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Association of Independent Liberal Arts  
Colleges for Teacher Education

*AILACTE Journal*  
**The Journal of the Association of  
Independent Liberal Arts Colleges  
for Teacher Education**  
**Volume XXI**  
**2024**

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Alyssa Haarer  
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a.haarer@yahoo.com  
540-810-0248

***AILACTE Journal Correspondence***

Jackie Crawford  
AILACTE Journal Co-Editor  
2613 Crown Flair Dr.  
West Des Moines, IA 50265  
jackie.crawford@simpson.edu

***AILACTE Journal Purpose***

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**2025 Call for Manuscripts**  
***AILACTE Journal***  
**Volume XXII**

The [Association of Independent Liberal Arts Colleges for Teacher Education \(AILACTE\)](#) is a non-profit organization dedicated to the work of educator preparation programs in private liberal arts institutions. AILACTE supports, recognizes, and advocates for private higher education institutions that offer a liberal arts education. As an affiliate of the American Association of Colleges for Teacher Education (AACTE), AILACTE provides communication, resources, information sharing, and leadership across organizations.

Each year AILACTE publishes a peer-reviewed journal with the goal of disseminating scholarly work that enhances the field of teacher education in independent liberal arts colleges and universities.

The 2025 journal will be a themed volume addressing **The Integration of Artificial Intelligence in Teacher Education Programs**. Integrating Artificial Intelligence (AI) in teacher education programs is crucial as it prepares future educators to navigate the evolving landscape of education and effectively leverage AI tools and resources for the benefit of their students. AI technologies offer innovative tools and resources that can revolutionize teaching and learning. Through integration with teacher education programs, teacher educators can enhance pedagogical practices, address individualized learning needs, improve assessment and feedback, promote data-driven decision making, and foster educational equity. Likewise, teacher candidates can gain knowledge and skills to effectively leverage AI tools in their own classrooms. By embracing AI, teacher education programs can prepare future educators to be technologically competent and responsive to the needs of their students in a rapidly advancing educational environment. Conversely, authors may share research on cautions and potential dangers with AI.

This theme provides a starting point for exploring the intersection of AI and education within the context of teacher education programs in private liberal arts institutions. The theme explores the role of AI technologies in teacher preparation, including their potential impact on areas including, but not limited to:

- **AI and Personalized Learning:** Examining how AI-powered personalized learning platforms can enhance student engagement, individualize instruction, and improve learning outcomes in teacher education programs.
- **Ethical and Social Implications of AI in Education:** Addressing ethical considerations surrounding the use of AI in educational settings, including issues related to data privacy, algorithmic bias, and the responsible use of AI technologies.
- **AI in Special Education:** Investigating the potential applications of AI in supporting students with special needs, including adaptive learning systems, assistive technologies, and personalized interventions.
- **AI and Assessment in Teacher Education:** Exploring the use of AI in the assessment of teaching performance, including automated scoring of teaching portfolios, video analysis, and feedback generation.

- AI and Educational Leadership: Examining how AI technologies can support educational leaders in decision-making processes, data analysis, and strategic planning in teacher education programs.
- Professional Development and AI: Investigating the role of AI in facilitating ongoing professional development for teacher educators, including AI-based coaching, mentorship programs, and learning analytics.
- AI and Classroom Instruction: Exploring innovative AI applications in the classroom, such as intelligent tutoring systems, virtual reality simulations, and natural language processing for language learning.
- AI and Educational Equity: Examining the potential of AI technologies to address educational inequities, promote inclusive practices, and support diverse learners in teacher education programs.
- Challenges related to AI: Highlighting concerns and precautions associated with AI.
- Future Directions of AI in Teacher Education: Speculating on emerging trends, challenges, and opportunities in the integration of AI technologies in teacher education, and envisioning future directions for research and practice.

Use these bullets as a starting point as you consider submitting a manuscript for this themed volume of the *AILACTE Journal*. We are eager to learn from your experiences, research, and ideas related to AI and teacher preparation. Although submissions are not limited to research studies, manuscripts that are grounded in literature and supported by empirical data will be given stronger consideration. Please refer to the Manuscript Review Criteria to see how the use of empirical research is evaluated.

Manuscripts are due **June 10, 2025** and can be submitted on the *AILACTE Journal website*. Manuscripts must follow APA guidelines, 7th Edition, as well as additional *AILACTE Journal* requirements posted on the website. Please review all materials before submitting your manuscript for consideration. If you have questions at any point, please feel free to contact the Guest Editors.

The **2026** journal will be a **non-themed volume**. Manuscripts may address any issue that will enhance the work of teacher educators in an independent, liberal arts context. A detailed Call for Manuscripts is posted on the [AILACTE Journal](#) website.

**Editor-in-Chief:**

Jackie Crawford, Professor Emerita at Simpson College, Iowa

**Guest Editors:**

Caitlin Riegel, Assistant Professor at Niagara University, New York

Kevin Thomas, Professor at Bellarmine University, Kentucky

*AILACTE Journal*  
Volume XXI  
2024

**Table of Contents**

<b>Illuminating the Liminal Space of Learning in Project-Based Pedagogy: Something We Can Learn from CTE Teachers.....</b>	<b>1</b>
<i>Alexandra Choy Youatt, Grand Canyon University</i> <i>Donald Comi, Grand Canyon University</i>	
<b>Teacher Candidates' Perceptions of Practice in Teacher Leadership: What it Means For Teacher and Leader Preparation Programs.....</b>	<b>22</b>
<i>Kelly Lenarz, Trinity Christian College</i> <i>Catherine Nelson, University of St. Francis</i> <i>Jan Fitzsimmons, Center for Success</i>	
<b>Constructing Knowledge in Community Spaces: An Early Service-Learning Experience with English Learners.....</b>	<b>50</b>
<i>Katrina M. Reinhardt, University of Indianapolis</i> <i>Kaitlyn Denney, University of Indianapolis</i>	
<b>Strengths and Challenges of Elementary Student Teaching as the Teacher of Record.....</b>	<b>74</b>
<i>Jennie M. Carr, Bridgewater College</i> <i>Tracy Hough, Bridgewater College</i>	
<b>Ch-Ch-Ch-Ch-Changes: Preservice Teachers' Perceptions on Mobile Phones: 2013-2022.....</b>	<b>100</b>
<i>Kevin M. Thomas, Bellarmine University</i> <i>Michael Hylan, Southern Wesleyan University</i> <i>Beth Carter, Methodist University</i>	

**A Tale of Three Teachers: Lessons Learned from Emergent Writers..... 120**

Rebecca M. Giles, *University of South Alabama*

**Leveraging Partnerships with Educators Rising to Address Special Education  
Teacher Shortages..... 135**

Alexandra J. Taylor, *Bellarmino University*

## From the Editors

Before we dive into the exciting scholarly work presented in this volume, we would like to take a moment to acknowledge a significant leadership transition at the Journal. After a successful tenure, Elizabeth Leer graciously extended her service for an additional year, concluding her work as co-editor at the end of last year. Additionally, Julie Shalhope Kalnin, who served as assistant editor for copy editing, has decided to step down. We are deeply grateful to both Elizabeth and Julie for their exemplary work over the years. We also extend our thanks to Jackie Crawford, whose guidance as Editor-in-Chief has been invaluable in creating a high-quality journal each year and continues to contribute to the successful production of this journal.

This transition marks the beginning of a new chapter for the Journal, with Assistant Editors Caitlin Riegel and Kevin Thomas stepping into the roles of guest editors for this issue. We are excited about this leadership shift and look forward to continuing the Journal's mission of promoting scholarly dialogue and innovation in teacher preparation. We are excited to take on these important responsibilities, and we thank all the Editorial Board members for their continued support and dedication to the Journal.

Now, turning to this issue, we are proud to present a non-themed issue of the *AILACTE Journal* that brings together a diverse set of scholarly contributions that speak to the ever-evolving field of teacher preparation in the liberal arts context. As always, our goal is to disseminate work that enhances the practice of educators, especially those in liberal arts higher education, and Volume XXI continues this tradition. The seven articles featured in this issue span a variety of important topics, each contributing to the ongoing conversation about how we best prepare future educators to meet the needs of diverse student populations.

The first article explore themes of teacher preparation and professional development. Alexandra Choy Youatt and Donald Comi delve into the liminal spaces of learning in Project-Based Learning (PBL). Drawing on the experiences of high school teachers, the study highlights how PBL facilitates a diverse range of learning modalities and emphasizes the teacher's role in fostering and building student inquiry.

The theme of teacher leadership is taken up by Kelly Lenarz, Catherine Nelson, and Jan Fitzsimmons, who examine the leadership knowledge, skills, and competencies acquired by teacher candidates. The findings suggest areas of strength and growth, underscoring the need for integrating leadership development into preservice programs to better prepare candidates for the challenges of teaching and leadership in schools.

Katrina Reinhardt and Kaitlyn Denney shift the focus to the importance of early field experiences. The study highlights how a service-learning opportunity in a community-based setting enhances preservice teachers' understanding of English Learners (ELs) and the diverse needs they will encounter in future classrooms. This early exposure to ELs helps future teachers



validate their career choice and build critical skills such as relationship-building and classroom management.

Jennie Carr and Tracy Hough explore the experiences of student teachers who are also the teacher of record in their classrooms. This qualitative study identifies key strengths and challenges faced by student teachers, including the importance of mentoring, school climate, and autonomy, while also pointing to areas for improvement in educator preparation programs.

Kevin M. Thomas, Michael Hylan, and Beth Carter examine the shifting perceptions of preservice teachers regarding mobile phones in the classroom over a seven-year period. The study highlights how support for mobile phone use in classrooms has fluctuated, with participants' concerns about distractions and misuse remaining significant, even as perceptions of phones as a learning tool have varied.

Rebecca Giles uses a multiple case study approach to investigate how close observation of young emergent writers informs our understanding of their writing acquisition. The study provides key insights into effective pedagogical practices and offers implications for both teacher education and future research.

Finally, Alexandra Taylor investigates an innovative school-university partnership aimed at addressing the shortage of special education teachers. The study explores how early exposure to the education profession, through recruitment efforts like Educators Rising, can help mitigate the shortage by fostering interest in special education careers.

We would like to express our gratitude to the authors for their contributions and to the dedicated members of our Editorial Review Board for their invaluable feedback and support throughout the review process. A special acknowledgment is due to Terry R. Runger, whose expertise as copy editor ensures the clarity and precision of each article. Lastly, we are grateful to the AILACTE Executive Committee for their continued guidance and support.

***Guest Editors***

Caitlin Riegel, Niagara University, NY

Kevin Thomas, Bellarmine University, KY

***Editor-in-Chief***

Jacqueline K. Crawford, Simpson College, IA

# **Illuminating the Liminal Space of Learning in Project-Based Pedagogy: Something We Can Learn from CTE Teachers**

**Alexandra Choy Youatt  
Donald Comi  
Grand Canyon University**

## **Abstract**

While existing evidence has indicated that teachers employing Project-Based Learning (PBL) contribute to improved student learning outcomes, there is a notable lack of data investigating how these educators articulate their roles in the teaching process (Kaplan & Garner, 2017; Leng et al., 2018). The aim of this qualitative descriptive study was to investigate how high school teachers, utilizing PBL, conceptualized their roles concerning questioning students, and fostering student inquiry in the western United States. The study's conceptual framework incorporated Arman's (2018) Student-Centered Approach Theory and Dobber et al. (2017) Direction of Inquiry Process Continuum Model. Driven by two research questions, the first inquiry centered on the teachers' role in questioning students, while the second explored their role in stimulating students to ask questions. The study involved a sample of ten PBL teachers, predominantly individuals who transitioned from professional backgrounds into the teaching profession. The findings revealed distinct teacher actions and roles, portraying PBL as a catalyst for a diverse range of learning modalities. The subsequent discussion probes into the liminal spaces of learning inherent in the interactions between teachers and students. The conclusion drawn is that PBL pedagogy involves purposeful tasks encompassing both building and fostering, a natural extension of secondary pedagogy, ultimately enabling students to surpass the teacher.

## **Illuminating the Liminal Space of Learning in Project-Based Pedagogy: Something We Can Learn from CTE Teachers**

In the dynamic landscape of modern education, Project-Based Learning (PBL) emerges as a beacon of innovation, captivating the imagination of educators in the 21st century (Bell, 2010; Lattimer & Riordan, 2011; Morrison et al., 2021). Picture a classroom where inquiry-driven, student-centric teaching takes center stage, pushing the boundaries of traditional education. PBL invites educators to navigate a spectrum of inquiry directions—student-led, teacher-guided, and a blend of both—transforming the learning journey into a captivating exploration (Arantes & Lino, 2018). Amidst the acclaim for its ability to amplify learning outcomes (Lazonder & Harmsen, 2016; Serin, 2018; Üzüm & Pesen 2019), a question lingers in the minds of educators: What role do teachers play in this student-centric orchestration of knowledge?

It is common knowledge in teacher preparation that there is a continuum that runs from teacher-centered instruction to student-centered instruction. PBL invites a double shift: one towards a student-centered, and the second, from instruction to learning (Tang, 2023). It is this shift, creating opportunities for student-centered learning, that traditional teacher preparation programs can capitalize on to transform new teachers. PBL has grown in recognition as valuable in teacher preparation programs, but not normalizing it as part of new teacher preparation remains an uphill climb. While some institutions value PBL and attempt to incorporate it (Tempera & Tinoca, 2022), faculty often do not understand proper application (Alrajeh, 2020). As we investigated the phenomenon of PBL, we embarked on a qualitative descriptive study set against the backdrop of high school classrooms in the western United States. Here, the narrative unfolds, unveiling the intricate dance of high school teachers using PBL—posing questions, nurturing student inquiry, and sculpting an environment where curiosity thrives. Anchored in the Student-Centered Approach Theory and the Direction of Inquiry Process Continuum Model, this study ventures to untangle the mystery surrounding the roles of these educators. As we unravel these insights, we not only enrich the existing literature on student-centered approaches, PBL, and inquiry-based instruction, but also open doors to a new era of exploration and innovation in education.

### **Review of the literature**

#### **Growing Popularity of Project-Based Learning (PBL) in Education**

As an increasing number of educators embrace PBL (Serin, 2018), it becomes crucial to explore the literature surrounding student-centered instructional practices and the liminal space involved in transitioning to a new state of mind or teacher direction. The popularity of PBL has been assessed across various global locations, including the United States (Allison, 2018), India (Talat & Chaudhry, 2014), Turkey (Bedir, 2019), and Indonesia (Mali, 2016).

## **Evolution of the Educational Learning Environment**

Over the past two decades, the educational learning environment, particularly the classroom, has evolved from being “teacher-centered” to “student-centered” (Ghafar, 2023; Wang, 2023). This shift reflects a broader pedagogical transition towards active, collaborative learning, where the focus moves from the teacher to the student (Cheney & Terry, 2018). The integration of technology in the 21st century has played a crucial role in this transformation, turning traditional classrooms into spaces where educators act as facilitators rather than central lecturers. Theories such as Paragogy and methodologies like PBL have been instrumental in fostering this change, promoting the development of 21st-century skills and redefining the roles of both teachers and students in the learning process.

Approaches like STEM (Science, Technology, Engineering, Mathematic) STEAM (Science, Technology, Engineering, Art, Mathematic), and Career and Technical Education (CTE) further promote student-centered learning by shifting classroom dynamics and enhancing engagement. These methods emphasize interdisciplinary, real-world applications of academic concepts, encouraging active learning, problem-solving, and the development of professional competencies in STEM subjects (Helmi et al., 2019; Berglund et al., 2021). Student-centered STEM environments, particularly when implementing integrated STEM (iSTEM) approaches, have been shown to significantly increase student engagement and improve learning outcomes, especially in mathematics at the middle school level (Struyf et al., 2019; Izzah & Mulyana, 2021).

Teachers transitioning to student-centered pedagogy may experience shifts in their roles and identities, with some embracing the change and others finding it challenging (Keiler, 2018). PBL, a cornerstone of student-centered learning, forms the basis of the curriculum rather than serving as a supplementary activity. Blended learning environments that incorporate student-centered active learning approaches have demonstrated improvements in students’ mathematical performance, their ability to coordinate multiple semiotic representations, and overall satisfaction with alternative teaching methodologies (Capone, 2022). These findings suggest that STEM, STEAM, and CTE approaches effectively support student-centered learning across various contexts and subjects, preparing learners for the challenges of 21st-century careers by fostering higher-order thinking skills and real-world problem-solving abilities (Helmi et al., 2019; Nanney, 2020).

## **Student-Centered Learning: A Constructivist Approach**

Student-centered learning is fundamentally rooted in constructivism theory, which posits that learners actively construct knowledge through their experiences (Chand, 2023; Efgivia et al., 2021). This approach is grounded in the work of theorists like Piaget, Vygotsky, and Bruner, who emphasized cognitive development through disequilibrium and social interaction (Chand, 2023; Efgivia et al., 2021). Lev Vygotsky (1978) significantly contributed to the constructivist model by highlighting the role of social interaction in knowledge development, underscoring the

importance of creating opportunities for students to learn from their inquiries or more skilled peers.

In constructivist classrooms, teachers act as facilitators, guiding students to build their own understanding rather than merely transmitting information (Chand, 2023; Efgivia et al., 2021). This method fosters active learning, critical thinking, and conceptual understanding (Bada & Olusegun, 2015). It also holds substantial implications for fields like nursing education, where promoting active learning and student engagement is crucial (Abualhaija, 2019).

Implementing constructivist teaching effectively requires educators to continuously reflect on their practices and develop learning environments that encourage ongoing assessment and exploration (Bada & Olusegun, 2015). Ultimately, constructivism represents a paradigm shift towards student-centered learning, aiming to improve educational outcomes by placing students at the center of the learning process (Bada & Olusegun, 2015).

### **Student-Centered Teacher Roles and Institutional Practices**

Student-centered learning (SCL) approaches are increasingly advocated in STEM/PBL education but implementing them effectively requires significant shifts in teacher roles and practices. Studies have identified discrepancies between teachers' espoused and enacted SCL practices, often due to traditional beliefs and systemic barriers (Onurkan & Özer, 2017). Successful SCL implementation is associated with professional development in Information and Communication Technology (ICT), individualized learning, and the incorporation of student feedback and assessments (Zhang et al., 2021). Teachers transitioning to SCL classrooms experience varying degrees of identity shifts, with some embracing the change while others struggle or resist (Keiler, 2018). Even teachers reputed for student-centered instruction may employ a mix of student-centered and teacher-centered management strategies, reflecting principles of "good classroom management" derived from traditional classrooms (Creswell, 2008). These findings highlight the need for targeted teacher training programs to support the adoption of student-centered roles and practices in modern classrooms.

### **Shift Towards Student-Centered Approaches**

New educational theory suggests paralogy (peer assisted learning) over pedagogy, tackling the task of collaboratively creating a beneficial and encouraging environment for self-directed learning, emphasizing the connectedness among peers in the digital age (Herlo, 2014). Teachers embracing student-centered practices are required to forge new beliefs about the process of learning and their roles (Ndoci Lama et al., 2018). Further exploration was recommended within each type of student-centered instructional practice to develop a more profound understanding of this teacher transformation (Leng et al., 2018).

### **Benefits of Student-Centered Learning**

U.S. educators turn to student-centered education, faced with the challenges of eroding public confidence and high failure rates (Levesque-Bristol et al., 2019). Linked to elevated student learning outcomes, the implementation of student-centered learning practices plays a

critical part in making educational programs more significant and interesting to learners. A study focusing on student-centered approaches revealed that university candidates exposed to highly student-centered classrooms reported significantly increased levels of perceived competence, the ability to transfer knowledge to other relevant courses and experiences, higher learning gains, and a greater sense of self-determined motivation (Levesque-Bristol et al., 2019).

### **Challenges of Student-Centered Learning**

Researchers contend that despite the advantages associated with student-centered practices, teachers grapple with several challenges (Ramnarain & Hlatshwayo, 2018). Seasoned educators express concerns that student-centered approaches can lead to chaos and disorder in the classroom (Ndirangu, 2017). Logistical issues, including a shortage of time, administrative support, and the difficulty of holding students accountable, are also cited by some teachers (Edwards, 2019). Although constructivists advocate for student-centered practices, many teachers find it to be a demanding pedagogy (Kemp, 2013).

While school administrators expect teachers to adopt student-centered practices, educators encounter difficulties due to inadequate support and understanding. Onurkan Aliusta and Ozer (2017) highlight that many teachers struggle to empower students because of a lack of confidence in their abilities and limited knowledge on delegating learning responsibilities. They suggest that teacher training should align with student-centered practices, given that teachers often teach as they were trained. The global endorsement of student-centered practices further complicates the effective implementation of these approaches, especially when traditional teacher-centered roles persist (Lee & King, 2022). Kemp (2013) emphasizes the necessity for a clearer understanding of the student-centered teacher role for educators to embrace this pedagogical shift.

### **Relationship Between Teacher Role and Student-Centered Approach**

Researchers unveil a correlation between teachers' roles and their educational practices. Kaplan and Garner (2017) argue that the successful implementation of student-centered instructional practices hinges on the alignment of teachers' roles with the underlying pedagogical philosophy, such as the student-centered approach. Extensive research establishes a close link between teachers' roles and their educational approach, student-centered (Garcia-Cepero & McCoach, 2009; Lavinia & Lawson, 2019; Mahasneh, 2018). Mahasneh's (2018) study specifically identifies a connection between teacher efficacy and project-based learning, while Leng et al. (2018) highlights a relationship between teacher roles and student-centered instructional practices.

The implementation of student-centered instructional practices is intertwined with teachers' roles, and these roles exert a notable influence on student outcomes. Role descriptions for high school STEM teachers, as documented by Morrison et al. (2021), recommend explicit teaching about PBL in teacher preparation. Keiler (2018) sheds light on the role descriptions of

13 middle-school STEM teachers, outlining the potentialities and challenges encountered in student-centered classrooms.

Various authors advocate for a focused exploration of the roles assumed by student-centered teachers to enhance 21st-century learning skills and provide support for educators (Serin, 2018; Gammons et al., 2018). Research underscores that teachers embracing student-centered instructional practices, such as PBL, adopt different responsibilities, prompting them to assume new roles (Murphy et al., 2021). This study specifically delves into the examination of project-based learning.

### **Project-Based Learning (PBL), A Student-Centered, Inquiry-based Instructional Practice**

Project-Based Learning (PBL) is frequently identified as student-centered inquiry-based learning. Hmelo-Silver et al. (2009) assert that project-based learning stands out as an effective student-centered practice. The terminology arises from the core characteristic of PBL, positioning the student at the focal point of the learning process by tasking them with project completion through an inquiry-based approach. Additionally, DeMink-Carthew and Olofson (2022) characterize PBL as a student-centered instructional method, emphasizing a dynamic nature. The approach necessitates higher-order thinking skills for problem-solving and knowledge construction (Morrison et al., 2021). Alternative terms commonly used interchangeably with PBL include inquiry-based learning and problem-based learning (Dobber et al., 2017).

### **Cultivating Preservice Teachers through PBL**

Project-based learning (PBL) is an effective approach for cultivating preservice teachers' skills and competencies. Research suggests a four-step model for preparing teacher candidates: observe, experience, create, and become PBL practitioners (Zhang et al., 2015). PBL merges theory with practice, encourages self-regulation, and promotes teamwork in teacher education courses (Amerstorfer, 2020). It also fosters digital competence development among preservice teachers, with studies reporting high satisfaction and self-reported improvement in digital skills (Alonso-Ferreiro, 2018). When implementing PBL units, preservice teachers face both successes and challenges, including engaging students in relevant learning, maintaining rigor, and involving the community as partners (Lee & Galindo, 2021). The implementation of PBL requires a shift from traditional teaching practices and a reconceptualization of mathematics teaching and learning. Overall, PBL is recognized as a valuable instructional model for preparing preservice teachers in various educational contexts.

### **Teacher Direction in PBL Instructional Practices**

The pivotal role of the PBL teacher emerges as a significant predictor of elevated student learning outcomes, prompting an imperative exploration into the nuanced dimensions of the PBL educator's role. While PBL does not advocate for a complete absence of teacher lectures or teacher-centered activities, the predominant responsibility of teachers is to establish the

foundation for effective problem-solving skills, thereby setting the stage for inquiry (Chang & Wang, 2009).

Serin (2018) underscores the indispensability of “teacher direction,” asserting that in the absence of adequate direction from teachers, attaining higher learning outcomes in a student-centered project-based classroom becomes unattainable. Arman (2018) delineates “teacher direction” in project-based learning through two distinct applications: teacher-directed inquiry and student-directed inquiry. The term refers to the extent to which teachers provide guidance throughout the inquiry process as teacher-directed and/or student-directed.

### **Teacher Direction as Teacher-Directed Inquiry**

In teacher-directed inquiry, PBL teacher direction, the teacher takes charge of determining the questions to be explored and the methods of investigation (Dobber et al., 2017). Ramnarain and Hlatswayo (2018) characterized this role as the teacher providing guidance by explaining the investigation to the students, directing the study's objectives, offering content rules, creating study materials, distributing them, advising students on completion, and emphasizing the importance of following directions. Unlike a teacher-centered approach where knowledge is imparted, in teacher-directed inquiry, the teacher guides students in the process of investigation and discovery, making it a student-centered approach despite being teacher-led.

### **Teacher Direction as Student-Directed Inquiry**

In student-directed inquiry, PBL teacher direction, students take the initiative in deciding what and how they want to study, with the teacher providing a supportive role by setting the stage and guiding or facilitating the process when needed. Within the framework of student-directed inquiry, students autonomously choose their topics, questions, data collection methods, and other parameters. While teachers exert less overt influence, they play a supportive role in assisting students to consider the most effective ways to represent their data (Dobber et al., 2017). This approach fosters deeper learning by allowing students to pursue their interests and develop critical thinking skills (Levy, 2013). Research suggests that student-directed inquiry enhances engagement, motivation, and the ability to apply knowledge in real-world contexts (Hmelo-Silver et al., 2007). Teachers, therefore, act as facilitators, providing necessary resources, scaffolding, and feedback to guide students through their learning journey (Kuhlthau et al., 2015).

## **Conceptual Framework**

The conceptual framework for this study was constructed based on the Inquiry Process Continuum Model and the principles of the Student-Centered Learning Approach (Aramn, 2018; Dobber et al., 2017). Both the Inquiry Process Continuum model framework (Dobber et al., 2017) and Arman’s (2018) Student-Centered Theory incorporate elements pertaining to teacher interactions within project-based classrooms. Therefore, the integration of these models provided a fitting conceptual framework for describing the role descriptions of high-school educators employing project-based student-centered instructional practices.

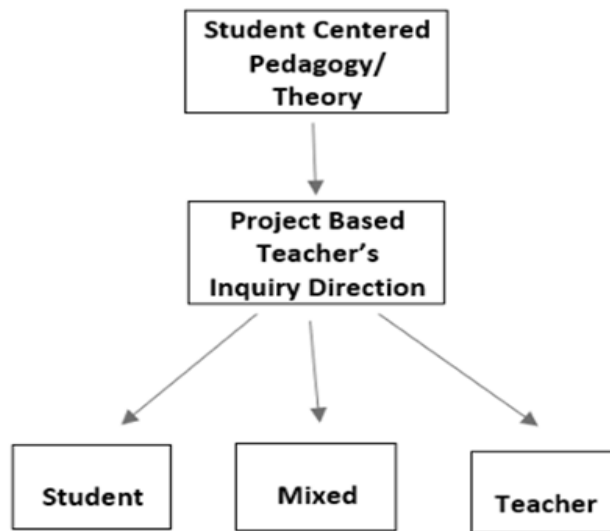


The Student-Centered Learning Approach Theory speculates that students bear responsibility for their learning, emphasizing their central role in the learning process (Arman, 2018). According to Fierke et al. (2014), this approach employs learning methods enabling students to construct their knowledge through an inquiry-based process.

Regarding the process of teacher direction in inquiry, the Inquiry Process Continuum Model identifies two teacher directions: student-directed inquiry and teacher-directed inquiry, with mixed-directed inquiry referring to a blend of both. Furtak et al. (2012) reveal that in project-based, student-centered instructional practices, a dynamic exchange of responsibility for learning occurs between teacher and student due to inquiry direction. The codes in the Inquiry Process Continuum Model (Dobber et al., 2017) represent positions along a continuum from entirely student-directed inquiry to entirely teacher-directed inquiry. Figure one presented illustrates the synthesis of theory and model.

**Figure 1**

*The Student-centered Theory, Project-Based Teachers' Roles of Inquiry Direction Conceptual Framework*



### **Method and Design**

A qualitative descriptive design was employed in this study to explore the individual and group experiences of high school PBL teachers. This approach allowed for the exploration of common conceptions arising from their reflections. The decision to adopt a descriptive design was influenced by the recommendations of Keiler (2018) and Morrison et al. (2021), who emphasized the importance of investigating high school teachers using PBL in the context of teacher preparation.

Furthermore, the call by Kaplan and Garner (2017) and Leng et al. (2018) for a deeper examination of the relationship between student-centered instructional practices and teachers' roles, as well as Mahasneh's (2018) advocacy for more qualitative research exploring the close connection between teachers' roles and educational practices, collectively identified a gap in the literature. This gap prompted a need to investigate the directional role descriptions of teachers utilizing PBL for enhanced teacher preparation, as highlighted by Kaplan and Garner (2017), Keiler (2018), Leng et al. (2018), Mahasneh (2018), Morrison et al. (2021), and Serin (2018).

In light of these considerations, a quantitative method was deemed unsuitable, leading to the selection of a qualitative approach with a descriptive design. The research questions focus on unraveling how high school teachers, employing project-based student-centered instruction, articulate their roles in terms of teacher direction. This encompasses aspects such as asking students questions and stimulating students to question, with the ultimate goal of enhancing project-based learning and advancing teacher preparation.

### **Participants**

The study focused on instructors delivering PBL courses at the research site, constituting approximately 78 teachers. The selection of instructors for the sample was based on convenience sampling (Patton, 2014), with a specific emphasis on instructors within one academic division at the research site. Ultimately, a sample of 10 instructors, responsible for teaching high-school PBL CTE student-centered courses across four distinct high school campuses, willingly agreed to participate in the study.

### **Data Collection Technique and Research Instrument**

To address the research questions, two primary sources of data were employed: individual semi-structured interviews and two focus groups. Before the formal data collection, a field test of the research instrument and protocol was conducted to ensure the generation of data aligned with the actual study objectives.

The initial data source involved individual semi-structured interviews with 10 high school teachers specializing in PBL courses. A 21-question interview format was adapted from various sources such as transforming pedagogy (Dole et al., 2016; Oppong-Nuako et al., 2015) PBL, and existing literature (Han et al., 2014; Lee & King, 2022). Specifically designed to address all research questions, the interview questions sought participants' insights into the impact of their roles in PBL (Dobber et al., 2017; Serin, 2018).

The second data source comprised two focus groups, each involving four teachers selected from the initial pool of 10 participants in the individual semi-structured interviews. Due to time constraints and scheduling conflicts, two of the initial 10 participants were unable to participate. According to Carlson (2010), focus groups are instrumental in theory development and often support primary data collection. Members of these focus groups were presented with six prompts, fostering group discussions while the researcher documented the interactions. This approach aimed to allow participants to elaborate on the phenomenon and provide additional

insights not captured in the individual interviews. Such focus group dynamics, as asserted by Rosenthal (2016), contribute to a more comprehensive description of the phenomena. Krueger (2014) suggested that a focus group interaction is most effective when interviewees share similarities; hence, this study deliberately selected participants employing project-based, student-centered instructional practices to facilitate theory development.

### **Data Analysis**

Inductive thematic analysis, guided by Saldaña's (2021) four-step approach, was employed to scrutinize the qualitative descriptive data. This method facilitated the development of a codebook without imposing predefined theories on the data, allowing the researcher to extract meaning organically.

Analyzing the data gleaned from the 10 semi-structured interviews and two focus groups, the researcher initially identified 251 codes, representing discrete parts or succinct expressions capturing each participant's experience. Emphasizing the participants' voices, these codes were treated as fundamental units (Saldaña, 2021). Subsequently, these initial codes were organized into 38 categories, with similar codes being grouped and analyzed within the same category. Each category underwent thorough revision, exploration, and review for shared characteristics, leading to the identification of three higher-level categories that were later refined into six common themes.

In the third analytical step, the researcher established connections between categories, resulting in the generation of six themes. Notably, two hidden teacher attributes (Building & Fostering) emerged through analytic memo writing within three initial themes/high-level categories, contributing to the final set of six themes. In the conclusive step of data analysis, these established themes were systematically related to Research Questions 1 and 2, providing a comprehensive and insightful understanding of the study's outcomes.

### **Validity and Reliability of Research Instruments**

To safeguard the trustworthiness of the analysis, a comprehensive array of measures was implemented, including member checking, interview protocols, an expert panel review, a field test, and triangulation of data. Yazan asserts that trustworthiness is built upon adherence to research questions and the acquisition of data that enhances the study's comprehension.

An expert panel comprising five individuals with terminal degrees critically examined the interview questions, ensuring alignment. The semi-structured interview and member checking guides were adjusted based on their constructive feedback. The researcher conducted a field test with three non-participant teachers in similar positions, gauging interview length and obtaining valuable feedback.

During the data collection phase, the researcher maintained a written personal journal to mitigate potential biases. Yazan (1995) suggests that credibility in qualitative research is achieved through representing multiple perspectives with rich data descriptions, validated by study participants. The researcher took note of any personal connections or feelings related to

participants' responses, later reflecting on potential biases. With these measures in place to strengthen the study's integrity, the examination progressed to analyzing the data collected, leading to insightful findings.

### Findings

This investigation into the roles of high school teachers employing PBL centered on two primary research questions. The data, derived from 10 semi-structured interviews and two focus groups, yielded a total of 251 codes organized into 38 categories, ultimately leading to the identification of six essential themes. The first question investigated how teachers described their role in asking students' questions, yielding three key themes (see Table 1).

**Table 1**

*Themes and Conclusions Associated Research Question One*

Themes	Conclusion
Building Relevant Learning	PBL teachers build relevant learning through student-centered practical and experiential experiences and teacher to student guidance.
Building Empowered Students	PBL teachers build empowered students through shared thoughts and ideas that promote student-efficacy.
Building a Safe Place	PBL teachers build a safe place through understanding and acknowledging the aspects of the school environment which encourage students to be more engaged.

#### Building Relevant Learning

This theme unpacks the PBL teacher's responsibility in guiding students toward practical and experiential experiences that are directly applicable to personal aspirations or real-world issues. Teachers emphasized cross-curricular development, industry relevance, and teacher-to-student feedback, underscoring the importance of making learning meaningful. As one participant stated, "I try to connect what we are doing to real-life scenarios, whether it's something they want to do in the future or a current issue they care about." This approach not only engages students but also fosters a deeper understanding of the content. Notably, the study revealed a one-directional relationship with core teachers, indicating a potential area for improvement in collaborative teaching practices.

