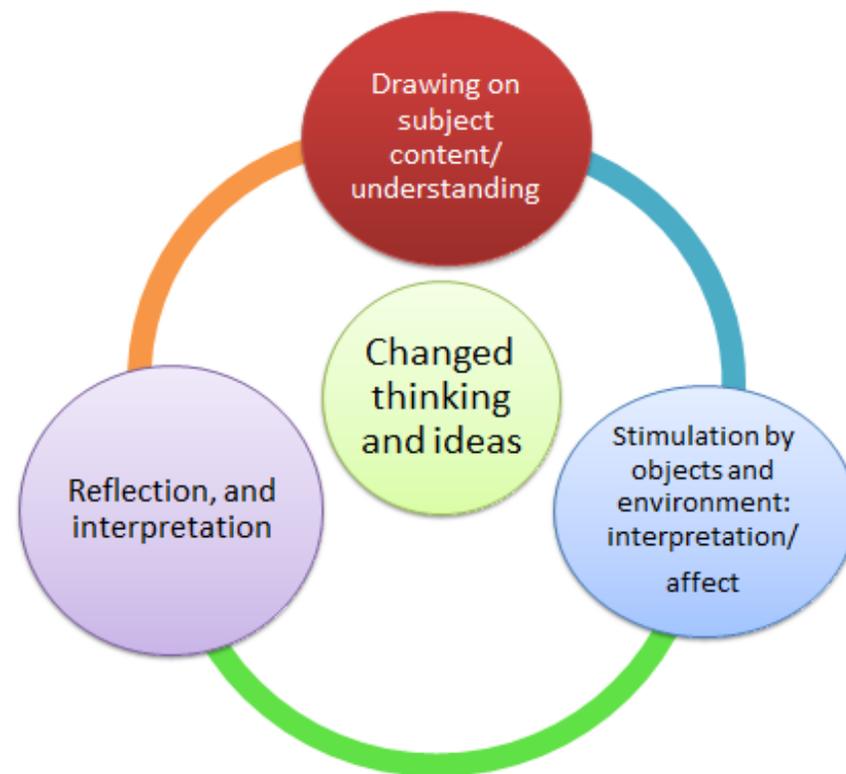


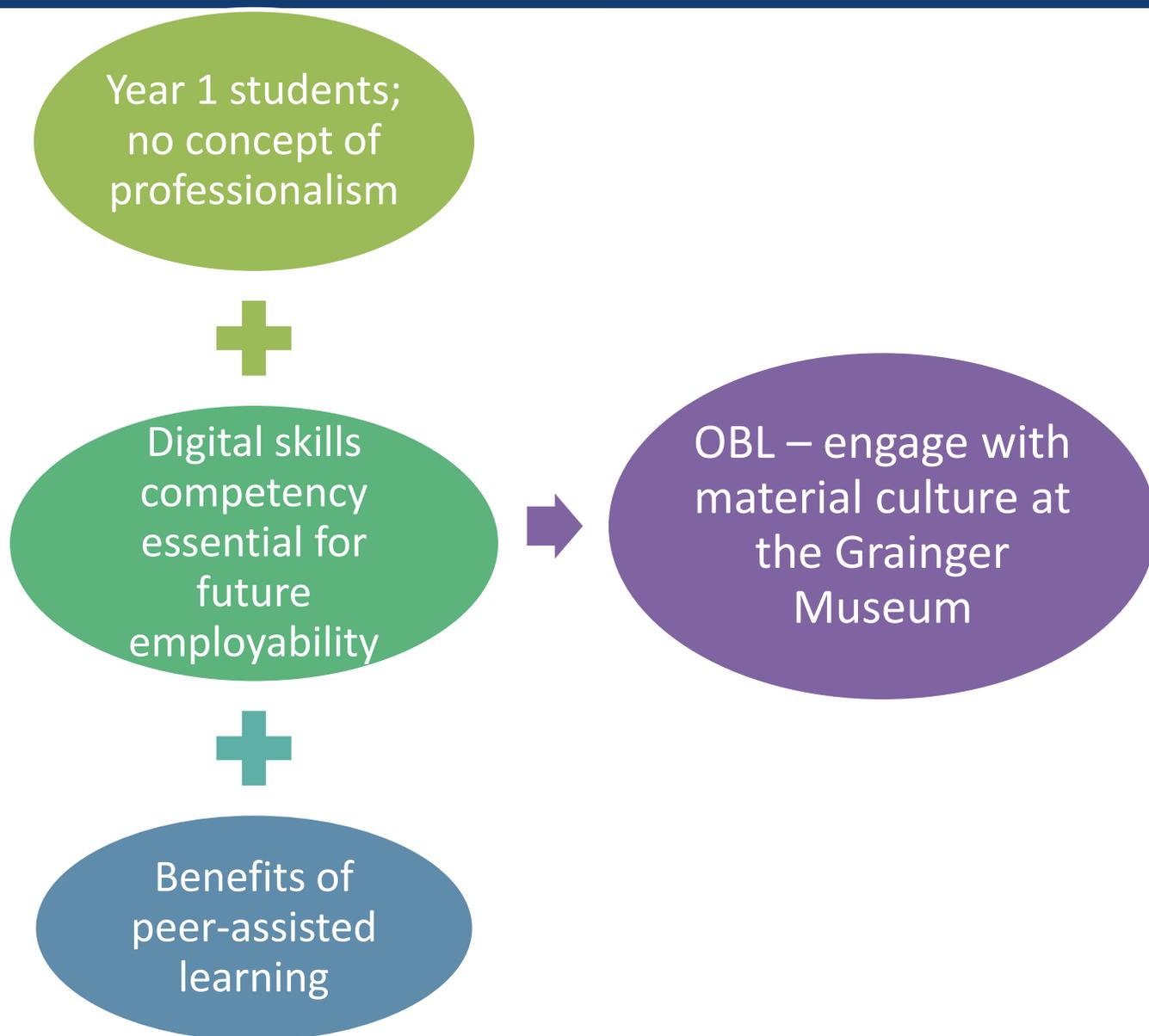
‘Observation demands ongoing processing. “Seeing rightly” thus best describes a self-corrective process which, to draw on the language of mindfulness, welcomes everything and shuns nothing. In weighing multiple perspectives, observation becomes a reflective practice, introducing the possibility of choosing a witnessing platform that is consonant with the viewer’s values and his or her idea of professional identity.’

C. Wellbery and R. McAteer, *‘The art of observation: a pedagogical framework’*, *Academic Medicine*, Dec 2015, Vol. 90 Issue 12, p1624-1630



Tertiary academic programs in museums:
What cognitive and meta-cognitive processes occur?





Week 1 *Introductory lecture* (Why we are doing this, where's the evidence, what's the benefits – get them on board). Also release group allocations and assessment criteria

Week 2-6 *Participation in the activity* (Verbal check-ins with them and email reminders to offer support and assistance in Week 3 and 5; not time consuming)

Week 7-9 *Timetabling for presentations* 3hrX3 sessions(9hrs);10 grps of 6 students / 15grps of 4 students (60)

Week 10-11 *Assessment* marking of oral presentations and reflection essays (max. 500 words)



Visit and Explore the Museum. This is a social history museum, with a focus on music, and the story of one man's life – Percy Grainger. It is one of the few 'autobiographical' museums in the world



Choose an object/artwork/artefact that speak to your group about one or more of the following topics: *Global public health; professionalism; health ethics; allied health*

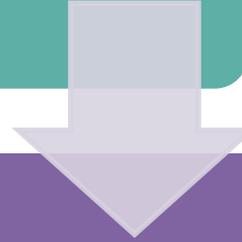
Discuss the ideas that emerge as you explore this artefact/artwork. Take into account the different perspectives that emerge in your group about both the artefact and the topic/s under discussion



