Gender differences in writing motivation and achievement of middle school students: a function of gender orientation?

Is gender-stereotyping responsible for differences in motivation and achievement in writing?

Motivation and achievement are often perceived to be affected by gender. Stereotypically, girls are ‘good’ at language, boys at science. Why is this? Does the difference actually lie in gender itself, or in the stereotyped beliefs about gender difference held by the students?

The aim of this densely written American psychological study was to try and establish the degree to which gender differences in the writing achievements and motivation of a mixed group of middle school students were determined by their own underlying stereotypes of gender ability. To this end, the data were assessed not only by the sex of each student, but also by the strength of their stereotypically ‘masculine’ or ‘feminine’ beliefs.

The authors conclude that it is the masculinity or femininity of students’ beliefs rather than their gender per se that account for differences in motivation and attainment between girls and boys. Most of the significant advantages in motivation and achievement accrue to pupils with ‘feminine’ beliefs, whilst the desire to succeed is a function not only of a ‘masculine’ mindset, but very specifically related to boys rather than girls.

The authors suggest that educationalists should undertake a careful examination of stereotypes to encourage pupils to develop both ‘masculine’ and ‘feminine’ approaches to writing.

Keywords
USA; America; pupils; secondary schools; gender; year 7; year 8; year 9; beliefs; self-concepts; self-esteem; stereotypes; writing; motivation; achievement; literacy; first language

Contents
Is gender-stereotyping responsible for differences in motivation and achievement in writing? ........................................................................................................................................................................... 1

How does gender affect motivation and self-belief? ........................................................................................................................................... 2

The aims of the study .................................................................................................................................................................................. 2
How does gender affect motivation and self-belief?

The authors start by arguing that although actual differences between the sexes in terms of academic capability appear to be insignificant, researchers commonly observe gender differences in motivation and self-belief when approaching specific subjects. They suggest that these differences depend largely on how particular academic disciplines are perceived by boys and girls. In mathematics, for example, boys commonly have a higher degree of self-belief, confidence and motivation than girls when they tackle the subject because maths is viewed as a stereotypically male activity. In language, this situation is reversed, with many researchers noticing stronger self-belief in girls on this subject than there is amongst boys.

According to the authors, research shows that in writing, the same gender difference persists when it comes to motivation and self-belief. Girls seem to be less anxious when facing writing tasks, and have a stronger:

- perception of the value of writing;
- confidence in their own ability to write to various self-regulating constraints (such as homework deadlines);
- confidence in their own writing capabilities;
- certainty of the reasons they have for actually doing their academic work; and
- feeling of self-worth associated with writing.

The authors suggest that students' beliefs about their own academic capabilities and their own judgements of their own self-worth are very important factors in motivation and influence their academic achievement.

The aims of the study

Many researchers contend that gender differences in varying areas (social, personality, and academic) spring from students’ stereotypic beliefs about gender in relation to that area, rather than from their actual gender per se. According to the authors, research also suggests that differences in students’ perceptions of achievement are influenced by what gender stereotypes they have about the subject. This, they say, can affect not only course and career selection, but also their expectations of, and the value they place on, tasks and activities.
The authors wanted to establish how far motivation and achievement in writing were affected by gender-stereotypical beliefs by correlating the beliefs, motivation and achievements of students at a public middle school in the Northeast USA. The catchment area was in a largely middleclass area, and the students were predominantly white. All students in the school attended separate classes for reading and writing. Although there were separate writing classes for gifted students, those with special educational needs and EAL students, the study concentrated only on students from the ‘regular’ education writing classes, to try to ensure that as few as possible variations from the average were included in this research.

The study design
The research examined the beliefs, motivation and achievements of 497 11–14 year olds from one US school. 250 of the students surveyed were girls, and 247, boys. 169 were in Grade 6 (UK Year 7); 177 in Grade 7 (Year 8); and 151 in Grade 8 (Year 9). The ratio of boys to girls in each year was roughly equivalent.

The research covered:

- **Writing self-efficacy**: students’ self-assessments of whether they had the composition, grammar, usage, and mechanical skills appropriate to their academic level;
- **Writing apprehension**: students’ assessments of their own capacity to embrace or avoid situations where their writing would be evaluated;
- **Writing self-concept**: judgements of a student’s self-worth associated with their perception of themselves as a writer;
- **Self-efficacy for self regulated learning**: students’ judgements of their capability to use such strategies as finishing their homework on time;
- **Achievement goals**: reasons students have for doing their academic work – these covered both task goals (such as learning for learning’s sake), and two types of performance goals: **performance-approach** (such as impressing the teacher) and **performance-avoid** (such as not appearing stupid in front of the class).
- **Value of writing**: students’ perception of the importance, interest and enjoyment of writing; and
- **Writing achievement**: each student’s grade average at the end of the semester;

Teachers provided ratings of their students’ writing capability at the start of the second term. At the end of the term the teachers provided grades for their students’ work. Questionnaires were administered to each class, with items being read aloud by the research administrator and students completing the test jointly, one item at a time.

The gender orientation beliefs of each student were assessed by asking them how strongly they identified with characteristics stereotypically associated with males or females in American society. This resulted in the student being classified as having strongly ‘masculine’ or ‘feminine’ beliefs, separate from their gender. This classification, as well as the gender of each student, was used to interpret the data obtained above.
What did the research find out?

