Math Anxiety, Emotional Competence, and Math Performance

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Why Is Math Anxiety Important?

- Negative correlation between math anxiety and math performance
- People with high math anxiety and poor math performance tend to avoid math opportunities later in life (Espino, et al., 2017; Hembree, 1990; Hurst & Cordes, 2017; Meece, Wigfield, & Eccles, 1990)
- Middle/high school students with low math anxiety were more likely to choose STEM-related majors in postsecondary education (Ahmed, 2018)
Why Is Emotional Control/Competence Important?

- Affects children’s perception of facing and overcoming problems (Spillane, Reiser, & Reimer, 2002)
- Effectively managing thinking, attention, and behavior can lead to better academic performance (Jones, Barnes, Bailey, Doolittle, 2017)
- Gaps in the literature, self-efficacy, math anxiety, and math performance
Methods

- Participants of the study were 27 elementary school students
  - 15 3rd graders
  - 12 4th graders
- One data collection in August 2019, 2 examinations administered
  - Math Anxiety - Suinn Mathematics Anxiety Rating Scale, Elementary Form (MARS-E)
  - Emotional Control - Regulatory Emotional Self-Efficacy (RESE) scale
- Math performance - accuracy during math practice over a semester
Math Performance vs. the Combination of Math Anxiety and Emotional Control

[Graph showing the relationship between average percent of correctly answered questions and math anxiety with emotional control as a factor.]
Conclusion and Future Steps

- Determine if emotional control is a moderating factor that explains why math anxiety affects students math performance differently
- Interventions for students underperforming in math
- Expand this into a literature review, evaluating the links between self-efficacy, math anxiety, and math performance
- Acquire more data


