The ABC of Gender Equality in Education: Aptitude, Behaviour, Confidence

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Educational attainment

Measured in the most common metric - years of schooling - the industrialised world essentially closed the educational gender gap in the 1960s.

And about half of the economic growth in OECD countries over the past 50 years has been due to increased educational attainment, mainly among women.
Years of schooling over the 20th century

OECD average

About half of the economic growth in OECD countries over the past 50 years has been due to increased educational attainment, and mainly among women.

Gender difference in performance (15-year-olds)

- Boys perform better in Mathematics compared to girls.
- Girls perform better in Reading and Science compared to boys.

Score point difference (boys-girls):

- OECD average: Boys perform better in Mathematics, girls perform better in Reading and Science.
- United States: Boys perform better in Reading and Mathematics, girls perform better in Science.
Even though boys and girls show similar average performance in science, boys are more likely to be top and bottom performers.

Source: Figure 1.6
Despite major progress in closing gender gaps, we need to find new ways to address the social and emotional aspects of opening children's minds to their abilities and future careers.
Boys are more confident in their abilities in science than girls (OECD average)

Source: Figure 3.8
If the **highest-achieving** boys and girls were equally confident about their ability in science, the gender gap in performance would narrow -- or even invert.

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**Boys perform better in science than girls**

**Girls perform better in science than boys**

Source: Figure 3.11
Girls are more **anxious** towards mathematics than boys (OECD average)

- I often worry that it will be difficult for me in mathematics classes.
- I get very tense when I have to do mathematics homework.
- I get very nervous doing mathematics problems.
- I feel helpless when doing a mathematics problem.
- I worry that I will get poor marks in mathematics.

Girls are more anxious towards mathematics than boys (OECD average)

Source: Figure 3.10
Career choices seem to reflect attitude and confidence more than performance

This is significant not only because women are severely under-represented in the science, technology, engineering and mathematics (STEM) fields of study and occupations, but also because graduates of these fields are in high demand in the labour market and because jobs in these fields are among the most highly paid.
Far more boys than girls expect to have a career in engineering or computing

Source: Figure 4.11
Far more girls than boys expect to have a career in health services

Source: Figure 4.12
What's needed is neither extensive nor expensive reform but a concerted effort by parents, teachers and employers

What parents can do
Parents are more likely to expect their sons, rather than their daughters, to enter a STEM career – even when boys and girls perform equally well in school.

Percentage of students whose parents expect that they will work in STEM occupations

STEM stands for science, technology, engineering and mathematics.

Source: Figure 5.1
Girls spend more than an hour more per week than boys doing homework, on average.
Time spent doing homework has an impact on performance (OECD countries)

Source: Figure 2.13
Boys tend to have more negative attitudes towards school (OECD countries)

Percentage of student who agree that school has been a waste of time

Source: Figure 2.14
Boys spend more time on the Internet than girls

Source: Figure 2.3
Boys spend far more time than girls playing video games on a computer after school (OECD countries)

Source: Figure 2.4
Playing one-player video games can help develop some skills (OECD countries)

Playing one-player games can help develop some skills:
- Mathematics (paper-based)
- Reading (paper-based)
- Science (paper-based)
- Problem solving (digital)
- Mathematics (digital)

Playing collaborative online games can help develop some skills:
- Mathematics (digital)
- Reading (digital)

Score-point difference:
- Higher performance
- Lower performance

Source: Figure 2.6
What's needed is neither extensive nor expensive reform but a concerted effort by parents, teachers and employers.

What teachers can do
Boys and girls read different materials when they read for enjoyment (OECD average)

Source: Figure 2.10
Students – particularly girls – do better in mathematics when teachers ask them to solve more problems independently.
Teachers tend to give girls better marks – despite students’ performance in PISA

Source: Figure 2.16
What's needed is neither extensive nor expensive reform but a concerted effort by parents, teachers and employers.

What employers can do
Large proportions of both boys and girls have not learned how to prepare themselves for a job interview (OECD average).

Do boys and girls know how to prepare themselves for a job interview?

- Yes, at school
- Yes, outside of school
- No

Source: Figure 4.4
Boys are more likely than girls to get “hands-on” experience in the working world (OECD countries)

1. Institutions providing further education are ISCED 3-5 in the PISA 2012 questionnaire.

Source: Figure 4.2
The gender gap in literacy narrows considerably by the time people are young adults (16-29 year-olds)

Source: Figure 4.15, PIAAC database.
Men are more likely than women to read and write at work

Mean index difference (Men-Women)

Reading at work (index)

Writing at work (index)

Source: Figure 4.19, PIAAC database.
Find out more about PISA at www.pisa.oecd.org
  • All national and international publications
  • The complete micro-level database

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and remember:
Without data, you are just another person with an opinion