

# **Do girls and boys learn differently?**

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# Is a gender focus necessary?

- Gaps between rich and poor remain wide.
- Girls will face discrimination in the workplace.
- So why focus on gender?
  - Additional educational barriers increase vulnerability.
  - Policy shifts can have unintended consequences on boys and girls.
  - Gender gaps can be reversed (male disadvantage) and we need to understand emerging trends.

# Is a gender focus necessary?

- Gender equality in schooling means that boys and girls experience equal opportunities in:

Attendance

Teaching

Curriculum

School Climate

# Is a gender focus necessary?

- Are South African boys in crisis in terms of literacy skills, and, if so, what should we be doing differently to help them succeed?



# Is there a boy crisis internationally?

- No gender differences in general intelligence.
- Males tend to do better in spatial and visual tasks and females tend to excel in verbal tasks.
- American girls have reached parity with boys in mathematics and are ahead in reading.
  - 79% of primary school girls were ‘proficient’ readers compared to 72% of boys (CEP 2009).



# Is there a boy crisis internationally?

- These gaps exist among the wealthy and the poor alike.
- Boys outscored girls in literacy in 40 education systems (2006 PIRLS).
- Boys lagging behind in other industrialised countries (Scandinavia, Canada, Britain).
- In the Middle East, evidence of a gender gap favouring girls in science among Arab-speaking countries.

# Is there a boy crisis in South Africa?

- Gender parity in enrolment.
- In South Africa, girls performed better than boys in recent reading assessments
  - 2011 PIRLS Grades 4 and 5
  - SACMEQ II & III Grade 6
- South African Grade 9 girls outperformed boys in both mathematics and science but this difference was not statistically significant (TIMSS 2011).



# Is there a boy crisis in South Africa?

- Higher percentage of South African boys among the weakest readers.
- Higher percentage of boys repeating and repeaters are lagging behind (SACMEQ II and III).
- More males dropping out of the school system in South Africa (NIDS).
- Provincial differences.





# Explanations for Gender Gaps in Reading Literacy

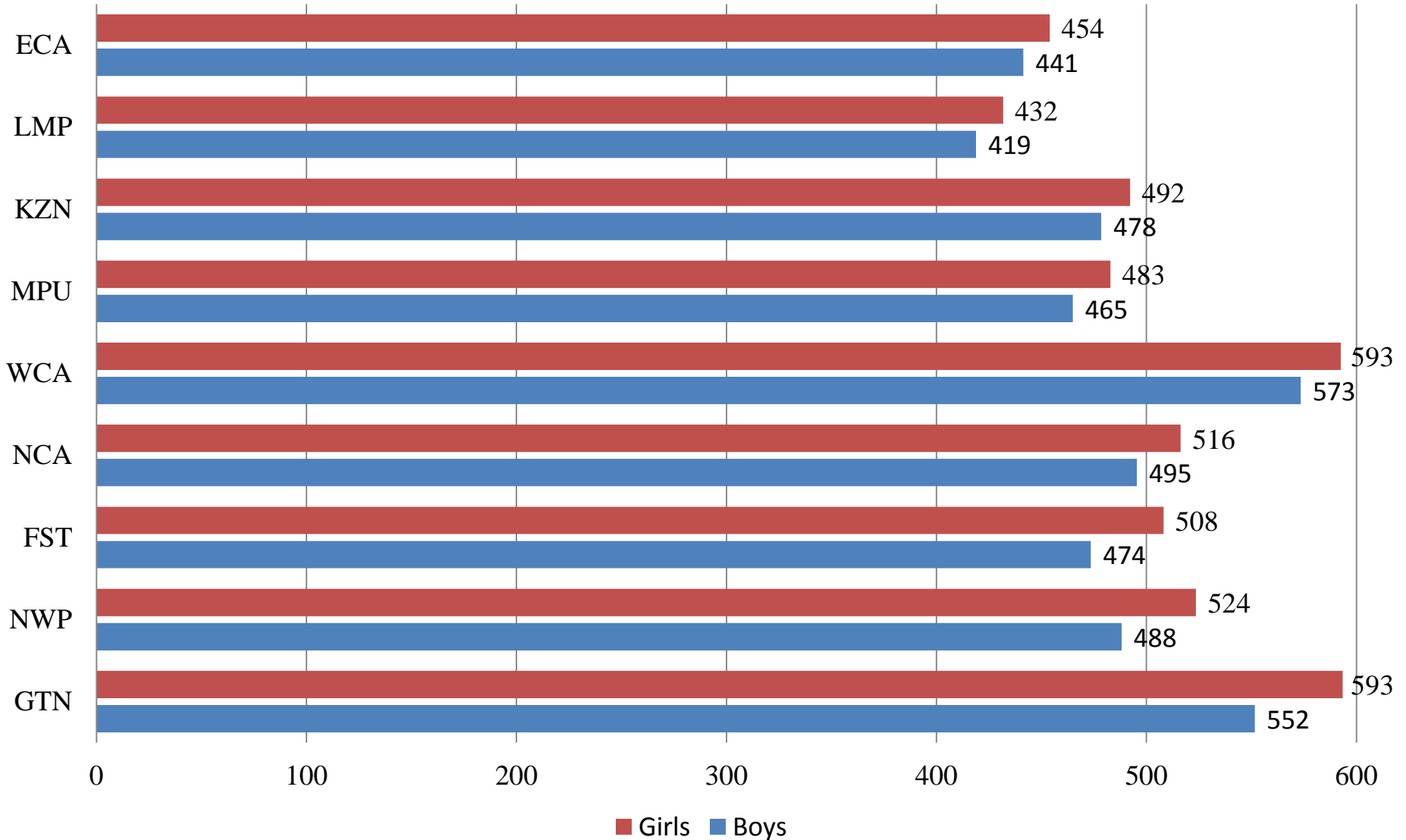
- Intense controversy
- Biological
  - Differences in male and female brain structures.
  - Hormones.
  - Gaps seen as early as nursery school.



