

History of NISEP

The Indigenous Bioresources Research Group (IBRG) at Macquarie University have had a long interest in the use of bush medicines by Indigenous communities. In the interest of a collaborative partnership with the communities, the IBRG responded to requests that as scientists and educators we assist to motivate their youth and improve school retention rates.

In 2005 the Indigenous Science Education Program (ISEP) was developed with the aim of using science as a method to engage and inspire the youth of these communities and support them into further education.

This program has continued and expanded to include many other activities and involve a growing number of Indigenous students.



Following funding from an Inspiring Australia Grant, the program has recently taken on a national role, expanding to become the National Indigenous Science Education Program (NISEP).

NISEP runs a range of activities that place students in leadership roles, gives students new skills and confidence, promotes the engagement of students with the local Indigenous culture and presents opportunities for ongoing education.

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-NISEP-

National Indigenous Science Education Program



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A national strategy for engagement with the sciences

Overview

The National Indigenous Science Education Program (NISEP) is an innovative, university-based program, run collaboratively by Macquarie University staff, high school staff, Aboriginal communities and a growing number of partner organisations and universities.

The main aim of NISEP is to provide secondary students, especially Indigenous students, with the motivation and skills to complete their high school studies and to open pathways to tertiary education.

The main activities through which NISEP currently achieves this include:

Interactive Science Shows and Expos

Indigenous students are placed in leadership roles as they demonstrate hands-on chemistry, biology and microbiology activities to their peers.

Macquarie University Open Days

Senior students are given the opportunity to attend the University open day and be exposed to further education options available.

Macquarie University Science Experience (MQSE)

Three days of science activities over a range of disciplines held on campus, promoting science and providing information for further study.

Maclean (Yaegl) Cultural Immersion Program

In collaboration with Yaegl community elders and Maclean high school, a series of excursions have been developed integrating local Indigenous knowledge with the school curriculum.

Indigenous Oral History Project

Students are provided with training in video recording and editing to assist in the collection of oral histories of their community.

Inspiring Students & Building Leaders

NISEP addresses the alarming low retention of Indigenous students in secondary education. We work with schools in low socio-economic regions, where it is now well recognised that greater promotion of educational opportunities, including tertiary education, is critical.



Placing students, especially Indigenous students, as 'teachers', allows them to become more engaged in the learning process. With their efforts being publically acknowledged (e.g. via teachers, community and media coverage), this has resulted in these students becoming excellent role models and mentors for younger Indigenous students.

The activities provide students with leadership skills, bolster their self esteem, and develop their literacy and presentation skills.

For many of the students, we have provided their first opportunity to meet university staff and students. This has provided the opportunity to answer questions and address any concerns they may have as well as demystifying university.

Strengthening Communities

The NISEP activities have been very important to the wider community and have been extremely positive on all levels. They have been particularly successful in breaking down barriers between the Indigenous and non-Indigenous communities, while fostering pride in their identity amongst Aboriginal students. This has translated directly to improved academic outcomes.

This has been especially evident in the case of the Maclean (Yaegl) Cultural Immersion Program, which has generated immense pride in the community in their Aboriginal Elders and students.

Through a series of 'on-country' annual excursions aimed at Year 7, students are introduced to the culturally significant sites and resources by local Indigenous community elders. The information and experiences the students gather during these excursions are integrated into the curricula through a range of subjects e.g. science, history, art, and PDHPE.

