

IMPACT ON TEACHING AND LEARNING



Spencer SJ, Steele CM, & Quinn DM (1999) Stereotype threat and women's math performance. *Journal of Experimental Social Psychology*. 35(1):4-28. Available from [Google Scholar](#). 3040 Citations.

Ambady N, Shih M, Kim A, & Pittinsky TL (2001) Stereotype Susceptibility in Children: Effects of Identity Activation on Quantitative Performance. *Psychological Science* 12(5):385-390. Available from [Google Scholar](#) 530 Citations

Riegle-Crumb, C. and Humphries, M. (2012). Exploring Bias in Math Teachers' Perceptions of Students' Ability by Gender and Race/Ethnicity. *Gender & Society*, 26(2), pp.290-322. Google scholar link 72 Citations

Van den Bergh, L., Denessen, E., Hornstra, L., Voeten, M. and Holland, R. W. (2010) The Implicit Prejudiced Attitudes of Teachers: Relations to Teacher Expectations and the Ethnic Achievement Gap. *American Educational Research Journal*, Vol. 47, (2), 497-527. Available from SDUUB. 296 Citations

Cuesta, M., & Witt, A.-K. (2014). How Gender Conscious Pedagogy in Higher Education Can Stimulate Actions for Social Justice in Society. *Social Inclusion*, 2 (1), 12-23. Available from [Google Scholar](#)

Vallejo, M., Torralbo, M. and Fernández-Cano, A., (2016) Gender Bias in Higher Education: Spanish Doctoral Dissertations in Mathematics Education. *Journal of Hispanic Higher Education* Vol. 15(3) 205–220. Available from SDUB

Stereotype threat and women's math performance

Abstract:

When women perform math, unlike men, they risk being judged by the negative stereotype that women have weaker math ability. We call this predicament *stereotype threat* and hypothesize that the apprehension it causes may disrupt women's math performance. In Study 1 we demonstrated that the pattern observed in the literature that women underperform on difficult (but not easy) math tests was observed among a highly selected sample of men and women. In Study 2 we demonstrated that this difference in performance could be eliminated when we lowered stereotype threat by describing the test as not producing gender differences. However, when the test was described as producing gender differences and stereotype threat was high, women performed substantially worse than equally qualified men did. A third experiment replicated this finding with a less highly selected population and explored the mediation of the effect. The implication that stereotype threat may underlie gender differences in advanced math performance, even those that have been attributed to genetically rooted sex differences, is discussed.

Spencer SJ, Steele CM, & Quinn DM (1999) Stereotype threat and women's math performance. *Journal of Experimental Social Psychology*. 35(1):4-28. Available from [Google Scholar](#). 3040 Citations.

Stereotype Susceptibility in Children: Effects of Identity Activation on Quantitative Performance

Abstract:

A growing body of research indicates that the activation of negative stereotypes can impede cognitive performance in adults, whereas positive stereotypes can facilitate cognitive performance. In two studies, we examined the effects of positive and negative stereotypes on the cognitive performance of children in three age groups: lower elementary school, upper elementary school, and middle school. Very young children in the lower elementary grades (kindergarten grade 2) and older children in the middle school grades (grades 6-8) showed shifts in performance associated with the activation of positive and negative stereotypes; these shifts were consistent with patterns previously reported for adults. The subtle activation of negative stereotypes significantly impeded performance, whereas the subtle activation of positive stereotypes significantly facilitated performance. Markedly different effects were found for children in the upper elementary grades (grades 3-5). These results suggest that the development of stereotype susceptibility is a critical domain for understanding the connection between stereotypes and individual behavior.

Ambady N, Shih M, Kim A, & Pittinsky TL (2001) Stereotype Susceptibility in Children: Effects of Identity Activation on Quantitative Performance. *Psychological Science* 12(5):385-390. Available from [Google Scholar](#) 530 citations

Exploring Bias in Math Teachers' Perceptions of Students' Ability by Gender and Race/Ethnicity

Abstract:

This study explores whether gender stereotypes about math ability shape high school teachers' assessments of the students with whom they interact daily, resulting in the presence of conditional bias. It builds on theories of intersectionality by exploring teachers' perceptions of students in different gender and racial/ethnic subgroups and advances the literature on the salience of gender across contexts by considering variation across levels of math course-taking in the academic hierarchy. Analyses of nationally representative data from the Education Longitudinal Study of 2002 (ELS) reveal that disparities in teachers' perceptions of ability that favored white males over minority students of both genders are explained away by student achievement in the form of test scores and grades. However, we find evidence of a consistent bias against white females, which although relatively small in magnitude, suggests that teachers hold the belief that math is just easier for white males than it is for white females. In addition, we find some evidence of variation across course level contexts with regard to bias. We conclude by discussing the implications of our findings for research on the construction of gender inequality.