#### Building Empowered Students

This theme delves into the PBL teacher's role in promoting shared thoughts, ideas, and student efficacy. Teachers foster a co-learning environment, encouraging students to take the lead and develop confidence through personal reflections and teacher-guided questioning. As one teacher shared, "I step back and let them lead discussions. It's amazing to see how they come up

with solutions I hadn't thought of." This practice highlights the shift in the teacher's role from a knowledge provider to a facilitator, supporting students in becoming more independent and confident learners.

### **Building a Safe Place**

This theme highlights the teacher's responsibility in creating a supportive environment for student engagement. It underscores the importance of understanding and acknowledging factors that encourage participation. Teachers mentioned the need to create an atmosphere where students feel comfortable expressing themselves without fear of judgment. One participant noted, "I always tell my students there's no such thing as a dumb question. This helps them feel safe to ask anything they're unsure about." Such practices contribute to a more inclusive and participatory classroom environment, which is crucial for the success of PBL.

The second research question examined how PBL teachers described their role in stimulating students to ask questions, yielding three distinct themes (see Table 2).

**Table 2**

*Themes and Conclusions Associated Research Question Two*

Themes	Conclusion
Fostering Relevant Learning	PBL teachers provide real world/ industry realistic teaching and learning materials for students
Fostering Empowered Students	PBL teachers do not spoon feed students; they emphasize skill learning to support independent content learning.
Fostering a Safe Place	PBL teachers acknowledge student fears in learning and questioning.

### **Fostering Relevant Learning**

This theme underscores the teacher's role in making learning experiences directly applicable to personal relevance or real-world issues. Through real-life learning, hands-on experiences, and student choice, PBL teachers aim to enhance engagement and stimulate student-led inquiry. As one teacher explained, "When students see the relevance of what they're learning to their own lives, they naturally start asking more questions." This illustrates the direct impact of relevant learning on student engagement and curiosity.

### **Fostering Empowered Students**

This theme explores how teachers motivate students to have a voice and believe in their capabilities. Teachers empower students by allowing them to assume the teacher role, providing incremental learning experiences, and celebrating student abilities. This approach not only reinforces content knowledge but also builds essential skills like leadership and public speaking.

## **Fostering a Safe Place**

This theme emphasizes the teacher's role in creating an environment that encourages students to feel safe and engaged in asking questions. Acknowledging potential fears and fostering an atmosphere where no question is considered dumb are essential components of this theme. One teacher described, "I make it clear from day one that everyone's input is valuable, and there's no judgment here." This practice is vital in creating a learning environment where students feel empowered to take risks and ask questions, which is fundamental to the success of PBL.

## **PBL Teachers Build and or Foster Learning**

The findings from this study underscore the progressive shift toward student-centered learning, with a particular emphasis on the teacher's role in navigating the liminal space within PBL as an instructional practice. This evolving educational paradigm necessitates a deep understanding of how teachers can effectively "build" and "foster" student-centered learning environments, as outlined in tables one and two.

When there is a significant gap between the current state and the desired learning outcome, PBL teachers engage in the crucial act of building learning. One participant articulated this approach: "You just answer a question with a question, and you let them figure it out; you let them answer it." Another teacher, reflecting on their interaction with a struggling student, explained, "It's almost like, you know, you don't know the answer to the question, but let's take five steps backwards. I love those moments where, you know, they don't think they know." These examples highlight the importance of building learning by addressing and supporting the critical domains of fostering relevant learning, empowering students, and cultivating a safe environment.

On the other hand, when the gap between the current state and the desired outcome is narrower, PBL teachers focus on fostering learning. As one participant shared, "I don't ever want to explain something to a student. In the case that I could be helping a student, explain it to another student." This careful balance between building and fostering learning within the liminal spaces demonstrates the adaptability and strategic insight of PBL teachers as they guide students through their educational journey. Another teacher emphasized, "You know I really don't believe in spoon feeding because the sooner they can think for themselves, the sooner they'll be able to excel in all areas." These insights set the stage for a deeper discussion on how PBL influences the evolving roles of teachers and the learning experience itself.

## **Discussion**

Within the liminal spaces of learning, where teacher-student exchanges unfold, PBL emerges as a transformative pedagogical approach that not only enhances the learning experience but also reshapes the dynamics between teachers and students. We are talking about more than the shift from traditional synchronous teaching methods to asynchronous, inquiry-driven exchanges. The double shift in PBL establishes a realm /space in learning where

intellectual rigor and emotional support seamlessly intertwine. Unlike the traditional approach where student-centered learning occurs in the form of a culminating project, PBL establishes the need to learn upfront (Lee & Galindo, 2021). Students use a process of inquiry and problem solving to decipher a complex problem and develop understanding of new content (Lee & Galindo, 2021).

PBL has a track record of being beneficial for student learning yet is still thought of as an approach to learning that is outside the context of traditional pedagogy. While traditional pedagogy embraces the continuum from teacher-centered instruction to student-centered instruction, it stops short of the idea of presenting content through the student-centered inquiry process that PBL offers (Lee & Galindo, 2021). The European Higher Education Area has recognized the value of PBL in preparing teachers to lead, both in terms of content and social justice development (Ortiz-Colón, et al., 2021). PBL's effectiveness in promoting student-centered learning is well-documented. As Serin (2018) notes, PBL's growing popularity is linked to its ability to engage students in meaningful, real-world learning experiences. This study builds on foundational research, such as the work by Allison (2018) and Bedir (2019), who explored the impact of PBL in diverse educational settings. The findings align with the constructivist theories of Piaget, Vygotsky, and Bruner, which emphasize the importance of active, social, and experiential learning (Chand, 2023; Efgivia et al., 2021). With a growing sense of the need for advanced problem solving and life-long learning, initial teacher training should include a thorough understanding of PBL and how it functions to create opportunities for deep learning (Chand, 2023; Efgivia et al., 2021); Ortiz-Colón, et al., 2021).

The themes identified in this study resonate with these theoretical frameworks, particularly in the emphasis on creating relevant, empowering, and safe learning environments. The shift towards SCL, as reflected in the PBL approach, is not just about changing teaching methods but also about rethinking the teacher's role in the classroom. The alignment of these findings with existing literature strengthens the case for continued exploration and implementation of PBL in diverse educational contexts.

Figure 2 illustrates a traditional synchronous teaching method where all students progress from building to fostering at the direction of the teacher. Exploration of the liminal space of learning by the teacher is typically assessed at the same rate for the whole group, and geared towards the needs of the majority.

**Figure 2**

*Synchronous Movement in Learning Across the Pedagogical Continuum (Whole Group Learning Model: I do, We do, You do)*

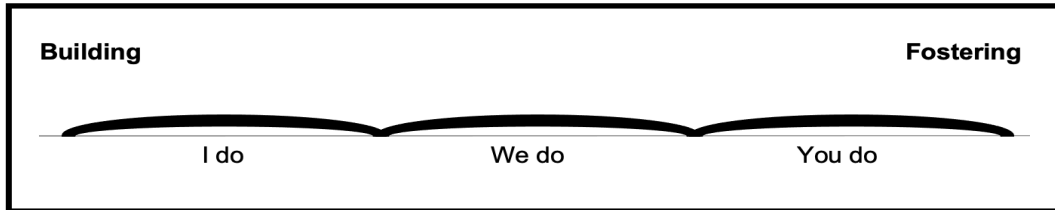
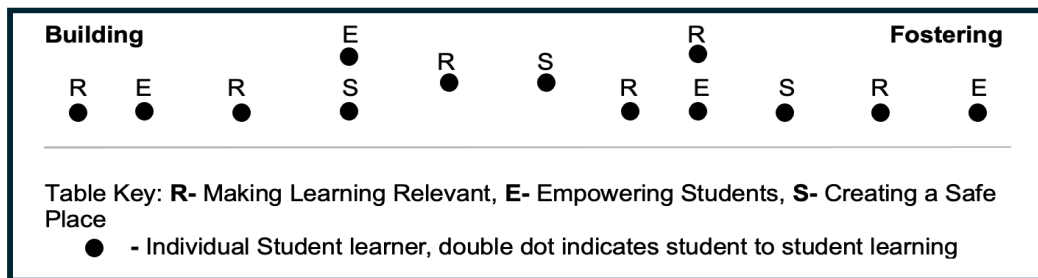


Figure 3 shows the asynchronous movement in learning across the pedagogical continuum as a result of the project-based learning model, with space for unique exchanges and fostering relationships. Here, students may be in a variety of levels of building and fostering. Exploration of liminal spaces by the teacher is typically assessed and supported by PBL curriculum tools (checklist, rubrics, step by step directions, observation, and technology supports) as independent, student to student, or teacher to student interactions, teacher direction, forming unique personalized cases.

**Figure 3**

*Asynchronous Movement in Learning Across the Pedagogical Continuum (Project-based Learning Model: unique exchanges fostering relationships)*



Diverging from conventional approaches, PBL liberates teachers from the constraints of lecturing, enabling them to navigate the transitional spaces (also known as the liminal spaces) in learning with greater significance, supporting a wider scope of learning modalities. Within these spaces, PBL teachers possess the flexibility to discern whether to build or foster student learning, with a focus on fostering relationships in three critical areas: knowledge acquisition, skill development, and social-emotional growth, creating meaningfully unique learning experiences for students.



In this dynamic educational space, PBL teachers employ inquiry as a guiding compass, assessing the distance between students' current position and their intended destination. Accordingly, they tailor their approach to ensure effective learning, emphasizing one of the three key aspects: making learning relevant, empowering students, or creating a safe place. This dynamic change in the classroom and instructional culture is challenging; it requires not only a change in pedagogical practice, but in curricula as well (Lee & Galindo, 2021).

### **Limitations**

Despite its limitations, including potential researcher bias, limited experience, a small sample size, and constrained interview durations, the study took deliberate measures to address these challenges and uphold the integrity and transferability of its findings. By actively mitigating these constraints, the research effectively captured the participants' perspectives and provided meaningful insights into PBL.

Additionally, this study was limited to CTE educators. While there is much to be learned from these professional educators, this limits the direct transferability to the core teaching classroom. It should be noted however that PBL has been demonstrated to be effective in core educational settings, the sciences, mathematics, social studies. Lee and Galindo (2021) conducted a very successful study of teaching the practice of PBL to preservice secondary math teachers. It is this connection that makes the results of this study important to teacher preparation programs.

### **Conclusion**

In conclusion, this study serves as a valuable resource for professors within teacher preparation, and prospective teachers alike. It illuminates the multifaceted roles inherent in PBL. The findings not only hold the potential to influence individual teaching practices but also lay the groundwork for broader school training and professional development initiatives. New educators in inquiry can begin with structured, teacher-directed activities and gradually transition to promoting greater student autonomy (Eick et al., 2005). The implications of this research extend beyond the classroom, indicating that PBL can be a powerful approach for all educators seeking to foster an intellectually rigorous and emotionally supportive learning environment.

While the study had its limitations, including potential researcher bias, the researcher's limited experience, a small sample size, and constrained interview lengths, all of these challenges were carefully addressed to maintain the integrity and transferability of the findings. By ensuring that these limitations were mitigated, the study succeeded in accurately representing the voices of the participants and providing valuable insights into PBL.

These findings underscore the necessity of balancing teacher guidance and student autonomy within learning, in line with the constructivist theories of Piaget, Vygotsky, and Bruner, which advocate for active, social, and experiential learning (Chand, 2023; Efgivia et al., 2021). Preservice teachers' perceptions of inquiry evolved from viewing it as predominantly student-directed to acknowledging the significance of more teacher-guided approaches. This shift

in teacher preparation could empower new teachers to employ PBL in many settings (Biggers & Forbes, 2012, Lee & Galindo, 2021). Central to this discussion is the exploration of liminal spaces in teacher-student interactions, emphasizing the importance of purposeful tasks that both build and foster understanding.

Ultimately, PBL empowers students to move beyond the traditional role of passive learners, facilitating their progression along the continuum toward greater independence. Through PBL, teachers transition into facilitators of knowledge and mentors for both personal and academic growth, contributing to a holistic educational experience that prepares students for real-world challenges.

### **Implications for the CTE Community**

Beyond its broad educational implications, this research highlights a significant opportunity for CTE to play a more prominent role in teacher professional development leadership. As captains of their respective industries, CTE educators bring unique, practice-oriented approaches to teaching that are often overlooked in traditional educational discourse. Their emphasis on real-world applications, experiential learning, and skill-based instruction aligns seamlessly with the principles of PBL.

By leveraging the expertise of CTE teachers, schools and higher education institutions can enrich professional development initiatives, fostering a culture of interdisciplinary collaboration. CTE educators' leadership in this area can bridge the gap between academic theory and industry practice, ultimately equipping both teachers and students with the tools needed to thrive in a rapidly evolving workforce. This study serves as a call to action to elevate CTE teachers as leaders in shaping the future of education through innovative methodologies like PBL.

Despite its limitations, this study contributes to the existing literature on student-centered methodologies, offering a deeper understanding of how to implement PBL effectively. Furthermore, school districts and institutions of higher education can utilize these findings to develop programs that integrate best practices into teacher preparation and professional development, thereby positively impacting teaching practices. This study establishes a foundation for further exploration of PBL across various academic domains, with particular relevance to the CTE field.

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*Alexandra Choy Youatt, an experienced instructional design professional, holds a Doctorate in Educational Leadership and Organizational Development. With a proven track record, she leads the design and implementation of K-12 curriculum frameworks. Alexandra excels in collaborating with educators, subject matter experts, and stakeholders to create learner-centric curricula aligned with state standards. She integrates diverse perspectives and pedagogical approaches, utilizing educational technology for interactive and multimedia-rich materials.*

*Donald Comi is a 20-year veteran, retired Air Force Instructor pilot. He spent ten years in K-12 education following military service as a National Board-Certified secondary math teacher. With an Ed.D, in Higher Education, Don was an Assistant Professor of Education at Whitworth University, teaching in both the School of Education and Math Departments. Don designed and piloted a course in Project Based Learning for undergraduate and Masters level teacher candidates. Don now serves as a part-time professor at National University and a Dissertation Chair/Methodologist at Grand Canyon University.*

**Teacher Candidates' Perceptions of Practice in Teacher Leadership:  
What it Means For Teacher and Leader Preparation Programs**

**Kelly Lenarz  
Trinity Christian College**

**Catherine Nelson  
University of St. Francis**

**Jan Fitzsimmons  
Center for Success**

**Abstract**

This study explores teacher candidates' perceptions of teacher leadership knowledge, skills, and competencies acquired during their teacher preparation programs. Using the “*Teacher Leadership Teacher Self-Assessment Tool* (American Institute for Research, 2017),” candidates from five licensure areas (Early Childhood, Elementary, Middle Grades, Secondary, and Special Education) at private liberal arts institutions self-assessed their abilities in four domains: communication and collaboration, professional growth, instructional leadership, and school community advocacy. This study aimed to identify perceived areas of strength and growth in teacher leadership, with findings suggesting that teacher candidates felt confident in communication and instructional leadership but identified school community advocacy as a significant area for development. The research also highlights the importance of integrating teacher leadership development into preservice programs to better prepare teacher candidates for leadership once they enter the profession as well as to address challenges, such as teacher recruitment, retention, and school improvement. This study concludes with recommendations for enhancing leadership pathways and calls for further research on the impact of preservice leadership preparation on professional practice and retention.

## **Teacher Candidates' Perceptions of Practice in Teacher Leadership: What it Means For Teacher and Leader Preparation Programs**

In the increasingly complex world of schools, district leaders struggle to keep up with both the daily and ongoing challenges of teaching and learning (Teach Plus, 2021). Inundated with student and staff mental health, teacher shortages, curricular innovations, culturally responsive practices, a need for belonging and student voice, parent demands, loss of learning, and equity to name just a few challenges, school administrators look to teachers to share the leadership load.

In the state where this study was conducted, teachers can add a teacher leader endorsement to their Professional Educator License after obtaining a master's degree (Illinois Administrative Code, 2023). Established in 2014, the endorsement aimed to enhance the quality of school leadership and teaching practices. It acknowledged the importance of teacher leadership in driving overall school improvement and was intended to provide a career pathway that would retain and develop high-performing teachers for leadership roles while allowing them to remain in the classroom. However, despite legislative language and school code written into law in 2014 promoting shared leadership and decision-making, the teacher leader endorsement was never required for roles, such as curriculum specialist, instructional coach, mentor teacher, department chair, or lead teacher. In fact, it wasn't required for any specific position, making it neither systemic nor strategic in creating a teacher leadership pathway. This lack of a clear and purposeful pathway underscores the importance of this study in addressing gaps in the recognition, development, and implementation of teacher leadership.

### **Theoretical Framework**

One practice within educational leadership that allows for teacher leaders is distributed leadership. Distributed leadership is characterized by shared responsibility across various roles in a school rather than focusing solely on administrators. Distributed leadership focuses not on one person but on a group of individuals with various tools and structures in a specific situation who influence change (Spillane, 2005).

Teacher leaders are an integral part of the school organization. Teacher leadership encompasses the evolving roles teachers take on within the school system to improve educational practices, from mentoring to policy advocacy. Teacher leaders take instructional and organizational leadership functions as instructional coaches, mentors, department heads, and committee chairs, and are credited with onboarding and helping new teachers adapt to their new schools. However, districts do not consistently offer teachers a well-defined career ladder that identifies the paths, skills, and knowledge necessary to support each teacher leader role.

As Mooney and Jacques (2019) note, teacher leadership holds much promise and potential. However, teacher candidates exploring the education profession need to see alternative paths to growth in the profession beyond the route to becoming a principal. As schools, districts, counties, and states struggle to fill teaching positions in the midst of a national crisis of teacher



shortage, teacher leadership is discussed once again, but not systemically (Darling-Hammond et al., 2023). Systemic change requires clear pathways to create a professional path that leads from classroom teacher to such roles as department chairs, team leaders, curricular chairs, instructional coaches, policy development, and advocacy. These roles exist in districts because schools need teachers in leadership positions for effective operation, but how to grow into these positions is a well-kept secret. The implication is clear: we must define teacher leadership roles and clarify the paths to each of the teacher leader roles. The National Education Association (2018) emphasizes, “Teacher leadership is largely undeveloped and an untapped resource in schools.” To capitalize on teacher leadership, we must make it visible and clarify the path to engaging in it.

### **Literature Review**

The momentum for research on teacher leadership seems to ebb and flow. Research on teacher leadership, as early as the 1930s and continuing into the 21st century, examined leadership roles that teachers accepted (Danielson, 2007; Strike et al., 2019), the knowledge and skills of teacher leaders (Teacher Leadership Exploratory Consortium, 2011), and the benefits of teacher leadership, including improving instructional practices (Smith et al., 2017), school effectiveness (Chew & Andrew, 2010), improving student learning (Eckert et al., 2016), and affecting policy-making (Wenner & Campbell, 2017).

Although definitions vary, the most referenced definition is that of York-Barr and Duke (2004), who defined teacher leadership as “The process by which teachers, individually or collectively, influence their colleagues, principals, and other members of the school communities to improve teaching and learning practices with the aim of increased student learning and achievement” (pp. 287-288). This is the definition used in this study.

Preservice teacher leadership preparation could focus on equipping teacher candidates with leadership skills during their teacher training. Some researchers have not only looked at the path to teacher leadership during inservice teaching, but they have also considered the possibility of teacher leadership beginning during preservice preparation (Bond, 2011; Xu & Patmor, 2012). Some have posited that it is problematic that teacher candidates and aspiring educators are unfamiliar with teacher leadership pathways. Bond's (2011) study, for example, suggests that leadership is an integral component of teaching, and as such, teacher candidates should be made aware of the role they play as educational leaders not only inside the classroom but also outside the classroom. Bond (2011) argues that teacher leader skills should be integrated simultaneously with pedagogy as teacher candidates are prepared, so that candidates have a more complete understanding of the teacher roles.

Subsequent research (Ado, 2016) supports the importance of teacher candidates learning about and engaging in teacher leadership during preparation so that as novice teachers, these young practitioners see beyond the role of teacher as facilitating learning in the classroom and embrace the broader opportunities in which teachers use what they know to improve teaching and learning (Mthiyane & Grant, 2013; Nordengren, 2016; Shen et al., 2020).

King's (2017) work emphasizes that teachers not only change the trajectory of student learning, but that they also play an important role in improving education in their school and community; thus, it makes sense that teacher candidates should understand and ideally embrace their potential impact beyond their classrooms and/or students. According to Sheppard et al. (2020), the concept of teacher leadership and its roles could be introduced at a student teaching seminar, then observed during clinical experiences. Student teachers might accompany their mentor teacher as they participate in and/or lead a district curriculum committee, a principal's advisory council, a mentoring or professional development workshop. But while some programs have piloted work in leadership within their preparation programs, current research on intentionally nurturing leadership within candidates is not readily available. Are candidates ready to pursue teacher leadership pathways? To what degree are they prepared and ready to build a broader vision of teaching that includes teacher leadership? Answers to these questions suggest some changes for teacher preparation programs.

### **Research Context**

This study examined preservice teacher leadership knowledge, skills, and competencies through the self-assessment of teacher candidates enrolled in initial licensure teacher preparation programs at private liberal arts institutions, both at the undergraduate and graduate levels, at the completion of their student teaching. A portion of these participants were also interns participating in a non-profit collaboration working with students in high needs schools. Five licensure areas were represented in this study: Early Childhood, Elementary, Middle Grades, Secondary, and Special Education. In the state where this study was conducted early childhood licensure covers self-contained general education from birth to grade two. An elementary professional educator license covers grade one through grade six. Subject specific middle grades licensure covers grades five through eight in the areas of language arts, math, social science, and science. Secondary licensure spans grades nine through 12 and includes all academic content areas. The academic content areas that were represented in this study were business, chemistry, math, English, and history. Special PreK -12 licensure (Pre-Kindergarten through grade 12) includes specialization areas of visual arts, physical education, and music. All three specialization areas were represented in this study. A Learning Behavior Specialist I license is issued for special education, which applies to teaching students with disabilities ranging from kindergarten through the age of 21.

The goals of conducting this study were to investigate perceived areas of strengths and areas for growth related to preservice teacher leadership among all teacher candidates, as well as to determine if differences existed between teacher candidates' perceptions of their teacher leadership knowledge, skills, and competencies according to licensure area. The concepts of and applications for teacher leadership used in this study were connected to professional literature and research-based practices. The leadership topics included in this study highlight the breadth and depth of a career in teaching, but the focus of this study was on teacher candidates' perceived readiness for teacher leadership.

## Methods

The methods and procedures used to collect the data set on the leadership perceptions of teacher candidates for this study were based on a quantitative design. The “*Teacher Leadership Teacher Self-Assessment Tool* (American Institute for Research, 2017)” was used to collect the data set to answer all three research questions. This tool was produced by the Center on Great Teachers and Leaders at the American Institutes for Research in collaboration and consultation with the Regional Educational Laboratory (REL) Midwest Educator Effectiveness Research Alliance. REL Midwest researchers conducted a review of the literature on teacher leadership and worked with stakeholders in the Midwestern states to identify the most critical competencies necessary for successful teacher leadership. The literature and stakeholder input shaped the content of the tool. The “*Teacher Leadership Teacher Self-Assessment Tool* (American Institute for Research, 2017)” reflects principles of shared leadership by assessing competencies that enable teachers to lead within and beyond the classroom and engage in leadership practices that contribute to broader school and community goals. Through this lens, this study explored how teacher candidates view their readiness to assume these leadership roles and what areas require further growth and support.

The four specific teacher leadership domains focused on in the “*Teacher Leadership Teacher Self-Assessment Tool* (American Institute for Research, 2017)” are as follows: (a) collaboration and communication, (b) professional learning and growth, (c) instructional leadership, and (d) school community and advocacy. Each domain included several competencies: some were foundational, for teachers who are beginning to think about leadership roles, and others were advanced, for teachers who are already taking on leadership roles. Each domain was divided into anywhere between four and six indicators that included possible evidence and “look-fors” to consider when assigning a rating. For each indicator, survey participants were to read the primary indicator language and consider the evidence and “look-fors,” introduced by the statement, “Teacher leaders may demonstrate this by....” These “look-fors” were not intended to be all-inclusive; rather, they provided a few examples of how one might demonstrate the indicator in their practice. Survey participants then assigned themselves a rating for each indicator, based on the following rating scale: (a) not evident - have not had the opportunity to acquire or demonstrate a skill, (b) beginning - have some skills, (c) developing - have some skills; working to master skills, and (d) advancing - have mastered most skills; still learning and growing. At the end of each domain, participants had the opportunity to note the evidence or experience used to determine the ratings for indicators in the domain, as well as to identify next steps to build on strengths and to grow leadership competencies. The following three research questions were used to direct this study:

1. What teacher leadership knowledge, skills, and competencies do our teacher candidates identify as areas of strength in their practice?
2. What teacher leadership knowledge, skills, and competencies do our teacher candidates identify as areas for growth in their practice?

3. What differences are there in perceptions of preservice teacher leadership knowledge, skills, and competencies according to licensure area?

Finally, a demographic questionnaire was also administered to collect information on the participants' teacher preparation program, licensure area, student teaching placement information, gender, ethnicity/racial identity, and age.

### **Participants**

The current study was conducted using student teachers from five teacher preparation programs all located in the suburbs of a major Midwestern city. All educator preparation providers were private liberal arts institutions of higher education with initial licensure teacher preparation programs. Institutional Review Board (IRB) protocol was reviewed and approved. The researchers acknowledge their positionality as educators and scholars committed to fostering teacher leadership among preservice teachers. The student teachers participating in this study were enrolled in a seminar course connected to their teacher preparation licensure program in the spring or fall semesters of 2021, which was when the data set was collected. Two of the researchers were instructors in the student teaching seminar class. The researchers left the room while the survey was proctored. This survey was not an assignment, and participation did not affect grades. A total of 108 student teachers participated in this study. There were 88 females and 18 males who completed the survey. Two participants chose not to respond. The ages of the participants are as follows: (a) 18-23, 51 participants, (b) 24-29, 21 participants, and (c) 30+, 35 participants. One participant chose not to respond. Seventy percent of the participants identified as white, 19% identified as Hispanic or Latino, 5% identified as Black or African American, the remaining 4% identified as Arabian, Asian/Pacific Islander, Middle Eastern, and 2% did not respond or choose not to identify.

Inclusionary criteria to participate in this study were as follows: (a) must be currently enrolled in the final semester of a teacher preparation program, (b) must be student teaching full time, and (c) must not already hold a teaching license. The breakdown of participants according to licensure area is as follows: three participants were seeking early childhood licensure, 47 participants were seeking licensure in elementary education, six participants were seeking middle grades licensure, 11 participants were seeking licensure in secondary education, 13 were seeking PreK-12 licensure, and 24 were seeking licensure in special education. Four participants did not specify a licensure area. All 108 participants were obtaining an initial teaching license.

### **Data Collection**

The “*Teacher Leadership Teacher Self-Assessment Tool* (American Institute for Research, 2017)” and the demographic questionnaire requesting information on the participants' educator preparation provider and licensure area were combined into an online survey using Google Forms. The first page of the survey included a request to complete the survey and consent information. The consent page was set up to require an answer from participants, so they could not move onto the start of the survey until the consent page was completed. If the participants

clicked *yes* to consent, they were acknowledging that they were at least 18 years old and had read and understood the information provided in the consent. The participants were then given access to the next page and invited to start taking the survey. If the participants clicked *no* and denied consent, they were thanked, and an exit screen for the survey was displayed. Participants' responses to the survey items were recorded directly in Google Forms. One hundred eight student teachers consented to and completed the survey. All participants met the inclusionary criteria for the study.

## Results

Teacher candidates were surveyed about their practice using the knowledge, skills, and competencies of teacher leadership in the following four domains: (a) Domain 1: Communication and Collaboration, (b) Domain 2: Professional Learning and Growth, (c) Domain 3: Instructional Leadership, and (d) Domain 4: School Community and Advocacy. Each domain contained several indicators, and each indicator was noted as significant if there was a response rate of 50% or more in one response option, if there was a total of 85% or higher in two response options together (advancing/developing or beginning/not evident), or if a piece of data was noted as an outlier and inconsistent with other data.

In regard to research questions one and two, which asked for the teacher leadership knowledge, skills, and competencies that teacher candidates identified as areas of strength or growth in their practice, results indicated that overall teacher candidates identified strengths in their practices in Domain 1: Collaboration and Communication, Domain 2: Professional Growth, and Domain 3: Instructional Leadership, with 74%, 66% and 66% of participants indicating an advancing/developing response, respectively. The domain in which participants identified the greatest opportunity for growth was Domain 4: School Community and Advocacy, with only 40% of them responding advancing/developing, while 60% of participants indicated they were at the beginning level or that the competency was not evident, as shown below in Table 1.

**Table 1**  
*All Teacher Candidate Responses by Area (n = 108)*

	Domain 1: Collaboration and Communication	Domain 2: Professional Growth	Domain 3: Instructional Leadership	Domain 4: School Community and Advocacy
Advancing	28%	21%	20%	18%
Developing	46%	45%	46%	32%
Beginning	19%	22%	27%	26%
Not Evident	7%	12%	7%	24%
Total	100%	100%	100%	100%
Developing and advancing	74%	66%	66%	40%
Beginning and not evident	26%	34%	34%	60%

Table 2 delves deeper into each of the domains revealing some specific indicators of perceived strengths and areas for growth in practice.

**Table 2**  
*Specific Indicator Relative Strengths for all Teacher Candidates (n= 108)*

Indicator	Advancing	Developing	Total
<b>Domain 1: Communication and Collaboration</b>			
1.1.1 Develop trusting relationships among adults	44%	48%	92%
1.1.2 Provide and get feedback	28%	55%	83%
1.1.3 Value diverse opinions	44%	41%	85%
1.2.2 Show sensitivity to others	49%	38%	87%
<b>Domain 2: Professional Growth</b>			
2.1.2 Proactively participate in staff development	29%	57%	86%
2.2.1 Actively engage in and demonstrate ongoing self-reflection	34%	52%	86%
<b>Domain 3: Instructional Leadership</b>			
3.1.1 Use content knowledge and enact high-quality instruction	21%	56%	77%
3.1.2 Engage in effective assessment	17%	59%	76%
3.3.1 Create a supportive classroom climate	44%	44%	88%
3.3.2 Supporting student social and emotional learning	42%	45%	87%
3.4.1 Understand how to use data	16%	53%	69%

The results of the indicator strengths as illustrated in Table 2 above are consistent with the overall perceived strengths in Domains 1, 2, and 3 in Table 3. Domain 3 had five strong indicators; Domain 1 had four strong indicators; and Domain 2 had two strong indicators.

The strengths in the indicators in Domain 1: Communication and Collaboration reflect the fact that teacher candidates are developing relationships with a cooperating teacher and oftentimes, field supervisors. Indicators, such as developing a trusting relationship, getting feedback, valuing diverse opinions, and showing sensitivity to others are part of developing these connections. Teacher candidates noted strengths in “nonverbal communication and active listening,” which they attributed to experiences in “management and customer relations.” Others highlighted their ability to “listen to others, accept feedback, and implement them” effectively.

One candidate shared that they are “open-minded when it comes to grading for equity,” emphasizing the importance of “listening more than speaking” and learning from veteran teachers. Another candidate expressed that their strength lies in “empathy,” which they described as “putting myself in my colleagues’ shoes and giving compassion when a colleague comes to me to collaborate.” Additionally, some candidates emphasized their ability to “work together well with a wide variety of people” and “find others’ strengths within the school,” which helps foster positive and productive collaborations.

While these strengths are evident, candidates also identified areas for growth in communication and collaboration. Many expressed a desire to improve their conflict resolution skills and ability to handle challenging interactions. For instance, one candidate noted, “I want to be able to resolve conflicts in a professional manner. I will develop these skills by asking colleagues who I work closely with.” Another shared their struggle with addressing disagreements, stating, “I have a hard time still going against the general consensus of the group, even when it is important that the other side of an issue needs to also be addressed.” Some candidates also aim to take on more leadership roles to improve their collaborative skills. One stated, “I want to develop a leadership role where I can gauge the audience and their needs. I can do this by observing and asking questions of those who carry leadership roles.”

For Domain 2: Professional Growth, participating in staff development and reflecting upon one’s practice are also typical activities student teachers engage in. Teacher candidates demonstrated strengths in self-reflection, actively seeking feedback, and a willingness to grow. One candidate highlighted their ability to ask for feedback, stating, “By asking and implementing the feedback, I am becoming a better educator.” Another shared their commitment to continuous improvement, saying, “I am always seeking out new information and ways to better myself and my practice.” Candidates also emphasized the importance of learning from experienced educators, with one noting, “I watch veteran teachers and learn from them as well.” In addition, several candidates mentioned the value of fostering open-mindedness and receptivity to feedback. For example, one candidate stated, “My strengths include having a positive attitude toward learning and being willing to grow in all aspects of teaching.” Another shared their strength in self-reflection: “I continually evaluate how a lesson went, how to change it in the future, and how to adjust the following lessons.” These habits highlight how candidates are learning to evaluate their teaching methods for the benefit of student learning.

While strengths were abundant, some candidates also identified areas for growth, such as facilitating professional development. One candidate expressed, “I want to present at a staff meeting for my coworkers to improve this skill.” Others aimed to improve their ability to handle feedback effectively, with one candidate reflecting, “I would like to reduce/remove the time in which I take feedback negatively.”

Finally, Domain 3: Instructional Leadership highlights the skills necessary to develop into an effective teacher, competencies, such as enacting high-quality instruction and assessment and creating a supportive classroom environment. This domain encompasses the “business of being a teacher” and is evident when teacher candidates apply the content and pedagogy that they

learned in their classes in their teacher preparation programs into their teaching practices. Teacher candidates shared their strengths in this domain, particularly in fostering supportive environments and applying pedagogical strategies. One candidate reflected, “I create a classroom of inclusion, of collaboration, and a feeling of belonging. I tried a lot of different ideas, took classes, and found things that worked for my students.” Another noted their ability to differentiate instruction: “My strengths in instructional leadership is how I am able to differentiate each lesson for each student. I am able to meet the needs of all of my students. I developed this through practice and feedback from other teachers.” A strong emphasis on social-emotional learning (SEL) also emerged, with one candidate stating, “I always take the time to address SEL needs as they come up and have real conversations with my class to check in.” Classroom management was another area of strength, as one noted, “I have great classroom management that allows for an interactive and safe environment for all students to achieve success.”

