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Exploring the Adoption of a Cooperating Teacher Preparation Program in Agricultural Education

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Abstract

This study presents a program review of a Cooperating Teacher Preparation and Support Program intervention within school-based agricultural education teacher preparation programs, employing Diffusion of Innovations and the Concerns-Based Adoption Model to explore the adoption behaviors of agricultural education teacher preparation university program coordinators. The study reveals the crucial role of formalized preparation and ongoing support for cooperating teachers in fostering successful mentorship experiences during student teaching internships. Drawing from the insights of program coordinators, the findings highlighted the program's compatibility with existing structures, addressing gaps in cooperating teacher training. The Diffusion of Innovations characteristics—relative advantage, compatibility, complexity, observability, and trialability—are pivotal in shaping coordinators' perceptions and decisions. Concerns-Based Adoption Model stages of concern, ranging from informational to refocusing, illuminate the evolution of coordinators' concerns during the adoption process. The study contributes essential insights into the complexities of implementing mentorship programs, emphasizing the need for ongoing support, collaboration, and adaptation. Recommendations advocate for integrating structured mentorship programs in teacher preparation, collaboration among universities, and a culture of continuous evaluation.

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Introduction and Problem Statement

Mentorship plays a vital role in teacher effectiveness, impacting new teachers' motivation, engagement, satisfaction, and persistence (Blackburn & Robinson, 2008; Tschannen-Moran & Hoy, 1998). Mentoring programs are widely used to enhance teacher retention and to support new teachers during their transition into the classroom (Greiman et al., 2005; Ingersoll & Strong, 2011; Nasser-Abu Alhija & Fresko, 2010). In student teaching internships, cooperating teachers (CT) are crucial in guiding and mentoring student teachers (ST) (Roberts, 2006). CTs model effective teaching strategies, provide feedback, and help STs develop pedagogical skills and confidence (Clarke et al., 2014; Roberts, 2006). Ultimately, their mentorship contributes to STs' growth, teacher self-efficacy, and professional development (PD) (Curtner-Smith, 2001; McKim & Valez, 2017).

CTs, in their role as mentors, need to possess qualities of professionalism, effective teaching skills, nurturing personal characteristics, and a desire to build a strong relationship with their STs (Roberts, 2006). However, there is a lack of focus and current literature on the PD and support needed for CTs to fulfill their mentoring roles effectively. Universities should provide formalized preparation and ongoing support for CTs to ensure their mentoring abilities align with the needs of STs (Barry, 2019; Barry et al., 2021). This includes engagement from the university, training in mentoring techniques, and clear guidelines for transitioning STs into their full teaching responsibilities (Hamilton, 2010). Best practices in mentoring, including social support, professional support, and role modeling, should be implemented, and a mutual understanding of the mentor and mentee roles is crucial (Alemdag & Simsek, 2017; Barry, 2019; Nesbitt et al., 2022; Russell & Russell, 2011).

Theoretical and Conceptual Framework

The framework of this program review utilizes diffusion of innovations (DOI) and the concerns-based adoption model (CBAM) to develop a change model for program adoption of the Cooperating Teacher Preparation and Support Program intervention within the education and the university system. Rogers' (2003) DOI theory explains the adoption of innovations by individuals or groups. Innovations are defined as new ideas, practices, programs, or objects. Their successful adoption depends on five perceived characteristics: relative advantage, compatibility, complexity, observability, and trialability (Rogers, 2003). Relative advantage refers to the innovation's perceived superiority over alternatives. Compatibility relates to the innovation's alignment with existing values and needs. Complexity addresses the ease of adoption. Observability focuses on the benefits being observable. Trialability involves the ability to try the innovation before committing to its use. Only 8% of DOI research has been done in the field of education, and there is a gap in research related to the use of DOI for PD adoption (Petruzzelli, 2010; Rogers, 2003). Petruzzelli (2010) states that the success of a PD innovation implementation depends on external factors such as program leadership, PD planning, and the experience of those participating in the PD. The acceptance and execution of innovation largely rely on the personal experiences of those who coordinate and participate coordinating and

