The Field Experience Journal

ISSN 2472-8608

The Field Experience Journal

Volume 31, Spring 2025

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As the editors for this edition of *The Field Experience Journal*, we are proud to be able to publish work by our colleagues around the country. Many of these articles result from presentations shared at the 2025 National Field Experience Conference. This conference was special for us because it is our home institution and the place from which the work we have shared with many of you over the years has come.

For the first time in almost ten years, this year's conference traveled to a new location. Approximately 140 participants converged in the deep-east Texas town of Nacogdoches. Stephen F. Austin State University hosted 58 unique presentations centered around field experiences in education. We were excited to hear from this year's keynote speaker, Dr. Jeffrey Leffler from Delta State University. He challenged and encouraged each of us to find what Jennifer Gonzalez refers to as marigolds in a grove of walnut trees to encourage the work we each do every day. (https://www.cultofpedagogy.com/marigolds/).

In addition to conference sessions, we had an opportunity to highlight our own work in the Stephen F. Austin State University Charter School regarding mentoring, co-teaching, and preparing pre-service teachers. We were pleased to take a tour group of 27 conference attendees through the school to visit with our mentor teachers and teacher candidates serving as guides. Each guide presented information about the unique collaboration between the school and our EPP.

We hope you enjoy the articles published within this edition of the journal and allow it to spark your own curiosity and research work within field experiences. We look forward to seeing you and your work being presented at next year's conference and published in future editions of *The Field Experience Journal*.

Happy Reading!
Adam Akerson, Mark S. Montgomery, & Ronda S. McClain, Editors
Stephen F. Austin State University

Fliers: A Pilot Program for Paid Student Teacher Internships

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Teaching is the mother of all professions. It is a social good. Effective teachers and strong school systems lead to economic prosperity and healthy communities (Psacharopoulos & Patrinos, 2018). Today we are facing unprecedented teacher shortages across the world. According to the United Nations Educational, Scientific and Cultural Organization (UNESCO, 2024) there is an urgent need for 44 million primary and secondary teachers worldwide by 2030. In the United States alone, demand for new teachers is expected to exceed 300,000 annually by 2025 (Garcia & Weiss, 2019; Nguyen, Lam, & Bruno, 2022; Sutcher, Darling-Hammond, & Carver-Thomas, 2016). Nguyen, Lam, & Bruno (2022) indicate that at least 163,000 teaching positions were held nationwide by underqualified staff. The teacher shortage in the United States has led to a variety of alternative certification programs for teachers (NCES, 2024). Although well intended, most alternative teacher certification programs overlook the importance of retention, foundational skills, and educational backgrounds that prepare students to be effective teachers who remain in the classroom long-term (Garcia & Weiss, 2019). According to Sutcher, Darling-Hammond, & Carver-Thomas (2016) teachers with little preparation tend to leave teaching at rates two to three times higher than those who have had comprehensive preparation before they enter.

Recent research involving ten years' worth of student data and over one million students has determined that when students have high-quality teachers, the impact on a student's education has lasting positive implications (Chetty, Friedman & Rockoff, 2014). The single largest impact on a student's learning in school is the quality of the teacher (Gordon, Kane, & Staiger, 2006). Multiple studies have demonstrated that the difference between an upper quartile

teacher and lower quartile teacher has a dramatic effect on student achievement (Chetty, Friedman & Rockoff, 2014; Chu et al., 2015; Clotfelter, Ladd, & Vigdor, 2007). Students average 1.5 years of full academic year progress with an upper quartile teacher compared to .05 years of gain with a lower quartile teacher (Gordon, Kane, & Staiger, 2006).

It is well established that the value of quality internships in higher education benefits both student academic progress and employability. Internship experiences yielding the highest level of satisfaction are those that provide new knowledge and skills, improve employment prospects, enrich the college experience, and contribute to an important cause (Wolinsky-Nahmias, Y., & Auerbach, A.H., 2022). In a longitudinal study with a sample size exceeding fifteen thousand (15,000) students, positive effects of internship experiences were found across many subject areas and disciplines, including education (Binder et al., 2015). In a study specific to preservice teachers, self-efficacy and learning engagement is strengthened through the internship experience and helps shape professional identity (Cai, Zhu, & Tian, 2022). Additionally, internships have been utilized to address labor shortages in various industries such as the hospitality industry (Collins & Pearlman, 2023; Kahn, 2020). One way to address the shrinking teacher pipeline is through high quality traditional internship programs that provide student teacher interns with the opportunity to experience and practice professional activities that enable the application of knowledge and respect the vital work through modest compensation. This can be accomplished through student teacher internships that value continuous professional development, mentorship, multiple support mechanisms, and modest compensation. When a student teacher is considered an employee at a school, they become more invested and part of the fabric of the school.

As leaders and educators, it is our collective responsibility to advocate for the profession, identify solutions to the teacher shortage, and offer the best educational experience to prepare student teachers. Addressing the teacher shortage can be accomplished in part through strong leadership and the provision of high-quality educational experiences for student teacher interns. Kouzes and Posner (2019) identify key traits of strong leadership being modeling the way, inspiring a shared vision, challenging the process, enabling others to act, and encouraging the heart. In retrospect, these traits were exemplified by initiating the Flier program by listening, encouragement, being responsive to the needs of students and colleagues, being innovative and collaborative in addressing problems, and enabling others.

This case study describes how a pilot program for paid student teacher internships was initiated, implemented, and analyzed pre- and post-survey results of the participating student teacher interns.

Initiating the Fliers Program

In Spring 2023 the Director of Clinical Experiences and Partnerships came to the Interim Dean of the College of Education with an idea for a paid student teacher internship program dubbed as Fliers. Many internships within other academic areas at our institution reported most of their required internships as being paid by employers. We would sometimes hear that education majors switch majors to avoid an unpaid internship. Considering the need for certified teachers in our region, our desire to retain students, and having resurrected our College of Education Advisory Board (COEAB) that had only recently become increasingly engaged, we ultimately deemed the Fliers idea worthy of further exploration. Fliers represented a new way to partner with school districts in the region to address critical needs and support student teacher interns. Since Superintendents from each regional school district are members of the COEAB,

along with individuals and organizations supportive of teacher education, the next logical step was to present the idea to this group as way to gauge the appetite for potential partnership.

During the COEAB meeting in late spring 2023, the Director of Clinical Experiences and Partnerships provided a detailed overview of our traditional teacher education programs, student teaching expectations, evaluation instruments utilized, current trends in teacher education, and ultimately proposed the Flier Program highlighting the mutual benefit. One major benefit of paid internships is less financial strain on student teachers. Several of our students had part-time jobs unrelated to teaching and a paid student teaching internship often meant that the student does not have to split their time with other employment, allowing them to focus on their education and professional development as a teacher. Additionally, student teachers who desired continued mentoring in their final semester of student teaching needed an opportunity to do so as opposed to immediately being hired by a school district as a teacher of record. We reasoned that other presumed benefits to students may include a focus on learning, happier disposition, and respect in terms of their chosen profession. In terms of benefits to the employer we suggest more positive recruitment outcomes assisting with filling perpetual teacher vacancies, better engagement, and employers knowing that they will be hiring certified teachers.

As part of the Flier pilot program, we proposed that a school district hire four (4) to six (6) interested students and place them all at one (1) school where the administration wanted to pilot this new initiative. During the first week in the school, students would experience a variety of settings and receive building and district orientation. During that week, each student would be matched with their Cooperating Teacher (CT). The students would be divided into two groups. Group A would begin a more traditional internship experience lasting for six (6) weeks, while group B students would float and be used where a school needs help. Students are still matched

with one (1) Cooperating Teacher for support. After six (6) weeks, the groups would switch. After the required twelve (12) weeks, there would be two (2) more weeks that all students could float and be used in ways that benefit everyone. For example, covering vacancies, working with intervention groups, or working at multiple grade levels providing varied experiences for the student. It was suggested pay be based on only the weeks working in a floating position but spread out and distributed over the entire experience. Students could also be hired in full-time teaching positions upon completion.

Further, the State Departments of Education set requirements for student teachers. In the State of Florida, students are required to be in a learning role for a minimum of twelve (12) weeks with a formal support system in place. The Flier pilot program's initial focus would be on dble Block five (5) traditional students. Block 5 student teachers are in their final semester of study and required to be in their assigned school with a CT five (5) days a week for twelve (12) weeks. Since the Flier pilot program is part of our traditional teacher education program, the Department of Education requirement is met. In addition, College of Education assignments and supervision ensure the Flier students remain in a learning role with support throughout the required twelve (12) weeks.

Differences between the Flier pilot program and our traditional student teacher internship were also explained. While both programs meet Department of Education requirements the differences are significant. For example, the traditional program does not provide compensation to the student teacher and the Flier pilot program does. In addition, the traditional student teacher internship program's primary focus is on one class, one grade level, and student teachers are considered guests rather than employees of the school. In the Flier pilot program student teacher interns are considered employees of the school, provided with a school e-mail address, and

invited to school meetings. Their experience is their job, and they are more invested as a result. A major benefit of the Flier pilot program beyond monetary compensation is participants remaining in a learning environment with mentorship rather than pressures associated with having the full responsibility as the teacher of record. Another significant difference is that Flier student intern experiences are tailored to specific needs of the school. For example, the Flier student interns experience multiple grade levels, different teachers, participate in intervention groups, cover unanticipated school vacancies, and benefit from direct Principal involvement since they are employees.

Another pathway for Block 5 student teacher interns we offer is the Student Teacher Advanced Recruitment (STAR) program. The STAR program differs from our other programs in that STAR student teachers are hired and paid by the school as guest teachers and classified as the teacher of record. There are strict criteria for eligibility including having passed all required State certification exams and COE criteria. STAR student teachers don't have an assigned CT and accept the full responsibility of the teacher. It was suggested that student teachers who desire more mentorship and varied school experiences prior to taking on their own class would benefit from the Flier pilot program experience.

In summary, the COEAB recognized the benefits of school districts partnering with the COE on the proposed Flier pilot program initiative. Superintendents reported being extremely satisfied with our traditionally prepared educators and favorably acknowledged the Flier pilot program benefits. Sensing opportunity, school districts were asked to identify schools within their districts they'd want to include in the Flier pilot program, create an intern paid position at a fair rate of pay, and to follow-up with the Interim Dean as soon as possible for potential implementation in Fall 2023.

Implementation of the Flier Program

In May 2023, a school district in our region expressed willingness to partner with the university to implement the Flier pilot program beginning in Fall 2023 at an elementary school. It was imperative to act quickly to formalize the partnership with the District through a contract. Additionally, we needed to put mechanisms in place to communicate with eligible students about the opportunity. Students matriculating to their final semester of full-time student teaching were eligible. The elementary school within the partner district requested some minor modifications to the university's original proposal. The school principal wanted the students to spend all twelve (12) weeks with the CT in a traditional internship for half the day with the second half of the day being used to deliver interventions to small groups of assigned students. All student teachers would be required to teach reading either in their classroom or during interventions. All CTs would be required to have a reading endorsement. The Principal of the school would meet weekly with students and complete final observations of each student teacher. In addition, the Principal helped to develop student teachers by including them in walks through classrooms, field trips to other schools, assigning small tasks to complete, and mentoring them along the way. The Flier students would earn five thousand dollars ($5,000) as compensation spread out over the twelve (12) week period of the internship.

Seven (7) students opted for the Flier program in Fall 2023, and all were placed at the designated elementary school. CTs and the University Supervisor (US) were assigned. The US initiated a pre-survey to the participating students (Appendix A). The purpose of the survey was to gauge students' self-perceived preparedness, learn why the students decided to become Fliers, and learn what each student hoped to gain from the experience. The same survey was utilized upon completion of the internship as a post-survey to analyze self-perceived learning progress

throughout the semester and gains. In Fall 2023, all participating students completed the pre-survey, but only six (6) completed the post-survey. All seven (7) students successfully completed the internship in Fall 2023.

The same process was repeated for the Spring 2024 semester. A total of seven (7) students participated and successfully completed the Flier program during the Spring 2024 semester at the same school. All seven (7) students completed the pre- and post-survey.

In total, all fourteen (14) students successfully completed the Flier internship program in Fall 2023 and Spring 2024.

Pre- and Post Participant Survey Results

The following provides a description of pre- and post-survey results. All fourteen (14) students completed the pre-survey and thirteen (13) of fourteen (14) students completed the post-survey. A copy of the survey utilized is provided in Appendix A. There was a total of ten (10) questions. Eight (8) of the ten (10) questions utilized a five-point Likert scale with one (1) strongly disagree and five (5) strongly agree. Two (2) of the ten (10) questions were open-ended to determine why students agreed to become Fliers and self-perceived benefit. The survey was only given to Fliers for program improvement purposes. The results of the survey confirmed our belief that the Fliers received an effective experience developing their teaching skills while being a paid school employee. Table 1 reflects results for questions one (1) through eight (8) and are summarized below.

Table 1

Flier Pre-Post Survey Results

I feel prepared to manage my own classroom						
Respondents	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree	Total Responses
Pre-Survey	1	3	5	5	0	14
Post-Survey	0	0	1	2	10	13

I feel prepared to communicate with parents

Respondents	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree	Total Responses
Pre-Survey	1	1	6	5	0	14
Post-Survey	0	1	3	5	4	13

I have experience using varied curricular materials, beyond the prescribed programs/textbooks

Respondents	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree	Total Responses
Pre-Survey	0	2	8	2	2	14
Post-Survey	0	0	0	3	10	13

I feel prepared to provide formative assessments to my students

Respondents	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree	Total Responses
Pre-Survey	0	0	4	7	3	14
Post-Survey	0	0	0	4	9	13

I have experience collaborating with teachers in the school beyond my cooperating teacher

Respondents	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree	Total Responses
Pre-Survey	3	2	2	4	3	14
Post-Survey	0	0	0	0	13	13

I have actively participated in PLC's

Respondents	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree	Total Responses
Pre-Survey	3	4	2	3	2	14
Post-Survey	0	0	0	1	12	13

I am comfortable speaking to and meeting with building administration

Respondents	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree	Total Responses
Pre-Survey	1	1	2	7	3	14
Post-Survey	0	0	1	2	10	13

I understand what it means to truly engage students

Respondents	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree	Total Responses
Pre-Survey	0	0	1	8	5	14
Post-Survey	0	0	0	2	11	13

There was a 100% response rate to the Flier pre-surveys and a 93% response rate to Flier post-surveys. Responses to the Pre- Post-Survey questions specified in the Table above indicate Fliers gained more self-perceived confidence in managing their own classroom, using varied curricular materials, providing formative assessments, collaborating with teachers in the school beyond their assigned CT, actively participating in Professional Learning Communities (PLCs), speaking to and meeting with building administration, and understanding what it means to truly engage students. In terms of feeling prepared to communicate with parents, the results indicate

self-perceived moderate gains. Communicating with parents is an area in which improvement could occur through experiencing contact and communication with parents.