However, candidates also identified areas of growth in instructional leadership. Many expressed a desire to better understand and apply educational research to inform their practices. One candidate explained, “I want to develop the use of data and research. I want to use data from my students to create more engaging lessons. Also, I want to use research to impact the social and emotional needs of my students. This can be done by designing and implementing instruction and assessments.” Another noted, “I need to get better at using data to drive instruction. I use individual class assessments to make instructional decisions, but I need to improve on tracking and seeing student progress towards meeting Common Core Standards.” Others mentioned a need for more skills in co-teaching, feedback, and classroom management in diverse settings. For example, one candidate shared, “I want to develop the co-taught classroom experience,” while another emphasized, “I want to develop ways to give feedback. I will be teaching pre-K next year, so this might look different. I will develop this by asking other teachers.” Another focus area was leading professional growth opportunities, with one teacher stating, “Being able to lead conversations that prompt reflection. I can develop this skill by putting myself more out there.” Table 3 shown below notes two indicators of significance for all teacher candidates: 4.4.1 *lead school and district initiatives* and 4.4.2 *lead school improvement initiatives*.

**Table 3**  
*Specific Indicator Relative areas for Growth for all Teacher Candidates (n= 108)*

Indicator	Beginning	Not Evident	Total
4.4.1 Lead school and district initiatives	20%	53%	73%
4.4.2 Lead school improvement initiatives	20%	52%	72%



The results above are consistent with the overall perceptions of the teacher candidates that Domain 4: School Community and Advocacy is their most challenging domain, as the only relatively significant indicators noted are in that domain. Despite this challenge, teacher candidates highlighted several strengths in this area. Advocacy for students stood out as a key strength, as one candidate noted, “I am a strong advocate for individual students, especially during student-focused meetings.” Building relationships with families and fostering a sense of community were also frequently mentioned. One candidate shared, “I make it one of my top priorities to become acquainted with student families and the community, to ensure that we may all work together for the betterment of the students.” Another emphasized their efforts to include parents in the educational process: “My strength is how I included parents in the students’ learning. When creating IEPs, parents were fully involved. I developed this through practice.” Candidates also mentioned creative ways they contribute to school improvement initiatives and build community. For example, one candidate stated, “I am leading a crayon recycling initiative for the school, and it has been so fun to do something bigger than my classroom.” Others focused on maintaining consistent communication with families, as one shared, “I’ve built community by establishing a rapport with the parents, communicating with them on a weekly basis, sending a newsletter home every month, and keeping a positive outlook on student behaviors.”

While strengths were evident, many teacher candidates expressed a need for growth in this domain. Building relationships with colleagues and the broader community emerged as significant areas for development. One candidate explained, “I want to do better with partnering with families and the community. It needs to be an active goal for me as I move forward.” Another highlighted the need for outreach: “I could be more involved in the community where I teach in order to show that I care about the community. I can develop this by taking part in more outside school activities and functions.” Some candidates noted challenges in scaling their advocacy efforts to a school-wide or district-wide level. One shared, “I want to develop my advocacy. I could do this by asking colleagues about it,” while another stated, “I want to become more involved in the community and the planning of school improvement.” Additionally, the importance of partnering with stakeholders and collaborating on initiatives was emphasized. For example, one candidate mentioned the desire to “find new ways to branch out of our classroom into the community.”

Research question 3 leads to an analysis of differences in perceptions of preservice teacher leadership knowledge, skills, and competencies according to licensure area. For the population of Elementary Education teacher candidates (including Elementary Education teacher candidates with a Middle Grades endorsement), (n = 47) the following results were found:

**Table 4***Specific Indicator Relative Strengths for Elementary Education Teacher Candidates*

Indicator	Advancing	Developing	Total
Domain 1: Communication and Collaboration			
1.1.1 Develop trusting relationships among adults	50%	42%	92%
1.1.2 Provide and get feedback	25%	50%	75%
1.1.3 Value diverse opinions	48%	38%	86%
1.2.2 Show sensitivity to others	49%	38%	87%
Domain 2: Professional Growth			
2.1.1 Ensure continuous improvement of practice	25%	58%	83%
2.1.2 Proactively participate in staff development	15%	53%	68%
2.2.1 Actively engage in and demonstrate ongoing self-reflection	33%	54%	87%
Domain 3: Instructional Leadership			
3.1.1 Use content knowledge and enact high-quality instruction	19%	60%	79%
3.1.2 Engage in effective assessment	19%	52%	71%
3.2.1 Improve the practice of other teachers	6%	50%	56%
3.3.1 Create a supportive classroom climate	38%	54%	92%

The Elementary Education teacher candidates are mostly consistent with the whole group results with three exceptions. They indicated additional perceived strengths in 2.1.1 *ensure continuous improvement of practice* and 3.2.1 *improve the practice of other teachers*. They did not indicate a strength in 3.4.1 *understand how to use data*.

The identified indicators of areas for growth for Elementary Education teacher candidates, as shown below in Table 5, are consistent with overall domain results, with indicators 4.4.1 *lead school and district initiatives* and 4.4.2 *lead school improvement initiatives* as indicators of significance.

**Table 5***Specific Indicator Relative Areas for Growth for Elementary Education Teacher Candidates*

Indicator	Beginning	Not Evident	Total
4.4.1 Lead school and district initiatives	23%	52%	75%
4.4.2 Lead school improvement initiatives	19%	56%	75%

For the population of Middle Grades, Secondary Education, and PreK-12 licensure areas (n = 30), the following results are shown below in Table 6.

**Table 6***Specific Indicator Relative Strengths for Secondary, Middle Grades, and PreK-12 Teacher Candidates*

Indicator	Advancing	Developing	Total
Domain 1: Communication and Collaboration			
1.1.1 Develop trusting relationships among adults	33%	57%	90%
1.1.2 Provide and get feedback	27%	67%	94%
1.1.3 Value diverse opinions	43%	47%	90%
1.3.1 Run effective meetings	13%	53%	66%
1.4.2 Mediate diverse viewpoints	14%	59%	73%
Domain 2: Professional Growth			
2.1.1 Ensure continuous improvement of practice	25%	58%	83%
2.2.1 Actively engage in and demonstrate ongoing self-reflection	37%	50%	87%
Domain 3: Instructional Leadership			
3.1.2 Engage in effective assessment	10%	67%	77%
3.3.1 Create a supportive classroom climate	53%	37%	90%
3.3.3 Demonstrate strong classroom organization	37%	50%	87%
3.4.1 Understand how to use data	13%	57%	70%
3.6.1 Provide constructive and actionable feedback	13%	53%	66%

Indicator	Advancing	Developing	Total
Domain 4: School Community and Advocacy			
4.1.2 Create a welcoming environment	43%	43%	86%

Results for teacher candidates in PreK-12, Middle Grades, and Secondary programs differ a bit more from the overall group results. There are eight inconsistencies. The PreK-12, Middle Grades, and Secondary teacher candidates indicated additional strengths in 1.3.1 *run effective meetings*, 2.1.1 *ensure continuous improvement of practice*, 3.3.3 *demonstrate strong classroom organization*, 3.6.1 *provide constructive and actionable feedback*, and 4.1.2 *create a welcoming environment*. They were not consistent with the larger group as they did not indicate strengths in 2.1.2 *proactively participate in staff development*, 3.1.1 *use content knowledge and enact high-quality instruction*, and 3.3.2 *supporting student social and emotional learning*. The identified areas of growth for PreK-12, Middle Grades, and Secondary teacher candidates, as shown below in Table 7, are consistent with overall results, with indicators 4.4.1 *lead school and district initiatives* and 4.4.2 *lead school improvement initiatives* as indicators of significance. However, the PreK-12, Middle Grades, and Secondary teacher candidates also indicated an area of growth in indicator 3.5.2 *engage in a data reflection cycle*. This is interesting in light of the fact that indicator 3.4.1. *understand how to use data* was noted as a strength for this group. Perhaps this means that these teacher candidates understand how to use data, but do not get the opportunity to practice those skills.

**Table 7**  
*Specific Indicator Relative Areas for Growth for Secondary, Middle Grades, and PreK-12 Teacher Candidates*

Indicator	Beginning	Not Evident	Total
3.5.2 Engage in a data reflection cycle	50%	7%	57%
4.4.1 Lead school and district initiatives	17%	57%	74%
4.4.2 Lead school improvement initiatives	20%	50%	70%

Results for the population of Special Education Teacher Candidates (including those double majoring in SP Ed and Elementary Ed) (n = 24) are shown in Table 8.

**Table 8***Specific Indicator Relative Strengths for Special Education Teacher Candidates*

Indicator	Advancing	Developing	Total
<b>Domain 1: Communication and Collaboration</b>			
1.1.1 Develop trusting relationships among adults	42%	50%	92%
1.1.2 Provide and get feedback	38%	54%	92%
1.2.1 Express interest in others	46%	46%	92%
1.2.2 Show sensitivity to others	57%	35%	92%
1.3.2 Use group processes effectively	4%	54%	58%
1.4.1 Resolve conflict, between both self and colleague, and mediate between other colleagues	13%	50%	63%
<b>Domain 2: Professional Growth</b>			
2.1.1 Ensure continuous improvement of practice	35%	52%	87%
2.2.1 Actively engage in and demonstrate ongoing self-reflection	29%	54%	83%
2.4.2 Facilitate professional learning	8%	50%	58%
<b>Domain 3: Instructional Leadership</b>			
3.1.1 Use content knowledge and enact high-quality instruction	13%	63%	76%
3.1.2 Engage in effective assessment	21%	63%	84%
3.3.2 Supporting student social and emotional learning	46%	50%	96%
<b>Domain 3: Instructional Leadership</b>			
3.3.3 Demonstrate strong classroom organization	29%	50%	79%
3.4.1 Understand how to use data	17%	58%	75%
3.4.2 Understand educational research	8%	50%	58%
3.5.3 Use data to inform decision making and help others to use data to make decisions	13%	54%	67%
3.6.1 Provide constructive and actionable feedback	17%	58%	75%

Indicator	Advancing	Developing	Total
Domain 4: School Community and Advocacy			
4.1.2 Create a welcoming environment	42%	50%	92%
4.1.3 Advocate for students	50%	33%	83%
4.1.4 Demonstrate respect for diverse cultures	30%	65%	95%
4.3.1 Partner with families	13%	50%	63%

Results from the Special Education teacher candidates' group were the most divergent from that of the overall group in that there were 12 differences in indicator reports. However, some of these are not unexpected because of the nature of the special education field. For example, in Domain 1: Communication and Collaboration, this group reported additional strengths in 1.2.1 *express interest in others* and 1.3.2 *use group processes effectively*; a special education teacher needs to cultivate trusting relationships with their students in order to have their classrooms to be physically safe spaces for students to learn. Also noted were additional strengths in 1.4.1 *resolve conflict, between both self and colleague, and mediate between other colleagues* and 2.4.2 *facilitate professional learning*, both of which are very common in co-taught classrooms with general education teachers. Additional strengths indicated were 2.1.1 *ensure continuous improvement of practice* and 3.3.3 *demonstrate strong classroom organization*.

Reported strength indicators in Domain 3: Instructional Leadership indicate that the Special Education teacher candidates feel confident in their understanding and use of data-informed instruction and the importance of feedback: 3.4.2 *understand educational research*, 3.5.3 *use data to inform decision making and help others to use data to make decisions*, and 3.6.1 *provide constructive and actionable feedback*. This group was particularly strong in the Domain 4: School Community and Advocacy; only one other group reported one additional strength indicator in this domain. Again, these results are not surprising due to the nature of special education. Specific indicators of strength reported were 4.1.2 *create a welcoming environment*, 4.1.3 *advocate for students*, 4.1.4 *demonstrate respect for diverse cultures*, and 4.3.1 *partner with families*.

Strength indicators noted in the overall results but not among this group of Special Education teacher candidates are 1.1.3 *value diverse opinions*, 2.1.2 *proactively participate in staff development*, perhaps because most professional development might be directed towards general education, and 3.3.1 *create a supportive classroom climate*, although it was quite close with 84% of participants in the group responding advanced/developing for this indicator.

Table 9 below shows indicator 4.4.1 is a consistent area of growth for Special Education teacher candidates when compared with the overall results and other licensure areas. Although the Special Education teacher candidates had a perceived strength in 4.3.1 *partnering with*

families as noted in Table 8, there is an outlier in these data for this group in indicator 4.3.2 *partner with other stakeholders*. No respondents reported an advanced level; this was the only indicator that had a response rate of 0% of Special Education teacher candidates indicating advanced among all groups as well as the aggregated data.

**Table 9**  
*Specific Indicator Relative Areas for Growth for Special Education Teacher Candidates*

Indicator	Beginning	Not Evident	Total
*4.3.2 Partner with other stakeholders	42%	38%	80%
4.4.1 Lead school and district initiatives	21%	50%	71%

Research question three targets the differences in perceptions of preservice teacher leadership knowledge, skills, and competencies according to licensure area. Licensure area groups were created by combining subpopulations; smaller subpopulations were not included in the comparison, such as Early Childhood (n = 3) or licensure area not indicated (n = 4). For the population of Elementary Education, there were 47 participants, including three Elementary Education teacher candidates with a Middle Grades Endorsement. For the population of Middle Grades, Secondary, and PreK-12 licensure areas, there were 30 participants. Special Education and Elementary Education dual teacher candidates were combined into the Special Education category, n = 24. The tables below show the relative significant indicators in each licensure area. Table 10 illustrates indicators of strength, and Table 11 illustrates the areas for growth; an X indicates a significant indicator for that licensure area.

**Table 10**  
*Indicators noted as strengths across licensure areas*

Indicator	Elementary Education n=47	PreK-12, Middle Grades, Secondary n=30	Special Education n=24
Domain 1: Communication and Collaboration			
1.1.1 Develop trusting relationships among adults	X	X	X
1.1.2 Provide and get feedback	X	X	X
1.1.3 Value diverse opinions	X	X	
1.2.1 Express interest in others			X

Indicator	Elementary Education <i>n=47</i>	PreK-12, Middle Grades, Secondary <i>n=30</i>	Special Education <i>n=24</i>
<b>Domain 1: Communication and Collaboration Cont.</b>			
1.2.2 Show sensitivity to others	X		X
1.3.1 Run effective meetings		X	
1.3.2 Use group processes effectively			X
1.4.1 Resolve conflict, between both self and colleague, and mediate between other colleagues			X
1.4.2 Mediate diverse viewpoints		X	
<b>Domain 2: Professional Growth</b>			
2.1.1 Ensure continuous improvement of practice	X	X	X
2.1.2 Proactively participate in staff development	X		
2.2.1 Actively engage in and demonstrate ongoing self-reflection	X	X	X
2.4.2 Facilitate professional learning			X
<b>Domain 3: Instructional Leadership</b>			
3.1.1 Use content knowledge and enact high-quality instruction	X		X
3.1.2 Engage in effective assessment	X	X	X
3.2.1 Improve the practice of other teachers	X		
3.3.1 Create a supportive classroom climate	X	X	
3.3.2 Supporting student social and emotional learning			X
3.3.3 Demonstrate strong classroom organization		X	X
3.4.1 Understand how to use data		X	X
3.4.2 Understand educational research			X
3.5.3 Use data to inform decision making and help others to use data to make decisions			X
3.6.1 Provide constructive and actionable feedback		X	X



Indicator	Elementary Education <i>n=47</i>	PreK-12, Middle Grades, Secondary <i>n=30</i>	Special Education <i>n=24</i>
Domain 4: School Community and Advocacy			
4.1.2 Create a welcoming environment		X	X
4.1.3 Advocate for students			X
4.1.4 Demonstrate respect for diverse cultures			X
4.3.1 Partner with families			X

In Domain 1: Communication and Collaboration, all three licensure areas reported strengths in indicators 1.1.1 *develop trusting relationships among adults* and 1.1.2 *provide and get feedback*. Elementary Education and PreK-12, Middle Grades, and Secondary Education teacher candidates both indicated strengths in 1.1.3 *value diverse opinions*, while Elementary and Special Education teacher candidates indicated strengths in 1.2.2 *show sensitivity to others*. Each of the other indicators were noted as strengths by only one licensure area.

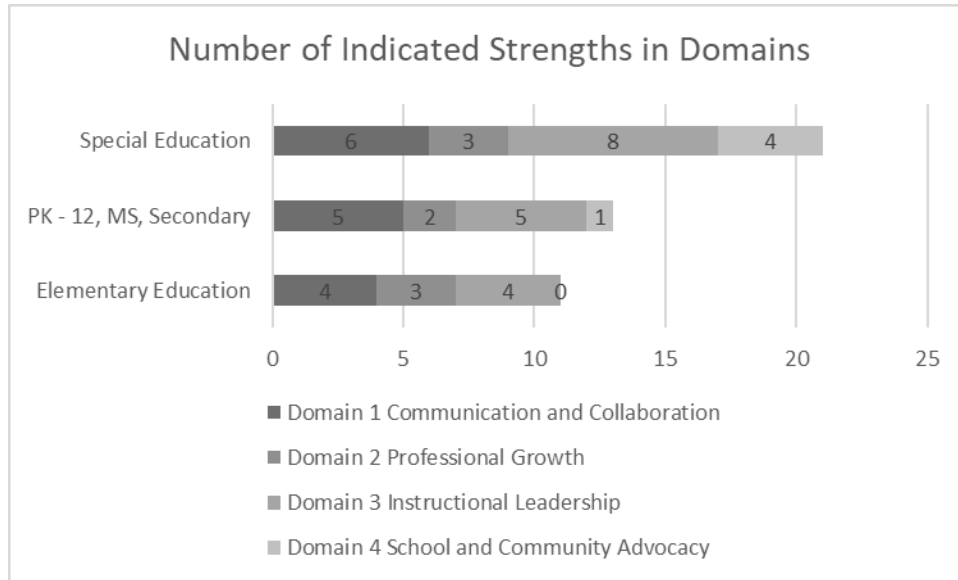
In Domain 2: Professional Development, all three licensure areas reported strengths in indicators 2.1.1 *ensure continuous improvement of practice* and 2.2.1 *actively engage in and demonstrate ongoing self-reflection*. Each of the other indicators was noted as strengths by only one licensure area.

In Domain 3: Instructional Leadership, only one indicator was reported as a strength among all three licensure areas: 3.1.2 *engage in effective assessment*. Elementary and Special Education teacher candidates reported strengths in 3.1.1 *use content knowledge and enact high-quality instruction*. Elementary Education and Prek-12, Middle Grades, and Secondary Education teacher candidates reported strengths in 3.3.1 *create a supportive classroom climate*. Finally, Special Education teacher candidates and PreK-12, Middle Grades, and Secondary Education teacher candidates reported strengths in three indicators: 3.3.3 *demonstrate strong classroom organization*, 3.4.1 *understand how to use data*, and 3.6.1 *provide constructive and actionable feedback*. Each of the other indicators was noted as strengths by only one licensure area.

There were no common indicators of strength among all three licensure areas in Domain 4: School Community and Advocacy. PreK-12, Middle Grades, and Secondary Education teacher candidates and Special Education teacher candidates reported one common strength indicator: 4.1.2 *create a welcoming environment*. Each of the other indicators were noted as strengths by only one licensure area.

**Figure 1**

*Number of Indicated Strengths in Domains By Licensure Area*



In terms of strengths according to licensure areas, Special Education majors reported strengths in 21 indicators across the 4 domains; PreK-12, Middle Grades and Secondary Education teacher candidates reported strengths in 13 indicators; and Elementary Education teacher candidates reported strengths in 11 areas, as shown above in Figure 1.

**Table 11**

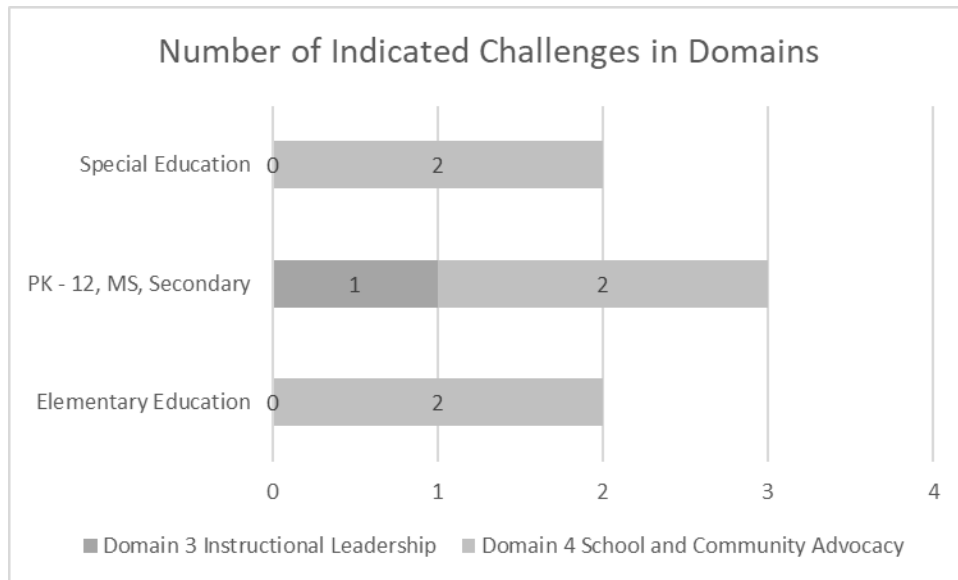
*Specific indicator relative areas for growth across licensure areas*

Indicator	Elementary Education <i>n=47</i>	PreK-12, Middle Grades, Secondary <i>n=30</i>	Special Education <i>n=24</i>
<b>Domain 3: Instructional Leadership</b>			
3.5.2 Engage in a data reflection cycle		X	
<b>Domain 4: School community and Advocacy</b>			
4.3.2 Partner with other stakeholders.			X
4.4.1 Lead school and district initiatives	X	X	X
4.4.2 Lead school improvement initiatives	X	X	

As noted above, one indicator, 4.4.1 *lead school and district initiatives*, was noted as a common area for growth among all licensure areas; Elementary Education and PreK-12, Middle Grades, and Secondary teacher candidates indicated an area for growth in 4.4.2 *lead school improvement initiatives*. Each licensure area indicated at least two indicators of areas of growth in Domain 4: School Community and Advocacy.

**Figure 2**

*Number of Challenges Indicated in Domains By Licensure Area*



In terms of challenges across licensure areas, PreK – 12, Middle Grades, and Secondary teacher candidates indicated 3 challenges across Domains 3 and 4. Special Education and Elementary Education teacher candidates each indicated 2 challenges in Domain 4.

### Discussion and Conclusions

These data reflect the idea that teacher candidates learn and use what they have had the greatest opportunity to engage in during their teacher preparation programs, including general education coursework and other liberal arts requirements. An effective distributed leadership framework depends on teacher leaders. For preservice teachers to be active and effective participants in this model, they must be intentionally exposed to and taught leadership skills during their teacher preparation programs. This exposure allows them to consider the possibility of leadership as a teacher leader and encourages them to develop the knowledge, skills, and competencies necessary to contribute meaningfully to a distributed leadership framework, enabling them to engage in collaborative decision-making and lead instructional practices that impact student learning. Without a focus on cultivating these leadership skills during preparation,

preservice teachers may enter the profession without the capacity or confidence to take on leadership roles.

The teacher preparation programs under which the teacher candidates in this study were prepared were mandated by the state to align their program outcomes, course objectives, instruction, and assessments to the 2013 Illinois Professional Teaching Standards, which include nine standards: (a) Teaching Diverse Students, (b) Content Area and Pedagogical Knowledge, (c), Planning for Differentiated Instruction, (d) Learning Environment, (e) Instructional Delivery, (f) Reading, Writing and Oral Communication (g) Assessment, (h) Collaborative Relationships, and (i) Professionalism, Leadership and Advocacy (Illinois Professional Teaching Standards, 2013). Eight of the nine standards focus on various aspects of instruction. Only one focuses on professionalism and advocacy. In addition to the standards themselves, there are between four to nine “knowledge,” as well as “performance” indicators for each of the nine standards. The knowledge and skills the candidates purport to engage in align with the abundance of instructional professional standards around which the teacher preparation programs build candidate instruction.

In addition, teacher candidates indicated more skills, abilities, and opportunities in Domain 1: Communication and Collaboration and Domain 3: Instructional Leadership. Teacher candidates are developing their own teacher identities and perceived capacities first through communication and collaboration. They are learning how to teach (instructional leadership), before entering into the faculty group (professional development), and ultimately the larger school and education community (school community and advocacy). The opportunity to put theory and pedagogy learned in their teacher preparation coursework into practice happens authentically during a teacher candidates’ field experiences and student teaching. The fact that the teacher candidates indicated a perceived area of strength in Domain 3: Instructional Leadership seems to indicate confidence in the quality of their teacher preparation programs.

It is important to note that this survey was given in a state where passing the Educative Teacher Performance Assessment (edTPA), a nation-wide commercially made performance assessment that focuses on student instruction, was a mandatory requirement for initial teacher licensure. The focus of the edTPA included the following three tasks focused on instruction and the impact of instruction on student learners: (a) Task 1- Planning for Instruction and Assessment, (b) Task-2 Instructing and Engaging Students in Learning, and (c) Task 3- Assessing Student Learning. So, perhaps it is not surprising that the teacher candidates reported using teacher leader knowledge, skills and competencies more often in their practice around Domain 1: Communication and Collaboration and Domain 3: Instructional Leadership. The results for all teacher candidates indicated perceived areas of strength in instructional leadership, including enacting high-quality instruction, engaging in effective assessment, creating a supportive classroom climate, and understanding how to use data, all skills that are measured on the edTPA.

Domain 2: Professional Growth and Domain 4: School Community and Advocacy are areas in teacher preparation that seem to receive less focus. First, they are not areas that are examined on the edTPA or on content area exams that must also be passed for licensure. Second,

both of these areas are covered by only one standard of preparation around which programs plan their course work and clinical experiences for teacher candidates. The focus is far more on the knowledge indicators, as many of the performance indicators are observed only in conjunction with work that cooperating teachers that teacher candidates are shadowing. A good example of this would be Performance Indicator 9L *communicates with families, responds to concerns, and contributes to enhanced family participation in student education* (IPTS, 2013). Teacher candidates would only be able to help their cooperating teacher engage in this area; therefore, what a candidate will or will not do is dependent on what they saw in their field and clinical experiences. This means that the first time a novice teacher has the opportunity to plan and engage in professional growth and community and school advocacy is when they begin teaching. New teachers, having had little to no experience in family and community advocacy work during their time in teacher preparation programs, are more likely to be watching and learning from the peers around them, noting how each peer engages in professional growth and advocacy. In addition, they are more likely to listen to their principals and department chairs about professional growth and family and community advocacy with regard to evaluation and tenure. What becomes important is what is evaluated, and the teacher leadership knowledge, skills, and competencies will only become important under the evaluation systems in which they participate.

### **Limitations**

It should be noted that there are limitations in this study. This survey was collected with teacher candidates from private institutions of higher education in a midwestern area at one point in time. The data set was also gathered shortly after the COVID-19, pandemic and some schools were still using remote learning, so there may have been more limited opportunities for teacher candidates to practice leadership skills. In addition, participants identified a licensure area that was matched to their declared major and program of study, so while there were independent groups, there may have been some overlap in the coursework and experiences of the participants. Overlap could have occurred with general academic subjects and the liberal arts coursework that the participants completed in their undergraduate programs, as well as coursework for licensure that focused on pedagogy and methodology. Another limitation of this study is related to the fact that some of the teacher candidates that participated in this study were from an educator preparation provider that had two undergraduate programs – one for traditional aged students and one for adult and/or licensure only students, and another educator preparation provider that had an initial licensure graduate program. The program format should be considered a confounding variable for two reasons: (a) adult and graduate program students have already earned a bachelor's degree, (b) maturity and life experiences may influence their leadership behaviors, opportunities, and aspirations. Finally, the researchers were aware of the potential biases they brought to this study, and they took steps to ensure that the data collection and analysis processes were as objective as possible. However, it is noted that their views on the importance of teacher leadership may influence the interpretation of the results.

## **Recommendations**

The results from this study can be used as a resource to support teacher leadership preparation at the preservice level. Teacher preparation programs housed within private liberal arts institutions have the opportunity to highlight leadership opportunities and experiences that exist in the curriculum, even outside of their teacher preparation programs, that will better prepare and equip teacher candidates to develop teacher leadership knowledge, skills, and competencies. Clear pathways to leadership opportunities may attract more teacher candidates to the teaching profession and allow teacher candidates to plan their careers, allowing them to have the confidence to take advantage of leadership opportunities upon entering the profession and to appreciate the depth and breadth of a teaching career. It stands to reason that if teacher recruitment and preparation programs identify and promote teacher leadership as an asset, resource, and incentive, teacher leadership roles could attract new talent to the profession by creating a career ladder for teachers and providing an opportunity for experienced teachers to have greater voice and involvement in improving their schools and districts.

Discussions about and support for teacher leadership preparation and development throughout an educator's career must start at the preservice stage. Teacher candidates need to view the teaching profession as a continuum in which teaching and leading can occur optimally and simultaneously. In addition, teacher candidates need to understand that teacher leadership is a separate career trajectory from administration. There are multiple ways for teacher candidates to learn about how to lead change, adult learning, mentoring, coaching, peer observation, professional development design, action research, and other areas that are not part of typical teacher preparation programs while experiencing opportunities for both teaching and leading. One such way is to include and incorporate teacher leadership standards into program and course learning outcomes. The Teacher Leadership Exploratory Consortium (2011) claimed that the Teacher Leader Model Standards not only operate as a guide for helping prepare teachers to assume leadership roles, but that they have the potential to expand teacher leadership opportunities as well (Harrison & Killion, 2007). The Teacher Leader Model Standards consist of the following seven domains: (a) fostering a collaborative culture to support educator development and student learning, (b) accessing and using research to improve practice and student learning, (c) promoting professional learning for continuous improvement, (d) facilitating improvements in instruction and student learning, (e) promoting the use of assessment and data for school and district improvements, (f) improving outreach and collaboration with families and community, and (g) advocating for student learning and the profession. In addition, The Teacher Leadership Exploratory Consortium intended for the standards to guide teacher preparation programs in the preparation of future teacher leaders. "For programs that are advocating for beginning teacher leadership preparation during undergraduate preservice teacher education, these seven domains provide a broad framework" (Ado, 2016, p. 7).

Three specific recommendations based on these data are related to school partnerships, using data analysis skills, and partnering with stakeholders. First, institutions of higher education should work with school partners to involve teacher candidates in school and district initiatives.

For example, as part of a field experience requirement for their teacher preparation program, teacher candidates may need to attend school meetings, such as professional learning committees, IEP conferences, district curriculum committee meetings, and/or school board meetings. School partners can also share school governance information with teacher candidates and explain the value of opportunities that arise for teachers to participate in the decision-making process related to personnel, curriculum and instruction, staff development, and general administration. Different leadership skills are needed for various leadership roles, and schools would benefit from developing those skills in teacher candidates to fill those roles.

Second, a stronger focus should be put on understanding how to use data for Elementary Education teacher candidates, and giving PreK-12, Middle Grades, and Secondary teacher candidates a chance to use their newly found data analysis skills by letting them engage in a data reflection cycle. This could be done in a methods course or seminar class, as well as during student teaching.

Third, an area of concern to be investigated is the Special Education teacher candidates' perception of their abilities to partner with other stakeholders and sphere of influence. These data indicate that Special Education teacher candidates consider their abilities to work with families as a strength, but they indicated an area for growth in their abilities to work with other stakeholders, such as community members and businesses and community leaders. More research needs to be done to identify factors contributing to teacher candidates' proactivity, opportunities, and barriers in this area.

A final recommendation is related to future research in the area of preservice teacher leadership. One recommendation is to see if clear leadership pathways and preservice teacher leadership opportunities attract more teacher candidates into teacher preparation programs and keep them in the teaching profession. Another recommendation is to conduct a study that tracks preservice teachers into their inservice practices. A longitudinal study could better identify the factors that lead to a successful transition between preservice teacher leadership preparation and highlight examples of specific instances where novice teachers realize and act on teacher leadership opportunities. A longitudinal study could also reveal valuable information on teacher retention and job satisfaction upon entering and continuing in the profession. Finally, this study focused on teacher candidates' strengths and areas of growth according to licensure areas. Demographic data could also be analyzed for additional insights into how factors such as gender, race, and age influence preservice teacher leadership development. Doing so could identify trends or disparities that may provide teacher preparation programs a better understanding of the diverse experiences and needs of teacher candidates.

### **Conclusion**

Given the importance of teacher leadership to school effectiveness, this study aimed to explore how preservice teachers view their readiness to assume these leadership roles and what areas require further growth and support. Results indicated that teacher candidates generally feel confident in their abilities in communication, collaboration, and instructional leadership, with

notable strengths in developing trusting relationships, providing feedback, and creating supportive classroom environments. However, candidates identified school community and advocacy as a significant area for growth, particularly in leading school and district initiatives. Differences in perceptions emerged across licensure areas, with Special Education candidates showing distinct strengths in advocacy and data use, while Elementary and Secondary candidates focused more on instructional leadership. The findings underscore the need for teacher preparation programs to better integrate leadership opportunities, ensuring all teacher candidates are equipped to assume leadership roles both inside and outside the classroom once they enter the teaching profession.

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*Dr. Kelly Lenarz is the Dean of Education and Associate Professor of Education at Trinity Christian College. Most of her teaching is focused in the undergraduate teacher preparation program. The focus of Lenarz's research is teacher leadership, in particular, the preparation of preservice teachers towards leadership and leadership differences according to licensure areas. A parallel to this scholarship work is followership and the connections between leadership and followership in Pre-K-12 schools and institutions of higher education.*

*Dr. Catherine Nelson is a Professor in the College of Education at the University of St. Francis, Joliet Illinois. She teaches in the Elementary Education Initial Certification Program, as well as the Graduate Programs. Her research interests are teacher leadership, mathematics education, and assessment.*

*Jan Fitzsimmons, Ph.D., is President and Executive Director of the nonprofit, Center for Success, a partnership of college and university schools of education and PK-12 schools that provides a forum for dialog and collaborative action to recruit, prepare and sustain extraordinary teachers and leaders for all schools, especially those serving marginalized, low-income students. Jan is a published author of two books on teacher leadership, and has been a college administrator and faculty member for both undergraduate and graduate classes, a principal, and a resource and early childhood special education teacher, and founder of two successful organizations.*

## **Constructing Knowledge in Community Spaces: An Early Service-Learning Experience with English Learners**

**Katrina M. Reinhardt  
Kaitlyn Denney  
University of Indianapolis**

### **Abstract**

The purpose of this study was to identify what knowledge base on English learners (ELs) emerges when pre-service teachers participate in an early field experience in a community-based organization that has been embedded in existing teacher preparation coursework. Using the action research cycle of plan, act, observe, and reflect, researchers collected reflections from pre-service teachers during and after participating in the experience. Thematic analysis was used to code the journals for common themes among the participants. Findings show that pre-service teachers were able to gain general knowledge of the teaching profession, including the role of relationship building and awareness of classroom management. Specific to ELs, they were able to recognize the diversity among students and the varied levels of English ability that they may encounter in their future classrooms. The experience allowed them to validate their career choice and explore teaching in a low-stakes environment.