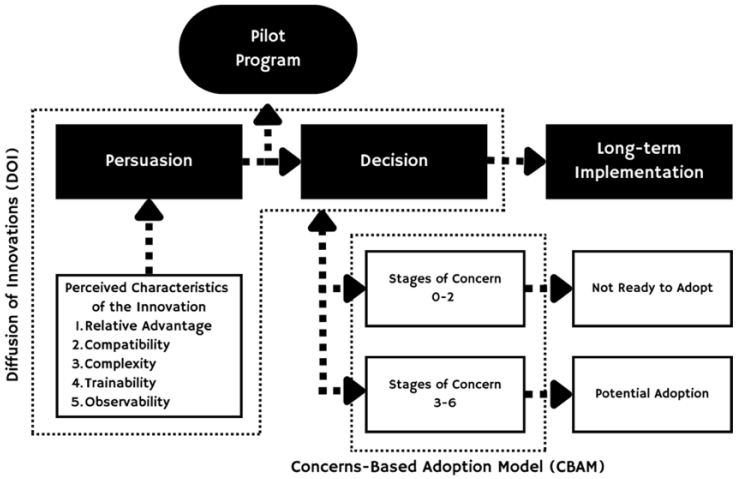
participating in the program (Geijsel et al., 2001). Additionally, Kaminski (2011) expressed the importance of exploring different perceptions of innovations to adjust the adoption process based on the adopters' needs.

CBAM offers a framework to understand the stages of concern experienced when adopting new practices or programs. This model is commonly utilized when discussing the adoption of innovations within education (Haines, 2018; Hall & Hord, 2006; Hollingshead, 2009; Ogegbo & Ramnarain, 2022; Trapani & Annunziato, 2018). CBAM identifies seven stages of concern commonly experienced when adopting new instructional practices: awareness, informational, personal, management, consequence, collaboration, and refocusing (Hall & Hord, 2006; Hollingshead, 2009). Understanding and addressing teachers' concerns at each stage of their training is crucial for promoting the successful adoption and integration of new PD, instructional practices, or programs (Hall & Hord, 2006). By assessing the concerns of university coordinators who work with CTs during the student teaching experience, an environment that nurtures CT mentorship PD and facilitates improved mentoring to their ST can be adopted, ultimately improving the student teaching experience.

The combination of DOI and CBAM theories was utilized to create this study's conceptual model for program adoption (see Figure 1). In this model, the perceived characteristics of the preparation and support program for CTs were utilized to persuade university teacher preparation programs to join this pilot program. From there, the university program coordinator's stage of concern from the CBAM was collected to determine the potential adoption of the program (Nesbitt, 2024).

Figure 1

Conceptual Model of the Combination of Diffusion of Innovations (DOI) and Concerns-Based Adoption Models (CBAM) Used to Influence a Decision to Adopt



Purpose and Research Questions

The purpose of this program review was to examine the adoption of best practices support from teacher preparation programs. The following research questions guided this study: (a) What characteristics do student teaching internship program coordinators perceive as influential in their decisions to adopt or not adopt a CT support program? (b) How do student teaching internship program coordinators perceive the relative importance of each factor in their decision to adopt a CT support program? (c) What components of the CT support program were deemed most effective by the student teaching internship program coordinators? (d) What are the perceived barriers of student teaching internship program coordinators in adopting a CT support program?

Methods

This program review employed a qualitative approach to assess the effectiveness of the CT training intervention by utilizing a phenomenological inquiry into the adoption behaviors of agricultural education teacher preparation universities concerning the CT preparation and support program (Boyle, 1981; Moustakas, 1994). This review was framed as a phenomenological inquiry to explore the lived experiences of university program coordinators in adopting and implementing the CT preparation and support program. This approach allowed for a deeper understanding of how coordinators perceived, interpreted, and navigated the adoption process (Creswell & Poth, 2018; Moustakas, 1994). Two university teacher preparation programs were selected for this review. Both were land-grant universities with agricultural education teacher certification programs in different geographical regions. Importantly, neither university had previously conducted its own CT preparation and support program before participating in this research.