The purpose of the two (2) open-ended survey questions was to understand reasons students desired to become Fliers and learn about their self-perceived benefit. In terms of financial support, examples of student responses student included, “This opportunity provides me with the financial support needed to focus solely on my professional development as I near graduation and employment” and “Not having to work outside my internship will relieve a lot of stress.” Students expressed appreciation for the opportunity to experience different grade levels. For example, “I am very excited to take on more roles within the school and experience multiple grade levels” and “More knowledge on different grade levels as well as learning techniques from different teachers.” In terms of range of interventions and gaining a wider depth of knowledge, sample student responses include, “I saw this as a great opportunity to pursue more than just student teaching and gain much more experience in different environments” and “I wanted to see what it’s like to be an employee at the school and to experience different roles.” In summary, and in terms of Pre-Survey student responses, students referenced it being the first opportunity to have a paid internship, being provided the opportunity to experience different grade levels, the opportunity to engage in a range of student interventions and gaining a wider depth of knowledge in terms of how the school is operated.

Post-survey responses revealed students’ reasons for wanting to become Fliers were in alignment with their experience. For example, “I hoped to gain confidence in the areas of managing and running my own classroom, I am grateful to be able to say that I have gained so much more than that.” In terms of broad experiences as Fliers post-survey results revealed “This experience truly provided me with so many opportunities to learn about different areas of the

school, the different roles of staff and other teachers, and helped me build effective, positive, and professional relationships with staff and administration" and "I now feel comfortable and ready to communicate effectively with administration, collaborate in teams with other educators, plan and implement appropriate interventions based on student needs, and overall feel very prepared to take on the many responsibilities or being a teacher." In summary, post-survey results indicate students gaining confidence, working with their own intervention groups, working with teachers beyond their CT, working with staff and administration, and gaining a wider range of knowledge in terms of overall school operations.

One student reported a "slight hinderance" in working with their CT and reasoned that it was the CT's first time having a preservice student teacher assigned. The same respondent indicated feeling it would be better to experience full days in the classroom rather than splitting activities in half days. Overall, all students reported positive experiences and recommended continuation of the Flier program.

All fourteen (14) Flier students were offered teaching positions. Three (3) students were hired at the same school where internship occurred. Eight (8) more students were hired within the same District. Two (2) students were hired in-state in a different District. The current teaching status of one (1) Flier student is unknown, but successfully obtaining a Florida teaching certificate was confirmed.

Lessons Learned and Conclusion

In retrospect, lessons were learned and there were some unanticipated positive outcomes. In working with the District, it became obvious that the Flier experience may look different between districts and specific schools based on who decides to participate and where the greatest needs lie. A practical example is reflected in the minor modifications made to our original proposal by our initial partner. Our Flier pilot program partner wanted participants to engage in

half day classroom and half day other activities rather than having two separate groups of students engaged in teaching all day for six (6) weeks and engaged in intervention groups and other activities for six (6) weeks. Additionally, the one area in which Flier pilot program participants reported moderate gains related to having more opportunity to communicate with parents. This is an area that could be improved. Traditional Block 5 student interns have limited access to parents because they are very dependent on the CT and school preferred practices. Because STAR student teachers have full responsibility for their class, they will receive more experience with parents. However, learning how to work with parents from observing a CT is valuable, especially those who need to develop those skills and confidence.

During implementation of the Flier pilot program, the College of Education was in the process of continued program approval through the State. An external reviewer recognized the Flier pilot program as being innovative and one that they had not witnessed in nearly twenty (20) years of being engaged in teacher education program reviews. Additionally, there was local television news coverage highlighting how the Flier program is helping to alleviate the teacher shortage. The external reviewer comment validated our idea and was encouraging. The television coverage recognized our partnership as an innovative way to restore respect to the profession and exposed the partnership to the broad viewing audience, bringing positive attention for the initiative.

In conclusion, as educators it is our obligation to provide the best possible educational experience for our students and well-prepared high-quality teachers in the schools we serve. Paid traditional teacher internships can help reduce the financial burden students experience, help students focus on learning, assist in establishing a professional identity, and provide another semester of mentorship. Paid traditional student teacher internships are one small way in which

the profession of teaching can be uplifted and respected for what it is, the mother of all professions and a social good.

APPENDIX A
FLIER PRE-POST-SURVEY

1. I feel prepared to manage my own classroom. **(DEMO1)**

□ Strongly Disagree (Value = 1)
□ Disagree (Value = 2)
□ Neutral (Value = 3)
□ Agree (Value = 4)
□ Strongly Agree (Value = 5)

2. I feel prepared to communicate with parents. **(DEMO2)**

□ Strongly Disagree (Value = 1)
□ Disagree (Value = 2)
□ Neutral (Value = 3)
□ Agree (Value = 4)
□ Strongly Agree (Value = 5)

3. I have experience using varied curricular materials, beyond the prescribed programs/textbooks. **(DEMO3)**

□ Strongly Disagree (Value = 1)
□ Disagree (Value = 2)
□ Neutral (Value = 3)
□ Agree (Value = 4)
□ Strongly Agree (Value = 5)

4. I feel prepared to provide formative assessments to my students. **(DEMO4)**

□ Strongly Disagree (Value = 1)
□ Disagree (Value = 2)
□ Neutral (Value = 3)
□ Agree (Value = 4)
□ Strongly Agree (Value = 5)

5. I have experience collaborating with teachers in the school besides my cooperating teacher. **(DEMO5)**

□ Strongly Disagree (Value = 1)
□ Disagree (Value = 2)
□ Neutral (Value = 3)
□ Agree (Value = 4)
□ Strongly Agree (Value = 5)

6. I have actively participated in PLCs. **(DEMO6)**

□ Strongly Disagree (Value = 1)

□ Disagree (Value = 2)
□ Neutral (Value = 3)
□ Agree (Value = 4)
□ Strongly Agree (Value = 5)

7. I am comfortable speaking to and meeting with building administration. **(DEMO7)**

□ Strongly Disagree (Value = 1)
□ Disagree (Value = 2)
□ Neutral (Value = 3)
□ Agree (Value = 4)
□ Strongly Agree (Value = 5)

8. I understand what it means to truly engage students. **(DEMO8)**

□ Strongly Disagree (Value = 1)
□ Disagree (Value = 2)
□ Neutral (Value = 3)
□ Agree (Value = 4)
□ Strongly Agree (Value = 5)

9. Why did you agree to take this opportunity to be a Flier? **(DEMO9)**

   (Fill-in)

10. What do/did you hope to gain during this experience? (**DEMO10)**

(Fill-in)

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Redesigning Field Experience Through a Job-Embedded Model: A Deming-Inspired Approach to Pre-Service Teacher Development

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Introduction

Field experiences are essential components of teacher preparation programs, immersing candidates in authentic classroom environments to develop practical teaching competencies (Zeichner, 2010). These settings enable aspiring educators to apply instructional strategies, observe student outcomes, and receive timely feedback from experienced mentor teachers (Knight, 2007; Soprano & Yang, 2012). However, traditional field experiences are often characterized by disjointed implementation, passive observation, and limited feedback, diminishing their effectiveness in preparing candidates for active teaching roles (Darling-Hammond, 2006).

To address these limitations, field experiences must be redesigned to be authentic, structured, and responsive. This involves establishing clear expectations, fostering continuous mentorship, and systematically integrating theory with practice (Grossman et al., 2009). As Darling-Hammond (2006) emphasized, field experiences should intentionally connect theoretical knowledge traditionally taught in university classrooms with the experiential knowledge found in K–12 school environments. She notes that bridging this gap has long been a central challenge in teacher education.

In response, Tuskegee University implemented redesigned field experiences in two required elementary literacy courses. These redesigned experiences represent an innovative and

intentional approach to integrating theory with practice, grounded in contemporary educational research and responsive to state policy directives.

Theoretical Framework

Deming's Plan-Do-Study-Act (PDSA) cycle provides a robust framework for continuous improvement that can effectively guide the redesign of teacher education programs (Moen & Norman, 2006). This model emphasizes iterative progress through objectivity, evidence-based reflection, and collaborative decision-making. Also referred to as the Deming Wheel for Improvement, the PDSA cycle is rooted in scientific methodology and is widely recognized as a tool for ongoing programmatic development (Moen & Norman, 2006).

When applied to field experience redesign, the PDSA cycle supports systematic planning, implementation, analysis, and refinement. This approach allows university supervisors (full-time university professors) and school partners to align field experiences with instructional objectives and stakeholder feedback. Through application, the model fosters data-driven decision-making and continuous enhancement of teacher candidate preparation.

Policy Context for Redesign

In 2019, the Alabama Legislature enacted the Alabama Literacy Act, marking a significant policy shift that directly linked educator preparation with reading proficiency in the state's elementary schools by the end of third grade. For the first time, teacher education programs were required to embed structured literacy instruction within their curricula. Specifically, each program was tasked with designing nine credit hours of coursework dedicated to the science of reading, ensuring that all graduates would be proficient in research-based literacy instruction.

During the 2021–2022 academic year, the state's Educator Preparation Programs (EPPs) underwent external review. Expert panels examined program balance sheets and literacy course syllabi, providing detailed feedback. A key recommendation was to improve the alignment of field experiences with course content, emphasizing the integration of theory and practice (Darling-Hammond, 2006). This feedback clearly indicated the need for a comprehensive redesign.

Prior to this initiative, field placements typically consisted of passive observation and limited teaching practice. Preservice candidates were assigned to a classroom where they delivered a single reading lesson, either observed in person by a university supervisor or submitted as a video recording. Lesson plans were evaluated using a standardized rubric. While useful, this approach offered minimal sustained engagement, and each student completed 15 hours of fieldwork during the semester, limiting opportunities for meaningful instructional practice. The structure did not allow candidates to build relationships with students, apply pedagogical strategies in varied contexts, or receive ongoing, formative feedback from mentor teachers and/or university supervisors.

The review findings underscored the importance of reimagining field experiences to ensure alignment with state literacy goals and university coursework. This redesign initiative emphasized the need for job-embedded, data-informed, and instructionally rich experiences that would provide preservice teachers with the skills, confidence, and adaptability necessary for teaching reading effectively in early grades. As a result, Tuskegee University's educator preparation program undertook a strategic redesign of two literacy-focused courses, integrating the Deming-inspired Plan-Do-Study-Act (PDSA) model to facilitate ongoing improvement and coherence between theory and practice.

Redesign Process

At Tuskegee University, faculty in the School of Education launched a redesign of two literacy-focused courses and their associated field experiences to better align theoretical instruction with clinical practice. This effort utilized the Plan-Do-Study-Act (PDSA) cycle as a continuous improvement framework to guide the redesign process. The two literacy courses are taken after students complete three introductory education courses and a curriculum principles course, ensuring a foundational understanding of educational theory and pedagogy. The redesign aimed to enhance the coherence between coursework and fieldwork, offering students more intentional, embedded learning opportunities in authentic classroom settings.

Hilaski et al. (2021) explores the value of incorporating embedded clinical experiences for teacher candidates into teacher education programs. The study focuses on how these hands-on experiences influence teacher candidates' beliefs, content knowledge, and instructional practices, especially in areas like reading and assessment.

The authors found that by pairing practical classroom experiences with university coursework, candidates could better contextualize and integrate their academic learning. This approach encourages teacher candidates to reflect on and refine their pedagogical beliefs and instructional strategies. Overall, the article emphasizes the importance of embedding clinical experiences within teacher preparation to bridge the gap between theory and practice, ultimately fostering more competent and confident educators.

Plan

Planning was a critical phase of the redesign process. A leadership team—including the dean, university supervisors, the field placement coordinator, and members of the Teacher

Education Council—engaged in collaborative planning sessions. These sessions involved a thorough review of literature identifying best practices in field experiences.

University supervisors-initiated discussions with a local elementary school administrative team to articulate the need for redesign, solicit input, and co-develop new models for field experience. Meetings followed with school faculty and mentor teachers to align expectations and responsibilities. University supervisors subsequently introduced the redesigned field experience model to preservice teachers through orientation and planning sessions.

Do

Twelve preservice teachers implemented targeted reading interventions in K–3 classrooms using research-based strategies. They attended the partner school for 14 sessions, each lasting one and a half hours, over approximately eight weeks, totaling about 20 hours of job-embedded field experience. Although this was only slightly more than the traditional 15 hours required for the course, the structure of the experience was significantly enhanced. The number of lessons and interventions varied based on classroom needs and the amount of instruction that could be effectively delivered within the available timeframe. Guided by university supervisors and mentor teachers, preservice teachers received real-time, side-by-side coaching throughout the implementation phase. This embedded support offered a level of mentorship and instructional feedback not typically available in a standard field placement.

Study

University supervisors, mentor teachers, and school administrators supported candidates through sustained planning, advising, and instructional feedback. The team monitored candidate performance using observational tools, coaching strategies, and reflective conversations to assess progress and identify areas for growth.

Act

Preservice teachers synthesized their experience by writing a comprehensive literacy report, integrating pre- and post-assessment data and observational insights. University supervisors and mentor teachers conducted post-conferences to assess outcomes and collaboratively identify areas for refinement. These insights informed continuous improvement meetings that shaped subsequent iterations of the course and field experience structure.

This redesign responded to national calls for clinically rich teacher preparation and offered a sustainable model for enhancing field experience quality. Structured reflection, meaningful feedback, and embedded practice enabled preservice teachers at Tuskegee University to develop deeper professional competencies aligned with real classroom demands.

The initiative was a collaborative effort between university leadership, the Teacher Education Council, and a redesign team composed of elementary school administrators, a literacy coach, and classroom mentor teachers. Implementation spanned a full academic semester, ensuring alignment between course content and field experience.
Research underscores the value of such authentic engagements. Darling-Hammond (2006) emphasized the importance of real classroom participation for teacher development. Allen and Wright (2013) highlighted the role of well-coordinated triads to include preservice teachers, mentor teachers, and university supervisors ensuring effective supervision and support.

Following the recommendations of NCATE's 2010 Blue Ribbon Report, the American Association of Colleges for Teacher Education (AACTE, 2018) described successful clinical practice as teacher candidates' participation in real-world educational environments, where they apply teaching methods in ways that are meaningfully connected to their academic coursework and supported by structured partnerships between universities and schools.

This approach to clinical practice is designed to cultivate competent educators by blending academic study with hands-on professional experience, guided by both school-based and university-based mentors, to ensure mutual benefits for all involved and full immersion in the PK-12 context (AACTE, 2018).

Referred to as a job-embedded field experience model, this redesign involved literacy faculty intentionally embedding course-aligned, practice-based experiences in authentic K–3 classrooms for 12 preservice teachers. These were supported by continuous feedback from mentor teachers and university supervisors. The goal was to provide candidates with meaningful, supported opportunities to practice instructional skills, analyze data, and reflect on pedagogy.

This approach reflects current best practices in teacher education. As Capello (2020) noted, "National teacher education organizations have charged programs with embedding teacher preparation within clinically rich experiences" (p. 18), to improve preservice learning outcomes and program quality.

Participants

Twelve preservice teachers participating in the redesigned field experiences were elementary education majors in their junior year of the educator preparation program. As mandated by the Alabama Literacy Act (2019), these candidates must complete nine credit hours of coursework focused on the science of reading. Embedded field placements for two three-hour courses were arranged in collaboration with one local elementary school that maintains an established partnerships with the university.

Six mentor teachers were certified in elementary education, held at least a master's degree, had a minimum of three years of classroom experience, and had completed Language Essentials for Teachers of Reading and Spelling (LETRS) training. The school administrative

team was comprised of a principal and an assistant principal. The principal, trained in LETRS and a former Alabama District Teacher of the Year, brought over 15 years of teaching experience and actively supported the university's teacher education initiatives. The assistant principal, also a university alum, served as a consistent and collaborative partner in the field experience redesign. The literacy coach, also trained in LETRS, contributed over two decades of experience in early literacy instruction and played a critical role in facilitating evidence-based practice within the classroom setting.

