Pennsylvania Teacher Educator

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A Journal of the Pennsylvania Association of Colleges and Teacher Educators

Volume 24

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Call for Manuscripts

The Pennsylvania Association of Colleges and Teacher Educators publishes a peer-reviewed journal — the *Pennsylvania Teacher Educator*. Our journal is intended to provide PAC-TE members and other writers with a venue to capture current research that makes use of quantitative, qualitative, and/or mixed-methods approaches, as well as rigorous theoretical works that present current research, advances, and changes in the emerging directions of teacher education. Publication decisions are made following a blind-review process.

In 2021, the *Pennsylvania Teacher Educator* moved to publishing two issues per year where a sufficient number of high quality submissions were received, allowing more flexibility for writers to conduct and to report their research throughout the academic year.

Beginning with Volume 25 (2026), authors do not have to belong to PAC-TE, nor must they be employed in Pennsylvania-based institutions of higher education in order for their work to be considered for publication in *Pennsylvania Teacher Educator*. While preference is given to teacher educators from Pennsylvania, submissions are invited and welcomed from authors in other jurisdictions.

Submission Guidelines

1. Manuscripts should be no more than 12 pages of narrative (exclusive of references, tables, and appendices), and typed using Calibri 12-point font, double-spaced, with one-inch margins. Manuscripts must conform to the latest APA style manual.

2. A cover page should include the title of the article, a brief (no more than 50-word) abstract, the name, position, place of employment, mailing address, phone number, e-mail address, and a 2-3 sentence description of background and experience of each author.

3. The title of the article should also appear on page 1 of the manuscript, but do not include the name(s) of the author(s) on page 1.

4. Pages should be numbered consecutively, including the bibliography, but the author's name should not appear on the manuscript itself.

5. Charts or illustrative material will be accepted if space permits. Such materials must be clear, camera ready, and submitted as separate files of the type pdf, jpeg or tif. Photographs will usually not be used, unless they are black and white and of high quality.

6. Reference list entries must include doi numbers where available, formatted as hyperlinks. Journal article and book titles should be formatted according to sentence case. In sentence case, most major and minor words are lowercase (proper nouns are an exception in that they are always capitalized). In contrast, titles of academic journals should be formatted according to title case. In title case, the first word and all words of 4 letters or more in length are capitalized. Refer to section 6.17 of the latest edition of the APA style manual for details.

7. Manuscripts should be submitted as email attachments, sent to PA Teacher Educator at journal@pac-te.org.

8. Authors are expected to take full responsibility for the accuracy of the content in their articles, including references, quotations, tables, and figures. The editorial board reserves the right to edit articles accepted for publication.

9. Authors of manuscripts accepted for publication are asked to sign a copyright release to PAC-TE. This allows PAC-TE to publish the information in the *Pennsylvania Teacher Educator*, to publish the information in future PAC-TE publications, and to grant permission to persons or organizations that formally request the right to reprint the material in whole or in part.

10. Authors of manuscripts accepted for publication are also expected to make a presentation about their article at the PAC-TE Teacher Education Assembly in the fall or spring. There is no remuneration for articles accepted for publication. There is no fee for the review of the manuscript.

Call for Manuscript Reviewers

The *Pennsylvania Teacher Educator* is seeking Pennsylvania-based teacher educators who are interested in becoming reviewers for the journal. Each manuscript that is submitted to the journal undergoes a blind-review process from three peer reviewers. Consequently, we are always in need of good reviewers who return manuscripts to the editors in a timely fashion. Members who are interested in becoming a reviewer should contact journal@pac-te.org.

Pennsylvania Teacher Educator

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Dear colleagues:

I am honored to bring you this 24th volume of *Pennsylvania Teacher Educator*, on behalf of the outgoing editorial team, Jim Preston, Tom Conway, and Jason Hilton, as well as Tracy McNelly and Dawn Turkovich, who join me as the incoming editorial team as the journal transitions from its home at Slippery Rock University to its new place at Saint Vincent College in Latrobe, PA.

We are proud of the work we present to you here, recognizing that it would not have been possible without the generous and diligent service of the Slippery Rock team as well as that of the Associate Editors and the many reviewers who took time to curate the excellent scholarship contained in this volume. We are pleased to offer you 10 pieces of scholarship that not only stand as testimony to the variety of professional activities in which Pennsylvania's teacher educators are engaged, but which also offer rich contributions to an ever-widening evidence base about how we can most effectively prepare pre-service teachers to meet the needs of k-12 students in a very uncertain landscape.

As teacher educators, we are gifted to stand with feet planted firmly in three dimensions at once. First, we are the custodians of the rich history of the teaching profession that continues to inform our present. We are also privileged to be engaged in our work at this pivotal time, when political and social forces create for the teaching profession, what, if I may borrow from the language of Applied Behavior Analysis, is akin to a behavioral cusp, a change, once acquired, that exposes an individual to new environments, contingencies, and communities that can lead to dramatic change. Third, our efforts, both individually and as an association, reach forward to touch the lives of children we may never know, but whose teachers we are empowered to shape into the best of all that we were, and all that we hoped to be when we ourselves were k-12 teachers using the new knowledge and understandings that PAC-TE members are forging. That is why these collections of our peers' research are so priceless and why it is critical that we each contribute to the body of knowledge that supports teacher education.