The intervention was based on the University of Florida's Department of Agricultural Education and Communication program that implemented a mentorship training protocol for CTs that started in the fall of 2018 and further developed each year (Barry, 2019). The program's main objective was to equip and support CTs in their mentoring roles during the student teaching internship. The program emphasized best practices in the areas of social support, professional support, and role modeling. It included a dedicated website for resource retrieval, a CT mentorship manual, onboarding for CTs and STs, a pre-internship workshop for CTs and STs to provide essential skills, regular communication through emails and infographics, and monthly collaborative Zoom meetings to foster a supportive community of CTs (Barry, 2019; Barry et al., 2021; Nesbitt et al., 2022).

Participants in this study included two faculty members who were program coordinators for STs and CTs at two university-state agricultural education teaching preparation programs. The coordinators were given detailed directions and content for implementing the onboarding sessions, pre-internship workshop, sending bi-weekly emails, and hosting the monthly Zoom meetings within the CT preparation and support program. Participants were sent check-in

emails at the beginning of each stage, and they were asked to send verification of each detail to ensure the program was implemented correctly. The website and CT manual were provided and updated by the researcher.

Interview questions were formulated to explore the phenomenon of adoption through the perspectives of the university program coordinators in this study (Creswell & Poth, 2018; Moustakas, 1994). The interview protocol was vetted by three university faculty considered experts in qualitative research, change-based theories, and agricultural education. With permission from the Institutional Review Board (IRB2022-01843), the program was implemented at each university during the 2022-2023 school year. Following the complete implementation of the program, each program coordinator was asked to participate in individual one-hour semi-structured interviews in July 2023. Throughout the interviews, probing questions were employed to explore the program coordinators' experiences further and to gather a more comprehensive understanding of adoption (Merriam, 2002).

After assigning pseudonyms to maintain confidentiality, a three-read process was conducted for coding (Saldaña, 2016). During the third read, predetermined constructs were used to create thematic codes, enabling the identification of adaptable program characteristics and the coordinators' stages of concern in the adoption process (see Table 1). Additionally, in vivo coding was employed to uncover any emergent themes that may have surfaced within the structural codes (Saldaña, 2016). Participant quotes also provided deeper insights into the phenomenon under investigation (Merriam, 2002; Moustakas, 1994). To ensure trustworthiness, member checking and peer debriefing was employed to establish credibility.

Table 1

Summary of Thematic and Descriptive Codes

Theme	Code	Description
Perceived Characteristics of the Innovation (Rogers, 2003)	Relative Advantage	Participants shared their previous experiences with cooperating teacher training.
	Compatibility	Participants discussed how the program fit into their existing program.
	Complexity	Participants shared their experiences implementing the program.
	Observability	Participants discussed their observed benefits.
	Trialability	Participants shared future implementation of the program.
Components of the program	Most Effective	Participants share their use of the components and how they viewed their effectiveness.
	Barriers	Participants discussed barriers they faced when implementing the program.
Stage of Concern (Hall & Hord, 2006, Hollingshead, 2009)	Awareness	Participants discussed their level of awareness with the new program
	Informational	Participants discussed their original interest in learning more about the program.
	Personal	Participants discussed their uncertainty about the personal demands and implications of the new program.
	Management	Participants discussed their focus on managing, scheduling, and time demands of the new program.
	Consequence	Participants discussed their perceived impact of the new program on their cooperating teachers and student teachers.
	Collaboration	Participants discussed their interest in collaborating with others in the new program.
	Refocusing	Participants discussed their possibility of changes to the program.

Findings

Three focal points were utilized to help answer the research questions for this study. The codebook provides each theme and descriptive code (see Table 1). The first focal point of the coding analysis centered around DOI's five perceived characteristics of the innovation, which explore perceptions of the innovation (Kaminski, 2011; Rogers, 2003). When discussing the participants' previous experiences with CT training, several key statements emphasized the relative advantage of the program over their previous methods or lack of methods in CT training. One participant stated, "It was something that [we] had seen a need for… we had a need to do more than what we have been doing." Additionally, the participants discussed how

the program filled specific gaps such as “intentional” resources and training tools and included a dedicated day of training to get their CTs “on the same page.”