Film yourselves and your object/artwork/artefact in the Museum. The group film should run for about 5 minutes. It should have a logical narrative sequence. This aspect focuses on your digital literacy skills – the film should be an effective communication of the group visit, the choice that was made, and what the topics were that were discussed



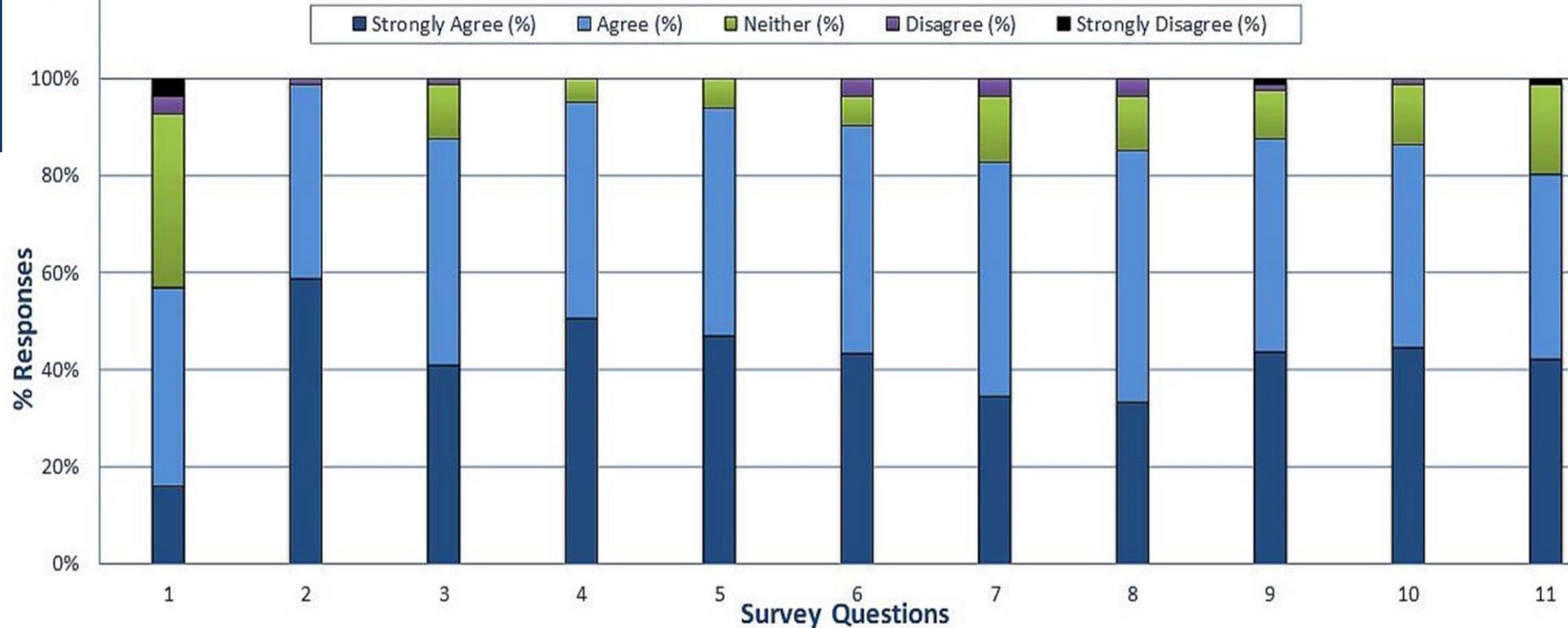
In your video, you must discuss the key questions:
Why did your group choose this object/artefact in the museum?
What does the object/artwork say about the topic/s you've chosen to focus on? (E.g. allied health, professionalism, etc)