*Keywords:* Teacher Preparation, English Learners, Service-Learning

## **Constructing Knowledge in Community Spaces: An Early Service-Learning Experience with English Learners**

Pre-service teachers tend to receive little preparation on supporting English Learners (ELs) during their teacher preparation programs (Education Commission of the States, 2014; Harklau & Ford, 2022; Leider et al., 2021; Lopez & Santibañez, 2018). However, the population of ELs in the United States is over five million students (National Center for Education Statistics, 2020). While there are various program models to offer ELs support in schools (Wright, 2019), ELs still spend the majority of their class time in mainstream classrooms with general education or content-area teachers. Therefore, pre-service teachers need to develop a basic understanding of this unique population of learners and how to best serve them in their future classrooms. Due to the number of EL students in the K-12 population and the time these students spend in mainstream classrooms, it is critical that all mainstream teachers develop baseline knowledge and skills regarding ELs.

In the current context of university teacher preparation programs, many programs in the United States are dealing with competition from other programs that provide alternative pathways to teaching licenses (Indiana Department of Education [IDOE], n.d.), declining enrollment in higher education (Saul, 2022) and national teacher shortages (Walker, 2022). This context has resulted in rising pressures on university schools of education to offer teacher preparation programs that can be completed cheaper, faster, and in fewer credit hours to stay competitive in the current market and attempt to fill teacher vacancies. This context makes it difficult for current teacher preparation programs to add coursework and/or additional program requirements regarding ELs even though the sociocultural context and growing number of ELs in K-12 schools call for it. Therefore, to train pre-service teachers to support ELs in mainstream classrooms, teacher preparation programs must be creative regarding how they infuse content and experiences working with ELs into their current curriculums.

The purpose of this study is to identify what knowledge base on ELs emerges when pre-service teachers participate in an early field experience in a community-based organization that has been embedded into existing teacher preparation coursework. To do so, the study involved 12 pre-service teachers enrolled in their first teacher preparation course who participated in an afterschool program developed by a non-profit organization located near to their university. During the experience, the pre-service teachers supported refugee students with homework, SAT preparation, and college application assistance and provided written reflections on their experience. The study used an action research approach of plan, act, observe, and reflect, employing thematic analysis to analyze the participant reflections during the observe phase. This article is part of a larger study that investigated how pre-service teachers learn to serve ELs in mainstream classrooms.

## Literature Review

### Knowledge Base

What is the knowledge base that pre-service teachers should have when it comes to supporting ELs in mainstream classrooms? Freeman and Johnson's (1998) framework for language teachers provides context for three areas of pre-service teacher preparation to work with ELs: *teacher-learner*, *social context*, and *pedagogical process*. The area of *teacher-learner* reveals places in which teacher preparation can expand the knowledge and skills of pre-service teachers. This includes English linguistics (Gándara & Santibañez, 2016; Lucas et al., 2008; Okhremtchouk & Sellu, 2019), academic language and content language demands (De Jong & Harper, 2005; Samson & Collins, 2012), second language acquisition (Dixon et al., 2016; Lucas et al., 2008), cultural awareness (De Jong & Harper, 2005; Samson & Collins, 2012), dispositional issues and deficit thinking (Fitts & Gross, 2012; Markos, 2012; Scott & Scott, 2015), bilingualism (Gándara & Santibañez, 2016), understanding native literacy skills (Lopez et al., 2013; Lucas et al., 2008) and creating safe and welcoming classrooms (Lucas et al., 2008). These are specific areas in which pre-service teachers can grow their knowledge base. These skills areas have remained consistent over time, waiting on teacher preparation to evolve and include more instruction on these areas.

The second area of *social context* shows the importance of field experiences where pre-service teachers can learn from ELs in authentic social situations from home visits (Bollin et al., 2007), community engagement experiences (Campano, et al., 2016; Pappamihel, 2007), service-learning experiences (Bollin et al., 2007; Hildenbrand & Schultz, 2015; Tinkler et al., 2019; Lindahl et al., 2022), intensive immersive experiences (Scott & Scott, 2015); field experiences in mainstream and EL school classrooms (Fitts & Gross, 2012; Pu, 2012; Virtue, 2009), and/or virtual communicative interactions with ELs (Baecher et al., 2013; Mahalingappa, et al., 2018; Polat et al., 2019).

The third area of *pedagogical process* shows the importance of pre-service teachers to explore their attitudes and beliefs and create culturally sustaining (Paris & Alim, 2017), and linguistically responsive (Lucas et al., 2008) practices in their future content classrooms. It outlined the importance of micro-level pedagogical practices like reflection (Markos, 2012; Sugimoto et al., 2017) and macro-level practices such as the overall decolonization of teacher preparation (Dominguez, 2017).

While Johnson and Freeman (1998) focus on the three broad areas for their framework for language educators, Lucas et al. (2008) propose six more specific essential understandings for what they coin as linguistically responsive teachers. These six understandings include knowledge that

- 1) Conversational language is different from academic language;
- 2) Second language learners must have access to comprehensible input;
- 3) Social interaction and participation foster language development;
- 4) ELs with strong native literacy skills are more likely to be successful;

- 5) A safe environment is critical to language learning, and
- 6) Explicit attention to linguistic form and function is essential.

The understandings proposed by Lucas et al. (2008) focus on knowledge and skills of educators, providing a framework that is highly specific but not as comprehensive as Freeman and Johnson's framework. Additional approaches to preparing teachers to work with ELs, such as sheltered instruction observation protocol (Echevarría, et al., 2017) or culturally sustaining pedagogies (Paris & Alim, 2017) also did not provide the openness that this study sought. Freeman and Johnson's broad framework allows for the emergence of many sub-areas within each of the three divisions (i.e., linguistics, second language acquisition, cultural awareness under the teacher-learner area); therefore, providing an openness for exploring what sub-areas might emerge through new research such as the project described in this paper.

### **Field Experiences**

Field experiences, specifically ones that allow pre-service teachers to engage with ELs in authentic contexts, are critical to the knowledge base of a future teacher. Therefore, there is a need for teacher preparation to provide EL coursework combined with field experiences working with ELs (Huerta et al., 2022; Lucas et al., 2008; Sugimoto et al., 2017). Pre-service teachers need practical experience working with ELs, and when teacher preparation programs provide instruction on cultural competency purely in a classroom and theoretical setting, it does not suffice (Scott & Scott, 2015). Pre-service teachers' ability to build their knowledge of ELs depends greatly on their ability to interact with the population they are serving in authentic ways and expand upon the theoretical education that they receive in a classroom. Therefore, field experience plays a critical role in the development of the EL knowledge base for pre-service teachers (Huerta et al., 2022; Schultz, 2020; Sugimoto et al., 2017).

Many models of field experiences exist in teacher preparation programs (classroom practicum, residencies, service-learning, etc.), helping pre-service teachers bridge theory and practice in a variety of settings and social contexts. When planning to include field experiences with ELs in the teacher preparation curriculum, it is both important for teacher educators to include early exposure to working with ELs (Huerta et al., 2022) and to have varied types of field experiences (Schultz, 2020). This exposure and variety "not only broadens the TC's [teacher candidates] perspective of ELs, but it also provides greater opportunity for skill development and effective application of appropriate strategies" (Schultz, 2020, p. 84). Service-learning experiences are one approach for allowing pre-service teachers to engage with ELs in authentic learning situations and can be used to supplement traditional field experiences (Tinkler et al., 2019).

Service-learning can help pre-service teachers gain experience working with ELs when traditional classroom experiences might be limited, either in a school's capacity to host pre-service teachers or in the diversity of students present in the school district (Tinkler et al., 2019). Through service-learning experiences, pre-service teachers have opportunities to learn and develop skills they might not otherwise be able to in a traditional classroom setting, such as

collaborating with and developing relationships with EL families (Bollin, 2007; Hildenbrand & Schultz, 2015), understanding the role the community can play in supporting ELs (Tinkler et al., 2019), or increasing their civic awareness (Bollin, 2007; Hildenbrand & Schultz, 2015). Hildenbrand & Schultz (2015) found that pre-service teachers felt service-learning experiences added value to their teacher preparation coursework and enabled them to better explain the content they were learning in their courses. Service-learning also allowed them to address their own biases and negative stereotypes they held regarding ELs (Bollin, 2007).

While the benefits are many, there are also challenges teacher preparation programs must consider when integrating fieldwork with ELs into the curriculum. For example, with service-learning, Hildenbrand & Schultz (2015) noted that some participants had difficulties with scheduling and transportation while others found the educational agencies to be disorganized. Bollin (2007) reported that pre-service teachers expressed concerns about the safety of neighborhoods, feeling uncomfortable with non-English speakers, and nervous about feeling welcomed by parents when beginning their home visits to tutor ELs. Pappamihiel (2007) noted that some pre-service teachers were “relieved to be finished with what can be an emotional or awkward experience” (p. 50). Field experiences can also be designed based on the needs of pre-service teachers first and not necessarily from a critical theory perspective or the needs of the ELs/community (Lindahl et al., 2022).

In Villegas et al.’s (2018) literature review of 21 peer-reviewed articles published from 2000-2016 about preparing mainstream classroom teachers to work with ELs, 17 of the 21 studies reported courses linked with a field experience, highlighting that field experiences are a common approach in preparing pre-service teachers. The field experience is a part of the teacher preparation program that challenges pre-service teachers to consider how the social context they are in (the specific school, classroom, community setting, etc.) shapes not only what they are learning about ELs but also what they are learning about themselves as they develop into teachers.

Despite the challenges (Bollin, 2007; Hildenbrand & Schultz, 2015), fieldwork seems to be both a common (Villegas et al., 2018) and critical (Huerta et al., 2022; Schultz, 2020; Sugimoto et al., 2017) component for preparing content area teachers to work with ELs.

### **Knowledge Gained in the Field**

Participating in field experiences results in pre-service teachers gaining a variety of knowledge and skills regarding working with ELs in mainstream classrooms. First, such participation can build awareness among pre-service teachers of their local EL demographics. For example, Hildenbrand & Schultz (2015) noted in their study one participant said the following after their time in the field:

I was never aware of the amount of English as a Second Language (ESL) there were that were not Hispanic... I never realized how large the immigrant population is in (our community), and how hard it is to immigrate to a new country. (p. 271)

Participation in field experience can also lead to a learning about individual student identity (Tinkler et al., 2019) and culture (Bollin, 2007), building cultural awareness. Bollin (2007) found that after time in the field, pre-service teachers came to better understand the challenges facing the ELs and developed respect for the EL's culture.

There are many studies calling for pre-service teachers to learn more about the language components of working with ELs, like English linguistics (Gándara & Santibañez, 2016; Lucas, et al., 2008; Okhremtchouk & Sellu, 2019) or second language acquisition (Dixon et al., 2016; Lucas et al., 2008), but these topics are not commonly noted in the recent literature on what ELs learn during their field experiences with ELs. Language areas that were noted were academic writing and language demands. Baecher et al. (2013) found that pre-service teachers were able to build awareness of the demands of academic writing on ELs through field experiences and Fitts and Gross (2012) saw knowledge increase in academic language use.

Instead, many of the studies published in the last two decades have focused on how field experiences with ELs shape the pre-service teachers' dispositions, attitudes, and beliefs (Fitts & Gross, 2012; Pappamihel, 2007; Polat et al., 2019; Pu, 2012; Schultz, 2020; Sugimoto et al., 2017; Virtue, 2009). Villegas et al. (2018) conducted a literature review of studies published between 2000 and 2016 on mainstream teacher preparation to work with ELs and found that approximately three of every four studies in this review addressed teacher candidates' beliefs about ELLs. Generally, belief-oriented studies sought two major learning outcomes: helping future mainstream teachers form a vision of teaching that is inclusive of ELLs and promoting broader and more affirming beliefs about those students. (Villegas et al., 2018, p. 142)

Although while most studies reported growing more positive dispositions through field experiences, Sugimoto et al. (2017) reported that:

preservice teachers were often left with conflicting orientations toward ELs for a number of reasons, including: the model provided by the mainstream teacher, observed events involving ELs and teachers, and personal interactions with ELs. Similarly, we found that some preservice teachers were left with lingering feelings of uncertainty about their ability to work with ELs. (p. 185)

General classroom skills were also documented to be learned through field experiences with ELs, such as developing relationships with students (Schultz, 2020), gaining confidence (Bollin, 2007) and self-efficacy (Mahalingappa et al., 2018) in their ability to teach, and growing collaboration skills and abilities to work as a team (Hildenbrand & Schultz, 2015). Pre-service teachers were able to acquire these skills through field experience with ELs, although they pertain to working with all students, not just ELs.

### **Research Questions**

This study occurred as part of an action research project aimed at exploring how pre-service teachers are prepared to teach ELs in mainstream classrooms. The following research questions guided this study:



RQ1) What knowledge base emerges when pre-service teachers work and learn with ELs during service-learning experiences in a community-based organization?

RQ2) How do non-traditional field experiences, such as service-learning in community-based organizations shape pre-service teachers' knowledge of working with ELs?

### **Methodology**

The action research cycle of plan, act, observe, and reflect was used in this study. This approach was selected by the researchers on the project, which consisted of a teacher educator and a university honors student learning to research. The teacher educator identifies as a teacher-researcher who constantly seeks to find combinations of readings, activities, discussion prompts, reflection questions, and hands-on experiences that will result in personal growth among the pre-service teachers with which she works. The approach of action research allowed the teacher preparation courses and experiences to act as a laboratory and using the reflections of the pre-service teachers allowed the researchers to capture the voices and lived experiences of the participants as they learn to work with culturally and linguistically diverse students. To achieve her goals as an educator and researcher, she must also assume the role of learner. She is not simply the assigned instructor who enacts curriculum, but a learner who studies her pre-service teachers as people, as future teachers, and their work. She learns from their ideas, experiences, and conclusions just as she hopes they learn from hers. Therefore, using an action research approach in this study aligned with the researchers' goals and philosophies, allowing her to study her own practice as well as honor the voices of her participants.

The action research cycle includes four phases: plan, act, observe, and reflect. In the first phase, PLAN, researchers used Mills' (2018) criteria for identifying a problem of study in educational research. He suggested action research should 1) involve teaching and learning and focus on your own practice, 2) be within your locus of control, 3) be a topic you feel passionate about, and 4) be something you would like to change or improve (p. 57). Studying teacher preparation to work with ELs met all of the criteria. Additional background research was conducted on teacher preparation to work with ELs, service-learning, and community-based organizations which helped researchers develop a plan of action. This plan involved embedding a service-learning experience in a community-based organization into early teacher preparation coursework for secondary education majors at a small, private, Midwestern university in the United States.

In the second phase of the action research cycle, ACT, researchers embedded the planned service-learning component into existing teacher preparation coursework. During their first education course, pre-service teachers spent 90 minutes per week for nine weeks participating in a service-learning experience with ELs. Pre-service teachers served in an afterschool program that provided homework support, SAT prep, college application assistance, and mentorship to refugee students (most of whom were classified as ELs) who were enrolled in a local school district. All pre-service teachers enrolled in the introductory to secondary education course were eligible to participate ( $n = 21$ ) and 17 consented to participate. Four pre-service teachers

participated at an alternate service site due to scheduling conflicts. Therefore, their reflections were eliminated from this study as the context was different. One pre-service teacher did not submit both the midterm and final reflection, so they were eliminated. The final 12 pre-service teachers all participated in the same service-learning opportunity ( $n = 12$ ). Of the participants, 11 identified as White and one as Black. Nine were female and three were male. Eleven of the participants were traditional college-aged (18-22) students, while one was a non-traditional student returning to school after military service.

In the third phase, OBSERVE, data was collected from the participants during their experience. To answer the research questions, course artifacts were collected from first-year pre-service teachers during this 16-week, 100-level course that included a service-learning component. The course artifacts included two papers (a midpoint and final reflection) from each first-year, pre-service teacher. Each week of the experience, pre-service teachers wrote open-ended journal entries that described what they were experiencing, how they were making meaning from the experience, and how they connected the experience to their future classrooms and selves as teachers. Then, at the midpoint of the experience, the pre-service teachers were asked to review their weekly journals thus far and develop a formal reflection on their learning. Pre-service teachers were asked to choose two or three key takeaways/ideas that stood out to them from the experiences thus far and write a 2–3-page reflection that documented the following: What are the key takeaways? Why did you choose them? Why/how are they meaningful to you? What have you learned about yourself, others, and teaching from this experience? Then, at the end of the experience, pre-service teachers revisited the same questions in a final reflection (see Appendix). Participants submitted these reflections to the learning management system during their enrollment in the course. After the course, the reflections were downloaded and de-identified in preparation for data coding and analysis.

For this study, Braun and Clarke's (2006) protocol for conducting thematic analysis was used to identify key themes from the two data sources, the participants' midterm and final reflections on their service-learning experience with ELs. Researchers used the steps outlined by Braun and Clarke (2006), including 1) Familiarizing yourself with your data, 2) Generating initial codes, 3) Searching for themes, 4) Reviewing themes, 5) Defining and naming themes, and 6) Producing the report (p. 87).

To familiarize themselves with the data, both researchers read the complete data sets and created an initial research memo of general ideas they were seeing in the data. Then in step two, each researcher coded the entire data set independently, generating their own lists of initial codes using an open coding process of highlighting key text in the data and assigning a summary code. Next, the researchers met to review the data sets line by line, comparing what text excerpt each researcher selected to code and what code name they assigned. Through this process, researchers discussed and debated each selection and code name until they reached agreement and finalized the codes. Once all codes were finalized, researchers organized the text selections and codes into similar groups to see what themes were emerging. For example, researcher 1 selected the text “Over our past visits, we had created a bond with the students. They now came to us with

questions” and assigned it the summary code of *bonding*. During the review, it was noted that researcher 2 also selected the same text and coded it as *relationships*. Through discussion, the researchers agreed to use the final code of *relationships* during the coding process and after several cycles, the final theme of *relationship building* emerged. Through several cycles of review, the researchers refined and named the themes. (See the results and discussion section of this paper.)

Using thematic analysis on both data sets allowed researchers to look across the data to identify answers to the research questions. It allowed them to see what knowledge base emerged among pre-service teachers from their course artifacts and how this knowledge base was unique to working in a non-traditional field experience setting (a community-based organization versus the traditional K-12 practicum experience).

Finally, in the last stage, REFLECT, researchers reflected on the findings from the data analysis in order to answer the research questions and propose the next steps for the research.

### **Results & Discussion**

The results and discussion are organized around the two research questions:

RQ1) What knowledge base emerges when pre-service teachers work and learn with ELs during service-learning experiences in a community-based organization?

RQ2) How do non-traditional field experiences, such as service-learning in community-based organizations shape pre-service teachers’ knowledge of working with ELs?

#### **Knowledge Base**

In this study, the service-learning experience in a community-based organization occurred as part of an introductory course aimed at introducing pre-service teachers to the profession. Due to where this experience occurred in the pre-service teachers’ curriculum, the knowledge base that emerged from the experience focused more on general teaching knowledge than specific knowledge on working with ELs (see Table 1). Pre-service teachers expressed a better understanding of the critical role in building relationships and respect for all learners and highlighted general classroom skills they will need in their future careers. Related specifically to ELs, pre-service teachers did not develop a specific knowledge base (such as English linguistics or theories of second language acquisition) but instead were able to build awareness of student and EL diversity and begin to identify the strengths and challenges of this group of learners. They grew in the areas of dispositions more than discrete skill building to work with ELs.

#### **Relationship Building**

When it comes to supporting ELs, Schultz (2020) studied how field experiences impact the dispositions of pre-service teachers. He found that building relationships was a key component for pre-service teachers in terms of their perceptions of ELs and their pedagogical decisions. Similarly, pre-service teachers in this study were aware of how their field experience allowed them to build relationships with students and to identify the value in being able to do so within their field experience. Their midterm and final reflections included statements such as

“establishing a good relationship with students can really help ensure success in the classroom. I want my students to feel comfortable because the more comfortable they are around me, the more receptive they will be towards me” and “the relationship you cultivate with the student allows that student to open up on what they are struggling to understand.” While the statements did not specifically address ELs or build knowledge of ELs, the experience with ELs at the community organization helped pre-service teachers see the importance of building relationships with students and allowed them to practice building this skill.

Getting to know students in this context also led the pre-service teachers to consider the individuality and humanity of the students when building relationships and designing lessons, supports, and programming for students. The students were in an afterschool program, and pre-service teachers noted how the students’ attitudes and energies impacted their participation in the program. Then, they were able to transfer this knowledge into how they structured their service-learning projects and make connections to how recognizing the humanity of their students would impact their future classrooms. For example, one pre-service teacher said:

Throughout the whole semester, it was very noticeable that a lot of, if not all, the students had been worn out from the school day and were just about ready to go home by the time we would arrive for [our service].

Then the pre-service teacher described how he designed his service-learning project to allow students to have a brain break and develop techniques to de-stress after school before starting homework. Later he added, “That feeling of the students wanting to just go home by the time we arrived was gone on the days we did our projects, and with that, it allowed us to become closer with the students.” By knowing the students, he and his peers were able to create experiences for the students that met them where they were (tired after a day of school) and to demonstrate that the pre-service teachers cared for their students and recognized their needs.

Other pre-service teachers also recognized the need to build relationships and treat their students in a humane and just way. Their reflections included phrases such as “They are normal human beings, not robots, and we should treat them as such,” and “My last take-away has been that your students are still humans. Don’t dehumanize them.” The pre-service teachers pushed back against the idea that all students are the same and began to develop a baseline understanding that instruction should be differentiated to meet their individual students’ needs.

### ***Classroom Skills***

Pre-service teachers grew in their knowledge of general classroom skills during this experience. Even though they weren’t placed in a traditional K-12 classroom setting, the after-school program in a community-based organization allowed them to build awareness about communication in the classroom. They also learned basic classroom management strategies. For example, one pre-service teacher expressed the importance of being able to communicate and interact with students. Through the experience, she gained a better understanding of teaching as a career and the skills she would need to develop to be successful. She said:

I came to this conclusion: teaching is not a spectator sport-type career. The job requires you to be all in, elbows deep and knee deep. That is because in the job field, interaction is key! Communication is key! And interpersonal skills are a must have.

Another pre-service teacher described her biggest takeaway from the experience:

Always make sure that someone understands what you explained to them before you walk away and help someone else. That might seem odd but that has happened at least twice in my volunteering with the students. I feel, as a teacher, this is an important thing as well because you want your students to be able to understand the lesson being taught but sometimes, they won't speak up for themselves and tell you they are confused.

From the experience, the pre-service teacher-built awareness about communicating with students and conducting comprehension checks with them before moving on to another student, activity, or lesson.

Other pre-service teachers focused on how they learned classroom management basics without being in an actual classroom. From observing how the program was set up and how students were managed, pre-service teachers were able to see the importance of classroom management and draw conclusions about how they wanted to set up and manage their future classrooms. One pre-service teacher noted the importance of interaction in classroom management. She said:

I learned the ways the students interacted in the classroom. Everyone was spread out and comfortable. This is meaningful to me because I got to see how the classroom actually is, the ways teachers set them up, and the ways they can approach the classrooms while teaching.

Another pre-service teacher focused on expectations, saying "Classroom expectations are essential in order to become a great teacher. The classroom expectations set the culture of the class and how the class will operate during the semester." Control emerged as another idea under classroom management, in phrases such as "Good teachers are also the teachers who can quickly regain control of their classrooms, as well as maintain classroom order."

Pre-service teachers also mentioned the importance of creating learning spaces where students can focus on work and not be distracted by others. This was clear in comments such as "Something our group has wanted to work on is to isolate those students and to give them an activity to work on, that way they aren't distracting themselves and each other" and

Focus is very important in an education situation. Students need to be in an environment in which they can concentrate on their studies and learn good study habits to help them in the future to attain whatever life holds for them. Having focus is a big part of attaining that.

Overall, the participant reflections show that pre-service teachers gain general classroom skills through field experiences (Bollin, 2007; Mahalingappa et al., 2018; Schultz, 2020). These skills are not limited to only field experiences in K-12 classrooms but can also be learned working in community-based organizations.

### *EL Diversity & Ability*

Scott & Scott (2015) highlighted the role that field experiences play in building cultural competence and understanding of diversity. The field experience in this study also cultivated an understanding of diversity among the pre-service teachers. By supporting refugee students in the after-school program, pre-service teachers had an opportunity to engage with diverse students and become aware of the varied levels of English language ability among the students. In the thematic analysis of their reflections, this was the only theme specifically connected to ELs. They expressed general information about the experience working with ELs; for example how the experience afforded them the opportunity to engage with diverse students. They included phrases in their reflections such as they were able to meet “People of a different country of origin and potential English Learners,” that they’ve “Never really had an opportunity to be around people who are of a different nationality,” and how the experience gave them “A chance to interact with ELs and understand what people learning English are struggling with.”

Tinkler et al. (2019) found that field experiences helped participants to build an understanding of the identities of the students with which they worked. Here, providing homework and tutoring support allowed pre-service teachers to work one-on-one with individual students, and gain knowledge of the English ability and see how it varied among individual learners. Reflections included comments such as “English is not their first language which creates a language gap between the mentor and the student,” and “There was a struggle though with her understanding of verb and subject agreement.”

These insights into learner diversity and ability at the beginning level of their teacher preparation curriculum hopefully will set the stage for future coursework in their preparation that focuses more deeply on multicultural education and approaching teaching and learning with an asset-oriented mindset.

**Table 1**  
*Knowledge Base - Sample Quotes Per Theme*

Theme	Code	Sample Quote
Relationship building	Relationships	Establishing a good relationship with students can really help ensure success in the classroom. I want my students to feel comfortable because the more comfortable they are around me, the more receptive they will be towards me
	Relationships	The relationship you cultivate with the student allows that student to open up on what they are struggling to understand
	Relationships	The experience has taught me that I value connections with others. As a teacher, I really want to have good relationships with all my students.

Theme	Code	Sample Quote
Relationship building Cont.	Relationships	Throughout the whole semester, it was very noticeable that a lot of, if not all, the students had been worn out from the school day and were just about ready to go home by the time we would arrive for [our service] ... That feeling of the students wanting to just go home by the time we arrived was gone on the days we did our projects, and with that, it allowed us to become closer with the students
	Human beings	They are normal human beings, not robots, and we should treat them as such
	Human beings	My last take-away has been that your students are still humans. Don't dehumanize them.
Classroom Skills	Interaction	I came to this conclusion: teaching is not a spectator sport-type career. The job requires you to be all in, elbows deep and knee deep. That is because in the job field, interaction is key! Communication is key! And interpersonal skills are a must have.
	Interaction	Always make sure that someone understands what you explained to them before you walk away and help someone else. That might seem odd but that has happened at least twice in my volunteering with the students. I feel, as a teacher, this is an important thing as well because you want your students to be able to understand the lesson being taught but sometimes, they won't speak up for themselves and tell you they are confused.
	Classroom management	I learned the ways the students interacted in the classroom. Everyone was spread out and comfortable. This is meaningful to me because I got to see how the classroom actually is, the ways teachers set them up, and the ways they can approach the classrooms while teaching.
	Classroom management	Classroom expectations are essential in order to become a great teacher. The classroom expectations set the culture of the class and how the class will operate during the semester."
	Focus	Something our group has wanted to work on is to isolate those students and to give them an activity to work on, that way they aren't distracting themselves and each other.
	Focus	Focus is very important in an education situation. Students need to be in an environment in which they can concentrate on their studies and learn good study habits to help them in the future to attain whatever life holds for them. Having focus is a big part of attaining that.

Theme	Code	Sample Quote
EL Diversity & Ability	Diversity	people of a different country of origin and potential English Learners
	Diversity	never really had an opportunity to be around people who are of a different nationality
	Diversity	a chance to interact with ELs and understand what people learning English are struggling with
	Learning challenges	English is not their first language which creates a language gap between the mentor and the student
	Learning challenges	There was a struggle though with her understanding of verb and subject agreement

These findings fit into Freeman and Johnson’s (1998) framework, which focuses not just on what was learned, but also on how the social context shapes the learning. While the knowledge base that emerged was more focused on general teaching knowledge than specific knowledge on working with ELs, the social context of learning through an early field experience in a community-based organization did provide the pre-service teachers with initial opportunities to learn about relationship building, communication and classroom management, and student diversity. All of these areas provide an initial exposure/foundation to ideas that will be further developed as they progress through their teacher education program.

### **Non-Traditional Field Experiences**

Field experiences are critical to how pre-service teachers learn to teach (Darling-Hammond, 2006), and traditional field experiences in teacher preparation programs often place pre-service teachers into K-12 classrooms to try out different pedagogical strategies. In these placements, pre-service teachers typically receive support from a K-12 host teacher as well as a university supervisor. Non-traditional field experiences, such as service-learning, may have different set-ups and levels of support.

In this study, pre-service teachers were not able to develop specific skills or strategies for supporting ELs, such as using language development test scores to modify classroom activities for various language levels or using sheltered protocols to create lesson plans for ELs; however, they were able to develop general teaching skills and awareness of the profession (see Table 2). As one pre-service teacher illustrated: “I am learning some aspects of teaching in a less traditional setting, instead of being thrown to the wolves.” Being in an early field experience in a non-traditional setting allowed students to build an understanding of the profession while taking risks in a lower-stakes setting. It also helped them validate their career choices earlier in their university studies and commit to the teacher education major.



### ***Understanding the Profession***

While many studies have found that participating in field experiences with ELs had a positive effect on pre-service teacher beliefs and attitudes towards ELs (Pappamihel, 2007; Polat et al., 2019; Pu 2012), in this study findings showed pre-service teachers focused more on their beliefs and understandings of what it means to be a teacher. They were more focused on themselves as teachers and less on the identity of students as ELs. Being in a non-traditional, community-based field experience provided the pre-service teachers time to learn about ELs, but also to explore the profession and qualities of a teacher. They expressed that being at the service site “Taught me more about teaching than I thought it would.” They mentioned that they got a feeling for the education profession, gained some actual experience, and had an opportunity to learn and grow. They shared key understandings of being an educator, including having an open mind:

I've learned from teaching that it isn't always going to be right, not all students are going to understand or behave, but from my experiences, I have learned that having an open mind and building a relationship with the students can have a useful impact on them as well as myself.

Additional understandings included that teaching is an interpersonal job “I also learned that teaching is a really interpersonal job. You have to make an effort to get to know your students, not just spout knowledge,” and shifting from a student’s perspective to a teacher’s perspective: “I have a better understanding now of a teacher’s point of view of wanting the best for their students than I did before the school year started and I’m thankful for that.” They were able to grow in their understanding of the profession because the field experience provided a safe space for them to begin their teacher preparation journey learning about and working with students.

### ***Taking Risks***

Through their weekly tutoring sessions in the afterschool program, pre-service teachers often had to approach students and ask if they needed help with their homework. Many students would answer that they did not have homework or did not need help. This caused a lot of frustration among the pre-service teachers, who wanted to feel like they were being helpful and that the service experience was not a waste of their time. They wrote comments in their reflections, such as “Whenever I walk around the room, I always offer my help and ask if they need any help ... but they just smile and shake their head no,” and “Kids rarely came up to me for help. Instead, they choose to either continue to struggle with their homework or simply ask their best friends for help.”

As they began to build relationships with the students, they began to step out of their comfort zones and learn to take the initiative in helping reluctant students. Later, their journals reflected this growth, with them writing statements such as:

Stepping up and helping people even when they try to say that they do not need help is what is important. Some people could be afraid to ask like I was in school, so I learned that I should initiate the talk and make sure they are fine.

Another statement illustrating this is “It is important to put myself out there as a resource for my students. I want them to know that it is okay and encourage them to ask questions.” The pre-service teachers also made connections between taking an initiative and their future classrooms, saying “I need to make the effort to take more initiative, especially if I expect to lead an effective classroom,” and “Taking more initiative at [the service site] could have definitely helped me prepare more for when I’m in an actual classroom.”

Mahalingappa et al., (2018) found that field experiences helped to build self-efficacy in the profession. Similarly, in this setting, pre-service teachers were able to push themselves to interact with students and try different strategies and approaches in a low-stress environment, ultimately allowing pre-service teachers to build more comfortability, confidence, and self-efficacy in their practice. The after-school program’s design permitted them to go slow, try strategies when they were comfortable, and grow their experiences interacting with students without having to worry about covering all the class material for the lesson, meeting the lesson’s objectives for the day, or assessing student learning. They were able to ease into the role of being a mentor in the classroom without the pressure that might come with a traditional classroom placement.

### *Validating Career Choices*

Having a field experience in a non-traditional setting also helped pre-service teachers decide if teaching was the career for them. For many, the experience reinforced the choice or clarified their choice. Multiple pre-service teachers addressed these feelings in their reflections, including writing statements such as:

It has reinforced that I really want to be a teacher, and I chose the correct career path. I never doubted my love of English but being at [the service site] has shown me that I really do want to be a teacher and help students every day.

And, “It has allowed me to see that working with students can be very rewarding, and I know that teaching is the career for me.”

Additionally, some pre-service teachers were able to see that teaching was not necessarily the right path for them at the time. In their final reflections, some pre-service teachers wrote “Although I love education, it’s not the right fit for me, not yet at least,” and “However, through my experiences, I’ve found that teaching isn’t for me.” Working with high school students on a weekly basis throughout the semester helped them decide to pursue a different major at the university after their first education course, giving them ample time to choose a new major without falling behind in their new required coursework and having to take an extra semester or fifth year to finish their undergraduate studies. Overall, pre-service teachers were able to solidify their confidence (or not) in their career choice early in their university experience.

**Table 2***Non-Traditional Field - Sample Quotes Per Theme*

Theme	Code	Sample Quote
Understanding the Profession	Open Mind	I've learned from teaching that it isn't always going to be right, not all students are going to understand or behave, but from my experiences, I have learned that having an open mind and building a relationship with the students can have a useful impact on them as well as myself
	Teacher perspective	I also learned that teaching is a really interpersonal job. You have to make an effort to get to know your students, not just spout knowledge
	Teacher perspective	I have a better understanding now of a teacher's point of view of wanting the best for their students than I did before the school year started and I'm thankful for that
Taking Risks	Help	Whenever I walk around the room, I always offer my help and ask if they need any help ... but they just smile and shake their head no
	Help	Kids rarely came up to me for help. Instead, they choose to either continue to struggle with their homework or simply ask their best friends for help
Taking Risks Cont.	Help	Stepping up and helping people even when they try to say that they do not need help is what is important. Some people could be afraid to ask like I was in school, so I learned that I should initiate the talk and make sure they are fine
	Taking initiative	It is important to put myself out there as a resource for my students. I want them to know that it is okay and encourage them to ask questions."
	Taking initiative	I need to make the effort to take more initiative, especially if I expect to lead an effective classroom
	Taking initiative	Taking more initiative at [the service site] could have definitely helped me prepare more for when I'm in an actual classroom.