When examining the participants’ perspectives on the compatibility of the program, both participants discussed the seamless integration of the program into their existing programs. The University 1 participant stated, “I think they fit in really well… And it doesn’t feel like it’s a lot of extra work compared to what we were previously doing.” The participant from University 1 also emphasized the program’s alignment by highlighting the incorporation “of a dedicated workshop day” as a planned and expected element, complementing and supplementing existing practices without adding excessive workload. The University 2 participant also described the program as “dovetail[ing] pretty nicely” with their existing framework. They spoke specifically about the structured nature of the program, contrasting it with past practices that were more informal.

When looking at the participants’ views on the complexity of the program, challenges ranged from logistical issues and participant engagement to the integration of technology and the broader structural complexities tied to the academic reward system. The University 1 participant spoke about their initial overwhelming feeling when preparing for the workshop and the logistical challenge of their coordinating with the CTs who traveled. The participant from University 2 highlighted a surprising challenge related to CTs not paying close attention to details and recognized that they had gone from providing their CTs with little support to providing them with a lot. Additionally, the participant from University 2 spoke with concern about their personal resistance to learning new tools like Canva. As the participant honestly stated, “I’m to the point in my career that I don’t want to learn how to use Canva and edit those types of things.” Finally, University 2 participant touched upon the intricate nature of the tenure process, citing the challenge required to dedicate time to implement such a program when little weight was given towards tenure.

The University 1 participant primarily highlighted the observability of the program’s impact on their CTs and STs. The participant discussed their CTs’ feelings towards the workshop. They stated, “[CTs] really felt like they had a better understanding of what they were going to be doing and felt more prepared going into [the internship]…I think [experienced CTs] were still able to get stuff out of it because of the different elements that we put in.” The University 1 participant also discussed the program’s timely advice to the CTs throughout the internship experience. They stated, “I think the sequencing…of the topics was very beneficial for where they were throughout the experience.” University 2 similarly discussed timely advice to the CTs and the template utilized in the bi-weekly emails. They stated, “They liked the bi-weekly emails…They liked the bulleted ‘here’s what ought to be happening now… here’s the key things up front.’ They appreciated that.”

When examining participants’ perspectives of the program, there was a notable eagerness and willingness to continue to engage with its resources, with minor changes. The participants also discussed recommendations to aid in the trialability of other universities wanting to adopt the program. The University 1 participant stated, “I think now that we have a collection of stuff, it

will be easy to continue to implement, to revisit, revise, add additional pieces, as necessary…I'm excited to continue to do it." The University 1 participant suggested that housing the materials in a sharable drive would aid in the adoption at other universities and discussed two suggested edits: (a) discussion stems to help STs navigate conversations with their CTs, and (b) an added emphasis on CTs "getting [STs] introduced and situated into the school piece" of the internship. The participant from University 2 also discussed their plans to continue the CT preparation and support program. They stated, "the CT manuals, we will continue to use and update. Ah, the [workshop], we will continue to do, and we will continue to have it structured as you recommended…I think now that we have the template, it's just a matter of going in and updating things." The University 2 participant also discussed two edits they would make: (a) a university supervisor manual, and (b) support training and regular emails to STs reminding them where they should be in the internship, like the CT's bi-weekly emails. They stated, "One thing we did not do was get the university supervisors on [the training], and I think that would be valuable… [for] the university supervisors, as much as possible, be involved.

The second focal point of the coding analysis centered around The CBAM, offering a structured lens to comprehend the stages of concern each participant experienced in adopting the programs. CBAM delineates seven stages of concern: awareness, informational, personal, management, consequence, collaboration, and refocusing (Hall & Hord, 2006; Hollingshead, 2009). However, only five stages were identified during the analysis. The participants of this study began the program in the informational stage of concern, discussing their original interest in learning more about the program. The participant from University 1 stated, "We definitely had a bigger need. We had a need to do more than what we have been doing." The participant from University 2 stated, "We have always wanted to do CT training."