The results of the research showed that there were significant gender differences in motivation and achievement when it came to writing.

Gender differences favouring girls could be found in:

- writing self-efficacy
- writing self-concept
- self-efficacy for self-regulation
- value of writing
- task goal orientation, and
- students’ writing grades

The difference in performance-goal orientation favoured boys. There were no significant gender differences in writing apprehension or performance-avoid goal orientation.

When examining the data through gender orientation beliefs it became clear that the extent to which a student’s beliefs encompassed feminine stereotypes had a pronounced positive influence on almost all the motivation beliefs tested. The more ‘masculine’ beliefs a boy had, the greater was his strength in performance-approach to writing. The degree of feminine’ beliefs in either sex increased strength in writing self-efficacy, writing self-concept, self-efficacy for self regulated learning, value of writing, task goals orientation, performance-goal orientation and writing achievement.

Did gender or gender-stereotyping determine motivation, self-belief or achievement?

From their analysis the authors concluded that many of students’ attitudes to, and achievements in, writing may have very little to do with gender itself, and a lot to do with gender stereotypes held by the individual student. This conclusion implies that girls may generally be better motivated, have stronger self-belief and achieve more highly than boys, not because they are girls, but because their beliefs are generally ‘feminine’ and good achievement in writing is stereotypically a ‘feminine’ ability. Boys’ motivation alters when their beliefs encompass stereotypically ‘feminine’ understandings.

The one area in which this did not hold true, according to the authors, was that of performance-approach goals where, regardless of the ‘masculine’ or ‘feminine’ nature of their beliefs, boys reported a stronger preference than girls for wanting to succeed in writing so as to display their competence. And as the boys’ ‘masculine’ beliefs increased, so did the strength of this preference.
Implications
In completing this digest the authors began to ask the following questions about implications for practitioners:

- the study found that it was important to all boys, but especially those with a more ‘masculine’ belief system, to display their competence – could practitioners’ responses to boys’ writing be more explicit and positively reinforce what is good about it? (For further advice on this, see the OfSTED Report on boys’ writing in the section ‘Where can I find out more?’)
- the study found that almost all gender differences in academic motivation could be accounted for by feminine orientated beliefs – to what extent is it possible for practitioners to challenge gender stereotypes so that boys can adopt a mindset that is more helpful to their learning?
- should teachers be examining practice to discover and remedy unconscious gender stereotyping inside and outside the classroom and to explore its implications for achievement?

In completing this digest the authors began to ask the following questions about implications for school leaders:

- what are the professional development implications of these findings for teachers: would a whole-school approach to gender stereotyping help to reduce differences in achievement amongst boys and girls?
- in view of students’ need to be seen as competent, do assessment practices in your school pay as much attention to positive aspects of writing that need to be developed as to negative aspects of writing that need to be reduced?

Where can I find out more?
The following OfSTED publication offers practical ideas for improving the teaching of boys’ writing and includes a helpful section (paragraphs 26-34) on assessing writing: ‘Yes he can – schools where boys write well’ London: OfSTED Publications. Available at: http://www.ofsted.gov.uk/publications/index.cfm?fuseaction=pubs.summary&id=3317

You can search for other TRIPS research summaries on the subject of gender using the ‘Themes’ or ‘Keywords’ search boxes on the website. Other TRIPS summaries on the issue of gender include:

Warrington M, & M Younger, 'We decided to give it a twirl': single-sex teaching in English comprehensive schools

Williams M., Burden R., and Lanvers U., 'French is the language of love and stuff': student perceptions of issues related to motivation in learning a foreign language.
Myhill, Debra. Bad boys and good girls? Patterns of interaction and response in whole class teaching.

They can all be found at:  [http://www.standards.dfes.gov.uk/research/themes/gender](http://www.standards.dfes.gov.uk/research/themes/gender)

Readers may be interested to read a summary about gender differences and achievement’ at:  [www.gtce.org.uk/research/genderhome.asp](http://www.gtce.org.uk/research/genderhome.asp)

This summary, presented on the GTC Research of the Month website, is based on ‘An investigation into gender differences and achievement’ by Sukhnanden, L., Lee, B. and Kelleher, S., published by the NFER (2000).

Francis B, Skelton C, Archer L (2002). A systematic review of classroom strategies for reducing stereotypical gender constructions among girls and boys in mixed–sex UK primary schools (EPPI-Centre Review, version 1.1*). In: Research Evidence in Education Library. London: EPPI-Centre, Social Science Research Unit, Institute of Education. This systematic EPPI review is available at:  [http://eppi.ioe.ac.uk/EPPIWeb/home.aspx?page=/reel/review_groups/gender/review_one.htm](http://eppi.ioe.ac.uk/EPPIWeb/home.aspx?page=/reel/review_groups/gender/review_one.htm)

The DfES standards contains a section about gender and achievement at:  [www.standards.dfes.gov.uk/genderandachievement](http://www.standards.dfes.gov.uk/genderandachievement)

The QCA website contains statistical data about gender and achievement at:  [www.qca.org.uk/index.asp](http://www.qca.org.uk/index.asp)