Presentations to showcase their videos and reflect on what the process brought out in terms of: *group dynamics; leadership; respecting other people's opinions; group communication; effective teamwork, collaboration; creativity; lateral thinking; 'thinking outside the box'*



1. The lecture and online resources prepared me for this group work
2. This group work has increased my understanding and awareness in professionalism and public health ethics
3. This group work has increased my understanding and awareness in digital literacy
4. This group work has helped me identify my strengths and weaknesses in communication and inter-personal skills
5. This group work has helped me identify my strengths and weaknesses in digital literacy skills
6. My communication and inter-personal skills will improve after this group work
7. My digital literacy skills will improve after this group work
8. I find this group work to be more beneficial compared to previous experiences
9. I find this group work to be more enjoyable compared to previous experiences
10. Group work activities involving digital literacy should be incorporated into the Doctor of Optometry program
11. Group work activities involving museums and material culture should be incorporated into the Doctor of Optometry program



- Students were surveyed regarding their learning experiences. Response rate was 100% (n = 81)
- The median value was 3 for Question 1, and 4 for all other questions. This suggests students perceive the learning experience to be highly valuable and beneficial
- High internal consistency and reliability of the responses was indicated by a Cronbach's alpha of 0.84
- This activity increased students' understanding and awareness in digital literacy, professionalism and health ethics, and effective group work
- It has helped in identifying strengths and weaknesses in communication and inter-personal skills. 85% of the students recommended incorporating activities involving digital literacy and museums into the program in future



“The format of the case study and the exploration of material culture in the museum felt like a worthwhile experience. I can honestly say it was a lot of fun to think of creative ways to create the ‘digital content’ of this task.”

"It is something you would not expect from Preclin, and it was something interesting to break up the normal nature of the course. Exploring the museum was engaging.”

"The ideas we explored such as stigma in health care still exist today and it was a good exercise to draw the parallels between Percy Grainger’s experiences and those today.”

"I feel this project added to a more well-rounded view of healthcare through the exploration of the various exhibits. It allowed for appreciation of art and culture that that science-based students such as myself may not have experienced.”

Students’ Reflection Essays, excerpt, 2017





Student Perceptions

- ❖ Encouraged lateral thinking; out of comfort zones
- ❖ Initial hesitance, skeptical, uncertainty
- ❖ Overall enjoyable, wonderful, enlightening, positive

Groupwork

- ❖ Fun, unique, creative and challenging
- ❖ Respect each other's opinion, and to consider different perspectives
- ❖ Develop effective communication and teamwork skills

Ethics and Professionalism

- ❖ Enhanced understanding about professionalism and ethical attitudes
- ❖ Removal of stigma/biases and cultural sensitivity
- ❖ Inter-disciplinary collaborative care

Digital Literacy

- ❖ Developing skills using technology
- ❖ Filming the video was the best part of the assignment
- ❖ Making use of social media to raise awareness in Optometry





- This research focuses on strategies for optometric teaching and learning in health ethics. It investigates object-based learning through pedagogical encounters with cultural artefacts
- We managed to overcome the initial challenges, convincing stereo-typical science students to think laterally and outside the box, and to step out of their comfort zone
- Increased awareness and understanding in digital literacy, professionalism, and health ethics was achieved
- Groupwork activities that are creative and unique can engage students in a meaningful way
- This pilot study led to a successful Melbourne Engagement Grant in 2018. Currently looking at:

Multidisciplinary learning and engagement for post-graduate students in clinical and non-clinical disciplines (Optometry, Media and Arts Management/Curatorship). Focused on the physical environment and object-based learning opportunities of the Grainger Museum, students will experience object-based activities in group contexts, designed to promote personal and professional learning and reflection in the areas of ethical dilemmas, teamwork, communication and collaboration across different disciplines and perspectives. Opportunities and challenges of working in this area with different cohorts of students ranging across a variety of experience, professional expertise, and cultural backgrounds will be explored