# Explanations for Gender Gaps in Reading Literacy

- Environmental
  - Girls mature more quickly.
  - Boys perceive reading as too ‘girly’.
  - Boys disadvantaged in how schools assess reading progress.
  - Improvements when material is more ‘relevant’ for boys (technical, non-fiction).

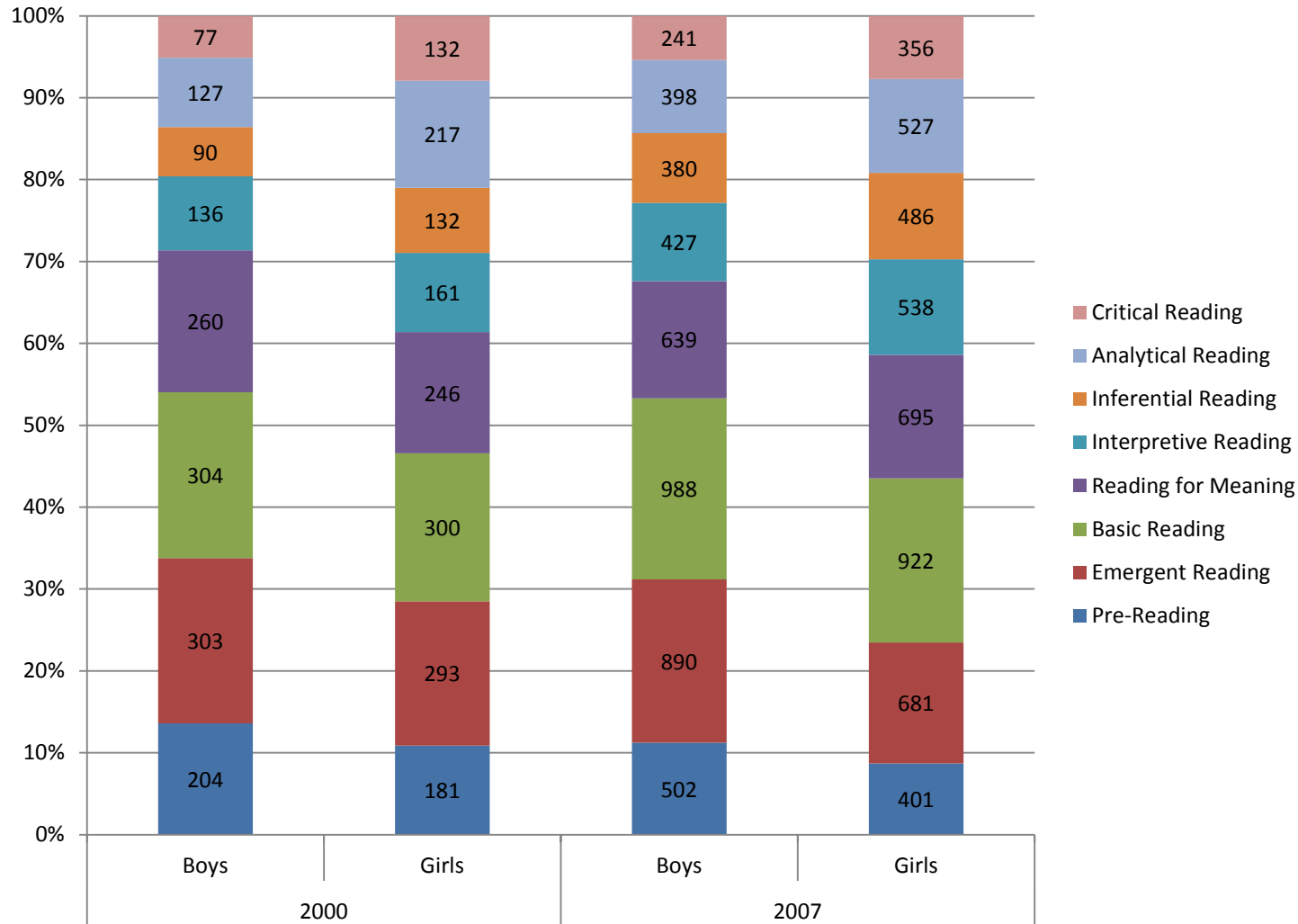
# Provincial Differences in Reading Achievement SACMEQ III



