

Effects of Induction Programs on Teacher Self-Efficacy

Grant Lee Ermis
Dr. Josh Stewart
Oregon State University

Jalisa Thomason
University of Phoenix

170 SW Waldo Place
Corvallis, OR 97331
(541-737-2661)
Grant.Ermis@oregonstate.edu

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Introduction

Effective teacher induction programs have the ability to decrease teacher turnover and increase the longevity of careers in the classroom (Darling-Hammond & Lieberman, 2011). Additional research needs to be conducted under the imperative of increasing the understanding of how induction programs are effective in their pursuit. In 2015 an Induction Task Group of the California Commission on Teacher Credentialing (CCTC) recommended that “new teachers receive appropriate support and mentoring in their first few years of teaching” (CCTC, 2015). To date, there have not been any reports made that measure the objectives of this CCTC recommendation as they relate to agriculture teachers. In order to increase job satisfaction and place focus on teacher attrition within agricultural education (Clark, Kelsey, & Brown, 2014) the current state of the field needs to be surveyed.

In previous state-centered forms of induction, the distinct subpopulation of agriculture teachers has been underserved (Davis & Jayaratne, 2015). Agriculture teachers do not exist in similar concentrations as other subject teachers, and it can be difficult to pair agriculture teachers with a mentor actively engaged in a similar content area. This may lead to a decline in self-efficacy during the first years of teaching for an induction-level teacher when a mismatched mentor relationship is the only option which increases the potential for novice teachers to leave the profession. This research examines the efficacy among induction-level agriculture teachers in the state of California, and considers how induction needs may vary for this specific subpopulation of teachers in order to keep effective agriculture instructors in the classroom.

Framework

Guided by Bandura’s work on social cognitive theory, we examined the interactions of induction-level teachers with particular focus on self-efficacy and its manifestation on satisfaction with a mentor relationship. Self-efficacy of teachers is linked to how impactful they feel their work is, how much experience they have, and how capable they feel about attaining designated goals (Soodak & Podell, 1996; Bandura, 1986). These levels of efficacy leading to confidence are different for all teachers, but unique for agriculture teachers. There is a familial nature to the development of agriculture teachers which increases the connection of novices to their preparation and mentorship programs; providing a unique environment of constant contact. According to Rice & Kitchel (2015) adequate preparation and support of a novice teacher through an induction program will double the likelihood that they stay in the profession. Thus, the increased connection within agricultural education should positively align with the development of self-efficacy and satisfaction with support providers.

Methodology

Self-efficacy can be examined in a number of ways, but in order to understand the impact on induction level teachers and imply need for potential future exploration, a quantitative survey approach is appropriate. An instrument was developed to examine efficacy and dyad satisfaction using the Teacher’s Sense of Efficacy Scale (TSES; Tschannen-Moran & Woolfolk Hoy, 2001), which has been previously used in similar populations (Knobloch, 2006). The instrument consisted of limited and free-choice response questions to identify current levels of self-efficacy and mentor satisfaction with respect to induction-level agriculture teachers in a large western state.

For the purposes of this study, an induction-level teacher was defined as a teacher currently engaged in the first three years of teaching and enrolled in an induction program in the state of California. The population sample was derived from the California Agricultural Teachers' Induction Program (CATIP) and various other local education agency (LEA) endorsed induction programs. The survey instrument was developed and disseminated in accordance with Dillman's (2007) tailored design method. A total of 88 responses were recorded with 59 of those being currently enrolled in one of two different types of induction programs (i.e. locally coordinated or coordinated via a state consortium specifically for agricultural educators). Data was analyzed through independent sample t-tests using Statistical Protocol for Social Sciences (SPSS, v25).

Results

All data were analyzed under non-normal data assumptions (i.e. small sample size and non-normality) utilizing a Mann-Whitney U *t*-test of independent samples. The *TSES* (Tschannen-Moran & Woolfolk Hoy, 2001) show that mean scores for self-efficacy are high. For example, both cohorts of induction-level teachers express high levels of efficacy ($M = 7.37$) in classroom management, and ability to address the needs of disruptive students ($M = 7.02$). While there is a noticeable dip in efficacy to motivate students and connect with student families ($M = 6.71$ and $M = 6.80$, respectively) responses still reflect a trend of higher efficacy. Between the two cohorts of induction-level teachers there are no significant differences in the CATIP participant mean efficacy scores relative to their peers in other locally managed induction programs. For the purpose of evaluating mentor satisfaction, a Mann-Whitney U *t*-test of independent samples was conducted. Candidates in both programs are similarly satisfied that their mentor is providing quality service ($M = 2.53$) on a scale of -3 (negative level of satisfaction) to +3 (positive level of satisfaction), and CATIP participants express higher satisfaction that their mentor has more content area knowledge. Results are significantly different ($t = 2.603$, $p = 0.002$) between the two cohorts suggesting that the CATIP participants are more satisfied ($M = 2.53$) with their mentor's content area connection than their peers ($M = 2.60$). The point biserial correlation effect size $r_{pb} = .41$ expresses a substantial relationship (Vaske, 2008) between induction cohort and mentor content area knowledge satisfaction.

Conclusions

The data reveals induction-level agricultural teachers who are enrolled in the CATIP are just as likely to have similarly positive self-efficacy measures at the end of their first term teaching as their peers in other programs. This finding indicates a trend of future growth due for the recently formed CATIP program. Further examination reveals positive measures of mentor satisfaction that rival those of induction level teachers in other programs, and a positive outlook for future measures.

Implications for the Profession

The problem of teacher retention has been studied previously, and Clark et al. (2014) specified that agriculture teachers are twice as likely as teachers in other content areas to leave the profession within the first six years. This study addresses the teacher retention issue by building on previous recommendations to examine potential structures that may be affecting agriculture teacher attrition in the State of California. Within the first year of a new induction program, participants are showing on-par results with their peers who have continued in other programs. The recommendation made by this research is to continue to develop and expand the CATIP mentorship program.

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