Pre-Conference Planning

Before initiating the job-embedded field experience for the 12 preservice teachers, university supervisors facilitated two structured pre-conferences. The first meeting, conducted with the redesign committee—including university supervisors, school administrators, literacy coaches, and media specialists—established shared goals, logistical timelines, data sources, and clearly defined participant roles. The second session, designed specifically for preservice teachers, focused on clarifying expectations, building data literacy skills, and reviewing evidence-based instructional practices aligned with the science of reading. This dual structure helped ensure that both the support team and the candidates were well-prepared and aligned.

Coaching and Field Experiences

Another central motivation for redesigning the field experience component of literacy courses was a growing recognition of coaching as a critical driver of teacher development. Joyce and Showers (1996) emphasized that theory, demonstration, practice, feedback, and coaching must be combined to effectively translate learning into classroom practice. This model continues to inform high-quality preservice training today, particularly for implementing evidence-based instruction.

University supervisors, embedded within the school setting, served as instructional coaches and delivered real-time, formative feedback during teaching moments. In tradition field experiences, the university supervisors would be required to observe these students at least one time in the classroom setting. With the job-embedded field experience model, the university supervisor and the mentor teacher were side-by-side on-site providing real-time coaching and feedback to the preservice teacher. These in-the-moment interventions bridged coursework with practice and provided preservice teachers with opportunities to apply theoretical knowledge in supportive, authentic contexts. Darling-Hammond (2014) affirmed that "well-supervised clinical practice" is integral to effective teacher education and must be tightly integrated with content learning.

For example, one preservice teacher mistakenly read a decodable text aloud to her student during a phonics lesson. When asked about her decision, she explained she was imitating a peer's example. This prompted a timely debrief by the university supervisor, who clarified that the purpose of decodable readers in this context is to assess whether the student can independently apply the targeted phonics skill.

In another instance, a candidate failed to use a correction routine when her student misread a word. Although these routines are modeled in coursework, the oversight created an opportunity for immediate coaching. The university supervisor provided real-time support, guiding the teacher in using the routine to help the student decode the word. The incident was later revisited in the next university class, where the professor led a reflective discussion on the structure and rationale of research-based intervention strategies. Assessment practices also required careful coaching. During foundational skills pre-testing, candidates were observed unintentionally prompting students, compromising diagnostic accuracy. This led to clarifying

discussions about the role of formative assessments, the importance of instructional integrity, and the pedagogical value of productive struggle.

These examples highlight how real-time coaching enhances pedagogical decision-making and deepens conceptual understanding. Embedded coaching fosters reflective practice, corrects misconceptions, and cultivates a culture of continuous improvement.

Darling-Hammond (2014) reiterated that quality clinical experiences are defined not by the quantity of time spent in classrooms, but by the quality of support and supervision during that time. University-based coaching plays a pivotal role in aligning instructional practice with research-based frameworks and the developmental needs of students. In essence, integrating structured, university-supervised coaching into field experiences elevates preservice teacher preparation. It transforms passive observation into guided, reflective practice and builds candidates' confidence, adaptability, and instructional efficacy.

Post-Conferences

Post-conference sessions were conducted in two intentional phases. First, the redesign committee, including university supervisors and school-based partners, analyzed student data, identified instructional trends, and reviewed feedback from mentors and candidates. This phase informed concrete improvements, such as refining pacing guides and ensuring clearer alignment between lesson objectives and assessment criteria.

The second phase focused on structured reflection with preservice teachers. These sessions included journaling, peer-to-peer debriefs, and faculty-facilitated group discussions. Candidates were encouraged to examine what worked, identify instructional challenges, and propose adjustments for future practice. These activities fostered metacognition, strengthened professional dialogue, and reinforced evidence-based instructional routines.

Discussion

The job-embedded field experience model demonstrated a transformative effect on preservice teacher development across cognitive, relational, and instructional domains.

1. Deepening pedagogical understanding: When candidates assume defined teaching responsibilities within real classrooms, they are better able to bridge pedagogical theory and practice. These hands-on experiences, supported by coaching, encourage reflection, adaptability, and professional reasoning (Grossman et al., 2009; Darling-Hammond, 2006).

2. Building meaningful student relationships: Extended time in a single classroom allows preservice teachers to form trusting relationships with students. These connections promote instructional personalization and build the empathy necessary for culturally responsive pedagogy (Gay, 2010).

3. Enhancing triadic collaboration: The collaborative triad model was comprised of preservice candidates, mentor teachers, and university supervisors and reinforced through regular pre- and post-conferences. These interactions clarified roles, unified goals, and distributed responsibility for teacher growth (Allen & Wright, 2013).

4. Applying data-informed decision-making: With university support, candidates learned to interpret and act on student data to plan responsive instruction. Research affirms that early engagement with data-driven instruction cultivates instructional agility and reflective practice (Mandinach & Gummer, 2016).

5. Maximizing coaching impact: The integration of side-by-side coaching within field experiences significantly increased the instructional impact of the model.

6. Embedded coaching allowed candidates to receive timely feedback and scaffolded support in the moment of need which is key to promoting instructional fidelity and informed

decision-making (Joyce & Showers, 1996; Darling-Hammond, 2014). This practice helped reinforce strategies modeled in coursework and bridged theory with classroom application.

Benefits

The implementation of a job-embedded field experience model represents a significant advancement in teacher preparation. By situating preservice teachers within real classroom contexts and providing sustained coaching from university supervisors and mentor teachers, this model addresses long-standing gaps between theoretical coursework and instructional practice. Unlike traditional field experiences that often limit candidates to passive observation or isolated teaching moments, the job-embedded approach fosters active engagement, professional collaboration, and continuous reflection. As a result, preservice teachers develop not only technical competence but also the adaptive expertise necessary to meet the diverse needs of learners in today's classrooms. The following section outlines the multifaceted benefits observed during the implementation of this model and highlights its capacity to cultivate confident, reflective, and instructionally responsive educators.

1. Authenticity: Candidates engaged with real students in authentic school environments, enhancing instructional relevance and contextual understanding (Ronfeldt et al., 2013).

2. Data-Driven Instruction: Authentic student performance data enabled informed planning and instructional adjustments, affirming the role of data literacy in effective teaching (Mandinach & Gummer, 2016).

3. Improved Mentorship: Structured co-teaching, observation, and reflective feedback from trained mentors nurtured candidates' skill development (Valencia et al., 2009).

4. Strengthened University-School Partnerships: Collaborations between institutions and partner schools fostered shared visions for teacher development and mutual accountability (Guha, Hyler, & Darling-Hammond, 2016).

5. Professional Growth: Candidates developed classroom management, curriculum design, instructional differentiation, and assessment literacy (Darling-Hammond, 2006).

6. Relevance for University Supervisors: Faculty engagement in coaching allowed them to remain current with school-based practice, informing both curriculum revision and clinical supervision.

Concerns and Challenges

While the job-embedded field experience model offers numerous advantages, its implementation is not without complexities. As with any innovative approach, practical and structural challenges emerged during the redesign and execution phases. These concerns, ranging from scheduling logistics to variability in mentorship quality, highlight the need for intentional planning, institutional support, and ongoing refinement. Addressing these challenges is essential to ensure the sustainability and scalability of the model in diverse teacher preparation contexts.

1. Scheduling Conflicts: Aligning university course schedules with P–12 school calendars continues to present logistical challenges (Zeichner, 2010).

2. Resource Intensity: Job-embedded experiences require significant investments of time, transportation, and flexible staffing structures, which can strain program capacity.

3. Differentiating for Learner Variability: Candidates often struggled to meet diverse learning needs without targeted support (Tomlinson, 2014). Structured coaching and scaffolding remain essential.

4. Variability in Coaching Quality: While all mentors were credentialed, individual differences in feedback style and coaching consistency impacted candidate experience (Ambrosetti, 2014).

Recommendations

To strengthen and sustain the impact of the job-embedded field experience model, it is essential to implement strategic improvements grounded in both research and practice. The following recommendations are informed by lessons learned throughout the redesign process and are designed to enhance program coherence, ensure instructional quality, and support preservice teacher success across varied educational settings. These action steps offer a roadmap for institutions seeking to refine clinical experiences and foster deeper integration between coursework and classroom practice.

1. Institutionalize Job-Embedded Fieldwork Early: Integrate structured practice experiences beginning in foundational coursework. Early exposure builds teacher identity and confidence over time (Feiman-Nemser, 2001; Ronfeldt et al., 2013).

2. Align Faculty Schedules with Fieldwork: Offer release time or course buyouts to support faculty coaching and collaboration (Grossman et al., 2009).

3. Formalize Mentor Training: Prepare mentors in adult learning, feedback, and evidence-based instruction using LETRS-aligned coaching (Valencia et al., 2009).

4. Enhance Data Literacy: Provide explicit instruction in collecting, analyzing, and applying student data through both simulated and real scenarios (Mandinach & Gummer, 2016).

5. Build Collaborative Structures: Establish professional learning communities and planning spaces for preservice teachers, faculty, and school partners (Guha et al., 2016).

6. Track Long-Term Impact: Conduct longitudinal studies of graduates to assess instructional effectiveness and student outcomes (Ronfeldt et al., 2013).

7. Refine Supervision with Technology: Use video coaching, rubric-based observations, and asynchronous tools to support reflection and instructional growth (Knight, 2007).

Conclusion

Field experiences represent one of the most pivotal components of teacher preparation, serving as the bridge between theoretical coursework and the lived realities of classroom instruction. However, for far too long, these experiences have remained passive, fragmented, or disconnected from the essential elements of instructional practice. The job-embedded model described in this article offers a compelling alternative—one that reimagines fieldwork as active, authentic, and deeply integrated into the developmental arc of teacher education.

The implementation of job-embedded field experiences in two redesigned literacy courses at Tuskegee University has yielded multiple layers of transformation. Preservice teachers gained firsthand experience applying research-based instructional strategies in real classrooms. They engaged with diverse student populations, collaborated with seasoned mentors, and received continuous, real-time coaching from university supervisors. This model did more than merely enhance teaching techniques; it shaped professional identity, cultivated reflective practice, and increased candidates' confidence in navigating the complexities of instruction.

What makes this model particularly powerful is its integration of the Plan-Do-Study-Act (PDSA) framework. This continuous improvement cycle ensured that both the candidates and the program were constantly evolving. Coaching was not a static observation—it was a dialogic, responsive process that encouraged inquiry, adaptation, and intentional growth. The inclusion of

formative assessment feedback, instructional modeling, and scaffolded reflection built a structure where theory was not only learned but lived.

The research supports this approach. Joyce and Showers (1996) underscored the necessity of coupling coaching with theory and practice to ensure lasting professional growth. Similarly, Darling-Hammond (2014) has argued that the quality of clinical experiences, not just their duration, is what determines their impact. This model aligns with both positions by embedding high-quality, well-supervised practice within the context of rigorous university coursework.

This job-embedded approach is not a supplemental enhancement to teacher education, it is a foundation. It offers a sustainable and replicable model that other educator preparation programs can adapt to ensure relevance, rigor, and responsiveness in a rapidly changing educational landscape.

In moving forward, institutions should recognize that successful teacher development cannot rely solely on lecture halls and isolated practicums. It must involve ongoing, situated learning within real classrooms, guided by mentors who are both knowledgeable and responsive. It must be driven by data, sustained by coaching, and evaluated through continuous feedback loops. Most importantly, it must empower new teachers to step into classrooms not merely with a lesson plan, but with the confidence, flexibility, and instructional insight to truly make a difference from day one.

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Empowering Future Educators: The Impact of Flipped Classroom Models on Pre-Service Teachers' Confidence in Accommodating Students with Disabilities

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Most higher education teacher preparation programs for pre-service teachers fail to equip them with the necessary skills to support students with disabilities despite legal and ethical mandates that require their inclusion in general education classrooms. General education teacher training does not offer enough special education classes which leads to educators who lack both skill and confidence to implement effective accommodations for students with disabilities. Most teacher preparation programs leave pre-service teachers who aren't training specifically for special education roles with significant preparation gaps because regardless of their specific focus in their educator preparation programs, these future teachers will need to teach and accommodate students with disabilities. Ultimately, teacher preparation programs contain crucial deficiencies which obstruct the successful inclusion of students with disabilities.

Research indicates that teacher training programs contain fundamental flaws which prevent effective inclusion practices. Many pre-service teachers report feeling incompetent and anxious when asked to make educational accommodations for students with disabilities. Future teachers receive insufficient preparation from teacher training programs because of inadequate course content and limited practical training opportunities (Hassanein et al., 2021). As a result, students with disabilities experience poor educational outcomes because teacher training programs fail to prepare educators properly. Teacher training programs benefit from experienced professional feedback such as from college faculty because this input substantially enhances teacher confidence and competence according to research by Hassanein et al., 2021. Research

shows that college students develop practical skills through interactive learning experiences with their peers and instructors which help them apply theoretical knowledge (Al Jaffal, 2022). This is true for pre-service teachers. The training methods presented in college teacher preparation programs equip future teachers with evidence-based accommodations and encourage them to adopt inclusive education principles for students with disabilities (Al Jaffal, 2022).

This study examined how the flipped classroom instructional model impacts the self-efficacy and achievement levels of pre-service teachers who develop accommodations for students with disabilities. Hao (2016) explains that the flipped classroom model transforms how students acquire knowledge by moving it outside class to self-directed study so that students perform critical thinking activities during in-person class time. Through student-directed learning and interactive feedback mechanisms this model promotes both personal responsibility and group cooperation while boosting participation through deeper academic discussions and real-time instructor responses. The flipped classroom model requires active student involvement, peer collaboration, and practical application as opposed to traditional training methods which depend on passive textbook reading and traditional exams. According to Tucker (2012) the traditional classroom model turns educators into learning facilitators which results in a less individualized and less interactive educational process.

In this study, rather than the traditional classroom model, the face-to-face pre-service teacher group participated in peer-led workshops and simulations which covered various disabilities and specific strategies for accommodations applicable across different subjects. The online students accessed notes and finished standard assignments which represents a traditional method of online education compared to the flipped classroom approach. The results of this study reveals essential recommendations to enhance teacher preparation programs for better

support of pre-service teachers working with students with disabilities in inclusive classrooms. The study uses pre and post course survey data together with final project scores to assess how effective the flipped classroom model is against traditional methods in developing pre-service teachers' abilities to create accommodations and it fills a gap in the literature. The study contributes to existing research by explaining methods to improve teacher preparation programs which ensure all students receive quality education.

Theoretical Framework

This study bases its framework on Bandura's Social Cognitive Theory (SCT), which describes learning as the dynamic interaction between personal characteristics, behavior patterns and environmental conditions. SCT framework explains how pre-service teachers build both confidence and competence to make suitable accommodations for students with disabilities by engaging with peers and instructors and participating in their teacher preparation environment. This research emphasizes self-efficacy from SCT because it examines pre-service teachers' confidence in their ability to apply student accommodations for exceptionalities. Bandura's SCT social interactions along with observational learning serve as key factors which develop human behaviors as well as attitudes and skills. The educational approach demonstrated by the flipped classroom model in this study shows these educational principles through its support of student engagement and teamwork in the learning process. Pre-service teachers developed observational learning and vicarious experiences during peer-led workshops and group activities through meaningful interactions. Pre-service teachers gained necessary skills and knowledge for inclusive education through combined experiences of direct practice and other learning opportunities. The flipped classroom model when combined with SCT shows great

promise as a transformative teaching method to prepare educators for supporting students with disabilities.

