

PERFECTIONISM AND MATH SELF-EFFICACY

Few researchers have examined how perfectionism might alter students' academic self-efficacy. Some have found a positive relationship between perfectionism (socially-prescribed) and academic self-efficacy; others have found a negative relationship^{1,2}. The current study seeks to examine the relationship between adolescents' perfectionism and math self-efficacy and to investigate possible gender differences.

RESEARCH QUESTIONS

1. Are there gender differences in early adolescents' levels of perfectionism?
2. What is the relationship between students' perfectionism and math self-efficacy?



METHOD

Participants: 1,781 elementary and middle school students (49.4% female)

Data Collection: Surveys administered during math classes



MEASURES

Variable	Items	α	Sample Items
Perfectionism³	18		
Self-Oriented	9	.85	"I set high standards for myself." "I try to be perfect in everything I do."
Socially-Prescribed	9	.87	"Others hold high standards for me." "There are people in my life who expect me to be perfect."
Math Self-Efficacy⁴	4	.89	"I can do well in math."

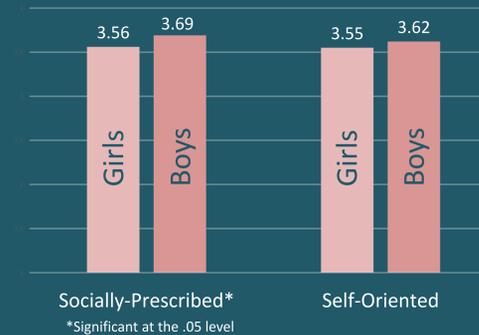
Self-efficacy scale anchors (1, *Not at all confident*, to 6, *Completely confident*)
 Perfectionism scale anchors (1, *Definitely false*, to 6, *Definitely true*)

ANALYSES

- Independent samples *t* tests to analyze gender differences in self-oriented and socially-prescribed perfectionism
- Linear regression to test the relationship between self-oriented and socially-prescribed perfectionism (independent variables) and math self-efficacy (dependent variable)

RESULTS

Are there gender differences in early adolescents' levels of perfectionism?



What is the relationship between perfectionism and math self-efficacy?

Both types of perfectionism were significant predictors of math self-efficacy, $R^2 = .15$, $F(2,1879) = 30.165$, $p < .01$

Higher levels of *self-oriented perfectionism* were associated with an increase in math self-efficacy ($B = 0.19$, $p < .01$)

Higher levels of *socially-prescribed perfectionism* were associated with a decrease in math self-efficacy ($B = -0.12$, $p < .01$)

- Boys perceived more external pressure to be perfect compared to girls. Students who held themselves to high standards had higher math self-efficacy, but children who perceived expectations of perfection from others had lower math self-efficacy.
- Self-oriented and socially-prescribed perfectionism* explained 15% of the variance in math self-efficacy.



NEXT STEPS

- Would similar results be found in more female-stereotyped subjects like reading?
- Would similar results be found if domain-specific perfectionism was used?
- How might specific experiences of highly perfectionistic students contribute to their self-efficacy beliefs?
- How might educators and parents encourage children to set their own high standards without imposing pressure to be perfect?