Representation in STEM Disciplines

Women, persons with disabilities, and Black, Indigenous, and People of Color (BIPOC) are underrepresented in high-paying STEM (Science, Technology, Engineering, and Math) careers. I-LABS is advancing our understanding of how related stereotypes develop and what kinds of training and programs can broaden representation in STEM fields.

Read Our Research

- Stereotypes and bias can negatively impact STEM interest and academic outcomes for women and Black, Indigenous, and People of Color (BIPOC). Interventions that focus on social factors like mindsets, identities, and a sense of belonging can buffer the negative impacts of stereotypes, playing an important role in diversifying STEM fields.
  

- Parental beliefs about “who does math” are linked to young children’s beliefs about their own math abilities. For example, mothers who do not identify with math may also inadvertently dissuade their daughters from seeing themselves as a “math person.” Fathers can also play an important role by encouraging and supporting math skills in their daughters.

  del Río, Strasser, Cvencek, Susperreguy & Meltzoff, 2019, Dev. Psychol.

- Young girls report being less interested and comfortable with technology and programing than boys. This study uses a short training program that includes positive engagement with programing to reduce or eliminate this gender difference.


- Preschool-aged children who feel like they belong to a social group associated with STEM do better and are more motivated in STEM activities. STEM can be a social endeavor!

  Master, Cheryan & Meltzoff, 2017, Dev. Psychol.

- In the U.S., children internalize the bias that “math is for boys” as early as the second grade. These math-gender biases emerge even before any actual differences in math achievement.

  Cvencek, Meltzoff, & Greenwald, 2011, Child Dev.
  https://bit.ly/2Yf3QJa

At a Glance

Infographic: STEM for All!

Handout: Math Stereotypes

Handout: Early STEM Learning

Dig Deeper

Featured Resource: Math Stereotypes

Featured Resource: Early STEM Learning
https://bit.ly/2EbKZcD

Video: Who Is a “Math Person”?
https://vimeo.com/435910590

Video: Feeling Connected to Others Can Improve STEM Engagement
https://vimeo.com/435910927

Video: Empowering Young Girls in STEM
https://bit.ly/3gaOw84

Want to Learn More?

https://modules.ilabs.uw.edu/outreach