Theme	Code	Sample Quote
Validating Career Choices	Career validation	It has reinforced that I really want to be a teacher, and I chose the correct career path. I never doubted my love of English but being at [the service site] has shown me that I really do want to be a teacher and help students every day
	Career validation	It has allowed me to see that working with students can be very rewarding, and I know that teaching is the career for me.
	Major change	Although I love education, it's not the right fit for me, not yet at least
	Major change	However, through my experiences, I've found that teaching isn't for me.

Again, we see here how the findings for question two fit into Freeman and Johnson's (1998) framework, specifically how the social context (learning in a non-traditional field placement) influenced what knowledge base emerged.

Ultimately, taking an action research approach to studying the preparation of pre-service teachers to work with ELs allowed the researchers to explore, analyze and come to understand what pre-service teachers were actually learning. And while the experience did not foster a robust knowledge base on working with ELs in particular, being in an early field experience in a non-traditional setting provided an opportunity for pre-service teachers to build foundational knowledge of the teacher profession and its required skills and dispositions in a lower-stakes setting.

Schultz (2020) advocated for pre-service teachers to have varied types of field experiences when working with ELs, and Huerta et al. (2022) noted the importance for teacher educators to include early exposure to working with ELs. Having an early field experience in a community-based setting met both these criteria for the pre-service teachers in this study. Although the knowledge base that emerged from the early service-learning experience with ELs in a community-based setting focused more on learning about the teaching profession in general instead of EL-specific knowledge like linguistics or specific classroom strategies, the experience did lead to growth for the pre-service teachers. Pre-service teachers were able to gain general knowledge of the teaching profession, including the critical role of relationship building and awareness of classroom management. Specific to ELs, they were able to recognize the diversity among students and the varied levels of English ability that they may encounter in their future classrooms. More so, it allowed them to validate their career choice and explore teaching in a low-stakes environment.

The last stage of the action research cycle is to reflect on the findings and consider paths forward. With this study, there are multiple paths one could pursue in the next action research

cycle on how teacher preparation programs infuse content and experiences working with ELs into the current curriculums. One option is to increase course content on ELs in the introductory course and adjust the course assignments, like journal prompts or reflection assignments, to focus specifically on supporting ELs. In this study, the reflections were purposefully left open-ended. Focusing more on ELs in the coursework and assignments may lead to a more specific knowledge base on ELs being developed through the service-learning experience. However, being the first course in the teacher preparation sequence, this might not be the best place to increase EL content for beginning pre-service teachers.

Another possible trajectory would be to create a course specific to supporting ELs for the teacher preparation curriculum. In 2017, the Indiana Teaching English to Speakers of Other Languages (INTESOL) chapter produced a paper titled *English Language Learner (ELL) Preparation for Indiana School Educators: A White Paper* in which they proposed that all pre-service teachers complete a basic research-based ESL methods class as a K-12 licensing requirement in Indiana (INTESOL, 2017, p. 4). While this is not a current licensing requirement in Indiana, an added course would allow for pre-service teachers to learn a specific curriculum focused on developing their knowledge base of ELs which could also involve a service-learning experience with ELs in a community-based setting. If a specific EL course is not possible in the teacher preparation curriculum, knowledge and skills on working with ELs could be embedded into an upper-level course, such as a course focused on literacy or teaching methods and could involve a service-learning experience with ELs in a community-based setting as part of this coursework. All potential paths would call for additional research to evaluate the outcomes of pre-service teachers.

### **Limitations**

As with all research, there are several limitations of the study. First, using action research with a focus on qualitative methods yields findings that are not generalizable or repeatable. Instead, the method provides insights for teacher preparation programs looking to expand their training on ELs. Next, the design of the study focuses on examining what can be embedded in existing coursework to better prepare content area pre-service teachers to work with ELs. Due to traditional coursework spanning one semester (16 weeks), data collection and analysis by the researcher will thus be limited to one semester. Future research designs could include additional time/semesters for the participants to spend in the field, to generate data, to analyze data, and to collaborate with each other, thus yielding additional findings as well as a more robust look at the phenomena from multiple perspectives. Limiting the design to one semester limits the findings of the pre-service teachers' perspectives to a specific moment in time.

### **Conclusion**

There are many future paths to explore in pre-service teacher training to support ELs in mainstream classrooms. Integrating a non-traditional field into a community-based setting is just one way in which pre-service teachers can begin to learn about the profession of teaching and the

diversity of students they will encounter in their future classrooms. While the experience may not yield extensive growth of their knowledge base on working with ELs, it can provide a foundation and allow them to see whether or not they have the disposition of a future educator.

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*Katrina Reinhardt is an Assistant Professor of Practice in the School of Education at the University of Indianapolis where she teaches introductory, literacy, and EL courses, arranges fieldwork, mentors pre-service teachers, and researches how teachers learn to support culturally and linguistically diverse learners.*

*Kaitlyn Denney is a junior undergraduate studying Operations and Supply Chain Management at the University of Indianapolis. Additionally, Kaitlyn is studying for her MBA with a concentration in Data Analytics. At her university, Kaitlyn is involved with the Honors College, Research Fellowship, and multiple business clubs.*

## Appendix

### Reflection Questions

#### MIDTERM & FINAL REFLECTION

At the midpoint (midterm reflection) and again at the end (final reflection) of your service experiences, you will review your free write journal entries from class and develop a formal reflection on your learning.

Instructions:

- 1) Review your journals/experiences
- 2) Choose 2-3 key takeaways or ideas that stood out to you from the experience so far
- 3) Write a 2+ -page reflection that documents the following:
  - What are the key takeaways?
  - Why did you choose them, why/how are they meaningful to you?
  - What have you learned about yourself, others, and what connections can you make to your future profession?

Requirements

- 12 pt. font, Times New Roman, 1-inch margins, double spaced, headed
- Submit your midterm reflection as a Word Doc, PDF, or Google Doc link (with permission for instructor to view/ comment).
- Submit a link to your journals at this time each time as well

# **Strengths And Challenges of Elementary Student Teaching as the Teacher Of Record**

**Jennie M. Carr  
Tracy Hough  
Bridgewater College**

## **Abstract**

Due to the teacher shortage, school divisions and educator preparation programs are working collaboratively to provide alternative routes for student teaching to meet licensure requirements (Donitsa-Schmidt & Zuzovsky, 2014; Flynt & Morton, 2009; National Research Council, 2010). This qualitative case study explored the strengths and challenges of alternative elementary student teaching as the teacher of record. A purposive sampling of elementary student teachers of record ( $n = 9$ ) was selected for this case study at a small, private, liberal arts college. Data were collected through semi-structured interviews and analyzed to find, refine, and confirm codes and the four themes: mentoring, school climate, structure, and autonomy as supports and challenges. Student teachers of record encountered many challenges such as delayed feedback, weak classroom management, low confidence, unclear expectations or the lack of modeling, and unsupportive faculty and administration. Educator preparation programs must design pathways and partnerships for student teachers that will prepare them for their future careers.

*Keywords:* Student teaching, mentorship, alternative student teaching

## **Strengths And Challenges of Elementary Student Teaching as the Teacher Of Record**

The capstone experience required of all licensure-track educator preparation programs is a student teaching or internship experience. Traditionally, student teachers are intentionally matched with a qualified cooperating teacher in the cooperating teacher's classroom. Throughout the traditional student teaching experience, student teachers observe their cooperating teacher modeling best practices. As the experience progresses, the student teacher begins slowly transitioning into the primary teacher role, accepting full classroom responsibilities, such as, but not limited to, planning for instruction, instructional delivery, classroom, and organizational management.

For decades, employees of school divisions and educator preparation programs have worked collaboratively to provide alternative routes for teacher candidates to meet the requirements for their teaching license, such as student teaching as the teacher of record (Donitsa-Schmidt & Zuzovsky, 2014; Flynt & Morton, 2009; National Research Council, 2010). Due to the national teacher shortage, low teacher wages, low job satisfaction, and poor working conditions in the field, many educator preparation programs have observed increased alternative pathway options (Granger et al., 2022; Ryu & Jinnai, 2021). In the alternative pathway, student teachers are intentionally matched with a qualified cooperating teacher in a different classroom or team of teachers in the school building. Student teachers accept the role as the teacher of record with full classroom responsibilities, including but not limited to, planning for instruction, instructional delivery, and classroom and organizational management. Student teachers, as the teacher of record, are not provided with modeling of best practices or offered a transitional period.

As educator preparation programs nationwide are being asked to support school districts, the field needs to explore the impact of alternative student teaching pathways on student teachers. Educator preparation programs must carefully design partnerships and processes that focus on the effective preparation of teacher candidates entering the classroom. While alternative pathways toward teaching have been well researched (Cochran-Smith & Lyle, 2001; Darling-Hammond et al., 2005; Hamel, 2022; Matsko et al., 2021; Whitford et al., 2018), it is important to identify the specific strengths and challenges of serving as an elementary school student teacher of record. The purpose of this study is to identify the supports and challenges of elementary student teaching as the teacher of record and to provide recommendations for how educator preparation programs and school administrators can support teacher candidates who select this alternative route.

### **Literature Review**

#### **School Climate, Self-efficacy and Belonging**

Student teaching provides preservice teachers time to develop their identity as a teacher, their pedagogical skills, and their ability to navigate the complex social networks within the school community (Hamel, 2022; Sanders-Smith et al., 2023). For some teacher candidates,

student teaching is seen as a daunting and stressful experience due to the complex nature of navigating the school community and developing the necessary knowledge and skills to become an effective teacher (Evelein et al., 2008; Oliver, 2024). Key to combating the negative experiences associated with student teaching is helping student teachers develop a sense of belonging and self-efficacy. The ability of the student teacher to adjust to the school structure, rules, values, and community dynamics contributes to their sense of self-efficacy and belonging (Caires et al., 2012; Kraft & Papay, 2014; Oliver, 2024). Schools with warm, supportive, and positive school climates help student teachers effectively integrate into the school community (Krečič & Grmek, 2008). Schools with strong leadership, administrators, and colleagues who encourage and value the ideas and opinions suggested by the student teacher encourage autonomy and risk-taking. Strong school administrators can contribute positively to teacher growth by providing meaningful feedback, time and opportunities for peer collaboration, and creating an overall professional community (Caires et al., 2012; Evelein et al., 2008). The positive relationships among school administrators, cooperating teachers, and student teachers help reduce the stress and anxiety student teachers experience during student teaching and lead to a more positive attitude toward teaching (Caires, et al., 2012; Kini & Podolsky, 2016; Oliver, 2024). A warm and collegial school environment is conducive to developing student teachers' positive attitudes about becoming a teacher and their ability to grow in the profession, all of which contribute to a desire to remain in the teaching profession (Krečič & Grmek, 2008; Hamel, 2022).

### **Mentoring**

A key difference between a traditional student teaching experience and student teaching as the teacher of record is the degree to which a teacher candidate receives support from all stakeholders involved in the student teaching experience. At each level of support, from the college to the school to the classroom, the success of the student teacher is dependent on the degree and the effectiveness of the support. At the heart of any student teaching experience is the belief that novice teachers can make great strides in their ability to navigate the complexities of teaching through carefully tailored mentoring programs that provide the right kind of support at the right time. Student teachers who work with trained mentors exhibit better classroom organization, more effective planning and instruction, greater self-confidence, and a more positive attitude toward teaching (Goldhaber et al., 2020; Ingersoll & Strong, 2011; Matsko et al., 2023; Stokking et al., 2003).

Teaching is a complex process requiring the orchestration of many routines and practices. According to Darling-Hammond & Bransford (2005), teachers must possess knowledge of subject matter and curriculum goals, knowledge of teaching and learning, and knowledge of learners and their development within a social context. Specifically, effective teachers recognize the importance of planning, implementing, and facilitating learning experiences, and managing the learning environment, all while keeping in mind the unique needs of each child (Darling-Hammond, et al., 2005). Within the mentoring process, the student teacher receives

daily support from a veteran teacher who acts as a guide to help the student teacher navigate the complexities within the classroom and in all aspects of the teaching and learning process (Cochran-Smith & Lytle, 2001; Darling-Hammond, et al., 2005).

Effective mentoring programs provide support in all aspects of the teaching process. Key elements of effective mentoring include support with school-level procedures, norms, and expectations and help with classroom management, curriculum design, and delivery (Goldhaber et al., 2020; Stokking et al., 2003). According to Grossman (1992), mentoring supports novice teachers as they navigate the ethical and moral issues of teaching and learning and find their own identity as a teacher. Successful mentoring relationships help the mentee feel welcome and accepted in the school environment and provide emotional and psychological support (Hobson et al., 2009). Mentors have time to mentor their mentees, time that affords opportunities to observe, coach, and co-plan with each other. The mentor promotes success by varying the degree of support to ensure the mentee experiences sufficient challenges without feeling overwhelmed by the teaching and learning process. A good mentor encourages the mentee to self-reflect and develops the mentee's confidence (Fresko & Nasser-Abu Alhija, 2009; Goldhaber et al., 2020; Hudson & Nguyen, 2008). Through a strong mentoring relationship, the mentee develops confidence and a willingness to make instructional decisions, qualities that develop a greater sense of autonomy and empowerment (Hobson et al., 2009; Goldhaber et al., 2020).

### **Developing a Sense of Autonomy**

Becoming a teacher involves finding an identity as a professional. A teacher's identity is defined as constructing one's ideas about how to be and act as a teacher (Gee, 2000). As student teachers engage in the teaching process, they begin to exert control over their work by making instructional decisions, determining how best to engage learners with the content, and developing their teaching style and sense of classroom management. A sense of control provides student teachers with a sense of autonomy and agency and helps them move from being a student teacher to becoming a teacher (Benson, 2011; Hobson et al., 2009; Izadinia, 2013; Mbhiza et al., 2024; Sanders-Smith et al., 2023). Pittard (2003) examined the traditional student teaching experiences that developed the teacher candidates' identity, power, and voice. Factors that impacted the development of a student teacher's autonomy and identity included opportunities to exert authority over a learning environment, a school climate, and a community of teachers who value their ideas and contributions to the learning community.

When opportunities to make instructional decisions are stifled or inhibited, there is a negative impact on the student teacher's ability to develop their identity and sense of self-efficacy in all aspects of teaching and learning. Danielewicz (2001) argues there is more to becoming a teacher than learning pedagogical skills. Instead, becoming a teacher means truly taking on the identity of a teacher. Therefore, education preparation programs must intentionally create spaces within the programs to nurture autonomy and voice to ensure that student teachers develop their identity as teachers (Sanders-Smith et al., 2023). Educator preparation programs that implement alternative student teaching experiences need to explore ways to design

opportunities for teacher candidates to engage in teaching over time that will help them to gain a sense of autonomy, agency, voice, as well as contribute to their self-efficacy, sense of value, and identity as a teacher.

### **Structures to Support Student Teachers**

Educator preparation programs and school divisions contribute to the positive experience of the student teacher by creating working partnerships that focus on developing structures across all levels of the clinical experience to ensure mutually beneficial outcomes for all stakeholders (AACTE, 2018; Darling-Hammond, 2014). Within a quality clinical partnership, educator preparation programs and school districts establish open communication and cooperation; develop clear roles and responsibilities among mentors, college supervisors, school administrators; delineate the expectations of how the teacher candidate will navigate the workload within the educator preparation program and the school district; and provide time among all stakeholders to evaluate and adjust the expectations throughout the experience to meet the needs of the teacher candidate (Buchanan, 2020; Darling-Hammond, 2014; Matsko et al., 2023). Teacher development is dynamic and requires varying degrees and intensity of support from all stakeholders within the partnership. Expectations must be specified, and agreements reached concerning the availability, qualifications, role of the mentor, degree, intensity of support, and access to resources within the school to meet the needs of the student teacher (Stokking et al., 2003).

Time is a key factor in supporting the growth and acquisition of the student teachers' pedagogical knowledge, skills, and social and emotional needs (Brown et al., 2015; Simsar & Jones, 2021). When the student teacher of record pathway is utilized, the student teaching experience is compressed. There is little time available for the teacher candidate to navigate the classroom-level demands of observing and assessing student learning; planning, teaching, reflecting and differentiating instruction; developing classroom management skills; and adjusting and fitting into the broader school culture (Brown et al., 2015; Hamel, 2022).

If teacher candidates are required to take on too much responsibility too soon for the organization and decision-making process in the classroom learning environment, they can become overwhelmed and stressed, leading to practice shock (Caires et al., 2012; Grossman, 1992; Stokking et al., 2003). According to Grossman (1992), practice shock is the shock it takes to complete all the tasks within teaching. Stokking et al. (2003) found practice shock negatively impacted a student teacher's sense of efficacy and willingness to stay in the teaching profession. For teacher candidates, tension exists between their desire to quickly assume full responsibility for all teaching and learning and the need to gradually assuming all teaching responsibilities, which allows for adequate time to process and acquire the necessary skills for planning and reflection (Brown et al., 2015; Caires et al., 2012; Sorensen et al., 2018). Grossman (1992) concluded that practice shock depends on the structures teacher educators and school districts put in place to help student teachers transition into full teaching responsibilities: classroom management, content, student learning, and specific supports to develop teacher identity.

## **Theoretical Framework**

To better understand the factors influencing student teaching as the teacher of record, the ecological systems perspective was adopted (Bronfenbrenner, 1979). An ecological systems approach was developed by Urie Brofenbrenner (1979) to explain how individuals are shaped by factors that operate at multiple levels within a given environment. The five levels within the ecological system are the micro-level (interactions between the student teacher of record, the cooperating teacher/mentor, and college supervisors), the meso-level (educator preparation program and schools), the exo-level (the university/college, PreKindergarten-12 district), the macro level (national and state policies), and the chrono-level (the environments an individual encounters over the duration of their lifetime). The chrono-level and macro-level were not used within the research framework for this study. An ecological framework allowed the researchers to analyze the problem of practice through the multiple levels and to identify the specific supports and challenges each level exerted on the student teacher of record.

## **Methodology**

### **Participants**

Purposive sampling was used to recruit participants from a population of student teachers over five semesters from 2017 to 2022, who engaged in elementary student teaching as the teacher-of-record experience through an educator preparation program at a private, liberal arts college in the Mid-Atlantic region of the United States. During this time, the educator preparation program had 14 elementary teacher candidates who completed an alternative pathway for student teaching as the teacher of record. In the alternative pathway, student teachers are intentionally matched with a qualified cooperating teacher in a different classroom or a team of teachers in the school building. Student teachers accept the role as the teacher of record with full classroom responsibilities including, but not limited to, planning for instruction, instructional delivery, and classroom and organizational management. Participation in this research study was optional. All 14 participants (100%) were asked to complete a Google Form participation and consent survey through email. Of those 14 teacher candidates, nine (64%) completed the survey and consented to participate, leaving 36% of teacher candidates not represented. Participant demographics are included in Table 1.



**Table 1**  
*Demographic characteristics of student participants*

Demographic Categories	<i>n</i> = 9
<b>Race</b>	
White	9
<b>Gender</b>	
Female	9
<b>Classification</b>	
Senior	9

### **Data Collection and Analysis**

This study employed a qualitative method design; the primary data were collected from individual interviews of participating teacher candidates who completed an alternative pathway as elementary student teachers of record. The case study research design was selected to gather in-depth insight and to better understand and identify the strengths and challenges of elementary student teachers of record (Creswell et al., 2007).

Teacher candidates were invited to participate through a Google Form consent survey. Those who consented to participate were contacted through email to participate in a 20- to 30-minute individual interview. The interviews were designed to elicit information about student teachers' experiences, perspectives, and opinions on student teaching as the teacher of record. The 15 open-ended interview questions for the student teacher were developed by the researchers (see Appendix).

Researchers evenly divided the participants to interview. Interviews were held and recorded via Zoom. Interviews were transcribed by Zoom. There were two instances in the interviews where Zoom did not record, and the researcher individually transcribed the interview.

Interview responses were analyzed as the primary data sources to address the study's research questions. Transcripts were analyzed by the researchers using a thematic approach to identify potential themes as emergent ideas and concepts received by participants, using content analysis (Patton, 2002). The content analysis process required researchers to read open-ended interview question responses and note themes within Bronfenbrenner's ecological framework (Bronfenbrenner, 1979; Miles & Huberman, 1984). The researchers discussed the themes, redundancies, and inconsistencies to formulate a finalized list of four themes under support and four themes under challenges. Upon completion, the researchers reviewed the codes and discussed any responses that did not align until a consensus could be reached. Data gathered from the interview responses were used to answer the research questions. Internal and external validity is a significant limitation of the study's methodology.

## Results

This qualitative study seeks to explore the essential components of student teaching as the teacher of record as well as identify the different supports and challenges of student teachers. The researchers coded all open-ended interviews (n = 9). From the student teachers of record responses, eight themes were identified, which helped develop a clearer understanding of the strengths and challenges experienced by elementary student teachers in their own classrooms (Donitsa-Schmidt & Zuzovsky, 2014; Flynt & Morton, 2009; National Research Council, 2010). Emergent themes related to identified supports from student teacher participants are included in Table 2.

**Table 2**

*Emergent Themes for the Research Question, “What are the Identified Supports of Student Teaching in one’s own Classroom?”*

Themes	Framework Level	Attribute	Aligned Participant Interview Responses
Mentoring	Micro Level: Cooperating Teacher & College Supervisor	Lesson Planning & Resources	“...I was able to grab things from her [Google] drive....That was very helpful. She would help me [with my] lesson plan.”  “...she came down [to my classroom] and she helped me prep a lot of materials and extensions for students that were exceeding expectations.”
		Availability & Regular Meetings	“...we would meet on Tuesdays and Wednesdays to go over my lesson plans, it might change, depending on the week, but we would meet once a week to go over everything.”
		Psychological Support	“...there was a lot of emotional support throughout the year... and that was really helpful because I was going through some experiences I'd never been through beforehand.”
		Feedback	“...She was incredibly detailed. I really liked that about her because I always knew where I stood.”

Themes	Framework Level	Attribute	Aligned Participant Interview Responses
School Climate	Meso Level: EPP & Elementary School	Collegial Team Members & School	"...The entire school was just very welcoming... There's not someone there who's going to ever be mean. So, everybody just kind of welcomed me with open arms into the school, and they all knew my situation,
		Administration	"... I had a lot of support from the principals, they would come down and just check on me to make sure I was okay."
		Reflective Seminar Course	"...It was really helpful having to go back to the class we have in the evenings and just kind of like reflect with everyone"
Structural	Meso Level: EPP & Elementary School	Program Recommendation	"...I knew ...I had back up from the college so they wouldn't put me in a position that they didn't think I could handle. That made me feel better."
	Exo Level: School District & University	Curricular Trainings	"...I got to collaborate with other pre-K teachers around the county. So, that was really cool. I've never done that before."
Autonomy	Meso & Individual Level: EPP, Elementary School	Confidence	"...I felt free to experiment and try out things on my own."  "...You just have to almost trust your gut a little more, which is kind of the silver lining because you need to be confident in yourself."

These response patterns indicate elementary student teachers of record felt positive about their alternative student teaching experience. During interviews, student teachers of record shared that their mentor teacher and colleagues were the strongest allies related to lesson planning, resources, feedback, and psychological support. It is noteworthy to report 89% of participants mentioned they needed psychological support from their cooperating teacher mostly due to the high level of stress. These results would seem to indicate the high value of the

cooperating teacher as a mentor during one’s student teaching experience. It was not only the support of the cooperating teacher as the mentor but the entire grade level team, other faculty members, administrators, college supervisor, and colleagues who regularly supported and collaborated with the student teacher of record throughout the placement either at the school or through the reflective seminar. Other significant themes identified included the student teachers valued the autonomy and additional professional training they received because of their role as the teacher of record. Emergent themes related to identified challenges from student teacher participants are included in Table 3.

**Table 3**

*Emergent Themes for the Research Question, “What are the Identified Challenges of Student Teaching in one’s own Classroom?”*

Themes	Framework Level	Attribute	Aligned Participant Interview Responses
Mentoring	Micro Level: Cooperating Teacher & College Supervisor	Delayed Feedback	<p>“...There isn't always time to react because they're not in a room. Feedback was never immediate because she had to watch the video and then give me feedback. So, I think that was a struggle and made it harder for me to be able to switch things immediately....As a [traditional] student teacher, you could pull me aside and talk to me right there, whereas when I was the teacher [of record] that wasn't possible.”</p> <p>“...It was trial and error getting feedback because I was alone in the classroom without someone to observe me. It didn't provide the best feedback...”</p>
		Classroom Management	<p>“...I think it kind of felt like I was going into the fire.”</p> <p>“...My initial classroom management strategy was working with some kids but not all of them. Some of them were still really struggling”</p> <p>“... It was tough [communicating with parents and working through classroom behaviors] not having had any prior experience dealing with that before.”</p>

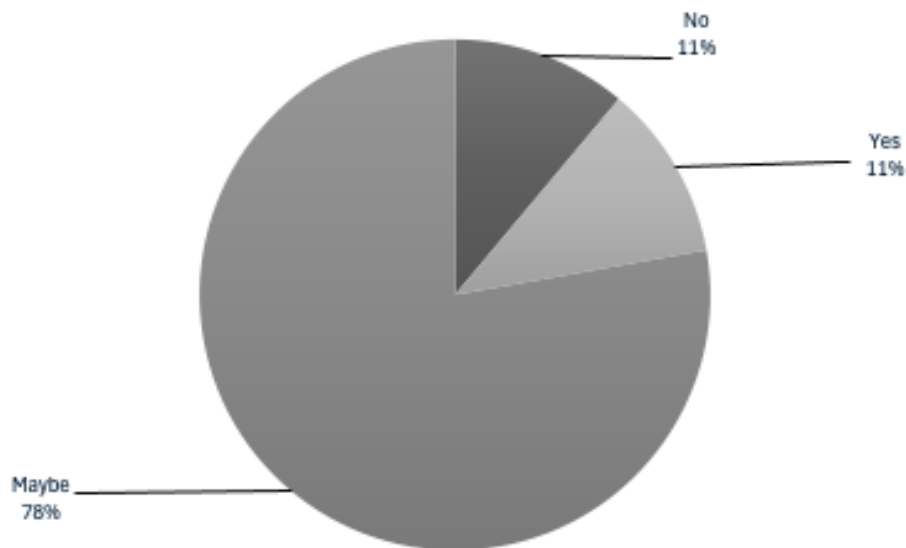
Themes	Framework Level	Attribute	Aligned Participant Interview Responses
Mentoring Cont.	Micro Level: Cooperating Teacher & College Supervisor Cont.	Unclear Expectations	"... It just it takes a lot out of you. It makes you question whether you want to teach or not. It makes you question your abilities. Ultimately like I said, I didn't feel quality. It took the joy out of my experience."
School Climate	Meso Level: EPP & Elementary School	Collegial Team Members & School Administration	"... They never really viewed me as a teacher, I was just a substitute [teacher] that was there." "... She never came into the classroom. She never checked in on me after school."
Structural	Meso Level: EPP & Elementary School	Lack of Time for Observations	"...we were very short on substitute teachers, so my cooperating teacher was never actually able to come into my room while I was teaching."
		Unclear Expectations	"... I had lots of guidance, but at the end of the day, I was still the one responsible for taking the brunt of the consequences for any decision that I made." "I had different expectations from the principal and different expectations from [my cooperating teacher]. So, I didn't feel like we were on the same page."
		Lack of Cooperating Teacher as Model	"...It's hard and not having the student teaching experience. It leaves you lacking somewhat in the preparation [for the future]." "... I had no idea how much extra there was other than just the teaching and behaviors and getting to know families and communication. There are so many pieces to the teaching puzzle that I just didn't realize how many pieces there were all at once."
	Exo Level: School District & University	College Coursework	"I was having deadlines for college and deadlines for actually teaching. So, it was hard to keep up with all that."

Themes	Framework Level	Attribute	Aligned Participant Interview Responses
Structural Cont.	Exo Level: School District & University Cont.	Curricular Expectations	"... [it was] really tough, because I had never heard of the specific testing and guided reading assessments or benchmarks. I had never done them before."  "... [my district uses] a specific reading program and I was not trained until like December, so I was at a loss of what to do."
Autonomy	Meso & Individual Level: EPP, Elementary School	Confidence	"You don't need to be crushed to figure out how to teach.... [In the traditional student teaching experience] you would have gotten a good dose in a much safer and controlled environment."  "[I was] always doubting myself wondering if I was doing it right."

The student teachers of record encountered many challenges when they were student teaching in their own classroom such as delayed feedback, weak classroom management, low confidence, unclear expectations or the lack of modeling, and unsupportive faculty and administration. In the study, 89% of student teachers of record interviewed felt they needed modeling from a mentor teacher during their experience. Presumably, student teachers of record participants did not realize all the responsibilities of being an elementary school teacher. Mentor teachers were assigned to their own normal classroom teaching responsibilities; therefore, many student teachers of record also reported challenges with delayed feedback (67%) due to a lack of time for observations (55%). Student teachers of record reported unclear expectations as a challenge. It is possible unclear expectations were connected to responses related to delayed feedback from observations and lack of modeling.

**Figure 1**

*Percentage of Student Teachers Who Recommend Student Teaching in Their Own Classroom*



To determine whether students felt their student teaching experience was successful, each participant was asked directly, “Do you recommend student teaching in your own classroom?” Results are provided in Figure 1. Only one student-teacher participant (11%) firmly responded “Yes,” indicating they felt the experience should be recommended and available to future student teachers. Seven responded “Maybe” (78%), most indicating they felt some individuals could be successful in the alternative pathway, but others should not be recommended for this type of student teaching experience. One participant responded “No” (11%) as their experience was negative overall.

### **Discussion**

The focus of the research was to examine the alternative student teaching experience and to identify the supports and challenges influencing the development of the student teachers of record. Bronfenbrenner’s ecological framework (1979) was used to analyze how the college, school, and classroom levels contributed to the overall success and development of the teacher candidates’ self-efficacy, autonomy, and professional identity. Understanding how specific challenges and supports impact the student teachers-of-record development is important for improving their experience and designing alternative programs that address the current teacher shortage while maintaining quality educator preparation programs.

Data confirmed important essential components of the elementary student teachers-of-record experience related to warm and welcoming school climates, varying degrees of support from mentors and school administrators that fostered a sense of belonging, and time for mentors to model, observe lessons, provide support for planning and access to materials, and

give ongoing timely feedback, factors which contributed to the teacher candidate's self-efficacy and teacher identity (Caires et al., 2012; Goldhaber et al., 2020; Kraft & Papay, 2014; Krečič & Grmek, 2008; Sanders-Smith et al., 2023). Student teachers of record failed to thrive in settings where school divisions and colleges had different expectations for the outcomes of the experiences and when support systems limited their opportunities to exercise control of the learning environment and develop their identity as teachers (Benson, 2011; Buchanan, 2020; Izadinia, 2013; Mbhiza et al., 2024). Data supported Stokking et al. (2003) findings that the key to combating these barriers is to create clear expectations between all stakeholders concerning the structure of the mentoring process. The expectations must be identified, and a system and structure created delineating availability, qualifications, and role of the mentor and the needs of the student teacher relating to the degree and intensity of support and access to available teaching resources.

One of the greatest barriers to the student teachers-of-records' self-efficacy was underestimating the complexities of teaching and the difficulties and stress associated with assuming full responsibility for all lesson planning, teaching, and classroom management on day one of their placement (Hamel, 2022; Oliver, 2024; Sorenson, 2018). Data aligned with the research finding from Hamel (2022) concluding that by allowing teacher candidates to become the teacher of record and immediately assume all classroom responsibilities, educator preparation programs and school divisions underestimate the true complexity of the student teaching experience. One participant explained, "It was stressful to the point where I felt I could cry... three times I wanted to quit. I thought to myself I don't know if I can do this."

At the beginning of the placement, teacher candidates felt they were "being thrown to the wolves" because the mentors had insufficient time to model, observe, provide specific and ongoing feedback, or support a gradual transition into full teaching responsibilities. One participant initially felt prepared for the challenges of assuming full responsibilities only to realize that the work was much harder than expected, stating, "I kind of went into it feeling like I thought I knew everything, but I was truly blindsided." By the end of the first four weeks, participants felt more competent and able to effectively plan, teach, reflect on the teaching process, and integrate into the school climate. A participant explained, "... after the first like four to six weeks I found my groove." Sentiments like this led researchers to believe participants felt practice shock and felt overwhelmed and unprepared during the early stages of their student teaching experience (Grossman, 1992; Matsko et al., 2023; Sorensen et al., 2018).

Researchers like Sorensen et al. (2018) and Hamel (2022) would argue that the lack of a clear structure of how support is given over time causes practice shock and lack of self-efficacy. Providing a more realistic transitional period at the beginning of the experience, including greater support, helps alleviate practice shock. The data from our study supports the need to consider the degree and intensity of support over time. It was concluded that with time and support from mentors and other members of the school community, student teachers of record begin to feel capable, confident, and able to meet the challenges of the classroom environment, contributing to their self-efficacy and identity as future teachers (Sanders-Smith et al., 2023).



The study confirmed the importance of a mentoring relationship that invited the student teachers of record into the decision-making process, where mentors perceived the participants as equal partners in the mentoring/mentee relationship. For one participant, the ability to share knowledge and expertise about a new district curriculum created a positive relationship with her mentor and supported her sense of belonging and professional identity. The participant commented, “We were kind of learning everything together. . . . I was able to help her with [a few things], and she was able to help me with everything else.” This sense of being a valued and respected member of the learning community contributed to the participant’s sense of belonging and professional identity (Caires, et al., 2012; Matsko et al., 2023; Kini & Podolsky, 2016; Sanders-Smith et al., 2023).

Mentoring relationships that allowed the student teachers of record to take risks and make instructional decisions supported the participant's sense of empowerment and efficacy (Goldhaber et al., 2020). One participant recognized the importance of feeling trusted in the development of their teacher identity.

I knew she [the principal] trusted what I was doing. She would come in and just check every now and then. . . . I felt like she trusted me and made me more comfortable to be myself. She knew I wasn't going to be perfect, but I knew that if I messed up it wasn't going to be the end of the world.

It is not surprising the student teachers of record appreciated the autonomy in their classrooms as they felt free to experiment and explore instructional and behavioral methods without fear of judgment from a cooperating teacher. While most cooperating teachers do not intend to judge their student teachers, this perception of freedom without judgment is interesting to note. Teacher autonomy significantly impacts a teacher's perception of their professional status and job satisfaction (Humaera et al., 2023; Oynbek et al., 2021).