Literature Review

The foundation of modern educational practices lies in inclusive education which guarantees students with disabilities have equal access to instruction inside general education classrooms. Inclusion and accommodations for students with disabilities represents an educational commitment that surpasses the basic requirements of legal mandates. General education teachers struggle to support students with disabilities because they lack sufficient training and face growing curriculum demands alongside intensified testing requirements (Rosenzweig, 2009). Pre-service teachers especially struggle with these challenges because they often say they lack readiness to support students with disabilities and their diverse learning needs. Most present teacher preparation curricula do not fully prepare prospective teachers to confidently apply evidence-based inclusion practices for students with disabilities (Al Jaffal, 2022).

Barriers to Teacher Preparedness

General education teachers face inadequate preparation because teacher preparation programs do not provide sufficient special education coursework to non-special education majors in college. As a result, these teachers enter into the classroom with limited exposure to evidence-based practices and feelings of inadequacy when they attempt to implement accommodations in inclusive classrooms for students with disabilities (Rosenzweig, 2009; Al Jaffal, 2022). Futher, these issues present in both educational institutions and teacher training programs obstruct effective cooperation between general education teachers and special education instructors. Fragmented communication channels together with unclear role delineation and

uncoordinated professional development opportunities further intensify these problems. Overall, the ability for educators to create effective inclusive learning environments becomes restricted when they lack knowledge of and access to necessary resources to ensure their student's success, especially students with disabilities.

According to research by Kim et al. (2014) effective design principles in pre-service educator preparation programs requires thoughtful planning and structure to produce meaningful learning outcomes. Schools face difficulties with funding and scheduling time for collaborative planning, which causes regular teachers, once in the classroom, to lack necessary support for modifying educational materials and applying student accommodations for those students with disabilities (Al Jaffal, 2022; Rosenzweig, 2009). Thus, educator preparation programs must integrate hands on opportunities and a variety of educational perspectives into their training design because these views are fundamental to teacher attitudes and practices (Hassanein et al., 2021).

Impact of Teacher Attitudes and Self-Efficacy

The foundation of successful inclusive education and the accommodation of students with disabilities in general education classrooms depends on teacher attitudes and self-efficacy. An educator's self-efficacy which means their belief in their ability to complete particular tasks determines how open they are to adopting inclusive teaching practices. Educators who exhibit higher self-efficacy demonstrate greater enthusiasm for inclusion while maintaining perseverance through difficulties and creating customized student accommodations (Di Maggio, 2020; Hassanein et al., 2021).

Experiences in college preparation programs are essential for pre-service teachers because they are the foundation of self-efficacy and establish attitudes toward accommodations

for students with disabilities. In addition, pre-service teachers who engage with students with disabilities during practicums or internships further develop confidence and eliminate misconceptions about working with students with disabilities. Ultimately, through real-world scenarios pre-service teachers can practice accommodation design and modification implementation while addressing learning barriers within a supportive setting (Hassanein et al., 2021).

Targeted courses which focus on evidence-based strategies for educating students with disabilities holds equal importance. Instructional activities like personal plan development paired with peer cooperation and feedback from instructors build essential preparedness skills. Pre-service teachers develop their skills to support students with disabilities through activities like simulation exercises and guided practice according to Di Maggio (2020). Educators who display strong self-belief develop supportive classroom spaces while they implement various accommodations and integrate assistive technologies into their teaching methods. All students experience benefits from these practices which cultivate an inclusive educational environment once they enter into the classroom (Di Maggio, 2020; Hassanein et al., 2021).

Flipped Classroom Model and Evidence-Based Practices

The flipped classroom model provides teachers in training with a functional yet inventive answer to educational preparation challenges that many educator preparation programs face. Through active learning and peer collaboration this method allows pre-service teachers to interact with material in practical and dynamic ways. According to Wilson (2013) the flipped classroom approach effectively manages difficult subject teaching through student-paced material review and in-class concept application. The research by Hao (2016) shows flipped

classrooms improve student engagement and active learning readiness because they strengthen connections to course content.

In the flipped classroom model pre-service teachers study foundational content prior to class so that classroom time can be devoted to interactive activities and peer-led workshops along with problem-solving scenarios. This educational method prioritizes practical experience with real-world problems to overcome the shortcomings of conventional lecture-based teaching (Chakravarthi & White-McNulty, 2020). According to Jensen et al. (2015) the primary source of improvements in flipped classrooms originates from their built-in active learning techniques. The flipped classroom model stands out because it matches evidence-based practices. Pre-service teachers get to practice with the guidance of their professor, while they work together to create personalized accommodations and receive direct feedback to improve their methods. With this model, pre-service teachers improve their readiness for inclusive education by applying acquired skills through an iterative process which transfers their knowledge to actual classroom environments (Al Jaffal, 2022).

Further, the flipped classroom model enhances self-efficacy through organized practice sessions for accommodation strategies for students with disabilities. In this model, pre-service teachers develop assurance in their capacity to create fair learning environments through consistent practice of practical tasks followed by constructive feedback. According to O'Flaherty and Phillips (2015), flipped classrooms in higher education enable better active learning and engagement through intentional design with specific objectives and structured approaches.

A review of scholarly works shows ongoing deficiencies in teacher training for inclusive education which points toward the need for new teaching methods such as the flipped classroom approach. Teacher education programs can provide better support for learners with disabilities in

inclusive classrooms through preparedness barrier mitigation and positive attitude development through the flipped classroom along with experiential learning integration.

Purpose of the Study

The purpose of this study was to examine how well the flipped classroom model prepares pre-service teachers to develop skills and confidence to implement accommodations for students with disabilities. This research investigates shifts in self-efficacy and preparedness levels of pre-service teachers during accommodation tasks to identify weaknesses in conventional teacher training methods. This study provides evidence-based guidance for instructional practice development to strengthen teacher preparedness for inclusive education, which will result in better support systems for students with disabilities in regular classrooms.

Research Questions

1. What impact does the flipped classroom instructional model have on pre-service teachers' confidence levels for making accommodations for students with disabilities when compared to traditional teaching models?
2. How does the instructional model type (flipped classroom versus traditional) affect pre-service teachers' feelings of readiness to assist students with disabilities in general education environments?
3. Does the flipped classroom method result in better final project results when students design accommodation plans compared to traditional teaching methods?
4. What is the impact of peer-led workshops held in a flipped classroom environment on pre-service teachers' practical skills in creating accommodations?

Methods

Researchers used a quantitative descriptive research design to assess how the flipped classroom model affected pre-service teachers’ confidence and ability to create accommodations for students with disabilities. The study gathered data through self-efficacy surveys both before

and after the course along with performance evaluations based on an accommodation design project finished at the course's conclusion. The study included pre-service teachers who were enrolled in either a flipped classroom model or a traditional instructional model. A statistical evaluation compared confidence levels and preparedness while examining task performance between groups to assess the flipped classroom approach's impact on teacher preparation programs.

Participants

All 68 study participants were pre-service teachers who took a required junior-level education course, SPED 3329 Survey of Exceptionalities, as part of their education program. The majority of participants (76.4%; 52 out of 68) were Early Childhood through Grade 6 (EC-6) majors. Special Education majors comprised 10% (7 out of 68), while 4 participants (6%) were Communication majors. Additionally, 2 participants (2%) were Middle Level Education (Grades 4-8) majors, and another 2 participants (2%) indicated "Other" as their major. One participant was a Secondary Education minor. The study consisted of 76% junior participants but excluded students who were freshmen. The group was predominantly female (98.9%). Half of the participants had completed 1–2 previous educational courses that taught some content about students with disabilities while 37% had no experience with such courses. Most participants (76%) held previous experiences with disabled students and autism was the disability they most frequently encountered. Out of all participants 62% reported no family members with disabilities while 38% indicated they had a family member with a disability.

Instrument

Researchers used a researcher created Qualtrics survey with 16 questions designed to obtain detailed information about participant backgrounds and attitudes toward students with

disabilities. Participants started the survey with 13 multiple-choice questions that collected demographic information and experiential background data. The survey questions evaluated participant class ranking and their degree major while also gauging their experience with disabled students along with any family connections to disabilities and types of disabilities they had encountered or understood. The last three survey questions used Likert scales to measure participants' levels of agreement and comfort. The survey questions investigated participant comfort levels about having students with disabilities in their classes, their capacity to work with such students, and their self-assurance in delivering necessary accommodations. A 5-point Likert scale measured participants' comfort level with scores from 1 meaning extremely uncomfortable to 5 meaning extremely comfortable. The alternative Likert scale ran from 0 to 3 with 0 meaning strong disagreement and 3 meaning strong agreement concerning the statements.

Data Collection and Analysis

During the first week and final week of the semester researchers distributed the survey to students in both face-to-face sections and online sections of the course. The survey completion counted as part of the overall final course grade and students had one week to submit their responses. The study reached full participation from all enrolled students. The analysis of data involved descriptive statistical methods in Qualtrics. Patterns and trends in survey responses were investigated through an item analysis process. The analysis of Likert-scale answers included both mean values and the highest and lowest scores. Mean data calculations were performed on multiple-choice responses to summarize participants' backgrounds effectively. The systematic analysis provided detailed insights into how the flipped classroom model influenced pre-service teachers' self-efficacy and their readiness to provide accommodations.

Results

The objective of this study was to assess how pre-service teachers' capability and confidence in supporting students with disabilities changed when taught through a flipped classroom instructional model as opposed to a traditional online learning environment. Students in the face-to-face section entered the course with moderate comfort levels for accommodating students with disabilities according to the pre-course survey analysis. Table 1 reveals that the pre-course Likert-scale average for confidence in suggesting accommodations stood at 4.06, while the confidence in implementing accommodations measured 3.03. Both metrics showed considerable improvement after the course as post-course averages climbed to 4.56 and 4.66 respectively, suggesting substantial increases in self-reported confidence. Face-to-face students increased their comfort levels in attending IEP meetings (4.43) and collecting data (4.66), as post-course means surpassed 4.0 in these areas.

Table 1

Pre- and Post-Course Survey Results for Face-to-Face and Online Students

Survey Item	**Mean Score (Face to Face)**	**Mean Score (Online)**
Confidence in suggesting appropriate accommodations (Pre-Course)	4.06	3.59
Confidence in suggesting appropriate accommodations (Post-Course)	4.56	4.39
Confidence in implementing accommodations (Pre-Course)	3.03	4.03
Confidence in implementing accommodations (Post-Course)	4.66	4.43
Comfort in attending IEP meetings (Pre-Course)	3.49	4.09

Comfort in attending IEP meetings (Post-Course)	4.43	4.07
Comfort in collecting data (Pre-Course)	3.97	3.80
Comfort in collecting data (Post-Course)	4.66	4.29

Conversely, Table 1 also shows that students who took the course online had less improvement in their comfort levels compared to face-to-face participants. Students in the online section began with similar confidence levels as face-to-face participants, starting at 3.59 for suggesting accommodations but showed weaker improvement post-course, with their scores reaching 4.39. The online group also demonstrated lower final scores in accommodation implementation (4.43) and IEP meeting attendance (4.07) after course completion.

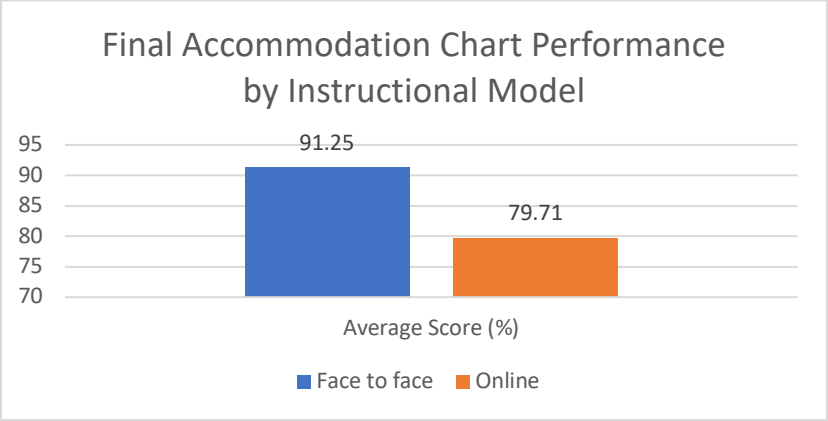
Online students developed significant confidence and comfort levels but faced less effective progress when compared to students who attended sessions in person. Online students displayed the least post-course confidence growth about accommodation implementation (+0.40) versus face-to-face students who showed a +1.63 increase demonstrating the superiority of direct engagement in flipped classroom setups for skill development. The online students who began with higher comfort scoring 4.09 for IEP meetings ended with 4.07 after the course while face-to-face students improved from 3.49 to 4.43 showing that hands-on learning activities such as role-play and live discussions benefit face-to-face students more than online students. The flipped classroom format proved superior to other methods in enhancing educators' competence and confidence when working with students with disabilities despite both instructional approaches resulting in greater confidence levels.

The final project for both courses required students to create an accommodation chart. Students selected a grade-level Texas Essential Knowledge and Skills (TEKS) standard in a subject they intended to teach and designed an instructional activity aligned with that TEKS.

Next, they identified appropriate accommodations for various disabilities to ensure all students could successfully engage in the lesson. For example, for a 4th-grade math TEKS on counting money, a student with a vision impairment might receive accommodations such as larger, tactile coins and bills. Assignment results obtained using a standard rubric for both sections of the course reinforced the disparities among the different instructional approaches. As outlined in Appendix A, student work was assessed based on TEKS alignment, lesson activity, accommodations, assistive technology integration, and clarity of organization. Figure 1 shows that face-to-face participants attained a mean score of 91.25% out of 100% on the researcher created rubric seen in Appendix A, which confirms their expertise in implementing accommodations in real-world situations. Online participants had a lower proficiency with their average score at 79.71% out of 100% on the researcher created rubric seen in Appendix A. The difference in results shows that the flipped classroom strategy supports practical application and peer cooperation which helped produce better results for the face-to-face students.

Figure 1

Final Accommodation Chart Performance by Instructional Model



Note. This figure shows that face to face students scored higher on their accommodation chart when compared to students who took the same class online, without the flipped classroom approach.

Data from both instructional models showed that pre-service teachers started their course with minimal experience working with students with disabilities according to pre-course survey findings. All participants showed growth in confidence and knowledge by the end of the course, but the most notable improvements occurred among students who participated in the flipped classroom model. The results agree with Unruh et al.'s findings (2016) which showed that flipped classroom settings led to better student engagement and performance than traditional teaching methods. The research illustrates how teacher preparation programs can benefit from active and collaborative experiential learning strategies to better equip future educators to support disabled student populations.

Discussion

According to this study's results, the flipped classroom model substantially improves pre-service teachers' self-confidence and readiness to accommodate students with disabilities. This research confirms through consistent findings that teacher preparation programs benefit from experiential and collaborative learning environments. The flipped classroom model provides a practical solution for connecting theoretical knowledge with real-world practice through active engagement and peer-led activities. The method improves self-efficacy in pre-service teachers while overcoming implementation barriers like limited experience and insufficient evidence-based practice training.

