

Stereotype threat and gain on algebra ii students: who's better at math?

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Which gender performs better in math? There is a stereotype in math education: boys perform better than girls. In multiple studies and articles, college professors and researchers have used phrases such as “ We’ve all heard it...Girls just aren’t as good at math as boys” (Fisher par. 1). This stereotype impacts the performance of girls and boys in math everyday. For girls, this perception leads to ‘ stereotype threat,’ which occurs when a girl approaches math lacking confidence, reducing the opportunity for success in this subject. For boys, it leads to ‘ stereotype gain,’ which occurs when a boy feels unearned confidence from the stereotype, so he performs better than he would have otherwise.

Many studies both prove and disprove stereotype threat and gain, but these studies are usually conducted with adult participants. My research study, conducted as part of my G/T Independent Research project, focused on how stereotype threat and gain affected male and female Algebra II students at Atholton High School. Eighty students took two similar math tests. The first test was presented in a traditional math class, while the second test “ invoked” the stereotype that boys are better than girls in math. Students were intentionally presented with the stereotype in a biased manner, so it seemed to be a fact.

The tests were given approximately a week apart, and the results were then graded and compared to determine if stereotype threat or stereotype gain were identified in the students’ scores. The hypothesis of this project was that stereotype threat would not have an effect on female students’ scores taking the tests, while stereotype gain would have an effect on the majority of male Algebra II students’ scores taking the test. In the end, this hypothesis <https://assignbuster.com/stereotype-threat-and-gain-on-algebra-ii-students-whos-better-at-math/>

proved correct. Sixty-seven-point-five percent (27/40) of male students acted true to stereotype gain while only thirty-seven-point-five percent (15/40) of female students reacted to stereotype threat. This project tested only a small sample of Atholton High School's population, but it is supposed to be a representation of Atholton High School as a whole.

What does this data mean? Stereotype threat negatively affects females everyday. Their scores drop because they do not believe they can perform as well as boys and because they are worried about confirming the stereotype. The best way to combat stereotype threat is to understand the stereotype and to understand that the stereotype should not make a difference regarding the level of math performance. Since it was shown that most female students were not subject to stereotype threat, this is not as significant at Atholton High School. It means that students know better than to believe the stereotype and fall under its harmful effects.

There are also many other variables that contribute to why stereotype threat did not affect female students as well. For example, students at Atholton High School generally have very supportive parents that teach them to be the best that they can be and not to believe the stereotype, students and parents in Howard County tend to have higher educations than students and parents in most other counties in the country, students in Howard County start taking higher levels of math (i. e. G/T) early (they get early boosts in their educations), activities such as Math Olympiad and Math Team stimulate involvement in math, students at Atholton High School generally do not feel teacher bias toward boys or girls, etc. Stereotype gain is not as pertinent

because it is not a detriment to grades or scores. If it were to be stopped, the best way would be through awareness—awareness to the fact that the stereotype should not change whom one is.

Next time you are taking a math test or are using a math application, remember that you are better than this stereotype. Works Cited Fisher, Madeline. “ Study: No Gender Differences in Math Performance.” University of Wisconsin-Madison News. Board of Regents of the U of Wisconsin System, 24 July 2008.

Web. 16 Oct. 2012. .