Pre-Service Teachers' Perceptions of Breezy TA: A Qualitative Study of AI Adoption

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Introduction

Artificial Intelligence (AI) is poised to rapidly transform education, influencing pedagogical practices and classroom dynamics worldwide (Abualrob, 2025). Once viewed as a supporting tool, AI now plays a vital role in education, including lesson planning, diverse learning, and instructional design efficiency (Halaweh, 2023; Zhang & Aslan, 2021). Although AI cannot replace educators, it can work alongside them as a collaborative partner, supporting classroom solutions and improving efficiency (Main, 2025). For successful AI integration, pre-service teachers must develop a strong Technological Pedagogical Content Knowledge (TPACK) and its specified partner, AI-TPACK (Kohnke et al., 2025; Setiyawan et al., 2025). AI-TPACK emphasizes key components, including technical proficiency, ethical usage, detailed evaluation of AI-generated content, and effective prompt design (Meylani, 2024). Teacher preparation programs that incorporate hands-on experiences utilizing GenAI often boost pre-service teachers' confidence in AI tools, making it more likely to be used in their future classrooms (Kohnke et al., 2025)

Breezy TA is a custom tool designed to assist administrators, teachers, and staff in various teaching tasks (Breezy TA, n.d.). Although AI tools such as Breezy TA can offer numerous benefits, including increased efficiency, new lesson ideas, and support for diverse learners, dependence can be crippling for educators (Main, 2025). Teacher preparation programs must transform their basic technological tool training to include AI literacy, ethical use, effective prompt development, and productive strategies for integrating AI into pedagogical frameworks (Lee et al., 2024). Oklahoma State University seeks to advance discussions in AI educational studies by demonstrating practical ways in which AI, such as Breezy TA, can be used to create unique, effective, and revolutionary teaching tools.

Conceptual Framework

The Diffusion of Innovations (DOI) theory (Rogers, 2003) framed this study. Specifically, the model's five stages of attributes of diffusion (Rogers, 2003) guided our study. Adoption is influenced by five key attributes: relative advantage, whether it is better than what came before; compatibility, whether it fits existing values and needs; complexity, whether it is easy to understand; trialability, whether it can be tested on a small scale; and observability, whether the results are visible to others (Rogers, 2003). Innovations that score highly within these five traits are more likely to be adopted. This theoretical framework provided a foundation for how preservice teachers adopted BreezyTA in their practice.

Methods

This study used the generic qualitative methodology to explore preservice teachers' perceptions of BreezyTA (Silverman, 2016). Unlike other qualitative traditions, the generic qualitative approach provides flexibility and adaptability, enabling researchers to examine a broad range of experiential topics (Chenail et al., 2011). This methodology relies on narrative and language as primary data sources and is effective for capturing firsthand accounts of experiences (Chenail et al., 2011). In this study, the generic qualitative method provided an interpretive and descriptive lens for exploring participants' experiences, enabling the researcher

to collect data, identify themes, and draw conclusions grounded in participants' perspectives (Daher et al., 2017).

Focus groups were selected as the primary data source because they enable interactive, participant-driven discussions that elicit shared experiences, divergent perspectives, and socially constructed meanings. These insights are particularly valuable when examining practices and norms within agricultural education contexts where knowledge is often collaboratively developed and community-based. Preservice teachers enrolled in a senior-level teaching methods course ($N = 27$) participated in focus groups. The focus groups were conducted during the three regularly scheduled lab times ($n = 9$, $n = 7$, $n = 11$). A 13-question semi-structured moderator guide was developed and reviewed by a panel of experts. The moderator guide was developed based on the stages of the Diffusion of Innovations Theory (Rogers, 2003), and our research questions. The recordings were transcribed verbatim, and the constant comparative method was utilized to analyze the data and develop themes. This study was approved by IRB.

Results

Following transcription analysis, two themes and four subthemes emerged. The first theme, interest in Breezy TA, comprised two subthemes: excitement about Breezy TA and aspects that went well/suggestions for future use. The second theme, barriers to adoption, comprised two subthemes: difficulty of use and training/clarity. When asked about their initial impressions of Breezy TA, most students expressed enthusiasm for the concept. One student said, "I was excited to have something specifically made for ag teachers", while another student followed with, "… in terms of curriculum and context, it understands what we're having to do." Each focus group offered a few suggestions to improve their experience with Breezy TA. A few students asked for a summary button to preview the lesson. One student stated, "Make it more of a two-way street." Multiple students requested that Breezy TA be more conversational.

Across all three focus groups, multiple barriers to participants' adoption of Breezy TA were identified. One student said, "It wasn't necessarily difficult; it was just very tedious. It's just not something you want to spend your time on." In relation to the training of Breezy TA, one student said, "If we were almost forced to do an activity… it would force us all how to use [Breezy TA], [and] we would be more comfortable with [Breezy TA]." A few students mentioned a lack of communication among Breezy TA, Oklahoma State University expectations, and their required assignments.

Conclusions/Implications

The findings reveal that, although participants are enthusiastic about the incorporation of AI, specifically Breezy TA, they are concerned about several barriers. Aligned with Halaweh (2023) and Zhang and Aslan (2021), the participants recognized the value of AI in assisting with lesson planning, directly related to agricultural education. As in Kohnke et al. (2025), participants recognize they would value hands-on experience and more training in Breezy TA. In some instances, the complexity of Breezy TA outweighed the relative advantage, which aligns with DOI theory (Rogers, 2003). Teacher preparation faculty might consider in-depth training for preservice teachers to help them capitalize on the opportunities AI and Breezy TA can provide. Future research should continue to examine how pre-service and in-service teachers use AI and Breezy TA to support their teaching.

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