Comparison of Instructional Models

What impact does the flipped classroom instructional model have on pre-service teachers' confidence levels for making accommodations for students with disabilities when compared to traditional teaching models? This study's findings suggest that the flipped classroom model led to greater gains in confidence when compared to traditional online learning. Pre-service teachers in the flipped classroom model experienced substantial improvements in their confidence and competence in designing accommodations, as shown by their superior post-course survey results and final project scores when compared to students who studied online. The flipped classroom approach, through active engagement and peer collaboration with hands-on application, supports Humphrey and Symes' (2013) research findings about the value of authentic social interactions and experiential learning in teacher preparation. Students could study course material independently before class, allowing them to use class time for advanced exploration and joint problem-solving tasks (Sams & Bergmann, 2013). Active participation opportunities delivered benefits by improving personalized learning experiences while simultaneously creating a classroom atmosphere that supports student interaction.

Strayer's (2012) research emphasizes that inverted classroom models help students develop better teamwork abilities and innovative thinking while maintaining a strong focus on tasks. The face-to-face cohort performed better because the flipped classroom elements allowed them to get instant feedback and apply what they learned during class sessions. The flipped classroom model allowed students to practice real-world applications of theoretical knowledge through structured collaboration and accommodation implementation.

The Role of Self-Efficacy in Teacher Preparation

How does the instructional model type (flipped classroom versus traditional) affect pre-service teachers' feelings of readiness to assist students with disabilities in general education

environments? The online group that used a traditional instructional model reported only minor improvements in confidence and preparedness. Shade and Stewart's (2001) study revealed that traditional teacher preparation programs suffer from major deficiencies because they do not provide teachers with practical, evidence-based training for inclusive education. The difference between the groups demonstrates that teacher preparation programs must include experiential and collaborative learning to prepare educators for inclusive classroom challenges.

Pre-service teachers' capacity to support students with disabilities relies heavily on their self-efficacy. Educators who possess stronger self-efficacy adopt inclusive practices with greater frequency while also showing improved persistence and creativity when addressing teaching obstacles (Berry, 2010). According to this study's findings, self-efficacy plays a key role in teacher preparation because the flipped classroom model improved pre-service teachers' knowledge while greatly increasing their ability to apply this knowledge in actual teaching situations. The face-to-face group demonstrated their higher confidence through survey results after the course and stronger performance during the final accommodation project. The flipped classroom model worked to build participant self-efficacy because it focused heavily on experiential learning methods. Pre-service teachers gained access to a supportive environment for skill development through guided practice and peer collaboration, together with role-playing exercises. By designing and presenting accommodations for case-based scenarios, participants had opportunities to put theoretical knowledge into practice, which helped build their self-belief. Hands-on experiences in conjunction with constructive feedback built essential confidence for teachers to execute inclusive practices according to Berry (2010).

Barriers and Opportunities in Teacher Preparation

Does the flipped classroom method result in better final project results when students design accommodation plans compared to traditional teaching methods? The findings suggest that pre-service teachers in the flipped classroom model were more successful in designing effective accommodations than their peers in the traditional model. The research unveils persistent obstacles in teacher preparation, including the insufficient prior exposure to students with disabilities that numerous participants reported. From the participant cohort, 37% lacked previous disability coursework, while 24% had no experience working with students with disabilities and even acknowledged that they did not know they would have to teach students with disabilities. These findings match Barned et al.'s (2011) research, which points out major challenges general education teachers encounter when trying to support exceptional learners. Pre-service teachers need to fill these educational gaps to build both the confidence and competence needed for effective teaching in inclusive classrooms.

According to Waldrop (2013), online and virtual learning environments hold transformative potential, offering flexible and personalized educational experiences that address existing challenges. Yilmaz (2017) highlights how e-learning readiness contributes to increased student satisfaction and motivation, especially when implemented in flipped classroom settings. The clear advancement of study participants in the flipped classroom model supports these results by showing that structured, high-quality preparation can overcome barriers for individuals with little prior experience. Innovative instructional strategies prove essential for filling teacher preparation gaps and supporting inclusive teaching methods.

Implications for Teacher Preparation Programs

What is the impact of peer-led workshops held in a flipped classroom environment on pre-service teachers' practical skills in creating accommodations? The findings from this study

indicate that the peer-led workshops integrated into the flipped classroom model were highly beneficial in developing pre-service teachers' practical skills. These workshops provided opportunities for active collaboration, immediate feedback, and real-time problem-solving, which are crucial elements in building confidence and competence in making accommodations. This study reveals that teacher preparation programs should integrate flipped classroom strategies to overcome deficiencies present in conventional training methods, both in the face-to-face and online settings. The flipped classroom model merges theoretical knowledge with practical application to overcome teaching preparation issues such as insufficient evidence-based practice training (Rosenzweig, 2009) and restricted opportunities for collaborative learning (Al Jaffal, 2022). According to Al-Jaffal (2022), educators benefit from teacher training that incorporates culturally responsive methods and inclusivity through peer-led workshops and collaborative problem-solving.

Lo and Hew (2017) introduced scaffolding and differentiated instruction as solutions to overcome implementation challenges of flipped classrooms, including student engagement variability and accessibility issues. General teacher preparation programs must systematically include special education content because it provides educators with essential skills for supporting exceptional learners. Brownell et al. (2021) recommend integrating evidence-based practices into all teacher candidate curricula to ensure consistent and targeted training. Zainuddin and Halili (2016) demonstrated the adaptability of flipped classrooms for various academic fields, as they promote active student participation, leading to better teacher preparation program effectiveness.

Contributions to Research and Practice

The results of this research support the expanding collection of studies that recommend new instructional approaches for teacher preparation programs. This study shows how the flipped classroom model can improve pre-service teachers' confidence and preparedness, which in turn creates a framework for developing better teacher training programs. This research underscores experiential learning as essential for connecting theoretical concepts with practical application while preparing future educators to effectively support learners with disabilities.

Limitations and Future Research

The findings from this study are encouraging, yet the research contains certain constraints. The research findings might not apply to other contexts because the study used a limited sample size and was conducted in just one course at one institution. Further studies should investigate both the extended influence of flipped classroom training on teacher efficiency in inclusive settings and the potential modifications necessary for effective online application.

Summary

This research shows that the flipped classroom model boosts both the confidence level and readiness of pre-service teachers to support students with disabilities. The flipped classroom model helps teachers develop necessary inclusive education skills by overcoming primary obstacles like inadequate practical training and reduced self-efficacy. Research shows experiential learning combined with collaborative problem-solving and evidence-based practices helps develop teacher efficacy and promotes better inclusive classroom methods. The study delivers important insights but shows that more research is required to examine the lasting impact of these instructional methods across different educational settings. This study advances

knowledge about effective teacher training and suggests practical methods that help future teachers serve every student effectively.

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Appendix

Grading Rubric

The following rubric was used to score the Accommodation chart that was assigned to both the face to face and online students taking SPED 3329.

Criteria	Exemplary (20-18 points)	Proficient (17-15 points)	Developing (14-12 points)	Needs Improvement (11-0 points)	Points Earned
TEKS Alignment	The selected TEK is clearly stated, fully written out, and aligns with the chosen subject and grade level.	The TEK is mostly clear and relevant but may lack some detail.	The TEK is somewhat unclear or only partially aligned with the selected subject and grade.	The TEK is missing, unclear, or not aligned with the subject/grade.	
Lesson Activity	The instructional activity is well-developed, engaging, and clearly aligned with the TEK. It demonstrates a strong connection to student learning objectives.	The activity is mostly aligned with the TEK and demonstrates an understanding of the learning objectives but may lack depth.	The activity is somewhat relevant but lacks clear alignment with the TEK or student engagement strategies.	The activity is unclear, underdeveloped, or does not align with the TEK.	
Accommodations for Disabilities	Accommodations are detailed, appropriate, and customized for a wide range of disabilities. Each accommodation ensures equitable access to learning.	Accommodations are mostly appropriate and address key student needs but may lack variety or depth.	Some accommodations are present but may be vague, impractical, or not fully aligned with the disability.	Accommodations are missing, inappropriate, or fail to consider student needs effectively.	
Assistive Technology Integration	A variety of assistive technology tools (low, mid, high tech) are thoughtfully incorporated to support students with disabilities.	Assistive technology is included and mostly relevant but may not provide a full range of support.	Some assistive technology is included, but its application is unclear or not well integrated into the lesson.	Assistive technology is missing or entirely inappropriate for the students' needs.	

Clarity and Organization	The chart is well-organized, easy to read, and follows a logical structure. All components are clearly labeled and formatted professionally.	The chart is mostly organized and readable but may have minor formatting issues.	The chart is somewhat difficult to follow due to formatting inconsistencies or lack of organization.	The chart lacks clarity, is disorganized, or difficult to understand.	
Grammar, Mechanics, and Professionalism	Writing is clear, professional, and free of errors. Terminology is appropriate for an academic setting.	Writing is mostly professional with minor errors that do not impact readability.	Writing contains multiple errors in grammar, spelling, or clarity that affect readability.	Writing is unclear, unprofessional, or contains frequent errors that hinder understanding.	

Total Score: ____ / 100

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Dispositions of Mentor Teachers That Empower Student Teachers During Practicum

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Educator Preparation Programs (EPPs) have measured student teacher dispositions for decades as part of their Quality Assurance Systems (Villegas, 2007). Mentoring teachers, college professors, and university supervisors evaluate these dispositions. Dispositions are "habits of professional actions and moral commitments that underlie an educator's performance" (InTASC, 2013, p. 6). The instrument the researchers used in this study was the Candidate Dispositions Performance Assessment Rubric (CDPA), a valid and reliable instrument (Nweke et al., 2019). The researchers sought to determine if specific mentor teacher dispositions impacted student teacher motivation to meet their full potential during their student-teaching practicum.

If EPPs can begin to evaluate mentor teacher dispositions and choose mentor teachers who practice adaptive expertise that offers metacognitive communicative learning experiences, student teachers can engage in more meaningful practicum experiences where they observe mentor teachers who are adaptive experts and facilitate conversations about their practice related to student learning. These mentor-mentee relationships will provide student teachers with opportunities to think critically about the procedures and strategies they utilize in the classroom to increase student learning. This type of critical thinking will allow student teachers to build mindful habits (Altan et al., (2019); Costa & Kallick, 2009) that can increase their success as K-12 teachers and help decrease teacher burnout and the teacher shortage.

Background and Context

Georgia Gwinnett College (GGC), located in the suburbs of Atlanta, is identified as a Hispanic serving institution with many non-traditional students. As an institution less than 20

years old, GGC seeks to implement innovative programs. The School of Education is diverse and partners with Gwinnett County Public Schools (GCPS), which Forbes Magazine identified as one of "America's Best Employers for New Grads" at number 185 on the list of the top 400 employers. GCPS is known as one of the most diverse school districts in the nation, with 80% of the students identifying as a community of color.

The GGC School of Education requires a yearlong unpaid student teaching experience for traditional student teaching, and residents receive a living wage from the district. Mentor teachers who have a minimum of three years of teaching experience and who attain proficient evaluation ratings can volunteer. Student teachers start in July with their mentor teacher and wrap up their experience prior to graduation in May. Mentor teachers are asked to volunteer and then selected by building administrators, with final approval from the district office. Mentor Teachers must meet the above requirements and should be aware that this role is unpaid and entirely voluntary. The residents are selected first by a School of Education committee and then by building administrators through an interview process and matched with mentor teachers. The goal of student teaching is to pair the student teachers with mentor teachers who meet these criteria to provide them with opportunities to practice and apply knowledge from their methods courses to the K-12 classroom. This practice requires critical thought and reflection from the mentor and student teacher. Mentor teachers who interact positively and maintain a good rapport with all students can problem-solve and critically think through their emotional frames of reference (Mezirow, 1997).

EPPs aim to recruit and prepare profession-ready educators for the K-12 classroom. To do so, EPPs partner with school districts seeking to recruit effective mentor teachers who will serve as strong role models in curriculum, instruction, and assessment. The National Council for

the Accreditation of Educator Preparation (CAEP) standard two defines clinical educators (mentor teachers) as those who prepare and evaluate a candidate's positive development in diverse P-12 student learning.

The revised INTASC Model Core Teaching Standards (2017) have defined critical dispositions for each of the ten standards that frame effective teachers' practices. These critical dispositions are interwoven throughout daily routines in the classroom setting. Dispositions and behaviors are the attitudes, perceptions, or beliefs that form a behavior baseline. Examples include expanding learners' knowledge, analyzing and reflecting on classroom practices, and utilizing data to determine the next steps for student learning. Perhaps, if student teachers can observe and learn from impactful mentor teachers with strong critical dispositions in these areas, it would support their growth and readiness for the K-12 classroom.

To conduct this study, the researchers were interested in answering the following research questions.

Research Questions

The mixed-method research questions addressed in this article are:

1) What dispositions and behaviors of mentor teachers empower student teachers in their practicums?

2) Which dispositions allow mentor teachers to develop a closer connection with a student teacher?

3) What mentor teacher qualities influence a student teacher's practicum experience positively and negatively?

Participants

There are four types of student teachers at Georgia Gwinnett College in the School of Education. They are candidates who are student teaching as part of a 4-year professional program, paraprofessional special education cohort, as well as cohorts of residency and fellowship students. Respondents were all student teachers, but they also included resident and fellowship students who participated in the Teacher Quality Partnership Grant (TQP) and received a stipend. Each participant succeeded in the yearlong student teaching practicum and received certification. The CDPA data collected in the **Spring of 2023** had a total of N=75 respondents: 48 Elementary Education students, 11 Middle-Grade Education students, 7 Secondary Education students, and 9 Special Education students. Of those, there were six residents participating in our TQP grant (3 Elementary, 3 Secondary). The CDPA data collected in the **Spring of 2024** had N=110 respondents: 71 Elementary Education students, 8 Middle-Grade Education students, 10 Secondary Education students, and 21 Special Education students. Of those, 15 were fellows (2 Middle Grades, 1 Special Education, 12 Elementary), and 9 were residents (4 Elementary, 5 Secondary).

Survey

The instrument used in this study was a modification of the Candidate Dispositions Performance Assessment (CDPA) (Nweke et al., 2019). The original instrument had 24 items used to assess teacher candidates' dispositions. The modified instrument used in the present study used 23 of the 24 items addressed in the CDPA instrument using a modified level of performance scale in which student teachers evaluated the dispositions of their mentor teachers. The instrument used a Likert scale of Performance: (1) Unacceptable, (2) Needs development, (3) Proficient, and (4) Exemplary. The researchers replaced the title and terms of the teacher candidate with the mentor teacher and used five levels of performance: 1) strongly agree, 2)

somewhat agree, 3) neither agree or disagree, 4) disagree, and 5) strongly disagree. For example, the original item read, "Teacher candidate interacts positively and maintains appropriate relationships with students." While the new statement reads, "Mentor teacher interacts positively and maintains appropriate relationships with students."

Additionally, the instrument queried student teacher respondents on three follow-up questions.

Follow-Up Questions

The follow-up questions referred to the same dispositions on the CDPA instrument and were listed so student teachers could rank the dispositions that led to a positive or negative practicum experience. Question three was an open-ended question based on their student teacher practicum.