As the participants moved out of the informational stage of concern, they jumped to the management stage of concern. They discussed their focus on managing, scheduling, and the time demands of the program. The participant from University 1 stated, "My partner at the university had been saying [they] wanted to do something like [the program] for years and just haven't had the time to get it started." The University 2 participant also discussed their lack of time to create the resources needed to implement such a program. As mentioned in complexity, University 2 also discussed the management of this program and its weight in the tenure process.

During the program implementation, the participants discussed the perceived impact of the program on their CTs and STs, demonstrating a movement into the consequence level of concern. The University 1 participant stated they saw "the appreciation and willingness [of the CTs] to participate in the training…[and] the value that [the CTs] saw in [the training]." Additionally, the participant from University 1 discussed navigating the potential challenge of continual buy-in from seasoned mentors. They stated, "I think if we can use them, also resources, not just as you're here to learn from us that day, but you're also contributing to the learning and growth of other mentor teachers, that would be beneficial." University 2's program coordinator showed their movement into the consequence stage by discussing their

perception of the impact on CTs. They stated, “I guess that was the biggest surprise was, we went from not giving them much to giving them a lot. And it still seemed confusing.”

Participants discussed their interest in collaborating with others implementing the program, moving their level of concern towards collaboration. The participant from University 1 stated, “I think having been in communication with others who are using similar programs would be helpful… let’s collaborate, and you know, refined materials.” The University 2 participant stated, “I think learning from other people is how we get better…I would love to hear what [other states] said.”

Participants discussed the possibility of changes to the program, showing them in the final level of concern, the refocusing phase. The University 1 participant discussed the challenges faced by a ST who felt a lack of clear communication and differing expectations from mentors. They stated, “I had a ST who felt like their mentor teachers were not communicating well or clearly, or had different expectations. And so, I don’t know if it would be helpful to have some support, as well for STs.” They also touched on the ongoing efforts to continue the program, including regular emails and workshop implementation. They expressed their need for more support to fully implement the program. Finally, the participant from University 1 discussed the potential need to alter the program’s materials to fit the needs of universities with year-long student teaching internships. They stated, “One thing that I think would be important to keep in mind are some places are going to year-long student teaching placements. So, there might need to be expanded material set for that situation.” The University 2 participant reflected on their added efforts made with STs, stating, “I also tried to do some things with these STs. You know, here’s where you should be. That kind of thing, not as regular as the CTs.” They also discussed the feedback from university supervisors, stating, “University supervisors wanted more structure.” In addition, they eagerly explained their plans to continue implementing more structured guidance with their CTs. The participant from University 2 also acknowledged the challenges in coordinating full-year student teaching.

After the program implementation, the program coordinators in this study identified several beneficial aspects of the program, as well as the barriers they faced during implementation, leading to the third and final focal point of this study. For benefits, the participants consistently highlighted various aspects associated with the program’s implementation, providing insights into the positive impact of its adoption. Both schools discussed how the support program fit well into their existing program and was easy to implement. They both stated that the program pushed them to implement components they were already interested in but had not found the resources to create, such as hosting a CT workshop and more regular email communication. Additionally, the program coordinators commented on the barrier of time required to develop materials being removed due to the materials being created for them. They were surprised by the appreciation and willingness of most CTs to participate in this program.

Along with the positive feedback responses, there were still barriers that the program coordinators identified. These included some lack of participation from the CTs in reading emails, attending monthly Zoom sessions, and having buy-in from experienced mentors. Timing

was the most discussed barrier as it related to the coordinators" time to plan and implement support components, such as the workshop and Zoom sessions, as well as the CTs' time needed to attend these functions. Concern was shared by program coordinators related to learning new technology, such as Canva, to edit infographics and the ability to manage a website if they had to do that on their own. The tenure process was also shared as a time concern for the investment of a program like this and its potential weight in the tenure process.

