LifeLink PSU Teaching Labs: An Embedded, Inclusive Field Experience Model for Preparing Agricultural Education Student Teachers

Introduction / Need for Innovation

Preparing agricultural education teachers to effectively serve students with special needs remains a persistent challenge within teacher education. While inclusive education is widely emphasized in coursework, research consistently demonstrates that preservice teachers often feel underprepared, and in some cases apprehensive, about teaching students with disabilities, particularly without structured, supported field experiences (McCray & McHatton, 2011). These concerns are magnified in secondary and career and technical education contexts, where instructional settings are dynamic, hands-on, and safety sensitive. Historically, early field experiences often emphasize observation rather than intentional, scaffolded instructional engagement, limiting opportunities for teacher candidates to develop self-efficacy (Tschannen-Moran & Hoy, 2001) in inclusive instructional competence and confidence. The LifeLink PSU Teaching Lab was developed as a collaborative intervention with Penn State University agricultural teacher education program and the local State College High School to address this gap by embedding preservice agricultural education teachers in a structured, relationship-centered, school–university partnership focused explicitly on inclusive instructional practice while expanding the capacity for serving students being served in a transition program. In addition, this collaboration paired pre-service student teachers in agricultural education with preservice student teachers in special education to foster the collaborative relationships that are desired in the school systems once students become practicing teachers while addressing a documented need (Ramage Martin, et al, 2025) for professional development in accommodating students with special needs.

How It Works / Methodology / Program Phases

The LifeLink PSU Teaching Lab is implemented as a semester-long teaching laboratory embedded within a senior level secondary agricultural education methods course. The experience unfolds across six intentional phases:

- *Phase 1 Orientation and Context Building:* Teacher candidates engage in guided roundtable discussions with a district transition coordinator and school partners to understand the LifeLink PSU student needs, and inclusive transition goals.
- *Phase 2 Relationship Development:* Candidates participate in informal, non-instructional interactions with LifeLink PSU participants to establish rapport and build relational trust prior to instruction.
- *Phase 3 Instructional Planning and IEP Engagement:* Candidates select individual instructional session topics from a collaboratively developed unit plan and conduct guided reviews of Individualized Education Programs (IEPs) with district staff and Special Education student teachers to inform lesson design. One lecture session is specifically designed to pair agricultural education student teachers with special education student teachers to collaborate and leverage each other's expertise in designing the lesson.
- *Phase 4 Instructional Vetting and Coaching:* Lesson plans and materials are reviewed collaboratively with school partners to ensure appropriateness, accessibility, and alignment with student needs. Ag Ed students met with Special Ed students to discuss

adaptations, instructional methods, and specially designed instruction tailored to the specific needs of the students while reviewing the lesson plans.

- *Phase 5 Instructional Delivery:* Each candidate facilitates a 45-minute instructional session with a small group (6–8 students) in a university-based learning environment. The lessons were recorded for reflection.
- *Phase 6 Structured Reflection and Debrief:* Post-instruction, candidates participate in one-on-one debrief sessions with school staff and complete a written reflection identifying best practices in inclusive instruction. The videos were shared with the special education students, who used rubrics to provide feedback on the lessons.

This phased structure intentionally blends instructional design, authentic teaching, collaboration, and reflection, addressing both affective and skill-based dimensions of inclusive teaching.

Results to Date / Implications

Preliminary outcomes suggest that teacher candidates engaged in structured, supported field experiences demonstrate growth in both confidence and competence for teaching students with special needs. Candidates report increased confidence, improved ability to design instruction informed by Individualized Education Programs (IEPs), and reduced apprehension about collaborating with special education professionals. These outcomes align with findings in the *Journal of Agricultural Education*, which indicate that agricultural educators view special education as a persistent area of need and emphasize the importance of targeted preparation and professional development to support learners with exceptionalities (Ramage Martin, et al, 2025). Consistent with prior research, structured field experiences may shift candidates from affective readiness toward instructional competence and professional agency in inclusive practice (McCray & McHatton, 2011).

Future Plans / Advice to Others

Future iterations of this work will prioritize strengthening the learning ecosystem by engaging additional collaborators in closer geographic proximity, while also exploring how fall preparatory experiences can be more intentionally connected to spring internship-based learning. Planned improvements include formal assessment of changes in candidate self-efficacy and inclusive instructional practices, development of shared curricular resources and coaching protocols, and expansion to additional school partners and student populations. Institutions seeking to replicate this model should prioritize relationship-building, intentional scaffolding, and reciprocal school–university partnerships, rather than treating inclusive preparation as a standalone field placement experience.

Costs / Resources Needed

Implementation requires modest but intentional inputs, including faculty coordination and instructional oversight, collaboration with school partners (transition coordinators and instructional staff), access to flexible instructional spaces, and basic instructional materials. Importantly, the model is designed to be low-cost and highly adaptable, making it feasible for replication across institutions with varying resource levels. Direct financial costs are minimal and primarily associated with instructional materials used by teacher candidates to facilitate lessons. In practice, these costs can be further reduced through intentional leveraging of existing

institutional resources and partnerships. For example, faculty and students are encouraged to utilize materials already available within their colleges or departments (greenhouse plants, tools, lab supplies), often secured through early communication and collaboration with colleagues. This shared-resource approach significantly limits out-of-pocket expenses while also strengthening cross-departmental relationships. In the current implementation, the Penn State Agricultural Education program incurred approximately $40 in total material costs, which supported the purchase of basic instructional items such as succulents, potting soil, and containers. This illustrates that meaningful, hands-on learning experiences can be delivered with minimal financial investment when planning is intentional and resource-sharing is prioritized. While the model is sustainable through partnership-driven design and alignment with existing curricular goals, long-term durability could be enhanced through the establishment of a small, dedicated funding line to support teacher candidate instructional materials. Even modest financial support would provide additional flexibility while preserving the model's accessibility and scalability.

References

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