**UNE L&T Symposium 2025 – Presentation Synopsis**

**1. Title of Presentation:**

**Building A Novel Online Reflective and Connected Curriculum for Environmental Science.**

**2. Presenter(s) Name(s) and Affiliation(s):**

Adrienne Burns a and Manu E. Saunders b

a Department of Botany, School of Environmental & Rural Science, UNE; b Department of Ecosystem Management, School of Environmental & Rural Science, UNE

**3. Main Takeaways:**

***Takeaway 1:*** The **Environment in Practice (EiP) program** bridges academic learning with industry engagement in a regional university’s environmental science degree. Using Innovation Pedagogy and the Connected Curriculum, it integrates work-integrated learning, reflective pedagogy, and flexible structures to enhance career readiness for diverse, online-focused students.

***Takeaway 2:*** EiP serves as a **model for interdisciplinary, applied education**, embedding industry connections and inquiry-driven learning. By integrating authentic experiences and maintaining academic rigor, it equips students with critical thinking, adaptability, and professional competencies essential for addressing complex environmental challenges in their careers.

**4. Application in Educational Contexts:**

***Teaching Methods***

The EiP examines how **inquiry-based learning** and **authentic assessment** foster self-formation and work readiness in Environmental Science education. Integrating reflective, professionally oriented experiences supports lifelong learning, self-awareness, and industry preparedness, equipping students for individual growth and global societal contribution.

The Environment in Practice (EiP) program integrates theory and practice through work-integrated learning, reflective pedagogy, and student-centred approaches. It fosters adaptability with Recognition of Prior Learning (RPL) mechanisms and differentiated reflection tasks while ensuring engagement, social connection, and equitable access in blended and online learning environments.

**Assessment:**

**A learning portfolio** served as an evidence-based assessment tool, integrating reflection and skill development to enhance student outcomes. Unlike conventional assessments, it encouraged students to engage critically, articulate learning narratives, and showcase skill

The portfolio fostered metacognitive awareness, enabling students to assess their learning, identify gaps, and refine strategies. Through **iterative reflection and goal-setting**, it promoted autonomy, adaptability, and a growth-oriented mindset, supporting longitudinal skill development from first to third year.

**Student Engagement:**

**Understanding Student Backgrounds to Inform Engagement:** Recognising students’ diverse backgrounds informed ongoing EiP curriculum refinements. While many valued industry connections, those new to environmental science studies found the workplace experience crucial, whereas established professionals saw less benefit.

**Enhancing Engagement for Online Learners:** With 95% of students studying remotely, engagement strategies like synchronous meetings, peer discussions, and flexible resources aimed to reduce isolation. While some thrived, others struggled with self-paced learning. Providing alternative engagement methods, recorded sessions, and structured support remains essential for equitable learning experiences.

**Curriculum Development:**

By continuously refining curriculum structures to support engagement, inclusivity, and career readiness, the EIP model serves as an exemplar for interdisciplinary, applied education, ensuring students are equipped with the critical thinking, adaptability, and professional competencies necessary for success in environmental science careers.

**5. Valuable Sources and References:**

*Fung, D. (2017).* A connected curriculum for higher education. *UCL Press*

**The Connected Curriculum framework** promotes research-based learning and interdisciplinary connections, ensuring students engage with real-world challenges and develop transferable skills. This model emphasises inquiry, reflection, and partnerships with industry and community stakeholders for holistic, lifelong learning.

*Konst, T., & Kairisto-Mertanen, L. (2020). Developing innovation pedagogy approach.* On the Horizon, 28*(1), 45-54.*

**Innovation Pedagogy** complements the Connected Curriculum by linking academic knowledge with hands-on projects, prioritising flexible, student-centred environments. It fosters critical thinking, adaptability, and innovation, helping students develop problem-solving skills that prepare them for career success and global sustainability challenges.

**6. Weakness and Area for Future Research:**

**Enhancing Student Engagement and Sector Connections:** Future EiP programs should offer career-focused support with tiered activities to suit diverse student backgrounds. Expanding RPL will provide alternative assessments for those already in environmental roles. Increased sector engagement through diverse guest speakers will strengthen industry connections.

**Future improvements in program evaluation:** A key limitation in the evaluation process was low voluntary survey engagement and variable enrolment, leading to potential self-selection bias. Future EiP programs should incorporate structured, ongoing feedback mechanisms, such as quick surveys, focus groups, and peer-led channels for more representative insights.