Growing Tall Poppies Science Partnership Program

Overview

Established 2008  |  Supported by Australian Government AMSPP

www.growingtallpoppies.com

WHO ARE WE?

Growing Tall Poppies Science Partnership Program is a partnership between The University of Melbourne, La Trobe University, Deakin University, Griffith University, University of New South Wales, Australian Synchrotron, ANSTO, Catholic Education Office Melbourne, ARC Centre of Excellence in Advanced Molecular Imaging, ARC Centre of Excellence for Mathematical and Statistical Frontiers, Santa Maria College and Charles La Trobe Secondary College.

We are funded by the Australian Government Mathematics and Science Partnership Program.

GOAL

Growing Tall Poppies' goal is to increase the number of secondary students, especially girls, who study science and especially the physical sciences in Years 11 and 12. This is achieved through partnerships of educational initiatives and outreach programs between secondary schools and science partners.

IMPETUS

Increasing the number of students studying STEM (science technology engineering and mathematics) subjects is imperative to Australia for economic growth and because we aspire to be an innovative, scientifically aware and literate society. Over the last few decades, however there have been falling enrolments in secondary school science and especially of girls in physics. Yet physics is an enabling science that supports technological and biological advancement, economic growth, and it opens many opportunities and a wide range of careers in and beyond the STEM areas. The pool of students needs to be increased at year 12 before flow on effects into STEM areas can be changed.
EDUCATIONAL RESEARCH – the case for change

Research informs us that students, most especially girls, are disconnected with physics at secondary school because it is perceived as lacking importance, relevance and does not lead to meaningful career pathways. In contrast biology and psychology are considered as socially and personally transformative sciences. Research also indicates that girls need to identify with a social group that they aspire to belong and seek careers in. The content driven learning of school physics does not offer the social connectedness that girls need to stay engaged and enrolled.

CENTRAL IDEAS

Growing Tall Poppies creates student connections with physics, and more broadly the physical sciences, by highlighting the enabling and transformative role they play in the areas of biology, medicine and social change. Furthermore, it creates a comprehensive network of interactions between scientists and secondary students to demystify the physical sciences and develop a social awareness of the STEM professions. This contributes to the social continuity that supports students to remain enrolled in physics to year 12.

STRATEGY – address local and global issues relevant to people, individuals and society

The strategy of Growing Tall Poppies is to build and sustain partnerships between secondary schools and scientists to enable students to work with, interact and network with scientists in authentic ways. This promotes student engagement and understanding of the transformative nature and use of physics that lead to socially relevant improvements that happen locally, nationally and globally.

OUTCOMES

By allowing secondary students and teachers to collaborate on meaningful and authentic questions with scientists at universities, science facilities and corporations they come to know the transformative nature and social impact of physics. Students are more likely to study physics to year 12, which is a significant contribution to increasing the pool of students who can feed into the STEM areas in Australia.

EFFICACY – does it work?

Through highlighting the transformative nature of physics, and its attribute of expanding career opportunities, more girls stay enrolled to year 12 physics.

CONTACT

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