

Investigating the Relationship Between Secondary Agricultural Science Teachers' Self-Efficacy and Their Beliefs about Decision-Making: Results from a Pilot Study

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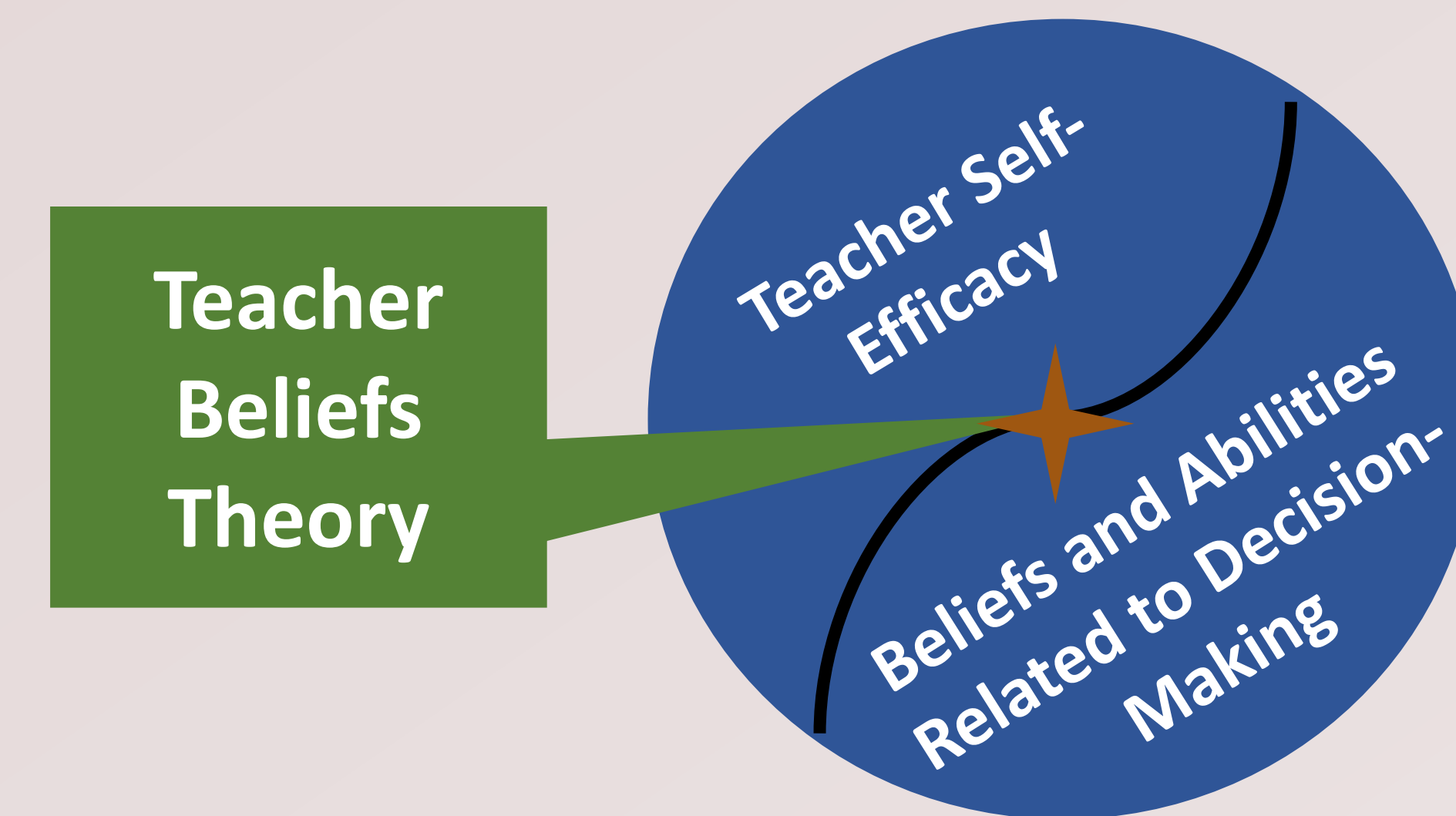


Introduction

Teacher decision-making is a multifaceted construct influenced by a variety of factors, including self-efficacy (Siuty et al., 2018). Self-efficacy influences decision-making because it guides teaching practices and contributes to teaching effectiveness (Taimalu et al., 2010). Because of the complex social landscape in which agriculture teachers work (Traini et al., 2021), agricultural science teacher decision-making is important to investigate.

Theoretical Framework

Teacher beliefs (i.e., self-efficacy) are affective, derived using judgement, and often used to understand teacher decision-making (Ng et al., 2010). We used teacher beliefs theory to determine the relationship between secondary agricultural science teachers' self-efficacy and their beliefs and abilities related to decision-making (Attias, 2020).



- 1) What is the relationship between teachers' self-efficacy and the extent to which they believe teachers are decision-makers?
- 2) What is the relationship between teachers' self-efficacy and their perceived ability to teach students decision-making skills?

Method

- Survey research design.
- Secondary agricultural science teachers in California.
- Measured teachers' self-efficacy using Tschannen-Moran and Woolfolk Hoy's (2001) *Teachers' Sense of Self-Efficacy* scale ($\alpha = 0.73$).
- Developed a nine-item Likert scale to measure the extent to which teachers believed they are decision-makers ($\alpha = 0.91$) and a six-item Likert scale to measure teachers' perceived ability to teach students decision-making skills ($\alpha = 0.83$).

Results (n = 39)

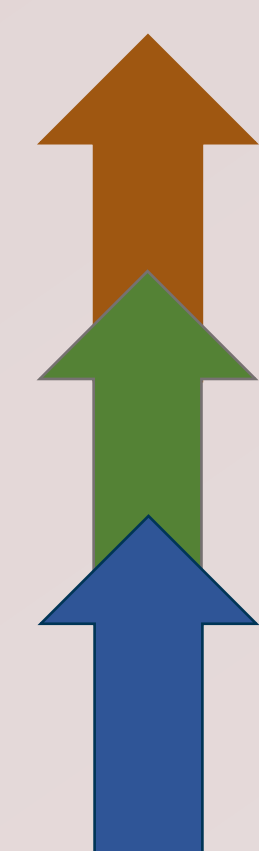
Pearson Product Moment Correlation Coefficients Representing the Relationships Between Agricultural Science Teachers' Self-Efficacy and their Beliefs About Decision-Making

	Efficacy in Student Engagement	Efficacy in Student Engagement	Efficacy in Student Engagement
Beliefs About Teachers as Decision-Makers	0.31	0.29	0.20
Ability to Teach Decision-Making Skills	0.46	0.43	0.10

Most respondents identified as white females with 11–20 years of teaching experience.

Conclusions

As teachers' self-efficacy increases...



1. Their positive beliefs about aspects of decision-making increase.
2. The more they believe teachers are decision-makers.
3. The more confident they feel in their ability to teach decision-making.

Recommendations

We recommend scholars develop strategies to improve agricultural science teachers' self-efficacy and, as a result, improve their beliefs and abilities related to decision-making.

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Siuty, M. B., Leko, M. M., & Knackstedt, K. M. (2018). Unraveling the role of curriculum in teacher decision making. *Teacher Education and Special Education, 41*(1), 39–57. <https://doi.org/10.1177/0888406416683230>
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