

BUILDING A NOVEL ONLINE CONNECTED CURRICULUM FOR ENVIRONMENTAL SCIENCE

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KEYWORDS: innovation pedagogy, workplace integrated learning, peer collaboration

PROBLEM

Environmental Science integrates with a wider multidisciplinary community including social norms and cultural practices. This requires that the pedagogical methods enable the application of theory to practice, and emulate both research and employment activities. Within a curriculum framework, this provides challenges to provide authentic opportunities across many disciplines, while addressing course review, recommendations especially for a growing online cohort who have requested more industry exposure, and collaborative skills development.

PLAN

The overall approach within the B. Environmental Science, at a regional university, was revised based upon Innovation Pedagogy for Applied Science (Konst & Mertanen, 2020) together with the Connected Curriculum approach of Fung (2017). Together, these models aim to develop applied proficiencies in graduates, by developing student networks with peers and practitioners and connecting academic and workplace learning. A strategic aspect of the degree framework since 2022, the unit provides a core single linear module (aka 'Spine Unit'), extending from the first to last year of the degree, connecting pedagogical activity beyond traditional course structures. This program aims to build a community of peers, develop reflective learning practice, and embeds industry engagement, enabling students to become adaptable graduates.

ACTION

We have completed a 3-year cycle of the online focused program, 'Environment in Practice', with adaptive changes in structure and content directed from ongoing student feedback. We present the progressive program tenet and themes, and provide voluntary survey responses from students who have completed the 2nd and 3rd year of study, including an integrated (20h) work placement.

REFLECTION

The course coordinator is humbled by the opportunity for exclusive interactions with students regarding their study aims and life circumstances. Understanding that many students have a foot in the environment industry, or have chosen a major career shift, targeted ongoing changes. Despite only moderate synchronous engagement, most students voiced benefits of online opportunities for discussions with peers, and comparing perspectives of guest researchers and industry employers. With the exception of a couple of students who were already established in the industry, many welcomed the workplace opportunity, and how the program supported the broader degree.

REFERENCES

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Proceedings of the Australian Conference on Science and Mathematics Education, The University of Canberra, 18 – 20 September 2024, page 17, ISSN 2653-0481.