

Do boys with a male teacher perform and behave better at school?

A discordant monozygotic twin design



Eveline L de Zeeuw¹, Catharina EM van Beijsterveldt¹, Tina J Glasner¹, Meike Bartels¹, Eco JC de Geus¹ and Dorret I Boomsma¹

¹ Department of Biological Psychology, VU University Amsterdam

INTRODUCTION

Educational achievement of girls seems to increase compared to that of boys at the same time that the number of female teachers in primary school education is rising. Since same-gender teachers are said to enhance educational achievement, some blame the lack of male teachers for a poorer performance of boys. Our objective is to investigate whether the gender of the teacher has an effect on educational achievement and behaviour problems.



METHODS

The Netherlands Twin Register has collected approximately 5000 surveys from teachers of 12-year old twins. Some of those twins attended separate classes with a male or a female teacher. Therefore, this study can adopt a unique design with the comparison of 74 monozygotic twin pairs (28 male and 45 female) perfectly matched on family background, but discordant for teachers' gender. Repeated measures analyses were conducted to test the main effects of teachers' and students' gender and their interaction.

Teacher Ratings

- ❖ arithmetic
- ❖ language
- ❖ reading
- ❖ physical education

Educational Achievement Test

- ❖ total score
- ❖ arithmetic
- ❖ language
- ❖ study skills
- ❖ world orientation (Cito, 2002)

Behavioural Problems

- ❖ oppositional
- ❖ inattention
- ❖ hyperactivity (Conners, 1998)
- ❖ ADHD index
- ❖ internalizing
- ❖ externalizing (Achenbach, 1991)

RESULTS

Teacher Ratings

- ❖ All interactions between teachers' and students' gender were (marginally) significant
 - Male teachers gave higher ratings to boys and female teachers gave higher ratings to girls

Educational Achievement Test

- ❖ The effect of the teachers' gender on the total score was significant
 - Especially boys got higher scores when taught by a male teacher
- ❖ The interaction between teachers' and students' gender was only significant for the subscale study skills
 - Boys scored considerably better with a male teacher and girls did somewhat better when taught by a female teacher

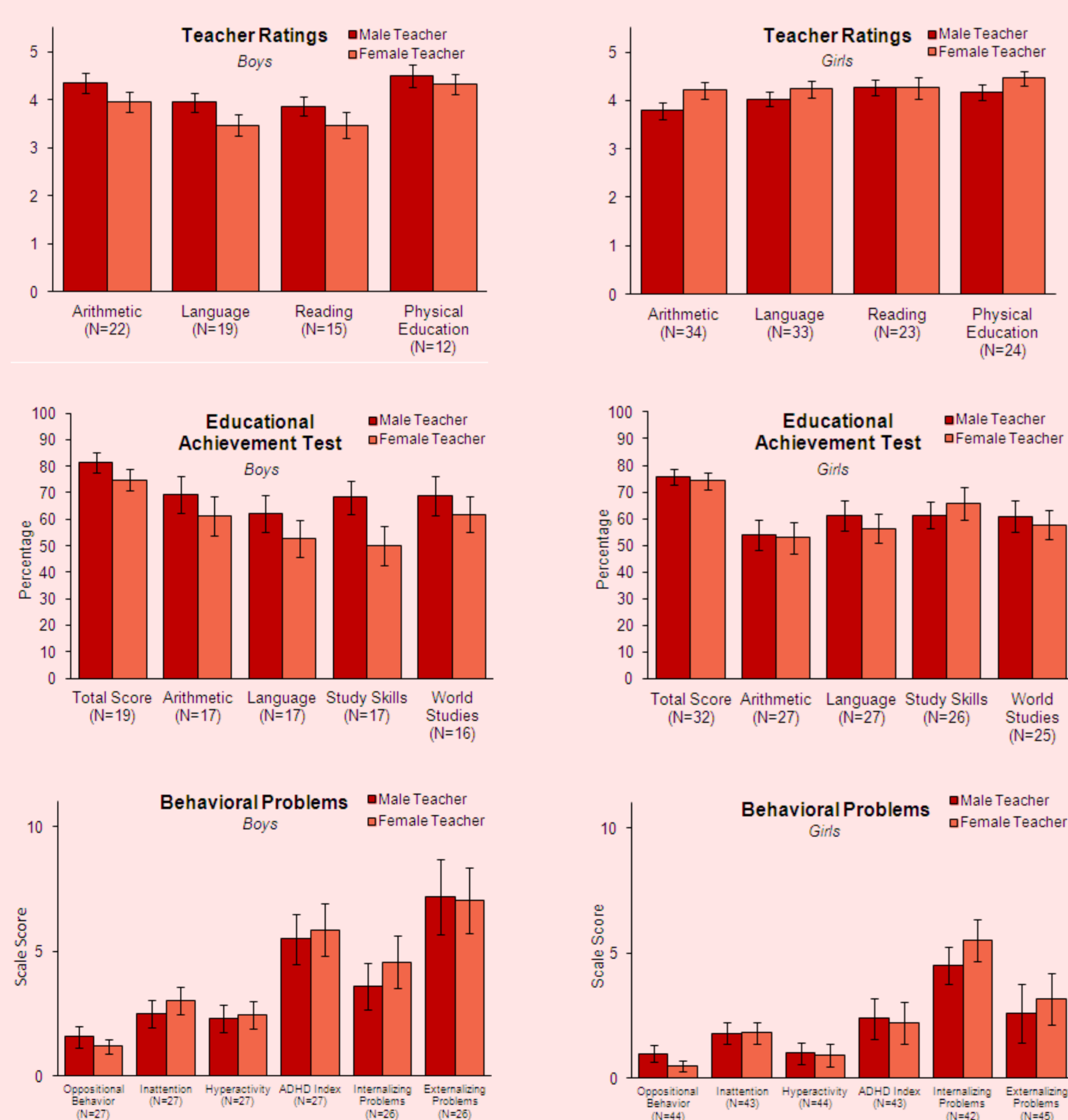
Behavioural Problems

- ❖ Only some of the students' gender effects were significant
 - Boys demonstrate more hyperactive and inattention related behaviour than girls

DISCUSSION

Teachers' gender had an effect on (the perception of) the proficiency of students in different school subjects. Both male and female teachers gave students of their own gender higher ratings on all school subjects. It seems that boys perform somewhat better on an educational achievement test when taught by a male teacher. Teacher's gender did not have an influence on the assessment of behavioural problems in the classroom.

Even though the amount of available teacher surveys was rather large the number of discordant monozygotic twin pairs was limited. Teacher traits could have had an effect on educational achievement. In general male teachers in primary education are older and therefore more experienced than their female colleagues. However, in our sample of twins we did not observe an effect of teachers' age on the educational achievement of the students.



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