

Self-Efficacy of Induction-Year School-Based Agricultural Education Teachers

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Introduction and Theoretical Framework

Teacher self-efficacy has positive correlations with teacher retention, motivation, effective behaviors, and student learning (Tschannen-Moran & Woolfolk Hoy, 2001). This self-referent belief of ability to be successful in a given context is important for induction-year teachers as they face new challenges every day (Pajares, 1992) as a strong sense of self-efficacy is needed to begin and persist in new skills (Bandura, 1997). Teacher educators, administrators, and professional development providers need to consider teacher self-efficacy when developing and providing vital support for induction-year and novice teachers (Mundt, 1991).

Bandura's (1977) theory of self-efficacy served as the theoretical framework of this study. Bandura (1997) identified four sources of self-efficacy and noted self-referent beliefs are malleable, especially when undertaking new tasks, such as those of an induction-year teacher (Moore & Swan, 2008). The purpose and research objective of this study was to describe changes in self-efficacy over the induction year for Oklahoma SBAE teachers in the 2020-2021 school year.

Methodology

Census survey methods were used to meet the study purpose (Creswell, 2009). Preexisting instruments from Wolf (2011) and Rubenstein et al. (2014) were combined to measure teacher self-efficacy in instruction, FFA advising, and supervision of supervised agricultural experiences (SAE). The 60-item, 9-point Likert-type instrument produced Cronbach α values of 0.86, 0.96, and 0.96 for the instruction, FFA, and SAE constructs respectively in post-hoc analyses (Warmbrod, 2014). The population frame ($N = 29$) was obtained from Oklahoma agricultural education staff. The Qualtrics hosted instrument was emailed to induction-year teachers in three phases. First phase of data collection occurred in August at the beginning of the school year with 24 participants (82.76% response rate). Second phase occurred in December at the end of the first semester with 21 participants (72.41% response rate). Third phase of data collection occurred in May at the conclusion of the school year with 17 responses (58.62% response rate). No statically significant differences, $t(19) = 1.59, p > 0.05$ and $t(15) = 0.35, p > 0.05$, were found between early and late responses in December and May, indicating respondents were representative of the larger population (Linder et al., 2001). Thirteen (44.83%) induction-year SBAE teachers completed all three phases of data collection. Data were imported into IBM's SPSS version 23 for descriptive data analysis.

Findings

Teacher self-efficacy scores are displayed in Table 1. On average, Oklahoma induction-year SBAE teachers scored between 6.73 and 7.00 on instruction self-efficacy. Average FFA self-efficacy grew 0.54 points between August and May. SAE self-efficacy was consistent throughout the school year with 0.05-point difference in August and December. Overall teacher self-efficacy, the average of all 60 items, was the lowest in December, but increased 0.31 in May.

Table 1.
Mean Self-efficacy Scores Across the Induction-Year

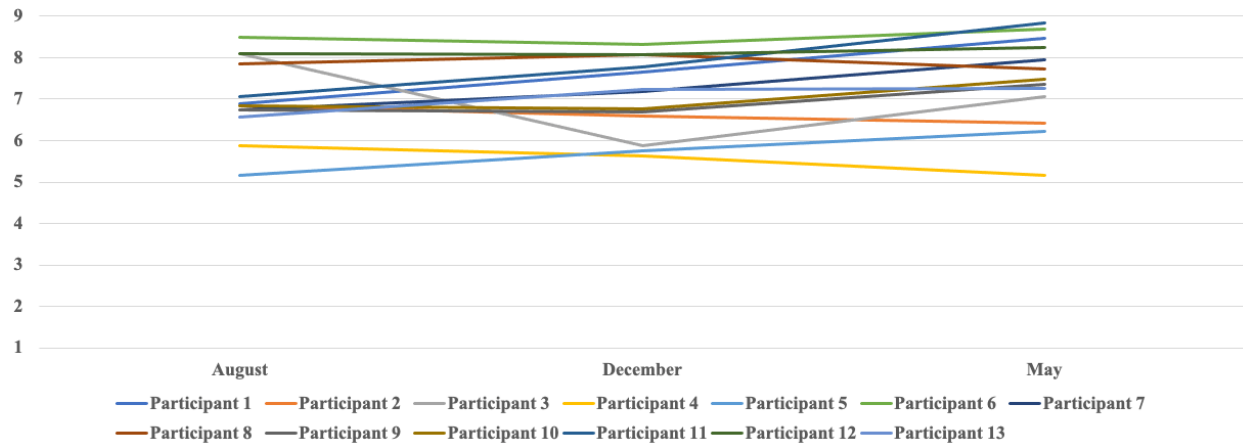
	Instruction		FFA		SAE		Overall	
	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>
August (<i>n</i> = 24)	6.75	0.75	6.94	1.21	7.31	0.88	7.00	0.82
December (<i>n</i> = 21)	6.73	0.92	6.98	1.29	7.36	1.00	6.96	1.01
May (<i>n</i> = 17)	7.00	1.04	7.48	1.09	7.34	1.35	7.27	1.04

Note. 9-point Likert-type scale, 1 indicates no ability and 9 indicates a great deal of ability.

In further analysis of the 13 participants completing all rounds of data collection, teacher self-efficacy scores in instruction, FFA, and SAE stayed constant with an average increase of 0.21 points (*SD* = 0.68) in overall SBAE teacher self-efficacy. This is shown in Figure 1. As instruction, FFA, and SAE constructs followed a similar pattern, only the overall SBAE teacher self-efficacy is displayed below.

Figure 1.

Overall SBAE Teacher Self-Efficacy Over the Induction Year



Conclusions, Implications, and Recommendations

Oklahoma induction-year SBAE teachers enter the profession with strong beliefs in their ability to be successful. Though levels for some individuals may fluctuate more than others, teacher self-efficacy stayed high throughout the numerous challenges of the induction year (Moore & Swan, 2008). These self-efficacious beliefs may result in the retention of effective SBAE teachers (Bandura, 1997; McKim & Velez, 2016). It should be noted this study collected self-referent beliefs that are not necessarily true of participants’ abilities (McDonald, 2008). Further tracking of participants’ retention or attrition and teacher effectiveness would provide additional empirical evidence of the theory of self-efficacy in SBAE (McKim & Velez, 2016).

Moir (1999) found induction-year teachers tended to exhibit positive views toward teaching at the beginning and end of the school year with the lowest point at midyear. Similar to Rayfield et al. (2014), this study found much less variation in induction-year teachers’ beliefs. Further examination of SBAE induction-year teachers and their comparison to other induction-year educators is necessary to examine the relationship between the context of SBAE and induction-year teacher self-efficacy.

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