The lack of trust and ability to control the learning environment hindered the participants’ sense of autonomy and self-efficacy (Benson, 2011; Izadinia, 2013; Mbhiza et al., 2024). One participant felt frustrated and limited in her ability to try out her ideas in planning, teaching, and adjusting the curriculum to meet the unique needs of her learners because of the lack of trust from her grade-level team. With these limitations, the participant felt defeated in the alternative placement as the student teacher of record. In this situation, miscommunication and unclear roles and responsibilities between the college and school divisions caused the lack of autonomy and control for the student teacher of record. The participant commented:

. . . there was a lot of resistance. I don't know if that's because she didn't really know the expectations [of my position] or she never really saw me in that role, to begin with.

Which I also thought was strange because the principal said I was in that position as a teacher, but then later, the principal would tell me that I was just the long-term sub.

This example highlights the importance of establishing clear roles and expectations within the clinical partnership, especially for a student teacher of record. Darling-Hammond (2014) confirms that fundamental to any clinical partnership are clear roles and responsibilities, which are critical elements of an effective educational preparation program. The failure to state the role

and responsibilities caused significant confusion amongst stakeholders, especially at the beginning of the experience, which created roadblocks for the participant. This ambiguity negatively impacted the participant's ability to develop her professional identity, self-efficacy, and value (AACTE, 2018; Buchanan, 2020; Darling-Hammond, 2014; Sanders-Smith et al., 2023).

Data confirmed the importance of clear school structures with a warm and welcoming school climate from school administrators and colleagues offering regular check-ins, advice, and affirmation that significantly contributed to the participants' sense of belonging, self-efficacy, and willingness to take risks (Caires et al., 2012; Evelein et al., 2008). Participants noted how important daily check-ins from the school administrators and cooperating teachers were to their overall well-being and ability to address issues in the classroom. Time became an important factor that affected the degree and intensity of support the participants received from college supervisors, school administrators, and mentors. Feedback and guidance from the mentor contribute to the growth of the mentee in acquiring the knowledge and skills of teaching and navigating the school culture, values, and norms (Goldhaber et al., 2020; Matsko et al., 2023).

In schools where the school administrators or the cooperating teacher failed to offer enough social, emotional, and teaching support, participants doubted their knowledge and skills, and therefore, struggled to develop their identity as a teacher (Stokking et al., 2003). One participant acknowledged the desire for more mentoring and co-teaching opportunities with her mentor.

I think the hardest part about [being the student teacher of record] was not always having someone watching what I was doing, which sounds like a dream. That's what every teacher wants; however, I'm someone who is still learning. So, that was really challenging.

Though the idea of being free from judgment and the watchful eye of a mentor seemed appealing, in reality, the lack of ongoing support affected the participants' self-efficacy. One participant expressed self-doubt and fear as a result of not receiving enough feedback. She concluded:

Not having my CT in the classroom with me and observing me made it more difficult. Student teaching is a lot of trial and error. Being alone in the classroom, I wasn't able to get that feedback. I frequently doubted myself.

Despite all the potential challenges and uncertainty associated with alternative student teaching placements, many participants choose to student teach as the teacher of record. Some participants indicated they selected the alternative placement because they wanted to be paid and needed the financial support. Other participants' decisions related to a feeling of accomplishment and desire to take on the challenge.

As part of the selection process, the educator preparation program recommended participants for elementary student teacher of record. By recommending the teacher participants for the alternative pathway, we gave the participants confidence in their ability to take on the

challenge. One participant stated, “ I knew that I had backup from the college or they wouldn't put me in a position that they didn't think I could handle. So that made me feel better.”

Throughout the placement as student teachers-of-record, even when the work seemed overwhelming, the participants wanted to prove they were capable and up to the challenge. Interestingly, many participants appreciated the time to grapple with problems on their own. By working through the instructional needs of their learners, figuring out the solutions, and making instructional decisions, the student teachers of record discovered their voices and identities as teachers. A participant reflected:

I think I had to realize I'm my own person. I'm a teacher and I'm going to have to try and figure out what works best for me.... There were times when I wouldn't see my cooperating teacher for a few hours, so I had to figure it out.

However, for one participant, the student teacher of record experience took an immeasurable toll, leaving the participant defeated. She stated, “You don't need to be crushed to figure out you can do something.”

### Recommendations

This research study encourages educator preparation programs and school division leaders to consider the supports and challenges of structure, mentorship, school climate, and autonomy when developing clinical experience structural policies and procedures (Goldhaber et al., 2020; Matsko et al., 2023). The data provided by this research study leads to several practical recommendations to assist educator preparation programs and school division leaders such as necessary supports and challenges in mentoring, school climate, structure, and autonomy. Table 5 identifies clear and actionable steps educator preparation programs can implement to support teacher candidates in their program who choose to student teach as the teacher of record.

**Table 5**

*Recommendations for Educator Preparation Programs According to Emergent Themes and Framework Level.*

Themes	Framework Level	Attribute	Recommendations
Mentoring	Micro Level: Cooperating Teacher & College Supervisor	Delayed Feedback	The EPP should meet with teacher candidates to ensure they understand their feedback will be delayed.  Teacher candidate and cooperating teacher should set up a calendar with observations and meeting times to discuss and review.

Themes	Framework Level	Attribute	Recommendations
Mentoring Cont.	Micro Level: Cooperating Teacher & College Supervisor Cont.	Classroom Management	Cooperating teacher should meet with teacher candidate before experience to discuss current and/or new classroom management strategies that will be implemented.  Cooperating teacher should discuss with teacher candidate ways to effectively communicate with families and review school and district policies.
		Unclear Expectations	The EPP should create a list of roles and responsibilities for all stakeholders, including, but not limited to, the teacher candidate, cooperating teacher, school administrators, and college supervisors.
School Climate	Meso Level: EPP & Elementary School	Collegial Team Members & School	The EPP should discuss school context, student needs, and school and grade level expectations, and shares these transparently with the teacher candidate.
		Administration	The school administrators should schedule weekly in-person check-in with the teacher candidate.
Structural	Meso Level: EPP & Elementary School	Lack of time for observations	Teacher candidate and cooperating teacher should set up a calendar with observations and meeting times to discuss and review.  The school administrator should hire a substitute for a cooperating teacher to observe in person teacher candidate.  The school administrator should request other school leaders to complete teacher candidate observation.

Themes	Framework Level	Attribute	Recommendations
Structural Cont.	Meso Level: EPP & Elementary School Cont.	Unclear expectations	The EPP should create a list of roles and responsibilities for all stakeholders including but not limited to the teacher candidate, cooperating teacher, school administrators, and college supervisors.
		Lack of cooperating teacher as model	<p>The EPP should create a list of roles and responsibilities for all stakeholders, including, but not limited to, the teacher candidate, cooperating teacher, school administrators, and college supervisors.</p> <p>The school administrator should hire a substitute for a cooperating teacher to observe in-person teacher candidate.</p> <p>The cooperating teacher, building administrator, and college supervisor should provide high-level support to the student teacher during the first four weeks of the semester.</p>
	Exo Level: School District & University	College Coursework	The EPP should offer extensions for collegiate assignments.
		Curricular Expectations	Before the placement, the educator preparation program should identify curricular expectations with school administrators and request training support for teacher candidates. Candidates should be prepared to engage and participate in all required curricular trainings.

Themes	Framework Level	Attribute	Recommendations
Autonomy	Meso & Individual Level: EPP, Elementary School	Confidence	Throughout the placement, all stakeholders, including the school administrators and EPP, should meet regularly to adjust the expectations of the placement to ensure the student teacher has adequate support, opportunities to exert control over the planning and teaching of the content, and develop pedagogical skills, and an understanding of the norms and policies at the school level and grade level expectations.

It is valuable to co-construct mutually beneficial clinical experiences with all stakeholders to ensure teacher candidates have strong clinical experiences, like student teaching that effectively prepares them for initial employment in the elementary classroom. From the study, a range of possible recommendations surfaced which can guide the construction of alternative pathways and are supported by research. A genuine commitment to ongoing communication across the experience should be designed to evaluate the supports, school structures, and needs of the teacher candidate as not only the teacher of record but also as a student teacher, while recognizing these conditions are not static and should change in terms of intensity and duration over time (Buchanan, 2020; Caires et al., 2012; Darling-Hammond, 2014; Evelein et al., 2008). To identify and provide time for mentoring, an adequate structure needs to be created by the school administrator that gives mentors time for modeling all aspects of teaching, learning, and classroom management before full teaching duties begin and time for varying degrees of support and feedback over the whole experience (Brown et al., 2015; Hobson et al., 2009). Finally, to invite all stakeholders to intentionally develop the professional identity of the teacher candidates by actively inviting them to be a valued member of the school through respecting their ideas and acknowledging their knowledge and skills (Caires, et al., 2012; Kini & Podolsky, 2016).

Perhaps the easiest solution to addressing the barriers of the elementary student teacher of record is to adjust the structure of the experience to reduce practice shock and to provide effective forms of mentoring. Sorensen et al. (2018) confirms student teachers' perceptions of social and emotional stress at the beginning of the traditional student teaching experience and found that the early phase of student teaching seemed chaotic and unstable for candidates. Teacher candidates struggled with their identity as a teacher and felt inadequate to meet the challenges of the classroom setting. It is recommended that in the early phases of the student teaching experience, student teachers are given more time to observe and receive feedback from

mentor teachers. The slower transition allowed candidates to feel better prepared and sure of their own teaching skills before they assumed full responsibility for planning, teaching, and managing the classroom learning environment. In designing the alternative student teaching experiences, a simple solution is to provide intense support at the beginning of the experience and gradually transition the candidate into the role of the teacher of record over an extended period of time.

### **Limitations**

A number of limitations may have affected the overall findings of the study. First, the participant sample size was small. Internal and external validity is a significant limitation of the study's methodology. The researchers had professional relationships with the participating student teachers throughout educator preparation program coursework. Using neutral interviewers may have reduced participants' bias related to pleasing or satisfying the researchers' requests. Finally, the research design could have included pre-interviews and midterm interviews which could have provided more authentic qualitative data throughout the student teachers' experience.

### **Future Research Recommendations**

There are many opportunities for future research to further examine the different and varying aspects of the elementary student teacher of record. Recommendations for a larger participant number and longer study duration, including following the teacher into their first, third, and fifth year of teaching, may provide additional information regarding preparation and retention. Paying careful attention to the context and setting of the placement might determine if these factors play a role in success. Identifying the personal goals and perceptions of the teacher candidates prior to the student teaching semester could offer insight into the rationale for choosing this experience. This study focused only on elementary candidates, yet the experiences may be different for other disciplines and licensure areas.

### **Conclusions**

To help reduce the teacher shortage, school districts are looking for innovative, collaborative options, such as student teaching as the teacher of record. Exploring the essential components of these alternative student teaching pathways provides a valuable contribution to educator preparation programmatic and policy decisions as well as partnerships with local schools. Educator preparation programs must take into consideration the multifaceted nature of becoming a teacher. It is important for student teachers to find their own identity as a teacher, learn to prepare and teach lessons designed to meet the needs of all learners, reflect on the teaching and learning process and adjust accordingly, and navigate the complex social and cultural expectations within the school setting (Darling-Hammond, 2014; Hamel, 2022). As educator preparation programs thoroughly explore all pathways to meet the teacher shortage and address the needs of our PreKindergarten-12 partners, it is important to ensure that innovations like student teaching as teacher of record are in the best interests of the candidates and mutually

beneficial to all stakeholders (Darling-Hammond, 2014; Hamel, 2022; Sorensen et al., 2018). As teacher educators, it is our responsibility to protect our teacher candidates and demand that all alternative pathways respect the real goal of the final capstone experience, which is to give our candidates the best possible introduction to the teaching field.

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*Dr. Jennie M. Carr is an Associate Professor of Education, the Elementary Education Program Coordinator, and Clinical Partnership Coordinator at Bridgewater College. Carr's research interests include instructional technology, STEM pedagogy, and classroom climate.*

*Dr. Tracy Hough is an assistant professor in the Bridgewater College Teacher Education Program. Her research interests focus on global literacy and supporting teachers in Kenya to improve literacy instruction.*

## Appendix

### Interview Questions

Interview Questions Student Teachers:

1. What grade level did you complete your student teaching?
2. How many years have you been teaching?
3. How would you describe your student teaching experience in your own classroom?
4. What supports enabled you to be successful?
5. What support from your Cooperating Teacher enabled you to be successful?
6. What support from your College Supervisor enabled you to be successful?
7. What were the challenges and obstacles within your placement that made it difficult?
8. What were the challenges and obstacles with your Cooperating Teacher that made it difficult?
9. What were the challenges and obstacles with your College Supervisor that made it difficult?
10. What from your Cooperating Teacher enabled you to be successful?
11. What support from your College Supervisor enabled you to be successful?
12. What other information would you like to share about your student teaching experience that would help me understand the facts that impacted you?
13. What surprised you about your student teaching experience?
14. Would you recommend this experience to future student teachers? Why?
15. Follow-up questions will be asked as needed to clarify and extend the participants' answers.

## **Ch-ch-ch-changes: Preservice Teachers' Perceptions on Mobile Phones—2015-2022**

**Kevin M. Thomas**  
**Bellarmino University**

**Michael Hylan**  
**Southern Wesleyan University**

**Beth Carter**  
**Methodist University**

### **Abstract**

This paper compares the findings from three studies—2015, 2018, and 2022—on the perceptions of preservice teachers to the integration of mobile phones in the classroom. Participants include 545 students (2015, n = 245; 2018, n = 157, 2022, n = 142) enrolled in teacher preparation programs in Kentucky, North Carolina, South Carolina, and Tennessee to determine their support for phones in the classroom. Findings indicate that preservice teachers' support for phones in the classroom has vacillated over the last decade, increasing from 45% in 2015 to 55% in 2018 before falling to 40% in 2022. Likewise, perceptions that phones support learning increased from 2015 (58%) to 2018 (74%) but decreased 34% in the last five years to 40% in 2022. Conversely, findings indicate that preservice teachers' concerns about mobile phones in the classroom have largely remained the same—cheating (76%), cyberbullying (75%), and disrupting instruction (70); however, participants' concerns increased about mobile phone's ability to distract students (68%) and teachers (63%).

*Keywords:* cell phones, mobile phones, preservice teachers

## **Ch-ch-ch-changes: Preservice Teachers' Perceptions on Mobile Phones—2015-2022**

Has any technology been more debated by school stakeholders than mobile phones? Over twenty years after they first made their unwelcome appearance in the classroom, public education still has not answered the question, “Do mobile phones belong in schools?” In fact, a Google search of this question results in numerous recent articles in *The New York Times* (Engle, 2024), *USA Today* (Wong & Shah, 2024), *Education Week* (Hayes & Prothero, 2024), CBS Boston (Ebben, 2024), *The Atlantic* (Haidt, 2023), and *The Harvard Gazette* (Lamb, 2023). These articles are just a small sample of those debating many of the same issues related to student use of mobile phones in schools that educators faced two decades ago.

Mobile phones have always had the potential to be a beneficial classroom technology (Thomas et al., 2009), and these benefits persist. Two of the most important benefits are increasing student motivation (Christensen & Knezek, 2018; Nikolopoulou, 2020) and engagement (Kopecky et al., 2021), including engaging students in anywhere, anytime learning (Traxler, 2009) via the internet (Lenhart, 2015) and educational apps (Jeno et al., 2019). These benefits have increased over time. For example, in 2011, 35% of adults (Sidoti et al., 2024), and 31% of teenagers between 14-17 owned a smartphone (Lenhart, 2012). In 2024, 97% of adults owned a mobile phone (Sidoti et al., 2024), and 95% of 13–18-year-olds had a smartphone (Faverio et al., 2022). The ubiquity of mobile phones assists in eliminating lack of access as a barrier and closing the digital divide. For example, a 2022 study by the Pew Center for Research reported a third of U.S. teenagers cited lack of access to technology at home as a barrier to completing homework—the “homework gap.” To overcome this gap, one-in-five teens (22%) stated they often or sometimes must complete their homework using their mobile phone (Anderson et al., 2022).

Access to online content also increased over time. In 2009, 25% of mobile phone owners were accessing the internet via their phones (Smith, 2012). By 2023, approximately 90% of Americans accessed the internet via a mobile device (Petrosyan, 2023), and 45% of teens ages 13-17 accessed the internet “almost constantly” using a mobile device (Schaeffer, 2019). The availability of educational applications has also increased. For example, in 2010, the Apple store listed 150,000 apps; by 2017, this number had increased to more than 1.5 million (Statista, 2018a)—almost 200,000 of these are educational apps. As of 2023, around 4.3 million apps were available for download via Google Play, 2.1 million apps were available through the Apple App store (FinancesOnline, 2023), and 567,000 educational apps were available for download (Educational App Store, 2023).

Despite these benefits, barriers exist. The primary barrier to mobile phones in the classroom is their potential to be a distraction from learning (Hatfield, 2024; Nikolopoulou, 2020; Glass & Kang, 2018; O’Bannon & Thomas, 2015). The mere presence of mobile phones can reduce students’ available cognitive capacity and impede their ability to learn (Ward et al., 2017). Additional barriers include increasing concerns about students’ addiction to mobile

phones and the negative impact this has on learning (Sunday, Adescope, & Maarhuis, 2021) and mental health (Abi-Jaoude et al., 2020).

In response to these concerns, there has been an increase in states, districts, and schools banning phones. In 2010, the National Center for Education Statistics reported that 90% of schools banned phones; however, from 2010 to 2016, the number of schools banning mobile phones dropped steadily. By 2017, that number decreased to 35% (Snyder et al., 2019). In 2020, the National Center for Education Statistics reported 77% of U.S. schools prohibited mobile phone use for nonacademic purposes (NCES, 2020).

One reason the debate on mobile phones in schools has persisted is the differing opinions of stakeholders—students, teachers, and parents. As recent graduates from high school, students enrolled in teacher preparation programs (TPP) provide a unique perspective on this topic—as both student and teacher. This study examined the perceptions of preservice teachers from four teacher preparation programs regarding the use of mobile phones in the classroom. Studies were conducted in 2015 (O’Bannon & Thomas), 2018 (Thomas, et al.), and 2022 (Thomas et al., 2024). The purpose was to determine preservice teachers’ level of support for mobile phones in the classroom and perceived barriers from 2015 to 2022.

### **Literature Review**

Educators have long recognized the instructional benefits of technology, including improved student engagement, motivation, and learning (Roblyer, 2016). Mobile technologies provide teachers with a vast array of benefits, including “new and enhanced learning opportunities such as personalized and adaptivity, context-awareness and ubiquity, interactivity, communication and collaboration among learners, and seamless bridging between context in both formal and informal learning” (Nikou & Economides, 2018, p. 102). However, some of the inherent characteristics of mobile technologies, specifically mobile phones, have made it difficult for teachers to manage their appropriate use and created barriers to their integration in classrooms and schools.

The primary instructional benefit of mobile devices is their ability to engage students in meaningful learning opportunities anywhere (Traxler, 2009); therefore, teachers can use mobile phones to engage students in mobile learning (m-learning). M-learning is defined as “a type of learning that enables learners to learn anywhere, anytime using wireless technologies” (Alioon & Delialioğlu, 2019, p. 656). M-learning supports personalized learning (Lindsay, 2016; Sullivan et al., 2019), scaffolding (Hung et al., 2013), collaboration (Jeno et al., 2019), increased engagement (Alioon & Delialioğlu, 2019), and increased motivation (Jen et al., 2017). Research has demonstrated the use of m-learning to support student learning in P-12 content areas, including math (Song & Kim, 2015), history (King et al., 2014), science (Kantar & Dogan, 2015), and art (Katz-Buonincontro & Foster, 2014). Nikou and Economides (2018), in a study of students participating in a mobile assisted intervention, found a significant increase in learning in low-achieving students. M-learning also has the potential to engage students in self-directed learning. Self-directed learning is a process in which the individual determines learning needs

and defines the task, sets learning goals, enacts study strategies, adapts studying, and evaluates learning outcomes (Xodabande & Atai, 2020).

A 2015 study by Pew Research Center found that 85% of students reported using their mobile phones to conduct online research (Lenhart, 2015). Teachers also report using mobile devices, including mobile phones, to engage students in accessing content via the internet (Khlaif, 2017; Nikolopoulou, 2020). Lindsay (2016) surveyed teachers in twenty-four schools about their use of mobile technologies for m-learning. Teachers reported that students used their mobile technologies to access the internet to “investigate theory, ideas, concepts and to access teacher created content at school nearly every day” (p. 886).

As noted by Jenou et al. (2019), mobile applications (apps) lend themselves to self-directed learning because of their relation to the Cognitive Evaluation Theory (CET) of Self-Directed Learning. CET maintains students’ need for autonomy is satisfied in learning tasks that engage them in meaningful choices, and their need for competence is satisfied when students are challenged and provided feedback (p. 671). Some apps support students’ need for autonomy and competence and enhance student motivation and performance. For example, Jenou et al. (2019) examined the effects of mobile applications (apps) on 58 students’ achievement and well-being. They found that students using mobile apps had higher levels of perceived competence, autonomy, motivation, and positive effect than students who did not use mobile apps. Poçan et al. (2023) studied the impact of augmented reality (AR) applications developed to teach algebra on the success and motivation of 73 middle school students. Findings indicated that the mobile technology applications positively affected the learning process.

Mobile devices support teacher generated formative (Hwang & Chang, 2011; Onodipe & Ayadi, 2020) and summative (Nikou & Economides, 2019) assessments and can be used by students for self- and peer-assessments (Lai et al., 2018). In a review of literature on the use of mobile-based assessment in education, Nikou and Economides (2018) found that most of the studies on the use of mobile assessment technologies demonstrated a “significant positive impact on student learning performance” (p. 113). Instructional benefits include increased engagement (Zainuddin, et al., 2020) and providing instant feedback to teachers and students, which allows teachers to adjust instruction in real time, increased attention and motivation (Kay & LeSage, 2009) as well as supporting student interaction, communication, and collaboration (Sung et al., 2016). Assessment technologies save time, and data can be stored for later use (Adams & Howard, 2009). Additionally, they can be used for polling (Molin et al., 2021; Stowell, 2015) to generate discussions, and increase participation by allowing normally quiet students to provide feedback (Adams & Howard, 2009). Mobile assessment also allows teachers to introduce game-based assessment into their classrooms, which are distinguished from other forms of assessment by the energy, engagement, and motivation they generate in the classroom (Wang, 2015; Zainuddin et al., 2020).

Research has also found mobile phones to be problematic in the classroom. As previously mentioned, a primary barrier to integration has been concerns regarding mobile phones being a distraction. A recent study by Pew Research Center found that 72% of U.S. high school teachers



believe mobile phone distractions are a major problem in the classroom (Hatfield, 2024). In support of teachers' belief, a 2023 study by CommonSense Media found teenagers receive 273 notifications on their phones per day—20% of students receive more than 500 per day. A quarter of these notifications come during school hours. Furthermore, 97% of students report using their phone during school an average of 43 minutes each day (Radesky et al., 2023). This type of excessive use has led to concerns about students' addiction to mobile phones (Lee et al., 2017; Sahu et al., 2019) and its impact on students' academics and mental health. Sunday et al. (2024) found that mobile phone addiction negatively impacts the skills and cognitive abilities students needed for academic success. Glass and Kang (2018) found that mobile phones in the classroom divided students' attention, which led to impaired long-term retention of the lesson. In fact, even when their phones were out of sight, they were a distraction and negatively impacted student cognition (Ward et al., 2017). Students' addiction to mobile phones has been linked to increased stress and anxiety when they are separated from them at school (Gajdics & Jagodics, 2022) as well as depression (Yang et al., 2019). Additional concerns about allowing mobile phones in the classroom are their potential use for cheating (Common SenseMedia, 2010; Haller, 2017), cyberbullying (O'Bannon & Thomas, 2015; Vogels, 2022) and sexting (Madigan et al., 2018), which can have direct implications for school discipline, climate, and culture (Calderon-Garrido, et al., 2022).

### **Purpose and Research Questions**

Mobile phones first appeared in secondary classrooms over two decades ago. Initially limited to making phone calls and texting, mobile phones were a distraction and disruption, and not surprisingly, teachers opposed the integration of mobile phones in the classroom (Lenhart et al., 2010); however, the evolution of mobile phones to smartphones, the transformation of the internet as well as the significant growth in instructional applications and increase in access made mobile phones a viable option for classroom use. In 2017, the U.S. Department of Education stated “mobile devices that connect learners and educators to the vast resources of the internet and facilitate communication and collaboration” prepare students to be successful for the future (p. 69); however, recent research on the negative impact of mobile phones on student learning (Sunday et al., 2021) and mental health (Abi-Jaoude et al., 2020) has educational stakeholders once again questioning their place in the classroom and banning mobile phones from schools. Preservice teachers offer a unique perspective on this issue as both student and teacher.

The purpose of this study was to examine preservice teachers' perceptions regarding the use of mobile phones in the classroom and to determine if there had been any changes in their perceptions since 2015.

1. Has preservice teacher support for the use of mobile phones in the classroom changed?
2. Have preservice teachers' perceptions regarding the ability of mobile phones to support student learning changed?

3. Have preservice teachers' perceptions regarding the barriers to the use of mobile phones in the classroom changed.

## Methodology

### Research Design

This study examined the findings from three studies conducted in 2015, 2018, and 2022, respectively. Guided by the recommendations of Creswell (2013), each of the three studies used a survey approach to investigate the perceptions of preservice teachers on the use of mobile phones in the classroom. Survey research was the preferred method of data collection because of its economy, rapid turnaround, and the standardization of the data (Babbie, 2012). Data from each of the three studies was compiled and is presented in the Results section.

### Participants

The subjects for this study consisted of students enrolled in the Preservice Teacher Preparation programs at five universities that participated in the study: four small liberal arts universities—Bellarmine University and Asbury University in Kentucky, Methodist University in North Carolina, and Southern Wesleyan University in South Carolina—and one large liberal arts university, the University of Tennessee, Knoxville (Table 1).

**Table 1**

*Settings for each of the studies*

Year	Locations
2022	Bellarmino University Methodist University Southern Wesleyan University
2018	Bellarmino University Methodist University Asbury University
2015	Bellarmino University University of Tennessee

A total of 544 preservice teachers participated in the three studies: 245 (38.5%) in 2015, 157 (24.8%) in 2018, and 142 (22.3%) in 2022 (Table 2). Participants in the 2015 study consisted of 176 (71.8%) between the ages of 17-22, and a total of 224 (91.4%) under the age of 30, the mean age was 22.93 (SD 5.69). Participants in the 2018 study consisted of 102 (64.9%) between the ages of 18 and 22 and 129 (81.6%) under the age of 30 with a mean age of 24.21. In 2022, the greatest percentage of students was between 18 and 22 years of age, 104 (73.2%), with a total of 126 (88.7%) reporting they were under the age of 30. The mean age was 22.5. In 2015, 214 (87.3%) owned smartphones and 31 (12.7%) owned a basic mobile phone. Of the participants in 2018, 157 (100%) owned a smartphone. All one hundred and forty-two participants (100%) in the 2022 study owned smartphones (Table 2).

**Table 2**  
*Participants*

Year	# of Participants	Mobile Phone Ownership		Mean Age	Female	Male
		Smart phone	Basic Phone			
2022	142	142 (100%)	0 (0%)	22.5	117 (82.3%)	22 (15.5%)
2018	157	157 (100%)	0 (0%)	24.21	122 (77%)	35 (22.2%)
2015	245	214 (87.3%)	31 (12.7%)	22.93	197 (80%)	48 (20%)

### Data Source

The 2015, 2018, and 2022 studies used the Mobile Phone Use in the Classroom Survey (O’Bannon et al., 2017). The validated survey gathered data on participants’ demographics, phone ownership, and mobile phone usage as well as their support for the use of mobile phones in the classroom and the ability of mobile phones to support student learning. Participants were also asked to share information on their perceptions of the benefits and barriers associated with mobile phones in the classroom. Finally, data were collected on participants’ opinion on the use of mobile phones for school-related work and allowing students to use mobile phones for school-related work. The survey contained a variety of question types including Yes/No, checklists, open-ended, and Likert-scaled questions using 5-point scales (SD = strongly disagree, D = disagree, N = neutral, A= agree, and SA = strongly agree). Likert scaled items were classified in themes.

### Data Analysis

Data were gathered and analyzed from survey results for each of the three studies. Analysis of the data included a number of statistical tests. First, descriptive statistics were generated on each question from the three studies; the results of the descriptive statistics were used to assist in describing and summarizing the data. Subsequently, to determine if any changes noted in the review of the descriptive statistics were significant or not, a series of one-way ANOVA tests were run. Each of the four one-way ANOVA calculations was run using Year of Study as the fixed factor and one of four Support categories serving as the independent variable. Additionally, a Two-Way Univariate of Analysis test was run to cross compare if Year of Study and School Policy impacted participant Support for Use in Schools.

## Results

### School Policy on Mobile Phone Use

During all iterations of the study, the preservice teachers were asked to respond to the statement, “I support the use of mobile phones in the classroom.” Participants could indicate that they supported, did not support, or were uncertain about mobile phone integration. Findings are presented for all the participants and by age—participants under the age of 22 and participants over the age of 23. Finally, results from a comparison of the findings for the two age groups are reported.

Results from the three studies demonstrated that the overall percentage of preservice teachers who support the inclusion of mobile phones in the classroom increased by 10% from 2015 to 2018, before declining by 15% over the next four-year period (Table 3). During this same period, 2015-2018, participants who did not support mobile phones decreased 5%. Likewise, participants’ uncertainty also decreased 5%. Participants’ lack of support for mobile phones remained stable from 2018-2022, while their uncertainty jumped from 25% to 41%—an increase of 16%.

Support from participants 22 and under increased by 17.6% from 2015 to 2018; however, in 2022, their level of support fell 16.9%, returning to 2015 levels of support. The lack of support from this group of participants decreased from 2015 to 2018. In fact, half as many preservice teachers opposed mobile phones in 2018 as in 2015. Their lack of support increased slightly (3%) between 2018 and 2022 to 15.5%. Participants’ uncertainty dropped slightly between 2015 and 2018 before increasing 14.2% from 2018-2022.

Older participants’, 23 years of age and older, support was relatively stable between 2015 and 2018 before dropping 15.3% between 2018 and 2022. Lack of support for this group was stable across the three studies. Similarly, uncertainty about the use of phones was stable in 2015 and 2018 but dropped 17.7% from 2018 to 2022.

Findings from comparisons of participants by age revealed several large shifts in participants’ perspective on support for mobile phones in the classroom. For example, younger participants, between the ages of 18-22, increased their support from 2015 to 2018 by 20.3%, while support from older participants, 23 and older, decreased by 2.1%. To test if the change in support had statistical significance, or lack thereof, a one-way ANOVA was run on the two studies with Support the Usage as the dependent variable. The results of that test revealed that there was not a significant statistical difference between the perceptions of the participants in 2022 compared to 2018 on Support for Use in the Classroom at  $p < .05$ ,  $[F(1,297) = 1.919, p = .167]$ . Additionally, while both groups saw large drops in support between 2018 and 2022, 20% for the younger group and 15.3% for the older participants, the younger preservice teachers were still almost twice as supportive, 45.1 to 26.4 (18.7% difference) as their older counterparts.

Examining participants’ lack of support, the percentage of older participants in opposition to the inclusion of mobile phones was higher in each of the three studies. In fact, in 2018 and 2022, roughly twice as many of the older participants opposed them. Also, while older

participants have been consistent in their opposition with approximately a third not supporting the use of mobile phones in each of three studies, younger participants' opposition decreased by almost half from 2015 to 2022. Regarding their uncertainty about mobile phones, approximately a fourth of the participants in both groups were uncertain about mobile phones in 2015 and 2018. Both groups' degree of uncertainty jumped in 2022, with the participants under 22 increasing by 14.9% and those over 23 increasing by 17.7%.

**Table 3**  
*Preservice Teachers Support for Mobile Phones*

Year	Age	Support	Don't Support	Uncertain
2022	All Ages (N = 142)	40%	19%	41%
2018	All Ages (N = 157)	55%	20%	25%
2015	All Ages (N = 245)	45%	25%	30%
2022	< 22-year-olds (N = 104)	45.1%	15.5%	39.4%
2018	< 22-year-olds (N = 103)	62%	12.6%	25.2%
2015	< 22-year-olds (N = 176)	44.4%	25.5%	30.1%
	Age Not Listed	n=3	n=1	n=2
2022	23+ (N = 38)	26.4%	28.9%	44.7%
2018	23+ (N = 48)	41.7%	31.3%	27%
2015	23+ (N = 69)	46.5%	28.9%	24.6%

### **Mobile Phones Support Student Learning**

Preservice teachers in each of the studies were asked to respond to the statement “I think that mobile phones could/do support student learning.” Findings indicate that participants’ perception that mobile phones support student learning also increased (Table 4) percentage wise between 2015 (58%) and 2018 (74%), before dropping between 2018 and 2022. Three-fourths of 2018 participants indicated that they believe phones support student learning; however, that

number dropped 34% in 2022. Again, to test if any change was significant, a one-way ANOVA was run on the two studies with Support Student Learning as the dependent variable. The results of that test revealed that there was a significant statistical difference between the perceptions of the participants in 2022 compared to 2018 on Support Student Learning at  $p < .05$ ,  $[F(1,297) = 6.185, p = .013]$ . Preservice teachers' perceptions that mobile phones don't support learning decreased by 11% between 2015 and 2018, before rising again in 2022 to 19%. Their uncertainty about the ability of mobile phones to support learning dropped slightly in 2018 before more than doubling in 2022 to 41%.

**Table 4**  
*Preservice Teacher Mobile Phones Support Learning*

Year	Doesn't Support	Uncertain
2022	19%	41%
2018	10%	16%
2015	21%	21%

### Perceived Barriers to Use

Participants' primary concerns about barriers to integration identified in the research have remained stable 2015-2022 (Table 5). In each of the three studies, preservice teachers' primary concern has been the potential for students to use their mobile phones to cheat, with approximately 8 out of 10 perceiving cheating as a problem. Similarly, three-fourths of participants have consistently identified cyberbullying as one of the top three barriers to allowing students to use their mobile phones in the classroom. Rounding out the top three barriers is classroom disruption. While almost half of participants continue to perceive sexting, negative impact on writing, and lack of access as problems, their concerns have decreased since 2015. Participants in 2022 also identified distraction to students (68%) and distraction to teachers (63%) as barriers.

