

Analyze the gender bias essay

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A large amount of early research has been conducted on the biological differences between males and females; however, focus has shifted to environmental and social factors that may influence the gender gap in STEM subjects. The Eccles et al. Value Model, developed in 1983, considers motivational factors related to decisions regarding educational and career choices. Some of these factors include self perceptions, social variables and environmental factors (Oacobs 2005, AAIJW 2005).

American culture and society may influence how students view themselves, inherently contributing to the gender gap found in the STEM areas. According to the American Association of University Women (AAUW), many studies have confirmed the negative impact that stereotypes have on students (Hill, C. et al. 2010). Gender differences within math and science develop early in adolescence (Sleeker & Jacobs, 2004). There are many stereotypes and social stigmas that contribute to the reasons that boys may perform better in STEM fields than girls. One common stereotype is the arts.

The cultural stereotype may encourage girls to believe that math and science are not intended for them and in turn affect activities and career aspirations (Cvencek et al. , 2011). The Implicit Association Test was developed to "measure implicit attitudes and beliefs that people are unwilling or unable to report" (Project Implicit, n. d.). Approximately 70 percent of IAT tests revealed stereotypes associating science with males more than females (Nosek et al. , 2009). Researchers at the University of Washington adapted the IAT to conduct a study on children ages six to ten years old.

The test focused on gender identity, math-gender stereotype, and math self-concept. The results showed that by second grade, girls showed a weaker identification with math than boys, confirming the stereotype that math is for boys (Cvencek et al. , 2011). Another study utilized the IAT to contrast science and liberal arts, and found that women who associated males with science were least likely to pursue science, and males with similar stereotypes were more likely to pursue science (Smyth, n. d. The study validated the link between stereotyping and self- efficacy. This is evidence that American culture may influence the way children view themselves related to subjects learned in school. Fear of poor performance in the classroom may also contribute to lack of interest in math and science. A study conducted in 2010 by the AAUW, focused on college students with similar math abilities and divided them into two rooms. The first room was advised that men outperform women on the test, while the second room, was told there was no distinction in performance.