IMPLEMENTING STRATEGIES TO ENGAGE STUDENTS ACROSS DISCIPLINES AS PARTNERS TO SUPPORT 3D OBJECT BASED LEARNING

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BACKGROUND

Engaging students in the generation of digital 3D learning objects offers an interesting 'students-as-partners' opportunity (Healey et al., 2014). Both sides of the partnership arguably have similar levels of digital literacy, which makes for an equitable collaboration (Dimon et al., 2019). Co-creating 3D objects allows students to develop digital skills and fluency e.g. skills in scanning, photogrammetry, metatagging and curation of digital and actual objects. Offering core learning objects via platforms such as the Pedestal3D (2019), e.g. https://sydney.pedestal3d.com/, allows multiple students to have simultaneous, close, unsupervised access to virtual objects at any time. To date our work has sat across Faculty of Arts and Social Sciences and the Faculty of Science, focusing on objects in museum collections.

ARGUMENT

Across STEAM we aspire to develop strategies that improve students' digital fluencies and at the same time as accommodate different disciplinary perspectives. We advocate that students and staff work together to create a transdisciplinary educational virtual object repository to house existing educational collections of archaeological artefacts, botanical, zoological and geological specimens. Projects like this, where the selection of key pedagogic objects for scanning is discussed with students, supports active learning and reveals the hidden curriculum (Bergenhengouwe, 1987). The 'value add' is that this approach ensures digital objects and associated metadata can be accessed online so many of the issues of increasing class sizes and stretched resources are alleviated.

CONCLUSIONS

Small scale implementation by early adopters to co-create 3D objects is relatively simple. Support at the institutional level is less straightforward and this support is critical in order to implement sustainable strategies. What support can be reasonably expected from our institutions to support innovations that open up collaborative spaces and that foster technology-based transdisciplinary student partnerships?

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