1. Which of the mentor teacher dispositions which you have just rated lead to positively impacted your clinical field experience as a teacher candidate?
2. Which of the mentor teacher dispositions which you have just rated lead to negatively impacted your clinical field experience as a teacher candidate?
3. Can you provide examples of simple tasks your mentor teachers did to develop a close connection with you over the year-long student teaching experience?

Theoretical Framework

As an EPP, it is of primary importance that we build strong partnerships with school districts that provide self-regulated mentor teachers who develop positive relations that can eventually lead to transformative learning (Mezirow, 1997), which shift the student teachers habits of mind and point of view due to the metacognition practices through self-regulation. As a

result, it is important to identify the specific dispositions and characteristics of effective mentor teachers who facilitate learning during the student teaching practicum experience.

The transformation learning theory proposed by Jack Mezirow (1997) focuses on meaning-making as a critical element required for adult learning. Mezirow (1997) states in *Transformative Learning: Theory to Practice* that adults' acquired experiences serve as a frame of reference, enabling autonomous and critical thinking, which aligns with Costa and Kallick's (2000) habits of mind. Costa and Kallick (2000) describe a framework in which the cognitive, conative, and emotional frames of reference allow a student teacher to problem solve and involve themselves in communicative learning with the mentor teacher while utilizing habits of the mind. Further, this work suggests that the student teacher needs to critically consider classroom practices metacognitively regarding student behavior, planning curriculum and instruction, and identifying next steps based on collected assessment data. Furthermore, the transformational learning theory aligns with metacognition in the self-regulation theoretical framework by Zimmerman and Schunk (2009).

Zimmerman and Schunk (2009) define *self-regulation* as related to academic achievement and describe various ways student teachers can master their thinking by leaning into metacognition and self-awareness. However, they identify self-regulation as a learned skill requiring practice and modeling before permanent acquisition. Thus, if we have self-regulated mentor teachers who can model these behaviors for their student teachers, Zimmerman and Schunk suggest that a student teacher's thinking practice will be impacted. Moreover, when fostering self-direction with transformative learning, the mentor teacher models critical reflection in educational settings and acts as a guide to support the communicative practice of learner-centered discourse (Mezirow, 1997). This theoretical framework suggests that student teachers

(adult learners) practice the modeled behaviors and adjust their frames of reference as time progresses in their field practice.

Alexander asserts in *The Development of Expertise: The Journey from Acclimation to Proficiency* (2003) that expertise develops over time. Zimmerman and Schunk (2009) suggest that student teachers gain adaptive expertise that requires self-regulation. Self-regulation can eventually lead to transformative learning (Mezirow, 1997), which can shift the learner's habits of mind and point of view due to the metacognition practices through self-regulation.

Adaptive expertise allows student teachers to flexibly transfer their learning to new situations and circumstances (Alexander, 2003). Hammerness, Darling-Hammond, and Shulman (2002) also note that adaptive experts are known for their metacognition, or the ability to think about one's own thinking. They even state that the two of these ideas are closely connected, which is part of the self-regulation process, as noted by Zimmerman and Schunk (2009) and Costa and Kallick's (2000) habits of mind.

In a study completed by Glen (2006), student teachers identified mentor teacher attributes that were important to the mentoring relationship. These student teachers describe the importance of organization, positive rapport, content knowledge, compassion, and good classroom management to a successful field experience. Maria-Monica and Alina (2014) also asked student teachers about mentor teachers' dispositions in relation to their field experiences and the student teachers. This study identified five mentor teacher qualities, passion, patience, empathy, availability, and kindliness, as important to their field experience concerning personal growth as a novice teacher. Student teachers' perceptions and expectations of their mentor teachers impact the quality of clinical experiences and can be powerful events with lasting impacts on future practices—(Kyle, et. al., (1999); Hudson, (2016).

Methods

To conduct this mixed method study, the researchers queried 185 participants (student teachers) at the end of their practicum experience. They completed the CDPA instrument on their mentor teachers and answered open-ended questions regarding their student teaching practicum. The CDPA survey was administered in the Spring of 2023 and again in the Spring of 2024 with two years of participants. The survey was given through Qualtrics, and the data was collected and stored on a secure college web server. The data was exported to SPSS to run a multiple regression analysis to determine what dispositions were found to be statistically significant and had the highest predictive relationship with mentor teachers who had positive relationships with students. The open-ended questions were reviewed for common themes utilizing Dovetail concerning mentor teachers' dispositions, which respondents identified as positively and negatively influencing a student teacher's practicum experience.

Results

In this research study, there were three questions investigated. The first question 1) What dispositions and behaviors of mentor teachers empower student teachers in their practicums? To answer this question, the researchers collected **the CDPA Likert scale** survey asking student teachers to rate the dispositions of their mentor teachers. Additionally, they asked respondents to identify and rank the importance of the dispositions of their mentor teachers that most positively and negatively affected the student teaching experience. Lastly, they asked what simple tasks the mentor teachers did to create a closer connection with them as student teachers. The data was collected and analyzed to determine the findings of the research questions.

Table 1 provides the mentor teacher disposition Likert averages and standard deviations on the instrument completed by the student teachers concerning their mentor teachers’

dispositions to answer research question number one. The data is disaggregated by year to further demonstrate the comparison between the two subsets of the student teacher population. In general, student teachers responded that they strongly agreed or somewhat agreed that their mentor teachers had demonstrated each of the dispositions named in the instrument.

In responses from the 2023 cohort, 22 of the 23 items yielded Likert scale average scores of 4.8 or 4.9, with Attitude and Demeanor yielding a 4.7, **with 5 being strongly agree**. Average standard deviations for individual items range between .29 and .68. Responses from the 2024 cohort yielded slightly lower average scores, but all average Likert scale scores were 4.6 or higher. In the 2024 group, the standard deviations for each item scores were higher than in the 2023 cohort year. Table 1 also identifies the dispositions found to be statistically significant on the instrument. Ten out of the 23 items were found to be statistically significant in both years of data. Interestingly, these same 10 dispositions were identified as most impactful by student teachers, listing them as both positive and negative influencers. All student teachers rated their mentor teachers above 90% on all dispositions, with the exception of self-control, which had a percent agreement or strongly agree with 88%. For example, only two participants rated their mentors as strongly disagreeing or somewhat disagreeing on several of the dispositional items on the instrument. Some examples where they scored their mentor lower were a passion for teaching, commitment to school, use of technology, organization, and preparedness.

The second research question asked student teachers in the study to provide examples of simple tasks your mentor teachers did to develop a close connection with you over the year-long student teaching experience. For example, one student shared, "My mentor teacher sent me a Google form to ask me about my favorite things so she could surprise me throughout the school year." Many others shared that their mentor teachers were positive, collaborative, and cared for

their well-being. The consistent themes in both data sets were communicative, collaborative, relational demonstration of trust and respect, offered guidance and support, inclusive, sense of community, set parameters, and provided positive feedback. Overall, the primary element noted by student teachers as important to developing a close connection with their mentor teachers was the time afforded by mentor teachers to interact with them.

The third and final research question investigated which teacher qualities influenced a student teacher's practicum experience positively and negatively. The data can be found in Table 2 and Table 3 in the Appendix. Table 2 lists the dispositions that positively impact the field experience, and Table 3 lists the dispositions that negatively impact the field experience. Overall, the findings suggest that the five dispositions ranked the most by student teachers were interaction with students, collaboration, passion for teaching, dependability/reliability, and high expectations. The rankings for both areas were slightly different if you look at Table 2 and Table 3, but what you will find is the same dispositions are consistent overall. For example, interaction with students was the top disposition that led to a positive and a negative clinical field experience.

The order of frequency of the top ten teacher dispositions chosen by the student teacher respondents for their impact on their own field in both a positive and negative manner were virtually identical. One notable difference was that collaboration was chosen second most frequently as having a positive impact, whereas it appeared as the fourth choice in having a negative impact. All other dispositions in the top ten differed in frequency by only one place. Conversely, the least impactful mentor teacher dispositions identified as positively impactful were self-control, commitment to school, and use of technology, which were the bottom three ranked.

After reviewing all CDPA data for completers in the 2023 and 2024 school years, it is evident that most of the student teachers had a positive yearlong practicum experience. Mentor teachers' interaction with K-12 students was the single variable that had the biggest influence on a student teacher's positive practicum experience over the two years of data, and the mentor teachers' interaction with students can predict the type of practicum experience.

Notably, the student teacher residents expressed the need for experienced mentor teachers who could model appropriate responses to students and colleagues in various situations. Navigating student and professional relationships was key to the perceived success of this subgroup, and they looked to their mentor teacher to provide this relationship guidance. This feedback coincides with the positive themes from the open-ended question in the research study, which are relational, communication, collaboration, and positive experiences that create positive practicum experiences for student teachers in their year-long experience. Additionally, Mezirow (1997) shares a growing consensus that adult learners need specific dispositions to be effective workforce members, not just in teacher education.

Implications for Future Practice

The findings from this study indicate that specific mentor teacher dispositions contribute to a successful yearlong practicum experience for student teachers, first and foremost being a mentor's teacher's relationship with their students in the classroom and their attitude and demeanor. Secondly, it would be helpful if school administrators rated mentor teachers on the significant dispositions on the CDPA; perhaps we could predict whether a student teacher would have a successful yearlong student teaching practicum with a mentor teacher based on the data provided by the administrator. The EPP could use the CDPA scores to place students in their practicum and provide evidence for CAEP Standard 2 in the Quality Assurance System. Finally,

it will allow the researchers to revise the current student dispositional instrument and create one for mentor teachers based on the research findings.

The findings also suggest that while considering the transformative theory by Mezirow (1997), we can identify the mentor teachers' dispositions most beneficial to the student teacher's practicum experience based on their personal perspective. This skill set demonstrates the mentor teacher with the cognitive and emotional frames to make the right decisions in high-charged situations with students and is a model for the student teacher (Mezirow, 1997); Anand, 2019). Suppose this is followed up by communication between the mentor and student teacher. In that case, it offers a moment of coaching where the mentor can help the student teacher delve into the underlying intentions, values, beliefs, and feelings (Altan et al., 2019). These moments of self-reflection allow the student teacher to participate in a transformative process that can possibly change their set of beliefs when confronted with human behavior (Bandura, 1977). It is an example of effective coaching by the mentor teacher, proving they practice critical thinking in times that call for desperate measures (Mezirow, 1997).

Furthermore, the researchers found that the mentor teacher's interaction with students is among the strongest indicators influencing a student teacher's yearlong practicum experience. A flexible, professional mentor teacher is an example of an adaptive expert. Alexander (2003) says that expertise is developed over stages, and the final stage is adaptive expertise, which is the example of an autonomous critical thinker who can navigate the various circumstances in their adult life and workplace to find success in their personal and professional life. As student teachers need to rethink the nature of school to increase learners' achievement and motivation, they can problem-solve the demands of the K-12 classroom when engaging with mentor teachers who are like-minded professionals. This practice of self-regulation theory (Zimmerman and

Schunk (1999) can eventually lead to transformative learning (Mezirow, 1997). These self-regulation practices can shift the habits of mind (Costa & Kallick, 2000) and the learner's and the leader's point of view.

Finally, we understand that the relationship between the mentor teacher and the student teacher is the most pivotal component that drives a positive practicum experience; we should provide mentor teacher training that promotes tangible and concrete ideas for building these effective relationships; the goal would be to review the habits of mind and strong coaching components for mentor teachers while building relationships that further support the student teachers development and adaptive expertise. This professional development would increase the likelihood of a positive student teaching experience and growth over time in the student teacher's ability to adapt to the classroom setting based on the needs of the learners.

Conclusion

Based on the two years of data, the researchers understand that multiple variables contribute to a student teacher's yearlong practicum experience. The strongest factor that predicted a successful yearlong practicum experience was interaction with students by the mentor teacher in the K-12 learning environment. Likewise, when a mentor teacher interacts positively with students in her classroom, it is more likely that the student teacher will have a positive experience with her mentor. If a mentor can build positive relationships with her K-12 learners, the mentor should be able to build that same type of relationship with the student teacher.

Overall, the research questions were answered, and responses were consistent with the two data sets. For example, the researchers know the top four overlapping dispositions with the greatest positive influences were interaction with students, passion for teaching, collaboration,

and dependability and reliability, which also aligned with Glen (2006), Maria-Monica and Alina (2014), and Heeralal, (2014) findings. The top four mentor-teacher dispositions that negatively impacted the field experience are exactly the same, just listed in a different order. After analyzing the data, researchers can more easily identify the dispositions that should be included in the mentor-teacher instrument being created at the EPP level. Furthermore, the researchers can refine the current research questions and data collection methods to monitor whether the relationship between the variables stays consistent year after year or if the data shifts based on the completer population. Finally, the results of this study can be used by the GGC School of Education to develop and implement training for mentor teachers, including concrete coaching strategies, building relationships, and communicating with student teachers.

Moreover, the simple tasks that made student teachers feel connected to their mentor teachers were communicating with them through texts, phone calls, and emails and helping them with specific tasks. Some tasks included preparing for interviews, lesson planning, and setting up norms from the beginning of their student teaching practicum experience. These examples demonstrate a mentor teacher's ability and willingness to coach novice student teachers, build relationships, and practice effective communication and support.

As the researchers use the data sets to make policy changes, as part of the EPP's quality assurance system, there is a higher probability of student teachers being placed with strong mentor teachers who demonstrate self-regulation skills that will have a greater impact on the student teacher's practicum placement over their yearlong experience. The data will increase the likelihood that novice teachers will be provided with more insight and models of self-regulation (Zimmerman & Schunk, 2001), including intelligent habits of mind such as gathering data through all senses, problem-solving, thinking flexibly and being adaptive in a myriad of

circumstances (Altan et al., 2019). In conclusion, further research needs to be done in this area, as there is minimal research on mentor teacher dispositions in relation to student teacher positive practicum experiences and development.

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Table 1

Mentor Teacher Dispositions Likert Averages and Standard Deviations

Dispositions	2023	SD (2023)	2024	SD (2024)
*Interaction with Students	4.9	.29	4.7	.79
*Attitude & Demeanor	4.7	.74	4.6	.95
Communication	4.8	.68	4.6	.89
*High Expectations	4.9	.55	4.7	.85
Attendance/Punctuality	4.9	.46	4.6	.92
*Dependability/Reliability	4.9	.32	4.7	.79
Interaction with Adults	4.9	.34	4.6	.89
*Collaboration	4.9	.32	4.7	.88
Organization/Preparedness	4.8	.62	4.7	.88
Teachability/Adaptability	4.9	.46	4.6	.96
Content Knowledge	4.9	.46	4.7	.94
*Cultural Sensitivity	4.9	.34	4.7	.87
*Assessment	4.9	.49	4.7	.81
*Fairness	4.9	.51	4.7	.83
*Use of Technology	4.9	.48	4.6	.99
Time Management	4.9	.46	4.7	.82
*Self-Control	4.8	.60	4.6	1.07
Professional Appearance	4.9	.30	4.7	.80
Initiative	4.9	.45	4.6	.86
*Professional Judgement	4.9	.30	4.8	.76
Passion for teaching	4.8	.67	4.6	.92
Commitment to school	4.8	.59	4.7	.85
*Problem Solving Ability	4.9	.43	4.7	.75

Note: Participants were asked to assess their mentor teachers on each of the Candidate Dispositions Performance Assessment (Nweke et al., 2019). The internal reliability for both 2023 ($\alpha = .95$) and 2024 ($\alpha = .98$) was very high, indicating that the dispositions measured in the

instrument were highly consistent across both years. Those marked with an asterisk (*) were identified as statistically significant for 2023 and 2024. 5=Strongly agreed, 4=somewhat agreed, 3= neither agree or disagree, 2=disagree, 1= strongly disagree

Table 2

Frequency Distribution *by Student Teachers as Positively Impacting Field Experience*

Dispositions	N
Interaction with Students	103
Collaboration	74
Passion for teaching	72
Dependability/Reliability	71
High Expectations	67
Communication	61
Organization/Preparedness	56
Attitude & Demeanor	54
Teachability/Adaptability	38
Content Knowledge	34

Note: In a follow-up question the participants were asked to identify the five dispositions of mentor teachers that positively impacted their clinical field experience.

