EMBEDDING INDIGENOUS AUSTRALIAN HISTORIES AND CULTURES IN SCIENCE CURRICULA IN HIGHER EDUCATION

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Inclusion of Indigenous histories and cultures is becoming a priority both internationally and nationally. Universities Australia Indigenous Strategy 2022-2025 key focus areas include supporting more Aboriginal and Torres Strait Islander students to complete degrees, taking action on racism, and embedding Indigenous value systems and knowledges in teaching and research (Universities Australia, 2022). The Universities Accord also focuses on increasing Indigenous Australian student participation in higher education (Education Department, 2024). Aligned with these aims and with a grant from the Australian Council of Deans of Science (ACDS), our team of Indigenous and non-Indigenous educators is developing a framework for embedding Indigenous Australian histories and cultures in science curricula in higher education. The framework's purpose is to support and inform university teaching and learning staff to create holistic science curricula, develop staff and student scientific literacy to create 21st-century scientists, and develop cross-culturally capable staff and graduates. The framework is an Indigenous led project, a collaborative process to champion Indigenous voices as part of coming to know what is needed. The central principle of the framework is considering the intersection of Western modern science and Indigenous science, and

- For us the framework's ultimate goal is to make Indigenous Australian people more visible and relevant within contemporary curricula. Doing so aims to instill a sense of pride in their culture and pave the way for Indigenous Australian people to join STEM professions. This long-term vision is a beacon of hope and inspiration for all of us.
- About us everyone learns about Indigenous Australian peoples.
- With us this framework is designed for everyone to learn cross-culturally, fostering a sense of belonging and involvement. It encourages learning from local Communities, towards recognition and reconciliation. It also serves as a pipeline for future scientists to build their cultural acumen, ensuring that no one is left behind in this journey of inclusivity. (Sambono, 2021).

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REFERENCES

Department of Education (2024). Australian Universities Accord Final Report. https://www.education.gov.au/australian-universities-accord/resources/final-report

Sambono, J. (2021). "The Aboriginal and Torres Strait Islander Histories and Cultures Cross-curriculum Priority: Cultural responsiveness in science education". SASTA Journal, 1. https://indd.adobe.com/view/78697e1f-b411-4d6a-9b2e-8666dbd16500

Universities Australia (2024) Universities Australia's Indigenous Strategy 2022-2025, U. A. 2022 https://universitiesaustralia.edu.au/policy-submissions/diversity-equity/universitiesaustralias-indigenous-strategy-2022-2025/

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