ASSESSMENT THAT NURTURES CULTURAL COMPETENCE AND REFLECTIVE PRACTICE

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Participation in an international study tour provides a unique experiential learning opportunity in the academic journey of the STEM graduate. Study tours are also one way to provide students with an opportunity to meet the QILT Student Experience Survey indicators for Learner Engagement of interaction with diverse students and creation of a sense of belonging within the university community (QILT, n.d.) through international connections that build life-long memories. On a study tour, students find themselves immersed in challenging environments outside the four-walls of a classroom where a mix of cultural and discipline learning activities, field trips and site visits provide the opportunity for authentic assessment.

The first stage in the design of authentic assessment includes consideration of graduate attributes, learning outcomes and professional requirements (Villarroel et al, 2020). The unique nature of international study tour activities and assessments mean they can be specifically targeted to the attainment of Science Threshold Learning Outcomes (ACDS, 2024) such as understanding the interaction between science and society, development of the cultural competence needed to work with Indigenous and other diverse communities, the importance of communication skills and the promotion of science literacy, and the development of collaborative and reflective learners who exhibit professional conduct.

The planning of authentic assessments for an international study tour is also challenging. It requires the careful design of predeparture assessments for learning that not only prepare the students for the STEM discipline specific knowledge of their destination country, but also for knowledge of the cultural, historical, social, political and economic features that are necessary for building empathy. Presentations of group projects are a common assessment completed in-country during a study tour that can be designed to develop teamwork and employability skills (Hains-Wesson & Ji, 2020), and can also be designed to develop the ability in students to communicate complex concepts to a diverse community. A final reflection assessment can consolidate the learning of the study tour, both in terms of the STEM discipline, the personal learning journey and the ability of the future graduate to work in a diverse cultural environment.

In this presentation, we will showcase the assessments we use in a STEM international experiences unit for undergraduate students that can lead to transformative learning, by focusing on learning outcomes that foster attributes of a globally engaged, culturally competent graduate. We will also discuss how these ideas can be adapted to assessments that build cultural competency and reflective practice in a "global learning at home" context.

REFERENCES

Australian Council of Deans of Science. (2024). Science TLOs. https://www.acds.edu.au/teaching-learning/science-threshold-learning-outcomes-tlos/science-tlos/

Hains-Wesson, R., & Ji, K. (2020). Students' perceptions of an interdisciplinary global study tour: uncovering inexplicit employability skills. *Higher Education Research & Development*, 39(4), 657-671.

QILT. (n.d.) Student Experience Survey. https://qilt.edu.au/surveys/student-experience-survey-(ses)

Villarroel, V., Boud, D., Bloxham, S., Bruna, D., & Bruna, C. (2020). Using principles of authentic assessment to redesign written examinations and tests. *Innovations in Education and Teaching International*, 57(1), 38-49.

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