Table 3

Frequency Distribution *by Student Teachers as Negatively Impacting Field Experience*

Dispositions	N
Interaction with Students	62
Dependability/Reliability	50
Passion for teaching	46
Collaboration	44
High Expectations	44
Attitude & Demeanor	43
Communication	42
Organization/Preparedness	42
Teachability/Adaptability	40
Content Knowledge	36

Note: In a follow-up question the participants were asked to identify the five mentor teachers' dispositions that negatively impacted their clinical field experience.

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Understanding Clinical Performance Data to Inform Program Change

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Across the landscape of teacher preparation, clinical experiences have become a critical indicator of candidate readiness and program effectiveness. In response to national calls for increased rigor and accountability, educator preparation programs (EPPs) are increasingly turning to data-driven practices to evaluate candidate performance and inform continuous program improvement. These practices are essential not only for meeting accreditation standards but for ensuring that teacher candidates are prepared to meet the evolving demands of P–12 classrooms.

The purpose of this article is to describe how clinical performance data collected through the TEaM Model have been used to inform programmatic changes across initial certification pathways. Specifically, the work focuses on how data from field observations, professional checklists, planning artifacts, and team debriefs have driven curriculum redesigns, enhanced mentoring strategies, and improved residency structures—particularly in the secondary education programs. Through this case study, we aim to provide a replicable framework for other EPPs seeking to embed data analysis as a continuous improvement tool in their field-based programming.

Literature Review

Clinical experiences serve as the cornerstone of effective teacher preparation programs, providing candidates with authentic opportunities to apply pedagogical theory, build instructional competencies, and develop professional dispositions (Darling-Hammond, 2014). Research emphasizes that robust field experiences are predictive of stronger classroom readiness

and retention in the profession (Ronfeldt, 2015). High-quality clinical experiences are characterized by intentionality, coherence with coursework, and sustained partnerships between universities and P–12 schools (Zeichner, 2010).

Traditional student teaching often relies on a triad model, consisting of the teacher candidate, a cooperating teacher, and a university supervisor. However, emerging research supports more integrated models of mentoring, such as co-teaching (Bacharach et al., 2010) and professional learning communities that foster shared accountability. The TEaM Model at Louisiana Tech builds on this foundation by establishing a collaborative residency team of university and district mentors who co-support candidates throughout the academic year. This approach aligns with work by Bullough and Draper (2004), who emphasized the importance of mentor-teacher preparation and mutual feedback systems for candidate success.

Residency models are gaining traction as effective alternatives to traditional student teaching, particularly in their capacity to prepare candidates for the realities of diverse, high-need schools (Guha et al., 2016). Unlike short-term placements, yearlong residencies allow for gradual release of teaching responsibilities, sustained mentor relationships, and targeted feedback over time. These models also allow for more frequent and granular data collection to inform candidate support and program revisions. Louisiana Tech's TEaM Model reflects these national trends by embedding candidates in P–12 settings for an entire academic year while also structuring regular data review sessions across all stakeholder groups.

Effective EPPs increasingly use data to inform both candidate development and program improvement (CAEP, 2022). Clinical performance data—including lesson observations, rubric scores, and reflective assessments—can offer insights into areas where candidates struggle, allowing programs to adapt accordingly (Pecheone & Whittaker, 2016). This continuous

improvement cycle is often described as “Plan-Do-Study-Act” (PDSA), a model widely used in educational and clinical settings (Langley et al., 2009). Embedding data review into the faculty culture allows for more responsive programming and stronger alignment with accreditation expectations.

The integration of data-informed decision making within clinical residencies holds significant promise for EPP transformation. When data are used not only to assess individual performance but to inform curricular design and field placement structures, programs become more agile, transparent, and effective (SCALE, 2019). Louisiana Tech’s implementation of the TEaM Model offers a compelling case study of how strategic use of clinical performance data can fuel meaningful and sustainable program change.

At the heart of Louisiana Tech University’s teacher preparation redesign is the TEaM Model—Teacher Educators and Mentors—a conceptual framework developed to replace the traditional student teaching triad with a dynamic, team-based approach (Vessel & Basinger, 2020). This model operates on the belief that effective clinical preparation is rooted in shared responsibility, intentional mentorship, and systematic use of performance data to inform practice. It aligns with social constructivist and situated learning theories, which emphasize that professional learning is most effective when it occurs within authentic contexts and through meaningful collaboration (Lave & Wenger, 1991).

Currently, the TEaM model is entering its tenth year of implementation at the university having served 16 partner districts with approximately 500 alumni and 700 trained mentors. The key features of the model’s framework include the following:

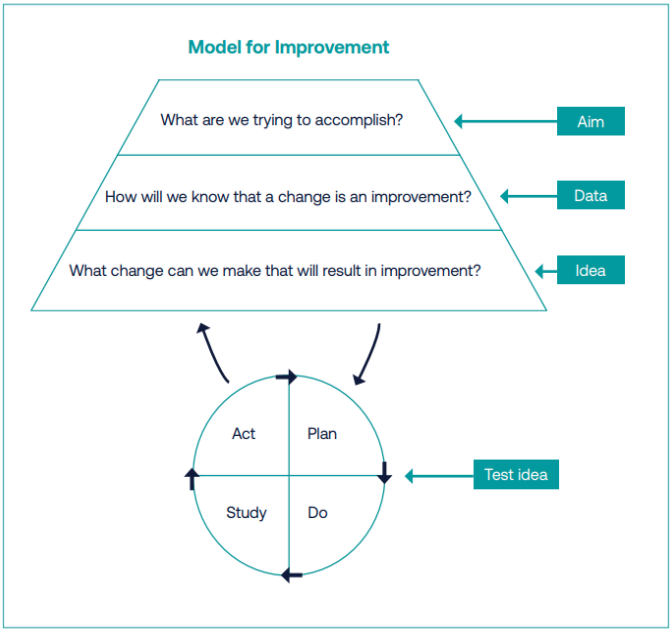
- Collaborative Mentoring Structure: The TEaM Model redefines mentorship by creating a residency team composed of university faculty, district personnel, and mentor teachers who co-support teacher candidates across a full academic year. This sustained, embedded

approach moves beyond episodic observations or disconnected feedback toward a more integrated coaching relationship. Through this model, all team members contribute to candidate development, share evaluative data, and collaborate on professional growth goals.

- Residency-Based Field Experiences: Candidates are placed in yearlong residencies in local schools, allowing them to gradually take on teaching responsibilities while participating in continuous cycles of feedback and reflection. This design fosters stronger relationships with mentors and students, encourages deeper engagement with instructional planning, and provides multiple data points to assess growth over time.
- Data-Informed Continuous Improvement: Central to the TEaM Model is the systematic use of clinical performance data. Teams review lesson plans, unit designs, observation rubrics, professional checklists, and mentor feedback to identify areas for candidate and programmatic improvement. This cyclical data analysis supports a "Plan-Act-Review" process (see Figure 1) where each data-informed decision drives next steps for candidate support or curricular redesign. Pilot studies of new protocols are conducted at the neighboring laboratory school prior to full program implementation.
- Shared Accountability and Feedback Loops: A foundational belief in the TEaM Model is that feedback is most effective when it is timely, specific, and dialogic. All members of the residency team contribute to formative and summative feedback, and faculty regularly revisit

Figure 1

Plan-Do-Study-Act Model



performance data to track progress and adjust supports. These feedback loops create a culture of transparency, growth, and shared ownership of candidate success.

The TEaM Model is grounded in several established educational frameworks that collectively promote a collaborative, iterative, and practice-centered approach to educator preparation. It integrates the Collaborative Inquiry Model (Cochran-Smith & Lytle, 2009), which emphasizes professional dialogue around evidence of practice; Continuous Improvement Cycles adapted from organizational learning theory (Fullan, 2016); and the Clinical Partnerships endorsed by AACTE and CAEP to support high-impact field experiences (AACTE, 2018). Additionally, the model's vision is informed by the Alabama Clinical Master Teacher Model (Daane, 2012), which emphasizes the active engagement of mentor teachers in coaching, feedback, and collaborative evaluation of teacher effectiveness.

Methodology

This study employed a descriptive case study design to explore how one educator preparation program used clinical performance data to inform programmatic change. The purpose was not to test a hypothesis but to document processes, identify trends, and illustrate the outcomes of a data-informed improvement model within a real-world context. Case study methodology was appropriate given the bounded nature of the investigation—focused specifically on the TEaM Model at Louisiana Tech University and the program changes that emerged from its implementation.

Louisiana Tech University's College of Education and Human Sciences implements the TEaM Model across all undergraduate teacher preparation pathways. Candidates engage in a full-year clinical residency in partnership schools throughout North Louisiana. Each candidate is supported by a residency team that includes a university supervisor and at least one trained district mentor teacher. The model was initially piloted in elementary programs and later

expanded to middle and secondary programs, which became the focus of the data-informed improvement process documented here.

Participants included teacher candidates, university faculty, district mentor teachers, and school leaders. The teacher candidates were represented by undergraduate students enrolled in initial certification programs completing their yearlong residency. University faculty served as clinical supervisors and program coordinators engaged in mentoring, evaluation, and support of program redesign. Finally, the district mentor teachers and school leaders served as collaborators who supported field experiences, provided formative assessments, and participated in program feedback loops.

Multiple forms of data were collected and analyzed collaboratively by the TEaM faculty and district partners. These included:

- Clinical Observation Rubrics: Scores and comments from formal and informal teaching observations. A minimum of two formal assessments per semester are required by the state. University faculty evaluators as well as teams of school mentors use these rubrics to measure effectiveness in (1) planning and preparation, (2) the learning environment, and (3) student learning (Danielson Group, 2022).
- Professional Checklist: A tool developed by a team of school, district, and university stakeholders assessing candidate preparedness as professional educators. This monthly formal assessment measures the candidate's dispositions and is evaluated by the mentor.
- Lesson and Unit Plans: Artifacts submitted throughout the residency to demonstrate planning rigor and instructional alignment. A capstone research study on student impact showcases the candidates' best works each spring.
- Reflection Tools: Self-assessments, daily reflections, and coaching forms are utilized to measure professional growth. The state requires a minimum of 5 hours of coaching per week, and the

mentor and candidate schedule weekly meetings to co-reflect on the coaching forms to document growth across the academic year with key smart goals established.

- Program Feedback Forums: Notes and insights from structured debrief sessions held each term with faculty, mentors, and candidates. Additional mid-year and end-of-year data is gathered from stakeholders assuring the candidates are progressing toward the recommendation for certification.

Program Changes Based on Data

The implementation of the TEaM Model at Louisiana Tech University was not only a shift in structure but also a catalyst for deeper inquiry into how teacher candidates develop instructional competence across a full residency year. Through systematic analysis of clinical performance data, the university was able to identify programmatic weaknesses and implement targeted changes. Two major categories of change emerged: (a) Secondary Program Enhancements, and (b) TEaM Model Process Revisions.

Secondary Program Enhancements

Data revealed specific needs in the secondary and middle grades programs that required immediate attention. In response, the following changes were made:

- Redesign of Curriculum Sequences: Analysis of lesson plans and mentor feedback indicated gaps in content-specific pedagogical knowledge for secondary candidates. Curriculum sequences were restructured to better align with clinical placements and to ensure earlier exposure to methods coursework before entering the residency year.
- Elevated Expectations for Lesson and Unit Planning: Candidates in secondary programs demonstrated uneven quality in lesson and unit design. Rubric data highlighted a need for greater emphasis on standards alignment and differentiation. The program responded by integrating a formal unit planning module within the practicum, requiring candidates to submit a complete standards-based unit for formative review.

- Implementation of a Professional Checklist: Mentor teachers reported variability in candidate professionalism and instructional readiness. In response, a Professional Checklist was developed and piloted to guide candidate self-reflection and mentor observations across domains such as punctuality, communication, content delivery, and responsiveness to feedback.
- Increased Pre-Residency Exposure: Data suggested that candidates entering the residency year often lacked sufficient exposure to the middle or secondary classroom environment. The program responded by embedding additional early field experiences in grades 6–12 prior to the start of the residency to increase familiarity with adolescent learners and discipline-specific routines.

TEaM Model Process Revisions

In addition to curricular changes, several enhancements were made to how the TEaM Model functioned based on feedback and data analysis:

- Step 1 – Determine Your TEaM: Faculty formalized team roles and meeting expectations. Each candidate was assigned a consistent mentor and university coach from the outset, improving continuity and accountability.
- Step 2 – Identify Key Areas for Improvement: TEaM members began reviewing candidate data collaboratively on a quarterly basis. These sessions focused on identifying trends (e.g., lesson pacing issues, weak questioning strategies) rather than isolated incidents.
- Step 3 – Set Measurable Goals: Residency teams created individualized growth plans for candidates, anchored in performance data and mentor input. Goals were specific, time-bound, and aligned with state teaching standards.
- Step 4 – Establish a Backward Plan with Timeline: The program adopted a semester-by-semester improvement calendar. Faculty set target dates for implementing program changes, assessing candidate progress, and revisiting the data.

These improvements were not isolated or one-time interventions but were embedded into the culture of the residency. By aligning program change efforts directly with the findings from

clinical performance data, the TEaM Model evolved into a responsive and agile framework that positioned candidate growth and program quality at the center.

Discussion

The use of clinical performance data as a lever for program improvement within the TEaM Model has yielded several notable outcomes and reflections. Beyond logistical changes to curriculum and mentorship structures, the work fostered a cultural shift in how faculty, mentors, and candidates approach clinical preparation and professional growth.

The systematic review of lesson plans, observation rubrics, and mentor feedback illuminated trends that would have otherwise remained anecdotal or invisible. For example, repeated patterns in candidates' planning weaknesses led to earlier and more structured instruction in curriculum design. Mentor concerns about professionalism and preparedness prompted the development of the Professional Checklist, which has since become a formative and summative tool.

These actions underscore the importance of treating candidate performance data not as compliance metrics but as living documents that guide program evolution. By grounding change in evidence, the TEaM Model moves the residency experience from reactive to proactive—where growth is anticipated, monitored, and supported in real time.

One of the most significant shifts was the increased ownership of data by all stakeholders. Previously, candidate feedback was typically siloed—held either by the university supervisor or the mentor teacher. Through the TEaM structure, shared data review sessions and collaborative reflection elevated the role of mentor voices in decision-making and empowered faculty to make informed recommendations for program enhancement.

