**Title (working title)**Sharing better practices aimed at increasing ATSI student participation in, and completion of, science courses at Australian universities [Pilot/exploratory study]

**Project Aim**A pilot study to undertake inquiry into the initiatives operating within the Australian universities who are members of the Australian Council of Deans of Science in respect to engaging Indigenous people in science tertiary education. Particular attention is given to identifying what initiatives are executed to recruit and enrol Indigenous people within science courses, support Indigenous students throughout their studies (in terms of tuition, mental health, and finances), and reward or further support students at and/or following graduation (prizes, postgraduate scholarship, work placement opportunities

**Research Questions**This research is undertaken to investigate the following questions:

1. What initiatives are presently undertaken across member universities of the Australian Council of Deans of Science to recruit, enrol, support and graduate Aboriginal and Torres Strait Islander Australians within science courses (at all levels)?

2. What are the views as to the efficiency of these initiatives amongst representatives of member universities of the Australian Council of Deans of Science?

**Research Significance and Context**It has been well established that Australian Aboriginal and Torres Strait Islander Australians (hereinafter ‘Indigenous Australians’) are under-represented within tertiary educative institutions as both students (at all levels), academics and professional staff (Smith et al. 2018; Bennett 2015). Australian universities are said to have improved their focus on assisting Indigenous students to access tertiary education, in terms of recruitment and scholarships (Anderson 2016), whilst others call for more to be offered (Bandias, Fuller and Larkin 2014). Kinnane et al. (2014) in their study found that Indigenous Student Support Centres remained as the primary agents of Indigenous engagement and care, rather than faculties and central university administration, which should shoulder more of the responsibility as recommended within the Behrendt Report (2012). Additionally, there is an underdevelopment in the literature as to outreach programs, their management and efficiency (Eilam 2016).

This research is of significance insofar as it aims to produce knowledge to inform the consideration of policy and strategy formation amongst a majority of Australian science faculties in respect to the care of Indigenous Australian students, and by extension, whether further research is required. As mentioned previously, it has been acknowledged that responsibility for engaging Indigenous persons as potential recruits, and by extension the support of Indigenous students, cannot solely be the responsibility of Indigenous Support Centres (Walter 2012). Instead, it is essential for individual faculties and central university administration to be involved in these processes (Anderson 2016; Mallard 2014). To date, no research has specifically examined the role of science faculties in the recruitment and support of Indigenous students. There is a need therefore to evaluate present approaches in order to both audit universities, assessing which universities are taking imitative and hold the others to account.

Another significant component of this research is to provide insight into what participants believe are effective initiatives in engaging and caring for Indigenous persons in tertiary science education. This will provide scope for an initial comparative analysis between participant institutions, as well as data from which contrast current initiatives with literature-recommended best practice. To date, little research has examined perceived efficiency of Indigenous support programs amongst university administrators, and accordingly is important to provide empirical research in this space and thus contribute to institutional reform (Plater 2013).

**Methodology and Method**This project shall utilise a mixed methodology to acquire enrolment and graduation numerical data of Indigenous students enrolled at the science faculties/institutes/departments who are members of the Australian Council of Deans of Science (quantitative), an understanding of the initiatives in respect to the recruitment and support of Indigenous students at these institutions, and perspectives as to these initiatives’ efficiency/effectiveness (qualitative).

Surveys involve the sending of a structured questionnaire to a designated (usually rather large) sample as a means of acquiring numerical data to formulate commentary and analysis of trends within that sample (Creswell 2014: 155). Within the social sciences, the method is widely used given its ability to literally ‘survey’ a significant number of persons on a range of topics in a time-efficient manner (for both researcher and participant), and in order to produce data and results that may be generalisable to larger populations (Walter 2014: 122-123). Though traditionally surveys were undertaken by mail on paper, more recently the research has extended to the mediums of telephone and on-line (Babbie 2017). Frequently, for example, surveys are used in order to provide comment on trends in health and disease across a state or Australia as a country (i.e. smoking, diabetes) or in areas of politics (polling on candidate and/or party preferences).

Surveys have been successfully used within the area of the study of university student enrolment, satisfaction and retention, and on Indigenous students more broadly (Shah and Widin 2010; Department of Education and Training 2018a; Kinnane et al. 2014; Oliver, Rochecouste and Dann 2015). This precedent affirms the suitability of this method within our proposed project.

**Timeline**23rd August 2015: Research proposal finalised
2nd October 2015: Ethics request submitted, topic finalisation
28th December 2016: Literature review compiled in preparation for confirmation
23rd January 2016: Confirmation
29th February- 5th June 2016: Conduct survey
20th August 2016: Complete transcribing commence data analysis
5th August 2017: First draft completed
25th of December 2017: First print draft completed, review conducted
23rd February 2018: Thesis due

**Outputs and Outcomes**Publications in the form of a report and journal articles.

**References**Anderson, I. (2016). Indigenous Australians and Higher Education: The Contemporary Policy Agenda. In A. Harvey, C. Burnheim & M. Brett (Eds.), Student Equity in Australian Higher Education (pp. 221-239). Singapore: Springer.
Behrendt, L., Larkin, S., Griew, R., & Kelly, P. (2012). Review of higher education access and outcomes for Aboriginal and Torres Strait Islander people.
Walter, M. (2012). Embedding Aboriginal and Torres Strait Islander presence: opening knowledge pathways. Review of higher education access and outcomes for aboriginal and Torres Strait Islander people final report. Canberra: Australian Government.
For full list see <http://www.acds-tlcc.edu.au/wp-content/uploads/sites/14/2020/03/200116_ISSP_Report_Final.pdf>