**Table 5**  
*Preservice Teachers Barriers to Mobile Phone Integration*

Barriers	% of Respondents Agreeing		
	2022	2018	2015
Cheating	76%	80%	83%
Cyberbullying	75%	79%	76%
Disruption of Class (Texting, ringing phones, etc.)	70%	77%	78%

Barriers	% of Respondents Agreeing		
	2022	2018	2015
Access to Inappropriate Content	68%	76%	53%
Sexting	57%	66%	64%
Negative Impact on Writing	47%	48%	64%
Lack of Access	44%	49%	53%

### Discussion and Implications for Further Research

For over two decades, educational stakeholders have failed to develop a consistent policy on mobile phones in schools. To some degree, this is a result of the differing and changing opinions held by educational stakeholders (i.e., students, teachers, parents, etc.). Due to their status as recent high school graduates enrolled in a TPP, preservice teachers offer a unique perspective on this topic as both student and teacher. The purpose of this study was to determine preservice teachers' perception on the use of mobile phones in the classroom and if their perceptions had changed since 2015.

Findings from this study indicate that preservice teachers' support for the use of mobile phones in the classroom changed from 2015 to 2022. For example, in 2015, 45% of preservice teachers supported allowing mobile phones use in the classroom. By 2018, more than half (55%) of all participants and 62% of younger participants supported their use. This was a considerable increase from previous findings. In a 2013 study, only 25% of preservice teachers supported allowing phones to be used in the classroom (Thoma et al., 2013). However, participants' support for mobile phones decreased considerably from 2018-2022. Over this same period, their uncertainty about mobile phone use in the classroom increased.

Interestingly, participants' support has mirrored school policy. In 2010, 90% of schools banned phones (NCES), and preservice teacher support was extremely low—25% (Thomas et al., 2010); school bans steadily dropped and by 2017 were at 35% (Snyder et al., 2019); likewise, preservice teacher support increased to 55% in 2015. By 2022, school bans had increased to 75% (Burr, Kemp, & Wang, 2024), and preservice teacher support again dropped. While not supported by findings, one explanation for the decrease in support between 2018 and 2022 could be an increase in research on mobile phone addiction (Lee et al., 2017; Sahu et al., 2019) and the negative impact mobile phones can have on students learning (Glass & Kang, 2018; Ward et al., 2018) and mental health (Yang et al., 2019). Additional research should be conducted to further understand why preservice teacher support has decreased while their uncertainty has increased.

Findings also demonstrate a distinct gap in support, lack of support, and uncertainty based on age. Younger students were more supportive and less uncertain than their older counterparts. This finding is supported by research. A 2024 study by Pew Research Center found

that younger adults are less supportive of banning students from using mobile phones during class (Anderson, Gottfried, & Park, 2024); however, findings did not indicate why this gap existed. While the gap in support between the two age groups in this study was not significant, further research should be conducted to understand why older preservice teachers are more likely to not support and have more uncertainty about mobile phones. Furthermore, for both groups, younger and older, research should explore the nature of their uncertainty.

Findings on participants' perspective on the ability of mobile phones to support learning was similar to their position on supporting mobile phones in the classroom. There was a notable increase in support between 2015 and 2018 and then a sharp decrease. The same is true for their position on uncertainty, which decreased before increasing. One explanation for this change in support and uncertainty could be found in research on mobile phones. Between 2008 and 2015, much of the research focused on the benefits of smartphones in the classroom. Conversely, over the last eight years, research has emerged on the detrimental effects mobile phones can have on students and student learning. Additional research should be conducted to understand why preservice teachers' perception that mobile phones' ability to support learning declined so dramatically.

Preservice teachers have been consistent in their perceptions of barriers to allowing mobile phones in the classroom. In each of the three studies, approximately three-fourths of the participants identified cheating, cyberbullying, and disruption of the classroom as their primary concerns. Research on each of these barriers has also been consistent over time. For example, in 2009, 35% of students reported using their phones to cheat on schoolwork (CommonSense Media, 2010). In 2017, 33% of students acknowledged using their phones to cheat and 60% indicated they knew someone who used their phones to cheat (Haller, 2017). Cyberbullying has increased along with ownership of mobile phones (Englander, 2020). In 2010, 26% of teens indicated that they had been cyberbullied through their phones (Lenhart et al., 2010); by 2022, 46% of teens reported being cyberbullied (Vogels, 2022). Disruptions of the classroom by mobile phones include ringing phones and texting, which are often distractions to instruction and student learning. Over half of the participants identified distraction as a barrier to integration. Again, research has consistently identified mobile phone disruptions (Nikolopoulou, 2020; O'Bannon et al., 2013) and distractions (Hatfield, 2024) as barriers to classroom use. While participants have been consistent in their concerns about these barriers, the degree of concern has decreased in all but one area since 2015, which may reflect the increase in schools banning mobile phones. The decrease in concern could also reflect the development of strategies teachers can use to reduce these behaviors. Despite the decrease, concerns persist, and additional research should be conducted to identify strategies to reduce and/or eliminate these problematic behaviors. These strategies should include teaching students how to use their mobile phones responsibly.

While the validated survey used in this study is aligned with research on mobile phones, since its development, research on mobile phones has identified additional barriers to integration. To address the gap, additional research on this topic should survey participants about their



perception of mobile phone addiction and the negative impact of mobile phones on students' mental health.

Findings from this study have implications for educational stakeholders. Regarding the debate on allowing mobile phones in the classroom, the majority of preservice teachers do not support inclusion. In fact, the majority of them are uncertain if they should be allowed in schools. Likewise, while as many as 74% of preservice teachers believed that mobile phones supported learning, in 2022, that number had fallen to 40%, which further supports restricting them from schools. Finally, in contrast to the vacillation and uncertainty that mark their support, the vast majority of preservice teachers have consistently identified cheating, cyberbullying, and disruptions as barriers to inclusion, which educational stakeholders should consider as further evidence of their opposition to inclusion in the classroom. Based on these findings, teacher preparation programs should instruct their students on strategies for managing mobile phones in their classrooms, including strategies related to disruptions, cheating, and cyberbullying as well as issues related to mobile phone addiction and other mental health issues related to their use.

### **Limitations**

The studies used a convenience sample of participants, which limits generalization of the findings and creates the potential for sampling bias. There were a large number of female participants; however, this is characteristic of a population of students in schools of education.

### **Conclusion**

Educational stakeholders have been debating whether mobile phones should be allowed in the classroom for the past two decades. As recent graduates from high school enrolled in teacher preparation programs, preservice teachers provide a unique perspective on this debate as both student and teacher. Findings from this research indicate that preservice teachers' perspective on allowing mobile phones in the classroom have mirrored national trends, including decreasing support that has led to an increase in banning mobile phones in schools. Despite the trend to ban, it is unlikely this issue is going away. After all, 78% of parents want their students to have access to their phone in school (National Parents Union, 2024). Therefore, it is important for educational stakeholders, including TPPs, to have a clear understanding of the pros and cons associated with mobile phones in school, including the perspective of the preservice teachers they are preparing.

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*Kevin Thomas, Ph.D. is a Professor of Instructional Technology at Bellarmine University in Louisville, Kentucky. He serves as the Chair of the Undergraduate and Graduate Initial Certification Programs. His research areas of interest include pre- and in-service teachers' perceptions on mobile phones, the impact of professional development on in-service teachers' application of TPACK, and the integration of instructional technologies to support student learning. At Bellarmine, Dr. Thomas teaches both undergraduate and graduate courses related to the integration of instructional technology in the classroom to support student learning.*

*Dr. Hysten currently serves as an associate professor and Chair of the Education Department at Southern Wesleyan University. Before coming to SWU, he served at Louisiana State University Shreveport and Asbury University in Kentucky. He has published research on social emotional learning, servant leadership and at-risk students, as well as a book on working with struggling students. Prior to joining the higher education ranks, he enjoyed a 28-year career in k-12 education. His early k-12 career was spent teaching high school mathematics. His most extensive work was as an alternative high school principal for students who struggled academically, emotionally and behaviorally. He earned his Ph.D. from the Center for Character Education and Citizenship at the University of Missouri – St. Louis.*

*Beth Carter is an associate professor of education at Methodist University in Fayetteville, North Carolina, where she teaches undergraduate and graduate education courses. She also serves as associate vice president for academic affairs overseeing the evening and e-learning programs as*

*well as the Center for Teaching and Learning. Her research interests include adult learning and technology including mobile learning.*



## **A Tale of Three Teachers: Lessons Learned from Emergent Writers**

**Rebecca M. Giles**  
**University of South Alabama**

### **Abstract**

Writing is a vital part of the teaching and learning process. The view of learning to write as a developmental and evolving process is well-established in professional literature, and close observation of an emergent writer as they compose text can contribute to an understanding of their writing acquisition. A multiple case study, which focused on the teachers' experiences working closely beside a single child, was conducted in the context of a graduate early childhood education course. Three focus cases were analyzed, and three cross-case themes were identified. Findings illustrate the necessity of closely examining and supporting young children's composing process, and implications for pedagogical practice, teacher education, and future research are provided.

*Keywords:* writing, emergent writer, emergent literacy, young authors, teacher education, early childhood, teaching writing

## **A Tale of Three Teachers: Lessons Learned from Emergent Writers**

Writing is a vital part of the teaching and learning process and the primary means by which a child's intellect and academic success are measured. Many adults consider writing to be a skill requiring the use of conventional text and, thus, beyond the abilities of young children (Bradford & Wyse, 2020), making emergent writing experiences almost nonexistent in some early childhood classrooms. The view of learning to write as a developmental and evolving process, however, is well-established in professional literature. Seminal work (e.g., Clay, 1975; Ferreiro & Teberosky, 1982; Goodman, 1980; Harste, et al., 1984; Teale & Sulzby, 1986) in which researchers "tried to see writing through the child's eyes" (Rowe, 2018, p. 230) resulted in a reconceptualization of beginning reading and writing from an emergent literacy perspective (Teale & Sulzby, 1986). Researchers began to provide evidence that children's understanding of writing begins naturally through active, often informal, engagement with language and text in their environment.

Children begin to explore the features of print very early in life (Bradford & Wyse, 2013; Stellakis & Kondyli, 2004) through literacy experiences that use oral language knowledge to facilitate the young learners' "own network of competencies which power subsequent independent literacy learning" (Clay, 1991, p. 1). Early dependence on oral language necessitates that much learning occurs in a social context where interactions, such as shared book reading, telling stories, and talking about experiences are central to developing literacy (Wilson, 2003).

According to Yetta Goodman (1986), reading and writing are defined as "human interaction with print when the reader and writer believe that they are making sense of and through written language" (p. 6). Writing is considered the act of composing and encompasses all means of written communication generated by young children as they dictate to a scribe or experiment producing marks on paper to express their thoughts and ideas (Dahl & Farnan, 2002; Giles, 2020; Tunks & Giles, 2007). From an emergent literacy perspective, young children's transcribed stories or characteristically unconventional marks are accepted as writing rather than downgraded to "prewriting." Recognition that young children are forming foundational understandings of print through their early attempts at writing appropriately shifts the instructional focus to children's meaning-making process rather than the conventionality of their writing (Harste et al., 1984). When children become authors receiving genuine responses to their voices and choices, they learn to express themselves and become better writers, who construct self-identities through these experiences (Dyson, 1997; Tunks & Giles, 2007). "For children to be motivated to write, and to feel as though they are accomplished authors of text, it is imperative that they develop a positive writing identity" (O'Grady, et al., 2024, p. 156)

Providing intentional writing opportunities throughout the day in early childhood classrooms increases children's engagement with writing and the practice of foundational skills in purposeful contexts (Gerde et al., 2024). Previously, close observation of an emergent writer as they created text has contributed to developing literacy theories and practices (e.g., Clay, 1975; Dyson, 1989; Gabas, et al., 2021; Kesler, 2020; Roser et al., 2014). For this study, early

childhood teachers enrolled in a graduate literacy course worked with an emergent writer for two weeks to gain insights into young children’s literacy acquisition, inform their literacy teaching, and better understand themselves as teachers of writing.

## **Literature Review**

### **Writing Development**

Young children, who often possess clear perceptions about themselves as writers (Bradford & Wyse, 2013), use various assorted marks and formations to approximate actual words when they first attempt to communicate through writing. By age 2, children begin to imitate adult writing by representing thoughts and ideas with drawings and symbolic markings (Dennis & Votteler, 2013). These spontaneous writing forms, commonly referred to as “kid-writing” (Feldgus & Cardonick, 1999), are the result of children observing others’ writing in a meaningful context and their own experimentation. As children gain an awareness of the general purpose of writing, kid-writing in the form of picture writing, scribble writing, letter-like forms, random letter strings, invented spelling, conventional spelling, and environmental printing appears (Barnhart & Heishima, 1989; Cabell et al., 2013; Sulzby, 1985; 1992; Tunks & Giles, 2007). These forms are non-sequential, and their use is situational, varying by context. At first, drawing tends to be more prevalent than writing as young children use a combination of pictures and writing used as labels or captions to communicate meaning (Baghban, 2007). Movement between different forms as an emergent writer attempts to solve problems while composing is a noted occurrence (Clay, 1975; Harste, et al., 1984; Rowe & Wilson, 2015; Tunks & Giles, 2007; Vygotsky, 1978).

This early writing does not usually adhere to print conventions, so understanding its meaning is often dependent upon the child verbalizing what their marks mean (Casbergue & Strickland, 2016; Clay, 1975; Tunks & Giles, 2007). To make a child’s writing readable to others, an adult can provide a translation written directly below (or above) the child’s kid writing. This process, known as “underwriting,” provides temporary support as children transition from being able to recognize and form letters to being able to match the corresponding letter to the sounds heard in words (Giles, 2020). Gradually, children come to understand the functions of printed language and realize that writing can be used for a variety of purposes (Gerde et al., 2012; Rowe, 2018). As children’s awareness that writing is associated with spoken words and familiarity with the alphabetic principle increases, they begin using letters to approximate words in logical phonetic, or invented, spellings (Cabell et al., 2013; Ouellette & Sénéchal, 2017). This eliminates the need for an adult to provide a transcription of the child’s oral reading for the kid-writing to be readable by others.

Between the ages of 3 and 5, adults play an important role in children’s emergent writing development as they facilitate recording their thoughts and ideas in print (Hall et al., 2015). Children’s participation in shared writing experiences and other writing events focused on scaffolding their understanding of print conventions and specific text features significantly

contributes to their knowledge and abilities as writers (Rowe, 2008). With their developing competence, children use words from their thoughts, environmental print, and others to write messages and gain a sense of themselves as authors. As adults show appreciation for a child's written products, they affirm the act of writing and the child as an author, helping children recognize that developing one's ideas on paper is a rewarding process (Giles, 2020).

### **Supporting Emergent Writers**

Children gain knowledge of and interest in writing as they are continually exposed to print and writing in their environment along with opportunities to write as part of their daily routine (Giles, 2020). Adults can capitalize on and extend children's initial awareness of print's usefulness as a source of information by prompting the use of reference books, websites, and other written resources to answer questions posed during play. Such scaffolding experiences can occur through both verbal exchanges and modeling to help children understand how writing can be used to express and convey meaning (e.g., Gerde et al., 2012; Quinn et al., 2016). For example, adults can talk through the process of composing as children watch them make a list or write a message (Dennis & Votteler, 2013).

As noted by Rowe (2018), the abundance of research affirming the power of early writing experiences has been ignored by many preschool classrooms that currently offer only limited, if any, opportunities for composing. A study of 81 classrooms of 4- and 5-year-olds found that time spent engaged in writing or receiving instruction in writing averaged just two minutes a day (Pelatti et al., 2014). Emerging writers need to develop conceptual, procedural, and generative knowledge regarding print (Puranik & Lonigan, 2012). Conceptual knowledge involves learning the function of writing, and procedural knowledge, or transcription, is the mechanics of letter and word writing, which involves print awareness, handwriting, and early spelling skills (Tortorelli et al., 2021). Learning the letters and their associated sounds is an essential component of gaining procedural knowledge. Campbell et al. (2019) assert that there is a growing body of evidence that early writing helps children develop code-related skills (e.g., alphabetic knowledge and phonological awareness), which are crucial for encoding and decoding. Generative knowledge, also known as composing, represents a child's understanding of how writing works. Furthermore, composing represents children's ability to intentionally transfer their oral language to a written product through drawing, scribbling, random letters, or invented spelling (Quinn & Bingham, 2019; Quinn et al., 2021). Early childhood teachers infrequently engage in instructional practices to support children's early composing focusing instead on handwriting (Bingham et al., 2017; Bingham & Gerde, 2023; Coker, et al., 2016). Quinn & Bingham (2018) maintain, "When early childhood programs fail to engage children as writers, children miss out on the opportunities for print learning that come from exploring print processes in the familiar and meaningful terrain of their own messages" (p. 237). Conversely, interacting with children around their writing provides valuable opportunities for teaching foundational literacy skills in a meaningful context (Rowe, et al., 2022).

Young children’s voluntary production of emergent writing to record and share meaningful text must be met with a responsive writing pedagogy affirming the child’s view of themselves as writers to effectively support the development of writing in the early years (Bradford & Wyse, 2022; Giles, 2020). Focusing on young children’s written products over their process tends to expose deficits in writing development and may harm their emerging literate identities (Yoon, 2015). In contrast, interacting with and observing a young child’s composing process provides insights about current knowledge levels and abilities that can inform instruction (Kesler, 2020). Engaging with children about their texts provides opportunities for individualized support to develop and expand the message being conveyed, emphasize the connection between their spoken words and written marks, or demonstrate stretching the sounds in words to identify letter-sound correspondence (Rowe, et al., 2022). Adult support should remain relevant to the child’s purposes (Vygotsky, 1978) and current interests while bringing attention to text features that are just beyond the child’s current level of understanding through guidance that does not impose arbitrary expectations (Ray & Glover, 2008, 2011). The most effective instruction for emergent writers occurs when adults make a concerted effort to remain neutral while prompting for clarification or suggesting alternatives and always respecting and yielding to the child’s “authorial stance” (Kesler, 2020). This type of teaching is easily accomplished in shared adult-child writing events or discussions with children about their writing, which increases the opportunity for and likelihood of direct support and scaffolding matched to a child’s individual needs (e.g., Neuman & Roskos, 1993). Quinn and Bingham (2018) urge teachers of young children to promote “early writing as a social practice in which children generate ideas, refine their ideas by sharing them, and try to communicate these ideas through developmentally appropriate practices,” provide genuine writing opportunities during play, and “authentic opportunities to connect oral to written language through authoring and sharing texts” (pp. 228-229).

Writing their own messages is an authentic, personal example of how writing is used, which requires children to simultaneously form and test hypotheses about the content, processes, and purposes of literacy (Harste et al., 1984; Rowe, 1994). Further, composing text has a significant positive impact on an individual’s reading ability (Graham, et al., 2013), and young children’s ability to write words phonetically has been identified as a direct connection to improved reading scores at the end of first grade (Ouellette & Sénéchal, 2017). Given the significance of writing ability on future academic success, the composing process of emerging writers is a topic worthy of investigation. The purpose of this study was to explore early childhood teachers’ experiences of working with an emergent writer. The following research questions guided this study: What impact does working alongside an emergent writer have on the learning of early childhood teachers with varying experience levels?

### **Methodology**

A multiple case study was used to explore the similarities and differences within and between cases. This approach is popular in education when using two or more cases to provide a

comprehensive view of the same issue or event (Alqahtani & Qu, 2019). It was selected to obtain an in-depth understanding of a few individuals resulting in a more robust account of participants' experiences than could be obtained through more analytical methods or a single case (Baxter & Jack, 2008).

### **Participants**

Participants were a convenience sample (Golzar et al., 2022) of graduate students. All participants were enrolled in a fully asynchronous online Masters-level course *Language Development in Early Childhood* during the same semester at a large, public university in the southeast United States. Participation was solicited via email, and eight students agreed to participate in this study. Participation was voluntary, and no incentives were provided. Participants were predominantly White females, which is a demographic composition representative of the United States teaching profession (Taie & Goldring, 2020). Teaching experience ranged from 0 to 18 years with kindergarten through fifth-grade students.

### **Selection of Cases**

Although data was collected on all eight participants, two considerations resulted in a decision to concentrate on a subset of cases rather than the entire group. The first consideration was pragmatic since focusing on fewer cases would permit a closer inspection of experiences. The second consideration emerged from the data. Although there was variability in the responses to the experience, there were noted commonalities that allowed for choosing participants using three recommended selection criteria (Stake, 2006): Does the collection of cases 1) provide illustrative examples of the phenomenon being investigated; 2) offer diversity across contexts; and 3) allow for exploration of subtle complexities and contexts? Ultimately, cases were selected to provide a view of teachers' insights regarding young children's writing development and their role in teaching emergent writers from a distinct range of perspectives. The three case subjects, who taught in three different school districts, were a White female novice teacher, an African-American male early in his career; and a White female veteran teacher. Portrayals of each case using pseudonyms for all people and places to maintain confidentiality are provided below:

**Sarah.** Sarah is a first-year teacher at Dixie Elementary School. Dixie is a highly rated public school with over 750 students in prekindergarten through sixth grade. Located in a suburban area in the southern part of the state, the student population, which is 87.6% White, has limited racial and economic diversity. According to state test scores, 37% of students are at least proficient in math and 63% in reading. Sarah is one of six first-grade teachers on the lower elementary campus. She says, "I am currently at my dream school teaching my dream grade, and I am loving every second of it." She admits that "Writing has been one of the weaker areas of teaching for me, especially with first graders who are still learning how to write sentences!" Sarah is pursuing a master's in elementary education and likes spending time with family when not teaching. The child with whom Sarah worked was a 6-year-old White male in her class who struggled with spelling and handwriting.

**Jeremy.** “Mr. Jeremy,” as he is known to his students, teaches kindergarten at Dry Creek Elementary School. Dry Creek is in a rural area in the central part of the state. Dry Creek has 609 students in prekindergarten through fifth grade. The student population is 54.2% White, 41.4% African American, and 3.4% Hispanic with more than 50% of the students receiving free or reduced lunch. According to state test scores, 11% of students are at least proficient in math and 46% in reading. Jeremy taught third grade his first year of teaching and is now in his third year as a kindergarten teacher with the largest class (22 students) he has ever taught. He completed his bachelor’s degree with dual certification in Special Education and Early Childhood Education. He explained, “If you would have asked me in undergrad what I would be teaching, I would have said special education, but things turned out different. . . . I do love kindergarten and felt it was my calling two years ago, so I went for it. I am now pursuing my master’s in early childhood education.” Jeremy explained that “My experience teaching writing was mainly in 3<sup>rd</sup> grade and with kindergarten the focus is writing strokes and letter formation.” The child with whom Jeremy worked was a 5-year-old White female in his class. He described her as “a typical kindergartener [who] has very decent handwriting and takes pride in her drawings and colorings.”

**Amelia.** Amelia is one of seven kindergarten teachers at Roberts Elementary School, which is in a rural area in the southern part of the state. Roberts has 1,022 students in prekindergarten through fifth grade. The student population is 63.1% White, 19% Hispanic, 9.2% Multiracial, and 8.3% African American with more than 50% of the students receiving free or reduced lunch. According to state test scores, 25% of students are at least proficient in math and 51% in reading. Amelia has 18 years of teaching experience including eight years in kindergarten, six in pre-kindergarten, two years in fifth grade, and two years as a reading/math interventionist. Amelia returned to face-to-face instruction this year after teaching for three years at the district’s Virtual School, which opened in August 2020 and closed in May 2023. Amelia, who is pursuing a master’s in elementary education, says, “I’ve taught writing to 5-year-olds and 10-year-olds, and it is not my strongest subject.” The child with whom Amelia worked was a 5-year-old White male in her class. She described him as “one of the more knowledgeable students in my class. He knows all his letters and sounds, and all the sight words taught to this point. He is beginning to blend CVC words.”

### **Data Sources and Analysis**

Data was collected in October 2023. For each case, data sources included: (a) notes and observations made by the teacher during a minimum of two writing sessions, (b) the written work of each emergent writer; (c) the teachers’ written reflection on the child’s writing; and (d) the teachers’ written summary of the overall experience, which was guided by a set of open-ended questions created by the researcher. While the first data source (notes and observations) attempted to describe witnessed behaviors, the third (reflection) and fourth (summary) were highly mediated, requiring the participants to think back on and try to

understand the experience. As Jasper (2005) notes, such “narrative and self-reflective written accounts, that are then analyzed and interpreted by the researcher, are a well established data source in qualitative work” (p. 253).

The main approach to data analysis involved a detailed examination of all artifacts that were initially reviewed to identify words, phrases, or concepts relevant to the central question (Saldana, 2021). The author’s analytic notes from this review were assessed and coded. As descriptive indicators of the teachers’ insights and understandings were grouped according to similarity, patterns describing factors related to young children’s writing development and teaching emergent writers were revealed. Based on these patterns, three major themes emerged. The author assigned the themes narrative descriptions to better communicate the nature of the codes and reveal connections across data sources.

Data triangulation was obtained by consulting various data sources and the fact that participants came from distinctly separate demographic groups. As an ongoing check in the process, each case was reviewed for any suggestion that was contradictory to the norm; no sign of disconfirming evidence was found. As a final check of validity, the three participants were asked to review the data to assess conclusions for accuracy and to detect any possibility of researcher bias. The one participant who completed this review indicated that the themes identified were a “very accurate” reflection of her experience working with an emergent writer (anonymous participant, personal communication, October 31, 2023).

## **Discussion of Results**

This study’s central question focused on the impact working alongside an emergent writer has on the learning of early childhood teachers with varying experience levels. Interpretation of the data revealed three cross-case themes that seemed to represent participants’ views of their experience. These themes are Wonder Regarding Young Children’s Early Writing, Insight into How Emergent Writers Compose Text, and Reflections on Classroom Practice.

### **Theme 1 Wonder Regarding Young Children’s Early Writing Attempts**

Perceptions of young children as writers were refined through their close observation of an emergent writer’s early attempts to compose text. Teachers marveled at the degree of writing motivation and print-related knowledge exhibited by an emerging writer.

#### ***Motivation***

All three teachers expressed surprise at the degree to which the children genuinely enjoyed their writing sessions. About serving as a scribe for her child’s dictated story, Sarah commented, “He eagerly shared his pizza story and seemed enthusiastic about the task. It surprised me how comfortable [he] was with sharing his story orally.” Jeremy and Amelia shared similar revelations commenting, “I learned that children truly do have a story to tell and have so many things in their head they are trying to get out,” and “He was so excited to hear his own words coming to life in a story,” respectively. Children’s intrinsic motivation to write is valuable since participation in early writing experiences provides increased understanding and acquisition



of skills foundational to later independent reading and writing. As Amelia pointed out, “For young writers, the positive reactions of others to their writings provide the motivation for them to continue to write and publish more of their creations.”

### ***Concepts of print***

Jeremy noted that the child he worked with matched her choice of writing utensil to her purpose, saying

She had pencils and crayons to use to help get her message across. She started drawing first. She took about six minutes to create a picture of her favorite food. It was a round cheese pizza that she told me was her favorite . . . I asked her to write about it. So, she then took the pencil and proceeded to write.

For Jeremy, the act of switching from crayon to pencil demonstrated an understanding of the difference between drawing and writing that a child may not have been able to verbalize.

Additionally, Jeremy observed the child’s knowledge of sentences revealed through her use of print conventions (capitalization and punctuation) in her writing - “I Lik PS.” (I like pizza.) – although it was not consistently applied – “i is ue” (It is yummy!).

Amelia, who described her writer as “a bright student,” noted his attention to phonemic awareness when writing saying, “He also told me the beginning sound of lions was /l/ and that lion rhymed with ‘tyin’.” She also noted the advanced vocabulary uncovered through conversation surrounding his writing and used in his text. “While he was drawing, we talked about the movie *The Lion King* (1994) and how he liked Simba. When he finished, he told me what was happening in the picture while I wrote what he said: “Lions love to eat, and these lions are eating iguanas, so they can survive.”

### **Theme 2 Insight into How Emergent Writers Compose Text**

Teachers mentioned the positive impact of recording and sharing children’s stories on their view of themselves as authors and noted the importance of adults in demonstrating how to write. Jeremy explained, “It is vital that we publish children’s work at the beginning of their writing and literacy development . . . [because it] allows the child to build motivation and excitement for writing.” Sarah shared that “Through this experience, I learned that even young writers who struggle with spelling can take pride in their writing . . . [His] confidence visibly grew as we worked on his story.” Similarly, Amelia noted,

Writers in this stage are just beginning to grasp the basic concepts of print and are experimenting with this form of self-expression. By acknowledging their work and effort, we can instill in the child the importance of writing as a way of communicating their thoughts and ideas.

### ***Dictating and Translating***

Teachers expressed their awareness that the ability to form letters on paper is not necessary for young children to compose text and affirmed dictation as a valuable strategy for emergent and early writers. Amelia stated her support of recording children’s oral stories

proclaiming, “Based on my experience, most children love to talk and can be very amusing with their stories. So why not write them down? The children can tell a grown-up or older child about their picture or a story, and the experienced writer can write what the young writer is saying.” Sarah expanded upon this idea stating,

Knowing that their words are valued and being transcribed into written form can motivate them to engage in writing activities. His initial reluctance to write was linked to concerns about spelling and handwriting. Dictating allowed him to focus on the content without those barriers.

Jeremy expressed his desire to implement underwriting to make children’s nonconventional print readable. He stated, “I am eager to keep trying this with my class to see how I can better help them get the information and stories out of their heads onto the paper.” Statements from Sarah and Amelia corroborated the importance of taking dictation and transcribing children’s initial attempts at communicating in print in supporting writing development. Sarah said, “It showed me how much modeling truly helps students, especially the ones who struggle” and Amelia stated, “The students watching me write will encourage them to begin writing their own stories.”

### ***Publishing***

Amelia noted her writer’s apparent sense of audience, stating that “He drew his family, including his older brother. . . . He was going to share his story with his brother” and asserted “Writing for an audience gives the writers an excellent reason to write and gives their work purpose and value.” Jeremy supported publishing children’s early writing attempts with this declaration, “We need to display [nonstandard print] and allow children to feel the excitement and accomplishment of what they have done. . . . As adults, we need to show enthusiasm, excitement, and curiosity for what they have written.” Sarah concurred that “offering young children the opportunity to see their thoughts and ideas transformed into tangible, published works instills a sense of pride and confidence in their abilities as budding writers.” Overall, participants viewed publishing with emergent writers as a valuable opportunity for children to grow as authors. From considering their readers when writing to receiving public affirmation for their work, all three teachers recognized the benefit of publishing as a means of developing emergent writers’ knowledge and skills.

### **Theme 3 Reflections on Classroom Practice**

Teachers recognized the professional benefit of individually engaging an emergent writer by indicating that the experience contributed to their increased understanding of how emergent writers can be best supported in early childhood classrooms. Sarah stated,

I loved being able to see my student’s reaction at the end of this process. Overall, these sessions with [him] highlighted the importance of providing young emergent writers with a supportive and collaborative writing environment. It showed me how much modeling truly helps students, especially the ones who struggle.

Jeremy noted, “Being a kindergarten teacher, I often spend most of my time teaching letters and sounds. I now want to incorporate more writing instruction that allows the students to tell me what they want me to know in their kind of writing.” Amelia concluded, “Taking the time to let the children dictate stories is time-consuming, but this has shown me how beneficial it can be. The children love it. It connects writing to speaking, and I get to know the child better.”

All three teachers recognized the importance of emergent writers composing and sharing stories. There was a collective awareness that publishing helped children improve as writers and develop a sense of themselves as authors, which made it worth the time and effort required. Although Jeremy was the only one to explicitly state his desire to increase writing instruction, Sarah’s and Amelia’s positive perceptions of dictation indicate that it may become a more prevalent classroom practice.

### **Limitations**

Limitations of this study include limited generalizability and possible researcher bias. The small number of participants and specific context of this investigation minimize the ability to transfer any conclusions drawn to a wider body in other settings. Case study analysis takes many forms and lacks the routine procedures established for other research methods making analyzing case study data a challenge (Yin, 2012). Despite efforts to prevent my subjective feelings from influencing the interpretation of the information acquired, having a researcher’s subjective opinions or preconceived ideas intrude on the assessment of data is a risk in all qualitative research.

### **Conclusion**

According to Gerde et al. (2015), the predominant approach to writing instruction is often tacit, rarely focusing on how children are creating text. Further, modeling and scaffolding practices to support early writing were observed to be mostly focused on handwriting proficiency rather than composing (Gerde et al., 2023). Composing, however, is a necessary practice that helps young children understand the purpose of the writing process while providing opportunities to engage in complex and multidimensional learning about print (Casbergue & Strickland, 2016; Rowe, 2018). Working with an emerging writer asking specific questions to guide the composing process may help prospective and in-service teachers get a more comprehensive picture of young children’s writing development. This increased understanding, achieved interpersonally, can be an effective way to motivate their implementation of appropriate writing experiences for developing authors in the early childhood classroom.

### **Implications**

After a close examination of three cases, it is posited that teachers learned a great deal about the developmental aspects of learning to write and supporting young children as writers through time spent composing with a single child. They witnessed the value of teacher modeling through dictation on children’s knowledge of print and the positive impact having one’s story read and enjoyed had on the confidence and motivation of emergent writers. Sarah’s observation

that a simple story can contain personal details and express emotions of importance to the child summarized the participants' shared understanding that composing and publishing help young children with developing literacy skills discover their writer's voice. Emergent writers thrive when instruction focuses on children's interaction with print as a meaning-making process rather than the conventionality of their writing.

Continued research focused on how the understandings gained through experiences working closely beside a single child is needed along with studies investigating how insights gained from such experiences are translated into child-centered writing instruction. Additionally, researchers need to expand studies focusing on the accomplishments of emergent writers to include investigations of effective developmentally appropriate writing activities that can be used to develop teacher preparation and professional development programs endorsing the best instruction for young writers.

Information about emergent writing and the significance of appropriate early writing experiences needs to be as impressed upon early childhood teachers to the same degree with which increasing awareness of the importance of early reading experiences has been historically addressed. According to Gerde et al. (2024), "Teachers can promote children's early writing and reading development when they integrate writing experiences across the day during common classroom routines and transitions" (p. 1). Teacher educators can communicate the significance of appreciating and encouraging children's initial attempts at composing to future early childhood educators in authentic, meaningful ways. Thus, it is recommended that teacher educators continuously strive to adapt and improve current methods to create even more powerful experiences around learning how children become writers and how to support emerging writers as they transition from using early, experimental forms of writing to the use of conventional print while fostering the development of their identities as authors.

