



Nebraska Department of Education

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High Ability Learning

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Gifted Girls: Breaking Barriers and Stereotypes



High ability learners are a complex, unique group of students. They become increasingly complex when we consider intersectionality—such as being gifted and being a girl. Research shows that girls start to internalize as early as age 6 that boys are smarter than girls (Boston & Cimpian, 2018). This expands beyond children and into adults as well. Parents are more likely to perceive math as being more difficult for their daughters than their sons (Jacobs, 1991) and teachers rate boy's mathematical ability higher than girls (Cimpian, Lubienski, Timmer, Makowski, & Miller, 2016).

Adding the layer of gender stereotypes can also impact the fields in which girls go into. Gifted girls are less likely than boys to pursue a STEM field. Girls make up roughly 51% of the gifted population, but only 23% of PhDs in engineering in 2015 went to women, and less than 20% went to women in computer science and physics (National Science Foundation, National Center for Science and Engineering Statistics, 2016). The perception that girls lack the skills to pursue STEM is pervasive and steers them away from pursuing careers in these fields.

This newsletter will examine the pressures gifted girls face, their avoidance of STEM fields, and what we can do to mitigate some of these issues.



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Gender Stereotypes: *Pressure and Struggles for Gifted Girls*



High ability girls may experience internal and external pressure and expectations of being gifted and being a girl. They can feel torn between choosing an identity as a girl or as a high ability student. They may feel as if they cannot be both at the same time. Research notes social and emotional challenges such as desire to belong to a peer group at the expense of academic success,

struggling with perfectionism, and the impact of female portrayal in media (Price, Wardman, Bruce, & Millward, 2016). This is further complicated by social media and creating an online identity. Children from a young age associate intellectual ability as a male trait and female traits are things such as nurturing, sociable, and helping (Bian et al., 2017), which can be inconsistent with the notion that “geniuses” are isolated and work to better their own pursuits.

Girls often especially feel out of place in STEM fields. Because it is seen as a predominately male field, girls often lack confidence in their ability to succeed. There is also a disconnect between the stereotypes of scientists and how girls see themselves. Stereotypes about people in STEM include introverted, “nerdy”, obsessed with work, and isolated (American Association of University Women, 2000). This can cause a disconnect because girls may see themselves as social and working to help others, so this inconsistency can drive them from STEM fields.

Underachievement is a trait typically associated with male students, who underachieve at a rate 2-3 times that of girls (Matthews & McBee, 2007; Rubenstein, Siegle, Reis, McCoach, & Burton, 2012). While underachievement is associated with boys, girls are not immune. Research suggests that girls have patterns that spark underachievement, such as difficulty school transitions, lacking study skills, low self-esteem, and developmental readiness (Desmet, Pereira, & Peterson, 2020).

All of these things combine to make a complicated school experience for HAL girls.

Encouraging Gifted Girls

The first step toward encouraging gifted girls is recognizing their unique characteristics and how their identities intersect. As mentioned in an article by Guthrie (2020), “the more intersections a gifted girl exists in, the more complicated and overwhelming it can be to navigate their identities.” Identity formation and self-actualization are crucial, and we as educators can help them navigate.



In regards to underachievement as a side effect, students in one study noted that relationships with teachers played a crucial role in getting them back on track, as well as goal-valuation and setting appropriate goals (Desmet, Pereira, & Peterson, 2020).



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Encouraging gifted girls can include a strategy referred to be Boston & Cimpian (2018) as a “psychological vaccines.” This is combatting negative stereotypes regarding girls’ intellectual ability. This includes instilling growth mindset and reminding them that their ability is not fixed—especially if they perceive themselves to be bad at math or science.

In the STEM field, we can encourage gifted girls to pursue careers by providing them with female STEM role models, deny negative stereotypes regarding people in STEM (isolated, nerdy, etc.) and provide opportunities for girls to experience success in STEM.

Awareness that gifted girls have different experiences from gifted boys is the first step to creating an inclusive and nurturing environment where gifted girls feel safe to express their abilities and talents.



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