# Literacy Levels of South African Boys and Girls

- We compared boys and girls with similar backgrounds.
- Boys consistently overrepresented in the lowest categories of reading.
- Gaps widening (2000 vs. 2007).
- Reading proficiency of about half (53%) of all boys ranged from pre-reading to the basic reading level.
- More than half (60%) of the Grade 6 girls could read from the pre-reading stage up to the reading for meaning stage.
- A greater number of girls reading at the most advanced levels.

# Literacy Levels of South African Boys and Girls



# Gender Differences for Different Reading Domains

Education System	Narrative		Expository		Documents	
	Boys	Girls	Boys	Girls	Boys	Girls
Botswana	53 (1.1)	59 (1.0) **	45 (0.9)	51 (0.8) **	65 (1.0)	71 (0.9) **
Kenya	59 (1.0)	60 (1.1)	52 (0.9)	53 (0.9)	67 (1.0)	65 (1.3)
Lesotho	44 (0.8)	47 (0.6) **	37 (0.6)	38 (0.6) **	52 (0.8)	52 (0.7)
Malawi	38 (0.7)	38 (0.6)	35 (0.6)	34 (0.6)	44 (0.8)	40 (0.7) **
Mauritius	65 (1.1)	72 (1.0)	52 (1.0)	57 (0.9) **	68 (1.0)	73 (0.9) **
Mozambique	49 (0.8)	48 (1.0)	35 (0.5)	34 (0.6)	56 (0.7)	55 (0.9)
Namibia	48 (0.8)	52 (0.8) **	42 (0.6)	45 (0.6) **	56 (0.8)	59 (0.8) **
Seychelles	63 (0.9)	74 (0.8) **	47 (0.8)	60 (0.7) **	67 (0.9)	78 (0.7) **
South Africa	49 (1.0)	53 (1.0) **	40 (0.8)	44 (0.8) **	55 (1.0)	59 (1.1) **
Swaziland	59 (0.7)	61 (0.7)	51 (0.6)	52 (0.6) **	71 (0.7)	73 (0.6) **
Tanzania	67 (0.6)	66 (0.6)	57 (0.7)	54 (0.7) **	75 (0.7)	71 (0.7) **
Uganda	48 (0.8)	48 (0.8)	40 (0.7)	40 (0.60)	54 (0.8)	52 (0.9)
Zambia	39 (0.8)	40 (1.0)	34 (0.6)	33 (0.7)	44 (0.8)	42 (0.9)
Zanzibar	63 (0.7)	65 (0.6) **	43 (0.6)	46 (0.6) **	64 (0.8)	66 (0.6)
Zimbabwe	53 (1.5)	56 (1.3)	43 (1.1)	46 (1.1)	58 (1.5)	59 (1.4)
<b>SACMEQ III</b>	<b>53 (0.3)</b>	<b>56 (0.3) **</b>	<b>44 (0.2)</b>	<b>46 (0.2) **</b>	<b>60 (0.3)</b>	<b>61 (0.2) **</b>

Source: SACMEQ 3 and Saito (2007)

\*\* Significant gender differences at the 95% confidence level.

Can schools influence the literacy skills of boys and girls?

