

New PISA analysis shows girls' school students outscore co-ed girls

Issue 18/2020: November 3, 2020

A new report analysing Australian and New Zealand PISA data from 2015 and 2018 reveals that girls attending single-sex schools outperformed girls from co-educational schools on academic measures of science, mathematics and reading. Students from girls' schools also reported higher academic aspirations, more adaptive and flexible teachers, stronger feelings of school belonging, and a significantly lower prevalence of bullying.

Commissioned by the Alliance of Girls' Schools Australasia and conducted by Macquarie Marketing Group (MMG), the analysis includes a total of 314 individual measures comparing the responses and test results of girls from single-sex and co-educational schools. Of these, girls from single-sex schools reported a positive difference on 227 — or 72% — of PISA measures.

The OECD's Programme for International Student Assessment (PISA), held every three years, goes beyond assessing whether 15-year-old students can reproduce what they have learned in school to examine their ability to extrapolate across subject areas, apply their knowledge creatively, and demonstrate effective learning strategies. PISA also looks at teaching quality, academic support provided to students, and aspects of wellbeing and pastoral care.

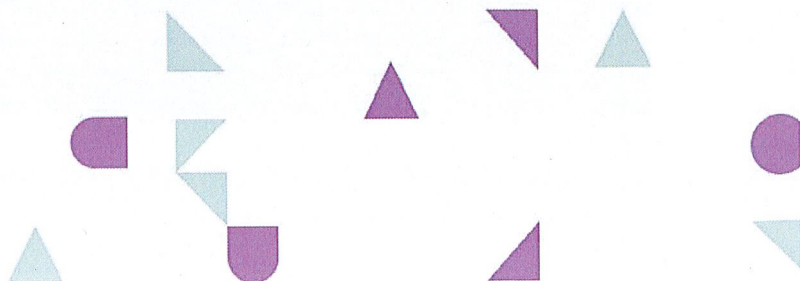
In both 2015 and 2018, students from girls' schools excelled on PISA's three measures of academic performance in science, mathematics and reading, even after accounting for socioeconomic status. Compared to co-educated girls from the top 25% of socioeconomic backgrounds, single-sex girls from the top 25% of socioeconomic backgrounds:

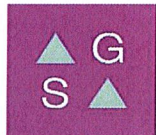
- scored up to 10 percentage points higher on academic tests of science, mathematics and reading,
- scored 10 percentage points higher on measures of scientific enquiry, interpreting scientific evidence, procedural and epistemic science knowledge, physical science and life science, and
- scored up to 7 percentage points higher on literacy measures of reading evaluation and reflection, locating information, and understanding information.

The MMG analysis of PISA data from Australia and New Zealand also found that students from girls' school scored higher on measures of academic engagement, teacher effectiveness, involvement in science, and enthusiasm for science. In addition, single-sex educated girls are considerably more likely to aspire to a university education, with 69% intending to complete a university-level degree or doctorate compared with 51% of co-educated girls.

Girls at single-sex schools are more likely to report committed and passionate teachers who use adaptive and flexible instruction strategies in classrooms. They also report less disruptive behaviour in class and an environment that is more conducive to fulfilling their learning goals. Compared with girls in co-educational schools, students at girls' schools are more likely to:

- receive encouragement from teachers to express their opinions (69% vs 64%),
- receive help from teachers to assist them with their learning (60% vs 52%),
- benefit from teachers adapting lessons to meet student needs (59% vs 48%),
- never or almost never experience an English classroom in which they cannot work well (42% vs 31%), and
- never or almost never experience a science classroom in which they cannot work well (41% vs 29%).





In addition, girls at single-sex schools enjoy school more than girls from co-educational schools. They experience less bullying, make friends more easily, and feel a stronger sense of connection to school. Compared with their co-educated counterparts, girls from single-sex schools:

- never or almost never experience bullying (79% vs 71%),
- make friends and feel they belong at school (74% vs 70%), and
- never or hardly ever arrive late to school or engage in truancy (74% vs 66%).

Overall, MMG noted that “across all forms of bullying, more single-sex female students reported never experiencing bullying behaviour” in Australia and New Zealand. This includes girls from single-sex schools being more likely than co-educated girls to report:

- never or hardly ever being hit or pushed by other students (92% vs 85%),
- never or hardly ever having belongings taken or destroyed by other students (90% vs 83%),
- never or hardly ever being threatened by other students (89% vs 78%), and
- never or hardly ever having nasty rumours spread about them (73% vs 62%).

MMG's analysis of 2015 and 2018 PISA data reveals that girls' schools have a discernible edge over co-educational schools and are better placed to prepare girls for success at school and in later life. Girls' schools not only produce strong academic results, including in vital STEM fields, but they also create learning environments and experiences that shape girls' self-concept and self-confidence, helping them to make lifelong friends, forge strong support networks, challenge gender stereotypes, and believe in themselves and their future plans.

References

Macquarie Marketing Group (MMG) and the Alliance of Girls' Schools Australasia. (2020). *The girls' school edge: A comparison of outcomes for girls from single-sex and co-educational schools using PISA data*. Published by the Alliance of Girls' Schools Australasia.

Schleicher, A. (2019). *PISA 2018: Insights and interpretations*. Paris, OECD Publishing. Retrieved from: <https://www.oecd.org/pisa/PISA%202018%20Insights%20and%20Interpretations%20FINAL%20PDF.pdf>

AN INTRODUCTION TO GIRLS' SCHOOLS



Online on-demand course

The first program of its kind designed specifically for educators in Australian and New Zealand girls' schools