Boys understand less of what they read than girls

A study of 150,000 children challenges policy makers to tackle poor reading comprehension that may underpin lower academic achievement for boys

by Jack O’Sullivan
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Reading comprehension tests are throwing light on why boys lag behind at school – they don’t understand written text as well as girls.

A study of over 150,000 UK children from 5 to 18 has found that, even when boys are reading their favourite books – that they have chosen themselves – their understanding is lower than that achieved by girls. This poorer comprehension was linked to slower gains over time in general reading development for boys, compared with girls, says the study.

The findings, by a research team from the University of Dundee in Scotland, may help to explain boys’ difficulties in the wider academic curriculum, because reading skills are central, particularly for older children, to access knowledge in other subjects.

Findings question existing theories

The results also question some of the generally accepted explanations of why boys’ reading development is slower than girls’, says Keith Topping, Professor of Educational & Social Research at the University of Dundee.

“There are lots of theories about boys’ reading,” explains Professor Topping who has led the research. “It’s said that boys don’t really like fiction, that they prefer newspapers, magazines, websites, and instructions on video games – anything but novels and poetry. It’s also said that boys are disadvantaged in primary school because teaching staff are predominantly female and they prefer fiction.”

“Boys’ understanding was unaffected by whether they were reading fiction or non-fiction – it lagged behind their female peers to the same degree in each genre.”
The Dundee study casts doubt on these theories because it looks at boys’ comprehension of books that they expressly chose to read, during time dedicated to reading at school. So they could choose non-fiction if they wished and they could also opt for whatever level of difficulty that they preferred.

The team was surprised to discover that boys’ understanding was unaffected by whether they were reading fiction or non-fiction – it lagged behind their female peers to the same degree in each genre.

**Why do boys understand less than girls?**

There are several possible explanations. It could be that boys choose their books in different ways to girls. Qualitative evidence about the social psychology of book choosing by boys suggests it may be tied in with wanting to look clever and picking a book that appears impressive to a peer group. This “showing off” might lead to choosing a book that’s harder to understand or less personally pleasurable.

Some academics have attributed differences in reading development to the fact that girls mature neurologically earlier than boys. However, the reading comprehension gap observed by the Dundee study widens between boys and girls as they get older. One would have expected a narrowing of the gap as boys’ brains caught up in the maturing process.

Nor can the results be blamed easily on hormonal changes during adolescence, when boys experience rising levels of testosterone. Professor Topping points out that, for his study, because boys could choose their own books, they were free to read texts with more sexualised content. However, regardless of the content, their comprehension levels typically lagged behind the girls’.

**Boys may be less attentive, skipping sections**

Professor Topping raises another possibility. “Maybe boys are simply less attentive than girls when they read, skipping sections that are less interesting, so they achieve lower scores in comprehension tests afterwards. This is not the case in all subjects – boys seem to be just as attentive in maths and do fairly similarly to girls. But in reading, boys seem to be turned off easily. We don’t know why. It could be that they simply feel less internal drive or motivation in this field of learning.”

The Dundee study has been reporting annually since 2009. It grows larger each year, as more schools and children join a reading assessment programme in which pupils take a multiple choice comprehension quiz after they finish a book. A virtue of this programme is that it allows close monitoring of reading comprehension and skills, helping teachers to spot children who are not properly using time that is dedicated for reading.

Professor Topping’s latest results confirm previous research, both in Britain and other parts of the industrialised world, which show that progress in reading falls away for both girls and boys from age 11-12, but the slowdown is worse for boys. The Dundee study highlights that, in the early years of primary school, children may choose books that are difficult for them to read, but most manage well because they are motivated to learn. As pupils grow older, they choose less challenging books because they want to read for pleasure.
“Future jobs will require good learning skills and comprehension. If the needs of both genders are not accommodated, we risk producing a vast underclass of unemployed or under-employed men and all the social problems that could spring from such failure.”

Although girls’ rates of reading progress decline in secondary school, they are more likely than boys to choose books that they are both interested in and which challenge them. Reports from the early years of the Dundee study, suggesting that boys were closing the reading gap, appear now to have been a blip, eventually exposed by the increased size of the sample in more recent years, says Professor Topping.

Message to policy makers

The challenges for researchers, policy-makers and practitioners, presented by these findings, are two-fold. First, we need better-founded evidence explaining why boys seem to understand less of what they read than girls – regardless of whether it is fiction or non-fiction. Resolving this mystery is vital if educators are to equip boys well so they can access the rest of the curriculum and go into the workplace with adequate reading skills.

Secondly, we need to build on the knowledge that children read more and learn more if they enjoy what they are reading. Once students pass the age of 13 or so, schools in western societies do not tend to get involved much with pupils’ reading, beyond supplying the texts that are required for particular subjects.

Professor Topping says that his findings indicate a need for older students, particularly boys, to have more teacher support so they get the most out of what they read. He warns: “Future jobs will require good learning skills and comprehension. Schools must provide that for girls and boys. If the needs of both genders are not accommodated, we risk producing a vast underclass of unemployed or under-employed men and all the social problems that could spring from such failure.”

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