Conclusions and Recommendations

This program review captured the phenomenon's essence across different settings, but it is essential to acknowledge the limited generalizability of the findings. However, this review could offer insights into the experiences of the university programs' implementation, aid in programmatic development, and highlight further research areas within this field.

The success of mentorship programs, particularly within student teaching internships, depends on the preparedness and ongoing support provided to CTs (Clarke et al., 2014; Norris et al., 1990; Roberts, 2006). This program review aligns with the need for formalized preparation and continuous support for CTs, ensuring their mentoring abilities align with the evolving needs of STs (Barry, 2019; Barry et al., 2021; Dunning et al., 2011; Nesbitt et al., 2022). In this study, the CT preparation and support program answered the need for structured mentorship training (Barry, 2019; Barry et al., 2021; Dunning et al., 2011; Nesbitt et al., 2022). The gap in the formalized training of CTs in school-based agricultural education was addressed by providing a comprehensive mentorship preparation and support program. The findings support the pivotal role that preparation and support programs play in enhancing the mentorship experience (Barry, 2019; Barry et al., 2021; Dunning et al., 2011; Nesbitt et al., 2022). The identified beneficial program components, including the workshops and regular communication, reflect the best practices of mentoring recommended by scholars (Alemdag & Simsek, 2017; Barry, 2019; Barry et al., 2021; Russell & Russell, 2011).

The conceptual model (see Figure 1) grounded in Diffusion of Innovations (DOI) and the Concerns-Based Adoption Model (CBAM) proved instrumental in understanding the intricate adoption process of the program (Hall & Hord, 2006; Rogers, 2003). The findings indicated the importance of DOI characteristics in shaping the perceptions and decisions of program coordinators toward the adoption of the intervention. The relative advantage, compatibility, complexity, observability, and trialability of the CT Preparation and Support Program played crucial roles in shaping the perceptions and decisions of program coordinators. The compatibility of the program with existing frameworks and the relative advantage it offered over previous methods emerged as key facilitators in the adoption process, and their significance was attributed to the successful adoption. The evolutionary nature of concern-based adoption throughout the program aligned with the observations of Hall and Hord (2006). The findings showed the initial progression of program coordinators' concerns from an informational stage, where coordinators seek understanding, to a management stage, where concerns are directed toward addressing scheduling and time demands. Once those concerns

were addressed, the program coordinators' concerns transitioned towards collaboration and refocusing on potential program modifications. This transition illuminated the coordinators' transformative journey and willingness to adopt the program.

Several program components were deemed most beneficial by program coordinators. These included the ease of integration into existing structures, and the removal of barriers related to time and resource constraints. The seamless integration into existing structures aligned coherently with the compatibility principle while removing time and resource barriers resonated with the trialability and relative advantage aspects (Rogers, 2003). Program coordinators also discussed the barriers they faced. These included challenges in technology adoption, issues related to tenure processes, and the need for enhanced cooperation from experienced mentors.

While not universally applicable to all state agricultural education teacher preparation programs, this study provides programmatic suggestions and lays the foundation for future research and development of CT preparation and support within school-based agricultural education teacher preparation programs. Universities can use the identified concerns and benefits to refine and enhance mentorship initiatives while fostering a supportive environment for the next generation of agricultural educators (Barry, 2019; Barry et al., 2021; Clarke et al., 2014; Dunning et al., 2011; Nesbitt et al., 2022; Norris et al., 1990; Roberts, 2006).

Several key areas warrant further research to advance our understanding of mentorship programs in SBAE teacher preparation. First, longitudinal studies should be conducted as a comprehensive assessment of the long-term impact of mentorship programs on the professional development and effectiveness of both CTs and STs. Second, we suggest that research on mentorship dynamics be further focused on helping both mentors and mentees navigate difficult situations during the internship and creating conversational stems for these situations. Finally, research should continue to investigate the correlation between mentorship program quality and student learning outcomes. Understanding how the effectiveness of mentorship influences both the academic and professional development of student teachers and, consequently, their students' learning experiences provides valuable insights into the broader impact of these programs.

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