Riegle-Crumb, C. and Humphries, M. (2012). Exploring Bias in Math Teachers' Perceptions of Students' Ability by Gender and Race/Ethnicity. *Gender & Society*, 26(2), pp.290-322. Google scholar link - cited by: 72

The Implicit Prejudiced Attitudes of Teachers: Relations to Teacher Expectations and the Ethnic Achievement Gap

Abstract:

Ethnic minority students are at risk for school failure and show a heightened susceptibility to negative teacher expectancy effects. In the present study, whether the prejudiced attitudes of teachers relate to their expectations and the academic achievement of their students is examined. The prejudiced attitudes of 41 elementary school teachers were assessed via self-report and an Implicit Association Test. Teacher expectations and achievement scores for 434 students were obtained. Multilevel analyses showed no relations with the self-report measure of prejudiced attitudes. The implicit measure of teacher prejudiced attitudes, however, was found to explain differing ethnic achievement gap sizes across classrooms via teacher expectations. The results of this study also suggest that the use of implicit attitude measures may be important in educational research.

Van den Bergh, L., Denessen, E., Hornstra, L., Voeten, M. and Holland, R. W. (2010) The Implicit Prejudiced Attitudes of Teachers: Relations to Teacher Expectations and the Ethnic Achievement Gap. *American Educational Research Journal*, Vol. 47, (2), 497-527. Available from SDUB. 296 Citations



How Gender Conscious Pedagogy in Higher Education Can Stimulate Actions for Social Justice in Society

Abstract:

In order to reflect upon methods that can generate social justice and democratization, this article emphasises practical implementations connected to gender conscious pedagogy. Gender conscious pedagogy aims at overcoming the myth of objectivity by questioning, through teaching, what is considered as “common sense” and “normal”. This endeavor entails acting and reflecting upon such breakthroughs as developing understanding of how gender codes influence everyday activities as well as working life. The starting point of the article initiates a norm-critic perspective for considering the effects of implementing a feminist perspective for teaching in both theory and practice. Our data was collected from alumni students who were asked to remember and reflect upon their gender studies classes and particularly upon the usefulness of this type of knowledge in connection with everyday and working life whether as a politician, lecturer, IT-manager, doctoral student, The study is grounded in a “critical hermeneutic” method. That is, the data is mirrored in and interpreted in light of the context in which the material was gathered. This article focuses on how teachers enable students to be gender confident and, as a consequence, to be gender actors outside the university in their working life. Some of the central questions asked in the study are: How are gender issues represented and integrated in the different areas of studies? What can teachers do in order to promote equality in the classroom? Are students given opportunities for understanding, internalizing and discussing gender issues and for describing and reflecting upon their experiences from gender studies courses?

Gender Bias in Higher Education: Spanish Doctoral Dissertations in Mathematics Education

Abstract:

This article reviews the results of a quantitative study that provides evidence of gender biases in relation to women in the field of Spanish mathematics education.

For this purpose, doctoral dissertations produced in Spain and defended in Spanish universities between 1970 and 2014 were subjected to exhaustive analysis. Focusing on gender, the authorship, supervision, and evaluation of doctoral dissertations were used as explanatory variables. A prospective analysis of the variables was also carried out. The results reveal different situations depending on the abovementioned dimensions. Specifically, a marked bias against women was detected in terms of the supervision and evaluation of doctoral dissertations, but not in terms of their authorship. This seems to suggest the existence of a glass ceiling that prevents women from gaining access to certain scientific fields and/or engaging in particular roles in the higher education setting, such as the supervision or evaluation of doctoral dissertations.

Vallejo, M., Torralbo, M. and Fernández-Cano, A., (2016) Gender Bias in Higher Education: Spanish Doctoral Dissertations in Mathematics Education. *Journal of Hispanic Higher Education* Vol. 15(3) 205–220. Available from SDUB