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*Dr. Giles is a Professor of Early Childhood and Elementary Education. She has spoken and published widely regarding early literacy and teacher preparation and is the author of A Young Writer's World: Creating Classrooms Where Authors Abound (2020, Exchange Press).*

## **Leveraging Partnerships with Educators Rising to Address Special Education Teacher Shortages**

**Alexandra J. Taylor  
Bellarmine University**

### **Abstract**

The current shortage of fully certified special education teachers is a problem that the nation is facing. The Commonwealth of Kentucky is one of the states that is seeing increased numbers of vacancies within special education. This article explores how liberal arts educator preparation programs (EPPs) offering dual certification in special education can address this issue by exposing high school students to the education profession through intentional efforts in recruitment. Specifically, the article will highlight a school-university partnership through Educators Rising aimed at improving recruitment, retention, and development within the special education teacher pipeline. The article presents survey results from a year-long recruitment initiative, discusses the study's limitations, and suggests directions for future research.

*Keywords:* special education, teacher shortage, teacher education, school-university partnerships



## **Leveraging Partnerships with Educators Rising to Address Special Education Teacher Shortages**

Addressing the national special education teacher shortage is of utmost importance. It is critical that school systems in the nation have fully qualified special education teachers. During the 2020-2021 school year there were 7.2 million students in the United States aged 3-12 who received special education services under the Individuals with Disabilities Education Act (IDEA), approximately 15% of the total school population (NCES, 2022). Under IDEA, students with disabilities receive a Free and Appropriate Public Education (FAPE). The law sets forth regulations concerning the governance of special education and the population of students with disabilities in the P-12 system (those receiving services under IDEA) has been growing at a rate approximately three times faster than the general education population, a trend projected to persist (Aldeman, 2024; IDEA, n.d.; Thornton et al., 2007). In the absence of fully qualified, licensed special education teachers, several critical considerations arise. Students with disabilities may not be receiving the services outlined in their individualized education plans (IEPs), school systems may fall short in ensuring these students achieve the goals specified in their IEPs, and these students might not be receiving the high-quality instruction necessary to meet their unique needs.

The current crisis in the shortage of fully qualified special education teachers is perpetuating these issues facing the education system. As Thornton et al. (2007) state, “for students with disabilities to be guaranteed instruction by highly qualified special education teachers, [special education teachers] supply must increase...” (p. 237). According to the National Center for Education Statistics (2023), data from the 2023-2024 school year indicates 45% of U.S. public schools are understaffed. Further, the Institute of Educational Sciences (2022) reported 65% of public schools were understaffed in special education. Currently, 45% of schools reported special education teacher vacancies and 77% reported challenges faced with hiring special education staff (NCES, 2023). Historically, the supply and demand has fluctuated for fully qualified special education teachers causing states to have challenges in addressing special education teacher shortages (Peyton & Acosta, 2022). However, according to Mandlawitz (2022), the Bureau of Labor Statistics has projected that between 2020 and 2030, there will be a need for 37,600 new special education teachers. Therefore, this is a challenge that must be faced directly in order to comply with regulations set forth in IDEA and further, to provide appropriate education to students with disabilities.

### **Commonwealth of Kentucky**

The national trends for this issue are also impacting the Commonwealth of Kentucky. According to the Kentucky Center for Economic Policy, there was a 260% increase in teacher positions across the state between 2019 and 2023, with exceptional childhood programs among the top areas in which the teacher shortage is seen (Bailey, 2023). During the 2020-2021 school year, the Commonwealth of Kentucky had 105,774 students with disabilities, approximately 16%

of the total school population (Kentucky Department of Education [KYDOE], n.d.). The focus of this research was a large, urban school district located in the outer Bluegrass region of the state, which is representative of the central and northern part of the state. During the 2020-2021 school year, there were 12,626 (13%) students with disabilities in this focal area (KYDOE, n.d.), which serves a specialized state school and one-school district. In a data report to the U.S. Department of Education, it was reported that in this area there was a special education teacher shortage in grades Pre-K through 12 for the 2023-2024 school year (United States Department of Education [USDOE], n.d.). According to the critical needs teaching list, the district was in critical need of certified teachers in special education, including the following areas: learning/behavior disorders, moderate to severe disabilities, hearing impairments, and visual impairments. With the shortage occurring at both the national and state-level, there is a need for education preparation programs (EPPs) to recruit, retain, and produce certified special education teachers. The Commonwealth of Kentucky provides multiple pathways to teacher certification through Kentucky Revised Statute (KRS) 161.048, as established by the Kentucky General Assembly. This legislation authorizes alternative routes to certification (e.g., Option 9 and teacher residency program) for qualified candidates seeking to enter the teaching profession. Additionally, there is a focus on “grow your own” programs and dual-credit pipelines (KRS 164.098). This research focuses on leveraging dual-credit pipelines for high school students enrolled in education pathways by exploring partnerships with Educators Rising to enhance recruitment, retention, and development within the teacher pipeline.

### **Educators Rising**

In order to increase the number of teachers in the pipeline, it is necessary to recruit and retain students to enter into this profession. It is important to expose middle and high school students to the education profession (Mandlawitz, 2022). As Brown (2016) reports, a small percentage (5%) of high school students demonstrated on their ACT an interest in teaching professions. This situation must change. It is imperative to empower young people to choose careers in education. One community-based movement that brings middle and high school students together to “provide a clear pathway to increase teacher diversity and teacher quality” is Educators Rising (Educators Rising, 2023, para. 4). Specifically, Educators Rising chapters at the middle and high school levels feed students into EPPs. According to Educators Rising Kentucky (2022), “Starting with high school students, Educators Rising provides passionate young people with hands-on teaching experience, sustains their interest in the profession, and helps them cultivate the skills they need to be successful educators” (para. 2).

This research study will highlight how a liberal arts teacher education program that offers dual certification in special education leveraged a partnership with Educators Rising Kentucky to increase the teacher education pipeline to combat the special education teacher shortage in the state. Specifically, the research questions posed in this study are: 1) What effects do participating in intentionally planned, liberal arts teacher education (i.e., dual-certification in special education) on-site college visits have on students’ career self-efficacy? and 2) Are students

inclined to see the value of a liberal arts teacher education (i.e., dual-certification in special education) after participating in intentionally planned on-site college visits?

## **Literature Review**

### **Special Education Teacher Shortage**

There has been a persistent supply, demand, and shortage of special education teachers over the past 20 years that has contributed to a national problem that affects all regions of the United States (Boe, 2006; Cowan et al., 2016; McLeskey & Billingsley, 2008; Peyton & Acosta, 2022; Sutchter et al., 2019). Thornton et al. (2007) point out that this shortage does not impact a particular disability but is present across all disabilities; however, McLeskey et al. (2004) demonstrate that special educators who teach students with emotional/behavioral disorders, multi-categorical, severe disabilities, and learning disabilities have the most significant shortages. According to Brownell et al. (2004), the shortage is even more severe for special education teachers who are culturally and linguistically diverse (CLD). The chronic and increasing shortage mainly impacts children ages 6-21 who receive services under IDEA.

### ***Statistics on Special Education Teacher Shortage***

Teacher shortages in special education have been well documented since the 1960s (Sutchter et al., 2019) and were first reported in *A Nation at Risk*, the seminal report published by the National Commission on Excellence in Education in 1983. According to Boe (2006), the shortage of special education teachers ranged from 7.4% in 1978/1988 to 13.4% during 2002/2003. This shortage translated to approximately 54,000 estimated vacant positions in special education. More recent estimates indicate that during the 2023-2024 school year, over half of school districts nationwide and 80% of states reported shortages of special education teachers (Aldeman, 2024). Having fully certified special education teachers is another concern. McLesky & Billingsley (2008) report that over 49,000 teachers, approximately one in eight special education teachers, were not fully certified in their licensure area. McLesky et al. (2004) highlight the disproportion of CLD special education teachers (14%) to students with disabilities who identify as CLD (35%). Barnett and Haung (2024) express the need for more diverse special education teachers to match the demographics of students with disabilities that are continuing to change. Thornton et al. (2007) further elaborate on these shortages, noting that 98% of school districts nationwide have reported difficulties in hiring special education teachers. These shortages extend into content areas, as 82-99% of secondary special education teachers in English, mathematics, science, and social studies are not fully qualified to teach their specific subject areas (McLesky & Billingsley, 2008).

In addition to an overall problem with hiring fully certified special education teachers, there is also another complexity that involves the location where special education teachers are choosing to work. According to Mason-Williams (2015), there is a distribution of special education teachers that is uneven across the United States, especially in high-poverty schools.

Cowan et al. (2016) further this sentiment emphasizing that this shortage not only impacts schools serving disadvantaged students but also highlights a shortage in rural areas.

### ***Potential Reasons for Special Education Teacher Shortage***

The special education teacher shortage can be attributed to various factors, including employment challenges, working conditions, personal or life circumstances, and issues related to students, among others. Among the most pressing issues is attrition. Brownell et al. (2004) identify low salaries, poor working conditions, lack of support, and improper certification as the top reasons for the heightened rates of attrition. Thornton et al. (2007) estimate that the attrition rate of special education teachers is 20% annually, whereas McLesky et al. (2004) estimate teacher attrition rates of over 13%. These attrition rates are more significant in urban and rural school districts, especially those schools that have higher percentages of minority students who are also living in poverty (McLeskey & Billingsley, 2008). Barnett and Haung (2024) discuss implications surrounding legislation from federal requirements of No Child Left Behind, which requires all teachers to be “highly qualified.” This has created difficulties in hiring special education teachers and increased pressures that special education teachers already face regarding meeting proficiency targets for students with disabilities which ultimately increase attrition rates.

Of importance to this study, is how EPPs can help recruit and retain special education teachers, which can help decrease this attrition rate. Boe (2006) and Barnett and Haung (2024) point towards EPPs not producing enough special education teacher candidates into education. Boe (2006) highlights difficulties EPPs face in recruitment and retention of special education majors while Barnett and Haung (2024) state that annually there is a shortage of approximately 30,000 positions and 6,000 vacant positions. This shortage is heightened when EPPs are not producing enough candidates to enter the field (Peyton & Acosta, 2022). According to the Learning Policy Institute (2024), over the past five academic years, from 2017/2018 to 2021/2022, Kentucky has seen a 12.5% decrease in teacher preparation program completers.

### ***Strategies to Combat the Special Education Teacher Shortage***

The literature varies when thinking about how to help combat the special education teacher shortage. Strategies like induction and mentoring programs (Brownell et al., 2004; Thornton et al., 2007), increased marketing strategies (Barnett & Haung, 2024), and state-wide system change and reform (Brownell et al., 2004) are suggested; however, this study emphasizes the role of EPPs in addressing the recruitment and retention of special education teachers, making them a focal point of the discussion.

**Education Preparation Programs (EPPs).** Boe (2006) discusses ways to increase the supply of new special education teachers with a central focus on expanding teacher preparation programs. When looking at expanded efforts to increase recruitment of future special education teachers, the development of school-university partners and “grow your own” programs are vital. Goldman and Vander Hart (2023) pinpoint the many different benefits of school-university partnerships, consisting of more valuable experiences for students, greater opportunities to

engage in activities, and access to higher education. Barnett and Haung (2024) and Thornton et al. (2007) recommend “grow your own” initiatives. This research study focuses on Educators Rising which is a “grow your own” initiative program.

**Educators Rising.** According to Educators Rising (2023), “grow your own” helps in the recruitment, retainment, and development of future teacher pools. Educators Rising reports that around 60% of teachers return to teach within 20 miles of where they went to school and that over half (51%) of Educators Rising students are students of color. These statistics suggest that future teachers desire to return home and teach in their communities. Furthermore, a 2020 study by George Washington University found that 60% of Educators Rising students indicated an increase in a desire to teach (Educators Rising, 2023). The research on “grow your own” programs is promising but only when these organizations are sustained over time; therefore, these programs have the potential to help with increased recruitment and retention efforts. Gist et al. (2019) report higher retention rates for teaching in communities in which students actively participated in the “grow your own” program, especially for middle and high school students.

**Educators Rising Kentucky.** In the 2022-2023 school year, the total number of active Educators Rising students across the Commonwealth was 773. Currently, there are no middle school chapters and 123 high school chapters in the state (J. Praise, personal communication, April 4, 2023). In this study, an EPP partnered with one Educators Rising chapter to strengthen an existing partnership with a renewed focus on recruitment and retention of special education teachers. According to Brownell et al. (2004), “strong partnerships between preparation programs and schools are essential to successful induction, as these partnerships create coherence between preparation and classroom practice, making it easier for beginning teachers to operationalize the skills they have learned” (p. 57). The school-university partnership for the Educators Rising chapter will be discussed further in the methods section.

### **Predictive Factors for Future Teachers**

Across the Commonwealth, a growing number of students have shown an interest in teaching through their work with Educators Rising. However, the challenge lies in mapping a clear pathway to guide these students from high school, through the post-secondary pipeline, and into their first teaching positions in the classroom. There are predictive factors that contribute towards high school students’ willingness to become teachers. Self-efficacy, encouragement from others, and respect are all predictive factors for high school students’ willingness to become a teacher (Christensen et. al., 2019; Han et. al., 2018). Christensen et al. (2019) identified several factors influencing high school students' willingness to pursue teaching. While teacher pay and good working conditions were deemed important, they were not significant predictors. Instead, factors such as self-efficacy, encouragement from others, family support, academic success, gender, and the belief in teaching as a respectable profession emerged as key predictors. Among these, self-efficacy and encouragement from others were the most significant. Han et al. (2018) also found that the respect and responsibility associated with the teaching profession were key

factors motivating high school students to pursue a career in education. This study will address students' self-efficacy and showcase encouragement for pursuing teacher education through on-site college visits, emphasizing the respect associated with the teaching profession.

### **Theoretical Framework**

This research study draws upon the Theory of Career Maturity (Crites, 1972). Essentially, the theory centers on career pathways and comes out of the field of career development and vocational counseling with a focus on career maturity as a developmental construct. Career maturity is defined by Zimmer-Gembeck and Mortimer (2006) as a person's readiness to make well-informed career decisions that are age-appropriate and, as a result, to be able to cope with the developmental tasks that are associated with that particular life stage. For example, a high school student making the decision to pursue a teaching career and then following through by applying to a college or university with a defined major in education. This process of career maturity involves affective and cognitive elements and incorporates attitudes, knowledge and skills that relate to career decision-making. Further, related to this study, individuals with higher vocational maturity are more likely to make informed decisions about entering into special education. The early exposure to the field through the Educators Rising programs allows potential students to explore special education careers, which aids in developing vocational maturity. Given the potential for early exposure to foster enhanced vocational maturity, there exists a possibility to address the shortage of special education teachers through improved recruitment and retention rates.

The hierarchical model of career maturity (Crites, 1972; Zimmer-Gembeck & Mortimer, 2006) states that the degree of vocational development is based on four different group factors (i.e., consistency of vocational choice, wisdom of vocational choice, vocational choice competencies, and vocational choice attitudes). Unique to this study is the group factor of career choice competencies, which are referred to as Career Choice Competencies. The five variables within this factor are: problem solving, planning, occupational information, self-knowledge, and goal selection (Crites, 1972). These variable areas are the five subscales within the Career Decision Self-Efficacy Scale (Betz & Taylor, 2012) that is used in this study and discussed in more detail in the methods section.

### **Methods**

As mentioned previously, the purpose of this study was to determine if participating in intentionally planned, liberal arts teacher education on-site college visits impacted students' career self-efficacy. Since the state of Kentucky recognizes "Educators Rising as a career and technical student organization that complements the Teaching and Learning pathway" (KYDOE, 2022, p. 11), this study examined if active participation in Educators Rising chapters impacted students' beliefs that they can make a significant career decision. More specifically, could students' make significant career decisions to become special education teachers thus helping to combat the special education teacher shortage. To achieve this goal, efforts were focused on

strengthening a partnership with a local school's chapter of Educators Rising by designing three intentionally planned on-site college visits to a liberal arts teacher education program that offers dual certification in special education.

## **Research Design**

Survey research was conducted in this study to collect data regarding students' perceptions and experience in participating in intentionally planned, liberal arts teacher education onsite college visits. Specifically, both quantitative and qualitative survey data were collected in this mixed methods study to address students' career self-efficacy and their perceived value of liberal arts teacher education. According to Check and Schutt (2012), survey research is defined as "the collection of information from a sample of individuals through their responses to questions" (p. 160). Participants' responses from the two surveys helped gain insight into the research questions posed for this study: 1) What effects do participating in intentionally planned, liberal arts teacher education (i.e., dual-certification in special education) on-site college visits have on students' career self-efficacy? and 2) Are students inclined to see the value of a liberal arts teacher education (i.e., dual-certification in special education) after participating in intentionally planned on-site college visits? Specifically, results from the study were aimed at increased recruitment efforts for a liberal arts teacher education program that offers dual certification in special education to help combat the special education teacher shortage.

## **Setting and Participants**

### ***Institution Setting***

This research study is set at a small, private, Catholic liberal arts college, located in the southern United States. As of fall 2023, the university had an approximate total enrollment of 3,000 students, including 2,351 undergraduate students. The institution offers 42 undergraduate majors. Specific to teaching, the School of Education offers undergraduate and graduate degree programs for students pursuing an initial certification in teaching. In the fall 2023 semester, there were 197 students enrolled as elementary education, middle education, or secondary majors. Unique to the program, all students majoring in elementary and middle education receive a dual certification in special education. The special education certification is a P-12 licensure in mild to moderate disabilities that is marketed as a learning and behavioral disorders classification. There were approximately 86 students enrolled in this dual certification track.

### ***School District Setting***

The secondary setting for this research study was a large, urban school district located in Kentucky. This district is the largest school district in Kentucky and serves approximately 96,000 students. The district is the 29<sup>th</sup> largest school district in the nation. According to *U.S. News & World Report* (2024), the district has 170 schools (48 preschool, 106 elementary, 48 middle, and 44 high). Student enrollment is 60% minority and 48.7% economically disadvantaged. Within this school district, there are 12 active Educators Rising chapters. These chapters are offered to

students that are enrolled in the Teaching, Learning and Leadership Pathway that the district offers for high school students interested in a teaching career. Currently, there are 420 students enrolled in this pathway, but not all students are active members in the Educators Rising chapters because of the enrollment fee (J. Praise, personal communication, April 3, 2023).

***School Setting***

Of the 12 Educators Rising chapters in the district, this study focused on one specific chapter at one high school, which is referred to by a pseudonym, Taylor High School. According to the *U.S. News & World Report* (2024), the current enrollment in grades 9-12 is 2,003 students. The minority enrollment is 46%, and 34% of students are economically disadvantaged. This school has an established Teaching, Learning and Leadership pathway program. The school has approximately 100 students enrolled in this pathway, and each student is automatically enrolled in the Educators Rising chapter. On average, between 30-40 of these students are active participants in the Educators Rising chapter. Active participation is classified as attending one or more Educators Rising events or chapter meetings.

***Participants***

The participants for this research study consist of members of the partner high school. All of the members were enrolled in the Educators Rising chapter. Table 1 outlines participant attendance information for this research study.

**Table 1**

*Participant Attendance Information – Taylor High School\* Educators Rising Chapter*

	<i>n</i>
Educators Rising chapter	100
Active participation in Educators Rising chapter	30-40
Event 1: Campus tour and education panel	21
Event 2: Mock class and teacher crafting	14
Event 3: Men’s basketball game	18
Event 4: Celebration and cake	40-50

*Note:* Taylor High School is a pseudonym.

In addition to the participant attendance information, the members in the Educators Rising chapter at Taylor High School consented to take part in the Career Decision Self-Efficacy Scale (CDSE) administration. Fifty-four active members in the chapter were contacted and 14 of those students consented to this part of the research study. Of those 14 students, 12 students completed the CDSE form for a response rate of 85%. Table 2 describes the demographics of the participants for this portion of the research.



**Table 2**  
*Demographics of Participants*

	<i>n</i>	%
Sex		
Female	9	75
Male	3	25
Age		
15	2	16.67
16	1	8.3
17	6	50
18	1	8.3

*Note.* Two participants did not respond to the demographic question that addressed age.

### **Measures**

Two main instruments were used to collect data for this study. The first was an experience survey (see Appendix) that was created by the researcher. This experience survey was given to all members of the Educators Rising chapter after the last on-campus visit in February 2024. The survey was administered via Microsoft Forms and was shared electronically with students. Fifty-four student members were invited to take the survey, and 29 students responded for a response rate of 53%. Of the respondents, 7% were freshmen, 24% were sophomores, 45% were juniors, and 24% were seniors. Twenty-four students (44%) indicated that they have actively participated in Educators Rising events, and 29 students (53%) indicated that they were enrolled in the Teaching, Learning and Leadership pathway. The experience survey contained both closed and open-ended questions that were designed to gain the participants' perceived value of attending on-site campus visits. The questions asked on this experience survey consisted of basic demographic and school questions, along with specific questions about their experiences while attending on-site campus visits.

The second instrument was the Career Decision Self-Efficacy Scale (Betz & Taylor, 2012) that was given to a small sample of Educators Rising members that consented to this portion of the research study. This survey was administered electronically and sent directly to the students' emails through Mind Garden, Inc.® The researcher paid for a license to administer the 25-item short form of the CDSE Scale. The CDSE “measures an individual’s degree of belief that he/she can successfully complete tasks necessary to making significant career decisions” (Taylor & Betz, 2012, para. 1). It is based on the Theory of Career Maturity and connects with the Career Choice Competencies outlined by John Crites (Crites, 1972). Betz and Taylor (2012) report positive educational and career decisional outcomes linked to this measurement. For the CDSE short form (5-level response) the coefficient alpha values ranged from .78 to .87, with a conclusion that this instrument was as reliable and valid as the original CDSE instrument

(10-level response) ranging from .69 to .83 (Betz et al., 2005). This form was administered to the 14 students after the last in-person event in February 2024 and consisted of demographic and Likert scale questions. The Likert scale questions ranged from no confidence at all to complete confidence and covered five areas: 1) self-appraisal, 2) occupational information, 3) goal selection, 4) planning and 5) problem solving.

## **Procedures and Data Analysis**

### ***Procedures***

This study received Institutional Review Board approval from the host university. Criterion sampling was employed to collect survey responses from students at the school. Specific to this sample, the requirement for participating in this study was the students had to be enrolled in the school's chapter of Educators Rising. Data was collected from August 2023 through May 2024. There was no compensation for completing the surveys, and the student participants could withdraw at any time.

### ***Data Analysis***

The first data analysis was conducted from results of the experience survey that was given to members of the Educators Rising chapter that attended at least one event on-campus. As stated previously, this survey had both closed and open-ended questions. Descriptive statistics (e.g., percentages) were used to analyze the close-ended questions. Additionally, descriptive statistics were calculated for the second measure (i.e., CDSE Scale) that was given to a small group of Educators Rising members that consented to this portion of the research study.

Open-ended responses on the experience survey were analyzed to identify themes that focused on the participants' perceived value of attending intentionally planned on-site college visits within a liberal arts teacher education program that offered dual certification in special education. The analysis process began with coding for themes by employing organizational categories as this helped sort data into areas that were informative for research purposes (Maxwell, 2013). To facilitate drawing conclusions about the perceived value of the on-site college visits, the analysis process continued by further coding the four organizational categories. This involved collapsing these categories into additional themes. These were more descriptive themes (i.e., substantive categories) that allowed for analyzing the participant responses in relation to the research questions. To improve trustworthiness from the open-ended responses, participants' own words were used.

## **Results**

### **Experience Survey**

Overall, the average rating of the intentionally planned, on-site college visits was a 4.12 (out of 5). Students indicated a preference for attending the basketball game, followed by the campus tour and then lastly, the mock-tour. When asked if the students felt like attending the events helped them make a better choice about their future, 63% responded "yes" (n = 15), 21%

“no” (n = 5), and 17% “maybe” (n = 4). In addition to the quantitative questions, the students were also asked four open-ended questions about their experiences.

The first question was “What was your favorite event and why?” Responses were coded for basic themes which consisted of events in which the students were able to: ask questions, meet current students and professors, and to participate in a hands-on way in which they felt the events were actionable. Of the four events offered, students viewed the campus tour (n = 7) as their favorite, followed by the mock education class (n = 6) and the basketball game (n = 6). These responses were different from the overall rating (as referenced above) as the requirements for answering the overall rating were students needed to have attended all four offered events. As one student stated, “I loved seeing a class in action.” Additionally, students commented on the culture of the college and sense of community stating, “. . .I loved the sense of community” and “[I] felt included in the culture of the college.” Overall, students indicated that they enjoyed the visits because they were able to see new opportunities.

The second question was “How can we improve the events in the future?” Specific themes identified from this question center on timing/scheduling (n = 6) and education-centered opportunities (n = 5). Students responded with improvements surrounding the timing of the events as well as communication and advertisement. Also, students indicated that they wanted to see more focused events with education majors, such as the campus tour and one-on-one sessions during the education panel as well as a preference to attend a general education class. As one student stated, “Have more students talk with the students one on one,” and another stated “have core class sit ins.”

The third open-ended question was “What was the most valuable information you learned?” Themes from the responses included: student life (n = 13), scholarship opportunities (n = 5), and major requirements (n = 3). Specifically, students commented on class size stating “. . .how small the class sizes were,” and within that point of reference students saw a true community built in a liberal arts teacher education classroom as one student stated, “The most valuable information I learned is that you need to create a community within the class and communicate with your peers to work to the best of your ability.” Once again, the element of community was highlighted.

The last question focused on wishes and asked students “What information do you wish you learned about?” The purpose of this question was to help plan for future events when considering sustaining this work. Themes identified from this question surrounded education program information, including certification (n = 7) and admissions and the application process (n = 5). Students commented on wishing they could have seen a general education class, the application process and received explanations about the certification process (e.g., “Application process, majors, more campus life” and “I wish I was able to learn more about what certifications Bellarmine offers to upcoming teachers”).

### **Career Decision Self-Efficacy Scale (CDSE)**

The total score average for the group was 3.78 (out of 5), the group averages for each of the five areas are included in Table 3.

**Table 3**

*CDSE Group Averages – Sample Taylor High School\* Educators Rising Chapter*

Component	Group <i>M</i>	<i>SD</i>
Self-Appraisal	3.85	0.57
Occupational Information	3.87	0.68
Goal Selection	3.87	0.59
Planning	3.78	0.72
Problem Solving	3.52	0.46
Total Score	3.78	0.44

*Note:* Taylor High School is a pseudonym.

The highest score in the group was occupational information ( $M = 3.87$ ,  $SD = 0.68$ ) and goal selection ( $M = 3.87$ ,  $SD = 0.59$ ), while the lowest average was problem solving ( $M = 3.52$ ,  $SD = 0.46$ ). Overall, higher scores corresponded to higher levels of self-efficacy related to career choices. When looking at the 12 participants' individual total scores, five of those participants scored 4 or higher in their total score for a rate of 41.67% of participants.

### Discussion

As the nation continues to try to address the shortage of special education teachers, it is important that at the state-level, there is support and guidance given to EPPs that helps them to take actionable steps in recruiting, retaining, and producing fully certified special education teachers. As the current research recommends, one way this can be achieved is through expanding teacher preparation programs that include school-university partners and “grow your own” programs (Boe, 2006). Access to higher education and greater opportunities to engage in activities are benefits of these partnerships (Goldman & Vander Hart, 2023). This study expanded on the research that surrounds school-university partnerships that address recruitment, retention and development of the teacher pipeline with the “grow your own” program, Educators Rising.

Overall, it was clear that the Educators Rising chapter members from the local high school partner found the intentionally planned on-site college visits to be impactful as noted in the findings. Responses from the open-ended questions on the experience survey related to research question 2, which addressed the value of a liberal arts teacher education (i.e., dual-certification in special education) after participating in intentionally planned on-site college visits. The mock class students attended was a special education course for first year college students. Responses such as “I liked seeing what a college class looks like” and “gives a better idea of what classes will be like” help enhance student understanding of the particular dual-certification, liberal arts teacher education program. The word community was mentioned by four students in answering the question: “What was your favorite event and why?” The sense

of community that students commented on highlights the value of a liberal arts education. In addition to responses from the student participants, the high school sponsor of the Educators Rising chapter, when asked if she felt that the events enhanced her students' perceptions of college, stated:

Yes, I think my students have yet to acquire a realistic understanding of college life. They don't understand how college will be different than their previous years in school. It's difficult to explain the independence and autonomy a college student has because their entire academic life has been guided and supported in ways that afford little choice. Sitting in on a collegiate class helped my students to understand the rigor and expectations. Several of my students expressed empowered sentiments that they felt they could be successful in college because of what they observed. The idea of college can feel foreign, difficult, and overwhelming without a reference point. These trips provided the opportunity for my kids to feel college was attainable, and now they understand the goal they are working towards. As a result, they became excited about college instead of nervous. Overall, my kids didn't understand how a college student spends their day. They were excited about the free time, social components, and extra-curricular opportunities they saw through the student organizations that were out and about on those days. (C. Cummings, personal communication, February 2024)

The open-ended response questions from this research study demonstrated that students saw value in attending intentionally planned on-site college visits within a liberal arts teacher education program. This type of exposure is important in recruitment efforts to help produce more dual-certified teachers that would help contribute towards solving the special education teacher shortage. Additionally, the Educators Rising sponsor's response highlights the literature from Goldman and Vander Hart (2023) about valuable experience for students. Further, this supports the purpose of Educators Rising (2022) in the sustainment of students' interest in education. Encouragement from others and respect, both predictive factors of students' willingness to become teachers (Christensen et. al., 2019; Han et. al., 2018), were highlighted in these intentional visits and contributed towards positive findings of this research study. In addition to the value of these experiences, there was an alignment to the research that surrounds self-efficacy in career decision-making, which is another predictive factor for future teachers.

When asked if the students felt like attending the events helped them make a better choice about their future, the high response rate of "yes" from the experience survey contributes towards students' abilities to make a career choice and directly relate to research question 1 (i.e., self-efficacy). Additionally, the overall self-efficacy score of 3.78 out of 5 suggests moderately high levels of confidence in career decision-making among the student participants in this study. The results from the CDSE directly relate to research question 1, which addresses self-efficacy. When students are enrolled in Educators Rising, or other "grow-your-own" programs, they are exposed to the profession, and as a result, they are able to make significant career decisions as seen in this research study. These students are then able to use those higher levels of self-efficacy to enroll in an EPP like the discussed in this research study. Dually certified liberal arts teacher

education programs that certify students in special education can help fill the gaps in special education teachers across the nation.

Overall, the findings from this research study demonstrate that a high-quality, strong partnership with a “grow your own” program like Educators Rising can help students see value and purpose in their decisions to go into the education profession. Additionally, that engagement in experiences with host universities can translate into higher levels of self-efficacy surrounding career decision-making.

### **Limitations**

The sample population for this study was limited to one school within one district in Kentucky, and the sample size was small. Therefore, the results are not generalizable. Additionally, in examining the overall rating of the on-site experiences, not all participants attended each event that was offered. Lastly, the experience survey was researcher created and was not a valid nor reliable instrument.

### **Implications for Future Research**

It is extremely important that findings from this research study be translated into practice to eliminate shortages in special education. EPPs are encouraged to find school-university partners or strengthen existing partnerships. One intentional way that EPPs can do this is by partnering with “grow your own” programs like Educators Rising and further organizing intentional on-site college visits for those members. In the future, this work could be expanded to other Educators Rising chapters in the local district and beyond into other counties across the Commonwealth. Such expansion would broaden the reach and impact, potentially attracting more future special education teachers. Additionally, it would be beneficial to give chapter members a pre-/post-assessment for career-efficacy at the start of the education pathway and at the conclusion/graduation from high school. Lastly, for recruitment purposes for EPPs, it would be beneficial to track recruitment efforts and follow Educators Rising members from this partnership to see if participating in the program resulted in them choosing the host university for their college. Specifically, tracking if they enrolled in the university, completed a four-year degree in education, received a teaching license, and began a career as a special education teacher.

In conclusion, this study aimed to examine whether participating in intentionally planned, liberal arts teacher education on-site college visits impacted students’ career self-efficacy. Additionally, it sought to determine if student members of Educators Rising perceived value in a liberal arts teacher education program that offered dual certification in special education. The research focused on evaluating the effectiveness of these targeted recruitment strategies and their potential influence on students’ career decisions in special education. Overall, the impact of a liberal arts teacher education was noted by participants and an exposure to the field in high school was seen as important to increased self-efficacy in making significant career decisions. EPPs who make sustained efforts in forming and strengthening partnerships will contribute

towards better recruitment and retention of future teachers. In order to continue to strengthen partnerships and sustain funding these efforts, there needs to be creative ways to collaborate with others, seek funding, and advocate for “grow your own” programs to succeed at the state-level.

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*Alexandra J. Taylor is an Assistant Professor of Special Education at Bellarmine University. She primarily teaches special education courses in the initial certification program at the Annsley Frazier Thornton School of Education. Her research interests involve special education teacher preparation and behavior interventions for students with emotional and behavioral disorders.*

## Appendix

### Experience Survey

Question No.	Question
1	What is your year?* <input type="checkbox"/> Freshman <input type="checkbox"/> Sophomore <input type="checkbox"/> Junior <input type="checkbox"/> Senior [multiple choice response]
2	Are you a member of your high school's Educators Rising chapter?* <input type="checkbox"/> Yes <input type="checkbox"/> No [multiple choice response]
3	Are you enrolled in the Teaching, Learning and Leadership (TLL) pathway?* <input type="checkbox"/> Yes <input type="checkbox"/> No [multiple choice response]
4	Are you currently taking dual-credit classes through the TLL pathway?* <input type="checkbox"/> Yes <input type="checkbox"/> No [multiple choice response]
5	What events did you attend during the school year?* <input type="checkbox"/> Campus tour, education panel, and lunch <input type="checkbox"/> Mock-class, pizza, and future teacher crafting <input type="checkbox"/> Men's basketball game <input type="checkbox"/> None [multiple choice response - select all that apply]
6	Please rank the events from your favorite to least favorite. <b>If you did not attend all of the events, do not answer this question.</b> [sliding ranking response]
7	How would you rate the overall experience in attending events (5 stars = amazing; 3 stars = average; 1 star = poor)? <b>If you did not attend any</b>

	<b>events, do not answer this question.</b> [five star rating response]
8	What was your favorite event and why? <b>If you did not attend any events, do not answer this question.</b> [short answer open-ended response]
9	How can we improve the events in the future? <b>If you did not attend any events, do not answer this question.</b> [short answer open-ended response]
10	Do you feel like attending the events helped you make a better choice about your future (examples, I now know I want to go to college, I know for sure what I want to major in, etc.)? <b>If you did not attend any events, do not answer this question.</b> <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Maybe [multiple choice response]
11	What was the most valuable information you learned about the university? <b>If you did not attend any events, do not answer this question.</b> [short answer open-ended response]
12	What information do you wish you learned about? <b>If you did not attend any events, do not answer this question.</b> [short answer open-ended response]
13	Are you considering attending the university in the future?*
	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Maybe [multiple choice response]

*Note.* This experience survey was administered via Microsoft Forms. Questions denoted by an asterisk were required.