# School Resources and the Gender Gap in Reading Literacy

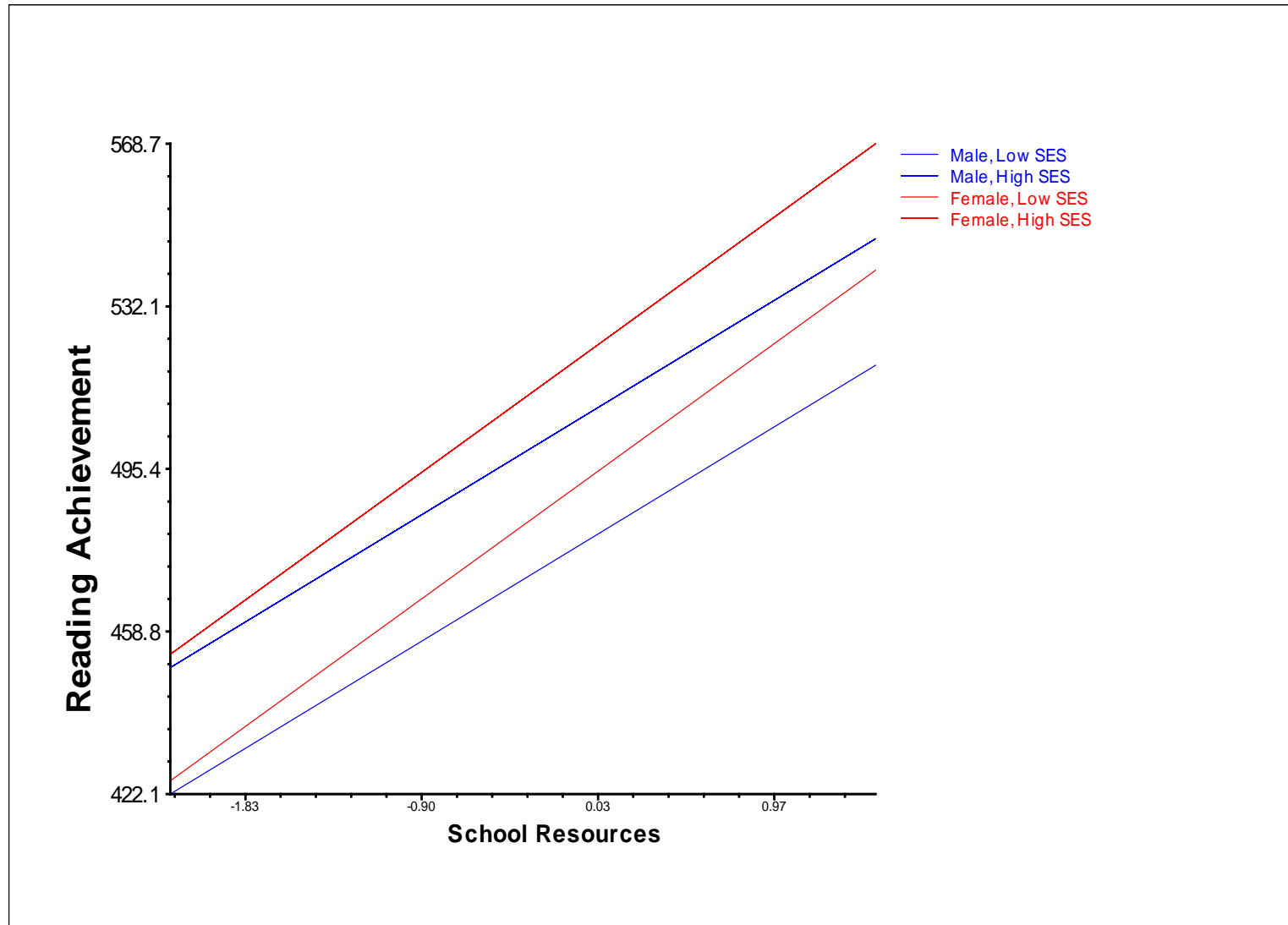
- It can be difficult to create educational environments that are suitable for both groups but *it is possible*.
- Reading scores were higher for **both** boys and girls who could **borrow** library books.
- Better human resources benefited **all learners** in terms of reading.



# School Resources and the Gender Gap in Reading Literacy

- The **physical resource environment** was especially important for girls.
- High-SES girls benefited more than High-SES boys from school resources.
- Low-SES girls benefit more than low-SES boys from school resources.
- Either the types of resources at schools were better suited for girls *or* girls were making the best use of these resources to improve their reading skills.

# Gender, Reading Achievement, Resources and Socioeconomic Levels



# Conclusions

- Gender gaps exist across school environments.
- The goal should be for all groups to make gains, but for low-performing groups to make larger gains so that they can catch up.
- Improving reading proficiency among boys could reduce the high level of repetition and dropout among male learners, resulting in a more effective education system in general.

What could we be doing differently?



# Policy Toolbox

- The home environment
  - Male role models (gap narrows among middle class teenage boys but remains among low-income boys).
  - Appealing reading material
- The school environment
  - Reading material sensitive to student diversity
  - School and classroom libraries (and ability to take books home)
  - Reading logs



# Policy Toolbox

- The school environment
  - Reading hour
  - Book recommendation board
- Provincial and national focus
  - Thinking locally
  - Focusing on the ‘big picture’

# Finally...

“Our future depends on making the best use of human capital we can, whether it belongs to girls or boys. If that means nurturing boys with explosions, that’s a price worth paying.”

Nicholas D. Kristof