

GRADUATE WOMEN VICTORIA

Serving and empowering women through education and advocacy



The Hon James Merlino
Minister for Education
Parliament House
Level 3, 1 Treasury Place
East Melbourne, VIC 3002

Dear Mr Merlino

Re: Need for an inclusive cross-disciplinary education curriculum (STEAM)

Graduate Women Victoria (GWV) is a non-government organisation of women graduates whose mission is to further the access of all girls and women to affordable quality lifelong education. To this end, we strongly support adequate funding of public education.

At its 2017 Annual General Meeting, members endorsed the following Policy Resolution: *“That GWV take a stand for the future of girls and women in their individual careers and for the advancement of their communities by supporting and advocating for the idea of a cross-disciplinary educational curriculum currently expressed in the emerging acronym STEAM, an inclusive concept that rejects the idea of a “cultural divide” and recognises that knowledge of the humanities and the arts is integral to learning about science, technology, engineering and mathematics - and vice versa.”*

The Statement in Support read:

GWV members currently support Australian Federation of Graduate Women and Graduate Women International policies for increasing the participation of girls and women in education in Science, Technology, Engineering and Mathematics – STEM. There are good reasons for this. They include resistance to the gender stereotyping which claimed the female brain incapable of dealing with the “hard” subjects such as mathematics, physics, chemistry and which still segregates careers as masculine and feminine. With the masculine employment areas generating higher incomes, the effects on women’s financial wellbeing are longstanding. Advocating for and achieving a re-balancing of individual choices of disciplinary areas is understandable, if perhaps easier than advocating for a system wide re-valuing of the gendered knowledge and careers structures. So this motion is not calling for abandonment of the policy to get more women into studying in the STEM area. What it is arguing for is a policy against too narrow a concept of STEM and the incorporation of that narrowness into the educational curriculum.

There is a growing awareness the need for cross-disciplinary thinking, based on the realisation that the humanities and the arts have a role to play in the fullest knowledge of the STEM disciplines, just as the latter have a role to play in the fullest understanding of the humanities and the arts.

Connecting the spheres is more important than dividing them, and the acronym STEAM, which adds in the arts, has been adopted as a quick reference to that connection.

GRADUATE WOMEN VICTORIA (formerly AFUW Vic)

ABN: 65 475 228 451 Registered Incorporated Association: A0030910N

<http://gradwomenvic.org.au/>

Examples of such connectivity in educational programs are already appearing at universities across the world –in Australia, the University of Adelaide has established a new undergraduate Liberal Arts and Science degree; the University of Western Australia has a cross-disciplinary Institute of Advanced Studies; Monash University partners with Warwick University in a program fostering creative writing in the sciences.

Some schools are also moving to the sort of cross-disciplinary curriculum embodied in STEAM -- in Victoria, Lauriston is an example: “What we’re trying to do is look at how Science, Technology, Engineering, Maths, the Arts, can blend together across disciplines.”

This movement needs to be encouraged by all who care about education. , and specifically education for girls and women.

Education sites and responsible social media sites show a growing worldwide interest in this idea – see recent articles such as:

‘Why is a STEAM curriculum perspective crucial to the 21st century?’

https://research.acer.edu.au/cgi/viewcontent.cgi?article=1299&context=research_conference

STEM vs. STEAM: How the Sciences and Arts are coming together to Drive Innovation

<http://www.independent.co.uk/student/student-life/Studies/stem-vs-steam-how-the-sciences-and-arts-are-coming-together-to-drive-innovation-a7047936.html>

‘STEAM not STEM: Why scientists need arts training’ <https://theconversation.com/steam-not-stem-why-scientists-need-arts-training-89788>

‘From STEM to STEAM: Science and the Arts go hand-in-hand’

<https://blogs.scientificamerican.com/guest-blog/from-stem-to-steam-science-and-the-arts-go-hand-in-hand/>

‘Why STEM practices should be taught across the entire Curriculum’

<https://www.socialventures.com.au/sva-quarterly/why-stem-practices-should-be-taught-across-the-entire-curriculum/>

As Minister for Education we hope that you will use your influence to see that the curriculum taught in Victorian schools will be shaped by such contemporary thinking on the nature of knowledge,

Yours Sincerely



Dr Kerry Ferguson

President

Graduate Women Victoria