Self-Efficacy and the Regulation of Motivation

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INTRODUCTION

Self-Efficacy refers to students' beliefs in their ability to organize and execute actions to produce desired outcomes (Bandura, 1997).

Self-Efficacy predicts positive academic outcomes, including self-regulation and performance (Zimmerman, 2002). Less is known, however, about how it predicts the regulation of motivation (see Wolters & Benzon, 2013).

Students derive self-efficacy from four primary sources (Usher & Pajares, 2006):

- Mastery Experiences
- Vicarious Experiences
- Social Persuasion
- Physiological Arousal

There has been a call for more qualitative research to assess how different types of students weigh and combine information across sources (Usher, 2009). The present study took up this charge.

METHOD: Quantitative

131 college students (46% female)

Self-Efficacy assessed at T1 (1st year) and T2 (sophomore year); 7 items from Pintrich et al. (1991)

- "I'm confident I understand the most complex material presented by my professors"

Regulation of Motivation assessed at T2 (sophomore year); 8 items from Kim et al. (2018)

- "If I need to, I have ways of convincing myself to keep working on a tough assignment"

METHOD: Qualitative

A subset of survey respondents were selected to represent 4 levels of self-efficacy across the two time points:

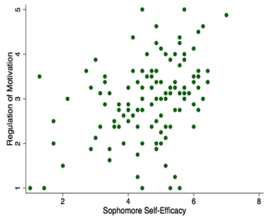
Stable Low ($n = 4$)
Stable High ($n = 5$)
Low(T1)-High(T2) ($n = 4$)
High(T1)-Low(T2) ($n = 2$)

Semi-structured interviews focused on both positive and negative sources of efficacy.

Coding of responses was done from written transcripts.

RESULTS: Quantitative

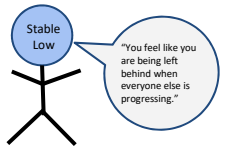
Figure 1. Self-Efficacy and the Regulation of Motivation



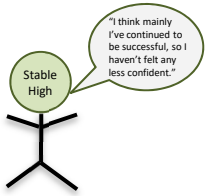
There was a significant, moderate positive correlation between self-efficacy and the regulation of motivation, $r(127) = 0.38$.

Moreover, change in self-efficacy from T1 to T2 predicted regulation of motivation scores, $F(1, 123) = 15.27$, $p < .01$, accounting for 11% of the variance.

RESULTS: Qualitative

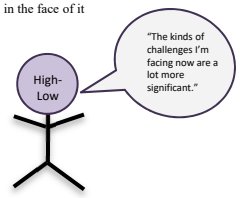


•Struggle with obstacles and don't find their schoolwork manageable
•Draw negative comparisons with others
•Don't feel calm, feel stressed



•Work through struggles and find schoolwork manageable
•Rely heavily on positive feedback
•Familiar with stress, but can persevere in the face of it

• Discuss both struggling and persevering
•Mixed responses to external sources of efficacy (e.g., vicarious, persuasion)
•Familiar with stress, and equipped to handle it (more so than Stable High)



•Don't feel prepared
•Mixed responses to external sources of efficacy (e.g., vicarious, persuasion)
•Report obstacles without success navigating them

CONCLUSION

Regulation of motivation was predicted both by previous levels of self-efficacy and the change in self-efficacy from the first to second year in college.

Qualitative analyses indicated that students in all efficacy groups faced obstacles, but those higher in efficacy reported greater perseverance.

As expected, students lower in efficacy reported more negative source experiences (e.g., negative comparisons with others, physiological stress).

Students with an unstable pattern of efficacy over time reported more mixed responses to sources of efficacy.

The current study was limited by a relatively small sample size and uneven representation across efficacy groups.

Present Research

1. Quantitative: How does Self-Efficacy predict the Regulation of Motivation, both concurrently and over time?
   Hypothesis: Self-Efficacy ➡ Regulation of Motivation

2. Qualitative: How do the Sources of Self-Efficacy differ for students who are high versus low in Self-Efficacy?
   Hypothesis:
   High Self-Efficacy Students: Draw on positive source experiences
   Low Self-Efficacy Students: Draw on negative source experiences

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