

Deadly in Generation STEM Insights 2025

Evaluation report highlights

Deadly in Generation STEM is part of the Generation STEM initiative, funded by the NSW Government and delivered by CSIRO, to attract, support and retain NSW students in STEM and school into further education and employment.

The Deadly in Generation STEM program is currently delivered in two NSW regions: Kamilaroi Country (Moree – Narrabri) and Dharawal Country (Illawarra). The findings here are based on survey and interview data collected during program activities held in 2025. Participants included educators, high school students, Indigenous Knowledge Holders, Indigenous camp leaders, and CSIRO program staff.

Program snapshot



33 students
(Years 8–10)
across 2
STEM camps.



48 educators
participated
in professional
learning.



**Strong focus
on Indigenous
knowledges +
STEM pathways**

Key outcomes

Overall, students reported improvements against all outcomes related to their interest, awareness and confidence in STEM and connection to culture.

Students reported the highest amount of change in their:

- awareness of Indigenous STEM knowledges
- awareness of STEM study options.

Students reported broader awareness in STEM areas such as:

Environmental conservation and engineering (e.g., water management).



Cultural knowledge (boomerangs, dance, plant medicine).



Biology, Chemistry, Astronomy.



Students reported increased interest in cultural engagement and having a future STEM career.

96% of educator participants reported being very or extremely satisfied with the professional learning.



Overall, educators most valued components were:

- linking Indigenous knowledge to curriculum
- cultural competence in teaching
- planning inquiry-based projects.

Educators' largest capability gains:

- teaching with traditional context
- delivering inquiry lessons
- applying inquiry learning methods.



Program design that works



For students

Strong connection to culture and identity.



Learning directly from Elders and Knowledge Holders.



Exposure to real STEM career pathways.



Shared experience with peers and mentors.



For educators

Networking and collaboration across schools.



Practical, hands-on learning.



Time for classroom-ready planning.



Input into program co-design for future impact.



Program improvements in 2025 were implemented through a continuous improvement process



Pre-camp briefings + daily staff debriefs to support communication.



Student-led behaviour sessions resulted in greater engagement.



Better support for camp leaders prior to and during camp.

Continuous improvement lessons in 2025

- Being **flexible and adaptable** and prioritising **clear communication** into the fast paced and dynamic environment of camp. Ensuring **extra planning** was in place to **supporting new camp leaders**.
- **Improve educator resources** to enhance simplicity, **stronger links with Aboriginal Knowledge Holders**, practical implementation guidance and alignment with curriculum updates.

Short term outcomes of the program

Contributes to cultural pride and STEM aspirations in high school students.

Strengthens educator ability to deliver STEM learning in an Indigenous context.

Creates benefit through community connection, skills building, and future education pathways.



In 2025, the Ngaa-bi-nya evaluation framework (Williams, M., 2018) was applied to this program evaluation for the first time. To find out more about how this framework was used and for more detailed findings:

[Read the full 2025 insights report \(PDF\)](#)

Find out more at csiro.au/generationSTEM

Email generationSTEM@csiro.au

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