

**Investing in Agriculture Teachers**  
**A Study on National Professional Development Series Effectiveness on Agriculture Teacher Retention**

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#### **Introduction/Need for Research**

The demand for high-quality and diverse agriculture teachers in school-based agricultural education continues to grow while school-based agricultural education (SBAE) programs expand and grow across the United States (Foster et al., 2023). The growing demand is creating an even greater need to keep school-based agricultural educators in the classroom through retention efforts (Solomonson et al., 2017). Associations like the National Association of Agricultural Educators (NAAE) developed specialized professional development programs to strengthen resiliency, develop stakeholder relationships in schools and communities, increase classroom rigor and curriculum, all while promoting a work life balance for satisfaction within their career. Professional development programs from NAAE were designed specifically to increase teacher successes and self-efficacy, thus promoting retention in school-based agricultural education classrooms. The study had three main goals: (1) Examined characteristics of educators who are likely to engage in retention-focused professional developments, (2) Analyzed national retention-focused professional developments for agricultural educators and their alignment to high-quality professional developments, (3) Investigated the relationship between participation in nationally based retention centered professional development and the influence of those programs on agriculture teacher retention in SBAE.

#### **Conceptual/ Theoretical Framework**

A Conceptual Model of Factors Influencing Agriculture Education Teacher Retention (Solomonson et al., 2017) provides insight on the variables that can attribute to an agriculture teachers' decision to remain in the classroom. This study focused on the Teacher Development pillar of the model. Teacher preparation and training, professional development/mentoring, teacher qualifications, self-efficacy, and teacher experience all make up the area of Teacher Development within the model. Nationally based retention-focused professional developments strive to provide growth within teacher training, professional development all while enhancing self-efficacy and providing positive teacher experiences. Additionally, Darling-Hammond (2017) introduced a framework for evaluating the effectiveness and quality of professional developments. The framework assessed seven distinct areas (1) Content-Focused, (2) Incorporates Active Learning, (3) Supports Collaboration, (4) Uses Models of Effective Practice, (5) Provides Coaching and Extra Support, (6) Offers Feedback and Reflection, (7) Sustained Duration. To determine the effectiveness and quality of nationally based retention-focused professional developments, NAAE programs were evaluated within the seven distinct areas.

#### **Methodology**

To conduct this study, a survey was provided to participants of nationally based retention professional development programs, specifically NAAE participants. Participants included educators who engaged in NAAE's Teachers Turn the Key which is designed to retain early career teachers or XLR8 that focuses on retention for mid-career teachers. A survey was administered via QUALTRICS™ to 412 participants via email with 156 complete responses. The survey collected demographic data, evaluated professional development programs based on Darling-Hammond, 2017 "Effective Teacher Professional Development" framework, and

measured the impact of emotional support (.86 Cronbach Alpha) and effectiveness of retention programs (.89 Cronbach Alpha) on SBAE teacher retention. IBM SPSS Statistics Version 29.0.2.0 (20) software was used to analyze data collected from the surveys.

### **Results/Findings**

The first objective identified characteristics of those who participated in nationally based retention professional developments. Participants were predominately female, in their mid-30's, with an average of 12.68 years of teaching experience. They primarily taught in multi-teacher departments in rural settings with around 30% of the school population enrolled in agricultural education courses. All educators had participated in other professional developments hosted by the National Association of Agricultural Educators.

Alignment of retention-focused professional developments to the high-quality professional development framework were the focus of the second objective. The study revealed that a summated score of 4.35 on a Likert type Scale of 1-5 (1 being the lowest and 5 being the highest) of overall alignment to effective high-quality professional development. It was concluded that the retention-focused professional developments facilitated by NAAE aligned with the framework for effective high-quality professional development.

Evaluation of emotional support was essential in determining the effectiveness of NAAE retention based professional development programs. Participants of the study strongly supported that NAAE addressed emotional support for professional success. This result furthers the claim that NAAE retention based professional development programs provide teachers the tools to strengthen professional practices and develop resiliency.

Lastly, the final objective sought to determine the effectiveness of national retention-focused professional development programs and their influence on the decision to remain in school-based agricultural education. Participants were asked to rank the influence of NAAE professional development programs and their decision to remain on a scale of 1-5 (1-strongly disagree to 5-strongly agree). This resulted in a mean of 3.87 and a standard deviation of 1.05. The mean score of 3.87 suggests that while NAAE programs positively influence retention, opportunities remain to enhance their impact further.

### **Conclusions**

Nationally based retention-focused professional developments, specifically NAAE professional development programs, play a critical role in improving teacher retention and teacher development by offering programs that equip teachers with the tools for success. These programs create more resilient agriculture teachers by providing emotional, professional, and personal support through alignment to the high-quality standards. This study highlights the critical need for continued investment in high-quality retention-focused professional development.

### **Implications/ Recommendations/ Impact on the Profession**

Future research should explore the concepts that could be generalized for agriculture teachers. As school-based education is unique in each state, the uniting factor for SBAE across the nation is the educator. Structuring retention-focused professional development programs with concepts that can be standardized for agriculture teachers can improve retention rates.

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