This collaborative engagement aligns with best practices in clinical partnerships and creates more meaningful feedback loops. It also fosters a sense of collective accountability for candidate growth, which extends beyond a single placement or term.

While the TEaM Model was developed within the specific context of Louisiana Tech University, its guiding principles—collaborative mentoring, data-informed feedback, continuous improvement—are transferable to other educator preparation programs. The model's success lies not only in its structural design but in its emphasis on sustained communication and consistent use of data to guide actions.

Still, scalability requires intentional effort. Faculty time, mentor training, and access to shared data platforms are essential. As the model expands across content areas and certification levels, maintaining fidelity to the core improvement cycle (Determine Team → Analyze Data → Set Goals → Backward Plan) will be key.

Despite its successes, implementing the TEaM Model raised several challenges. One challenge was found in time and workload. The educator preparation program's faculty and mentors required support to integrate data review into their already demanding schedules. While this was done through a programmatic shift towards reviewing data, it still presented challenges. A second challenge was found in consistency in data collection. The EPP worked to ensure reliability and shared understanding of rubric language and expectations, which required initial calibration efforts among faculty and external stakeholders. The third, and final area of challenge was found in the necessary ongoing professional development that was needed. The model's emphasis on reflection and coaching necessitated periodic training for both new and returning mentors.

These challenges have become opportunities for further refinement, reinforcing the idea that improvement is both iterative and collaborative.

Reflections and Implications

The TEaM Model at Louisiana Tech University represents more than a structural shift in clinical supervision; it reflects a deeper commitment to using evidence to drive meaningful, sustainable change in teacher preparation. As faculty and mentor partners engaged with candidate data, a culture of inquiry emerged—one in which growth, feedback, and innovation were not only welcomed but expected.

Professional Development for Faculty and Mentors

A key reflection from this work is the importance of building the capacity of all stakeholders to engage with performance data in constructive and informed ways. Mentor teachers were not merely observers—they became co-educators who contributed insights about candidates' readiness, professionalism, and instructional progress. The faculty, in turn, developed shared protocols for analyzing observation data and leading reflection meetings. This collaborative dynamic highlights a need for structured, ongoing professional development that focuses not only on mentoring skills but also on interpreting and using data for formative feedback. Programs seeking to implement similar models should consider investing in mentor training, faculty calibration sessions, and data literacy workshops as foundational supports.

Embedding a Culture of Continuous Improvement

Perhaps the most lasting implication of the TEaM Model is its normalization of the improvement cycle as a core component of program culture. Revisiting data is no longer an isolated event tied to accreditation timelines—it is a routine practice embedded in each semester's planning, team meetings, and candidate evaluations.

This shift offers a model for other educator preparation programs looking to build sustainable, evidence-based systems for improvement. By prioritizing candidate growth and allowing that growth to inform institutional decisions, the program creates a symbiotic relationship between clinical practice and curricular design.

Transferability to Other Institutions

While grounded in the specific context of Louisiana Tech University, the TEaM Model's underlying principles are adaptable across institutions. Any program that prepares teacher candidates through clinical partnerships can benefit from reimagining the triad model as a residency team. Programs who consider the approach can also utilize the development of shared tools for data collection and formative assessment. Finally, any EPP can find value in creating structured opportunities for stakeholders to review and act on data collaboratively. The model also aligns closely with the field-wide commitment to highlighting innovations in clinical practice, making it a valuable contribution to the broader conversation about transforming teacher preparation.

Future Areas of Research

Moving forward, Louisiana Tech University intends to explore additional uses of teacher candidate data. One such exploration will include the disaggregation of candidate performance by content area and by demographic background. Breakdowns in these areas will provide a more precise look at areas of success as well as areas for growth. Also, the program intends to consider linking clinical performance to first-year teacher outcomes and exploring the findings. Finally, an area of future research will be in enhancing digital tools to visualize and analyze data across cohorts. By doing so, the EPP can determine the areas of needed programmatic improvement.

The TEaM Model is not a finished product but a living framework—one that continues to evolve in response to new questions, new data, and new demands of the teaching profession.

Conclusion

The TEaM Model at Louisiana Tech University demonstrates the power of collaborative clinical partnerships and data-informed reflection in driving meaningful change in teacher preparation. By replacing the traditional student teaching triad with a residency team model, and by embedding a continuous improvement cycle grounded in performance data, the program has fostered a culture of growth, shared responsibility, and instructional excellence.

The findings from this work affirm that when teacher educators, mentor teachers, and candidates engage collectively with clinical performance data, they can identify programmatic gaps, implement targeted interventions, and strengthen the overall quality of educator preparation. Program changes in curriculum sequencing, planning expectations, and mentorship protocols reflect not only responsiveness to data but also a commitment to ensuring candidates enter the profession well-prepared to meet the needs of today's classrooms.

As the demands on new teachers continue to evolve, educator preparation programs must evolve as well—becoming more agile, evidence-driven, and collaborative. The TEaM Model offers one such blueprint, underscoring that data is not merely an accountability tool, but a catalyst for transformation. For institutions seeking to deepen the impact of their field experiences, the lessons learned from this initiative serve as a compelling call to action.

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Using Live Insects to Engage Students in Writing Informational Text

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A live insect can often engage the attention of young students. This natural curiosity of young students is what motivated a collaboration among two university methods professors to inspire young students to write an informational text based on their scientific observations of a live insect. In this article, we, the professors, present our partnership with four second-grade classrooms of students and teachers.

This project originated, in its first semester, as a partnership with university science methods students, and second graders. The attempted use of journals to record observations and drawings to foster student learning the first time around was a resounding failure! The university pre-service teachers created "Butterfly Journals" and provided them for every second grader including personalizing them with the second graders' names on them. Unfortunately, the classroom teachers did not spend any classroom time focusing on the journals, and very little effort was devoted to encouraging and modeling science journaling. It was a disappointment for the pre-service teachers because they wanted to read the observations the second graders were making during the metamorphosis process to informally assess their understanding. We know the integration of writing in science is important for early elementary students and can support the understanding of science content and inspire scientific inquiry (Abell, 2006; Clark & Lott, 2017). So when the literacy methods professor suggested collaborating on the writing part of the project, this collaborative venture began to take shape with meaningful writing applied for both the university level students and the second-grade students.

Based upon the unsuccessful first attempt with science journals, we made the decision to conduct professional development for four classes of second-grade teachers and their students at a neighboring elementary school. We saw the need to first model a lesson in each teacher's classroom demonstrating how to integrate science content with writing through the use of scientific journaling. Even though second graders would complete a butterfly journal, crickets were chosen to use for the model portion of the lesson due to their availability at pet and bait stores. The Next Generation Science Standards (NGSS) emphasize the integration of literacy with science and engineering. NGSS LS 3.A and LS 3.B state:

> LS 3.A Young animals are very much, but not exactly like, their parents. Plants also are very much, but not exactly, like their parents.
>
> LS 3.B Individuals of the same kind of plant or animal are recognizable as similar but can also vary in many ways.

The Common Core State Standard Connection for the NGSS ELA/Literacy states:

> W.1.7 Participate in shared research and writing projects.

Additionally, The CCSS for Literacy.W.2.2 states:

> Write informative/explanatory texts in which they introduce a topic, use facts and definitions to develop points, and provide a concluding statement or section.

The model lesson began with the second graders listening to the sound of crickets as a teacher-created story about crickets adapted from the book, *Chirp Chirp!: Crickets in Your Backyard (Backyard Bugs)* by Nancy Loewen (2015) was read aloud. It was explained to them that today they are entomologists and they will have the important job of making careful observations of live crickets and then recording information about crickets and the cricket life cycle and it is their job, as an entomologist, to determine if baby crickets look the same or different from adult crickets. Expectations for the safe and gentle handling of the crickets were established at this time. The crickets were contained in magnified viewers so that the second

graders could view them close-up without directly handling them. Through the read aloud, the students were asked questions that pushed them to compare how the nymph's body structure differed from the parent cricket. Through both the read aloud and observations of the live crickets, students learned how both female and male crickets were similar and different as adults. Next, a model science journal about crickets was shared and read aloud. Concurrently, on an enlarged diagram of a cricket, the different body parts were labeled using stick-on labels. Then, students eagerly engaged in observing live crickets with a partner and labeled their own diagrams. Next, students returned to the rug, and it was modeled for them how to draw the cricket life cycle and record their observations, and information they learned about the cricket in their own science journals. The recording of the cricket observations met two goals:

1. Introduce procedures they would continue to use when observing the butterfly life cycle.
2. A diagram for future compare/contrast to a butterfly.

Large lap book journals were created for each second-grade teacher so that they had models to use with their students through the process as they documented the butterfly life cycle.

During this same time period, the pre-service teachers in their science methods course, collaborated in groups of four or five (Butterfly Groups) to create personalized three-minute videos for their assigned groups of second graders. The first video was titled *Egg and Larva*, and the second video was titled *Chrysalis and Butterfly*. The pre-service teachers used a video communication tool provided free to educators called Flipgrid. Flipgrid allowed the teacher candidates to be in a grid that contained their two videos and allowed the second graders to respond back to questions with a video so that those in the pre-service teacher grid group could view the video responses. The science methods professor had the capability to preview videos

for content accuracy and appropriateness for second graders. The teacher candidates addressed the second graders by their names in the videos and asked them questions throughout by addressing them by name. In the Flipgrid video, teacher candidates were required to practice asking questions that required the second-graders to think critically about the observations they were making throughout the metamorphic process. The second graders had a page in their Butterfly Life Cycle Journals devoted to recording information about their video and space to draw pictures.

Painted Lady Butterfly larvae and flight cages were provided to the second-grade teachers so their classes could observe as the butterflies progressed through their life cycle. The science methods professor met with the second-grade teachers to go over how to care for the larvae and butterflies and to answer any questions that they had. The professor also stressed safety considerations and safe handling of live organisms in the classroom. As the second-grade students viewed and responded to the videos in their observation journal, the university pre-service students paralleled this process by observing the larvae in their own classroom to prepare a teacher-created mentor text example to use as a possible resource when working with students later in creating their own informational text about the butterflies. Both the second graders and the teacher candidates recorded information about the different stages of metamorphosis as the larvae transformed into the chrysalis and then emerged as butterflies. On the last page of the journal, both the second graders and the teacher candidates compared the life cycle of the cricket to the life cycle of the butterfly.

After the butterflies emerged, university pre-service teachers created culminating activities on the life cycle of the butterfly. They traveled to the elementary school to finally meet with their butterfly groups for a "Butterfly Celebration." The teacher candidates were required to

design and implement informal assessments to measure student understanding of the butterfly life cycle. Some examples of these informal assessments included having the second-graders dress up as the egg, larva, chrysalis and butterfly and then perform a skit to dramatize the metamorphic process; playing a fun board game designed by teacher candidates; and using different pasta shapes to recreate the life-cycle on a paper plate. At the end of this face-to-face meeting, the teacher candidates returned to the cricket life cycle to compare the life cycle of the cricket to that of the butterfly through asking higher-level analysis questions and requiring the second-graders to activate schema and access background knowledge.

Immediately following the assessment of the science content, the pre-service teachers were paired with an individual student from the small group. In this next step of the partnership, the second graders had the opportunity to take the observation and additional research completed in their class to create their own informational text about the life cycle of a butterfly. This activity also provided the university pre-service teachers an opportunity to take the writer through the writing process (pre-writing to publishing). The second-grade teachers selected individual students who struggled in the area of writing to partner with the pre-service teachers. Since this was a one-on-one partnership, the students who did not have a university pre-service teacher partner, remained in the classroom and received instruction from the literacy professor and the classroom teacher. Because the pre-service teachers could provide one-on-one instruction for writing, differentiation was easily implemented while following the writing process. Due to the limited amount of time, each pre-service teacher only had five weeks and 45 minutes each visit to work with their individual writer. Because each student was at a different writing skill level and at times students were absent, not all students completed their published

piece by the end of the five weeks. However, the second-grade teachers were provided with writing progress reports so all students could complete their final products in the classroom.

During week one of the writing portion of the project, the pre-service teachers reviewed an informational mentor text with their writer and discussed the text features that would be incorporated in their published piece. It was essential to review these features at the beginning so the second-grade writer, which we will refer to as writer from this point on, would understand how to organize the writing. The writer also began pre-writing by jotting down key terminology and ideas related to the stages of the butterfly cycle. The writers were learning how their research contributes to the writing of an informational text. Some of the writers had limited information in their own observation journals, so the pre-service teachers were able to use their journals as a resource of information. The pre-writing stage is often skipped but provided the writers and their pre-service teacher partners with valuable information to use throughout the rest of the writing process. The graphic organizer provided an organization of different sections in the informational text other than an introduction and a conclusion (Patterson, 2001). The organizer glossary section indicated the key vocabulary the writer would include their book and was a way to assess student knowledge of content.

During weeks two and three of the writing portion, the writers began their draft of their informational text. The writer wrote about each stage of the life cycle as a new section in the paper and included an introduction and conclusion. During the draft stage, the pre-service teacher encouraged the writer to get thoughts on paper and wait until the revising and editing stage to focus on making changes to the draft. With young writers, waiting to know if they have spelled a word correctly may become frustrating, so there were times where the pre-service teacher used strategies such as word banks to help their writers continue to work quickly through

the draft and not get frustrated with potential errors in their writing. Week four, the writer was provided a 6+1 Writing Traits Checklist from the 6+1 Trait® Writing model (Culham, 2003) to guide the process of revising and editing the draft. The pre-service teachers conferenced with their writer to color-code places where the writer would add, change, or delete things from the draft. Each writing trait represented a different color so both the writer and teacher could see the areas to work on in the draft. Since this was the first time the writers had used the color-coding system, the pre-service teacher guided the writers through each trait when reviewing their draft.

The fifth and final week was designated for publishing. Each student received a blank book to complete their informational story. Not all writers were ready for their published piece at that time, but for those who were, they used their draft showing their color-coded revisions and edits to complete their final neat copy of their informational book. Some of the text features writers included in the published book were a table of contents, headings, illustrations, diagrams, captions, labels, and a glossary. It is important to note that each week, the pre-service teachers conferenced with their writer on a specific writing trait. The pre-service teacher began each writing time by conferencing their writer about a target area in the writer's piece to help the writer continue to grow as a writer. At the end of the five weeks of the writing project, the pre-service teacher completed a writing progress report for each stage of the writing process completed by the writer, indicating the areas of strength and areas to work on for the second-grade teacher to understand the writer's progress. The pre-service teacher ended the writing progress report with a recommendation for the next step in instruction for the writer so the second-grade teacher would know how best to work with the student to complete the informational book and how to continue to work with writers who completed the writing process.

The second graders' innate fascination with the crickets and butterflies drove their continuous curiosity that allowed professors, pre-service teachers, and classroom teachers to help connect science and literacy content. Even though there was limited support from the classroom teachers to model and support the journaling process of science content, students were allowed to journal independently. The modeling by the professors and weekly support by the pre-service teachers were key to successful implementation. The journal entry examples and videos created in the science methods course provided the research for the pre-writing, and the individualized writing support of the pre-service teachers prepared students to successfully complete a published informational text about the lifecycle of a butterfly. The integration of hands-on research and writing of science content were both critical components to the success of students' understanding of the content.

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