I am pleased to announce some changes to *Pennsylvania Teacher Educator* as we move forward. First, the PAC-TE journal will become an online open access source of information for teacher educators across the country. Drs. McNelly, Turkovich and I have undertaken the goal of broadening the dissemination of the excellent scholarship of Pennsylvania teacher educators. Second, and in a way related to that goal and to increasing the contribution that the Pennsylvania Teacher Educator makes to the continuing education of PAC-TE members, we intend to seek ways to invite teacher educators in other jurisdictions to contribute on a limited basis to *Pennsylvania Teacher Educator*. We anticipate that this will better enable us to present two issues per year, thereby fulfilling the policy established by the PAC-TE board in 2021, but we are hopeful that inviting scholars from other parts of the country to contribute to the journal will expand *Pennsylvania Teacher Educator*'s and PAC-TE's reach.

In his introduction to the 23rd volume of *Pennsylvania Teacher Educator*, my predecessor, Dr. James Preston wrote, *We must evolve. We must transform. We must, in every sense, "glow up."* The new editorial team welcomes the challenge that Dr. Preston laid out for us and honors the legacy bequeathed to us from all those who have served before us, and on whose shoulders we now stand. We remain confident that, with your support and continued contributions to our shared work, we will continue to further the aims of PAC-TE and the *Pennsylvania Teacher Educator*.

Respectfully,

Philip M. Kanfush, B.C.B.A.-D., I.B.A., L.B.A., L.B.S.
Managing Editor

Pennsylvania Teacher Educator

A Journal of the Pennsylvania Association of Colleges and Teacher Educators

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Pride • Advocacy • Commitment • Teacher • Excellence

Pennsylvania Teacher Educator is an official publication of the Pennsylvania Association of Colleges and Teacher Educators. The journal is published as a service to the members of the organization and others concerned with teacher education.

Pennsylvania Teacher Educator serves as a forum for the open exchange of ideas and information related to the improvement of teacher education at all levels. Points of view and opinions are those of the authors of the articles and do not necessarily represent the views of the organization.

Pennsylvania Teacher Educator is a peer-reviewed journal that depends on both potential authors and reviewers to produce a high-quality publication each year. We are always in need of reviewers with a wide variety of perspectives and expertise to help us with the biannual review process. Becoming a reviewer is a helpful way to give back to the profession of teacher education and to PAC-TE as an organization. If you would like to be a reviewer, email journal@pac-te.org. Reviewers must be PAC-TE members.

PAC-TE is dedicated to providing strong advocacy for teacher education within the Commonwealth by promoting quality programs of teacher education and providing a variety of forums for discussion of issues that are of concern to all who are engaged in teacher education.

Pennsylvania Teacher Educator articles are provided digitally on the PAC-TE website.

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Fired up instead of burning out: Developing a tool to facilitate teacher leadership for mid-career teachers

Tabetha Bernstein-Danis
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Abstract
Mid-career teachers are at a pivotal point in their practitioner journeys when they can either shift towards winding down in preparation for retirement or ramping up to assume new teacher-leadership roles. Opportunities to become teacher-leaders can revitalize mid-career educators' practice in ways that ultimately benefit their schools and districts (Chapman et al., 2024; Darling-Hammond et al., 2017). This paper introduces a newly developed tool, the SAGE Protocol, which was designed to help mid-career teachers in a practitioner Ed.D. program find their identities as action researchers and teacher leaders. Examples of the ways merging practitioner-scholars (EPS) in an Ed.D. program demonstrate teacher leadership offer insight into what it can look like in the contexts of practitioners' daily working lives.

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Introduction

Experienced and passionate mid-career teachers are invaluable to students, colleagues, and school communities. For our purposes here, we define mid-career teachers as educators that have at least five years of experience, have moved beyond the novice phase, and have become skilled practitioners, often serving as informal mentors and curriculum leaders in their schools. These teachers expect to continue in the field for at least five more years and seek meaningful ways to expand their impact without leaving the classroom. They frequently explore new instructional approaches, embrace challenges with more confidence than they did earlier in their careers, and draw upon deep pedagogical expertise to meet the diverse needs of their students. They are also well-positioned to provide school-based leadership by mentoring new teachers, developing innovative programs, and reducing the gap between research and practice by conducting and sharing the findings of action research as part of school-based professional development (Chapman, 2024; Jefferson et al., 2024; Lowe et al., 2019; State et al., 2019).

Yet their leadership potential is often underutilized. Advancement in PK-12 education typically involves leaving the classroom for administrative or academic roles - the traditional pathways associated with doctoral study. In this manuscript, we introduce a reflective tool, the Scholar Advocate Guided Engagement (SAGE) Protocol, that we developed to support mid-career teachers in shaping their teacher-leader identities. The tool emerged from work with students enrolled in a practitioner-focused doctoral program aligned with the Carnegie Project on the Educational Doctorate (CPED). Creating intentional, flexible pathways for mid-career teachers to demonstrate leadership can reignite enthusiasm and support retention. These teachers have distinct professional needs from their early-career counterparts, particularly when they assume peer leadership roles such as providing school-based professional development (e.g., Chapman, 2024; Darling-Hammond et al., 2017; Taylor et al., 2011). The SAGE Protocol is grounded in practitioner inquiry and supported by emerging frameworks in scholarly literature. Early findings from our use suggest the tool has the potential to guide mid-career educators in articulating their leadership goals and engaging in school-based change.

Conceptual Framework

A growing body of literature explores how Emerging Practitioner-Scholars (referred to as EPS in this manuscript) in Ed.D. programs reflect on their own positionality and navigate shifting professional identities as they transition from knowledge consumers to knowledge producers (Becton et al., 2020; Czerniawski, 2023; Flood, 2024; Storey & Fletcher, 2023). CPED-aligned Ed.D. programs culminate in a Dissertation in Practice (DiP) - a capstone designed not only to contribute to academic knowledge, but also to drive meaningful change within practitioners' own educational contexts where they are "credible insiders" (Chapman, 2024) who can adapt new learning to communities where they are already accepted as members. This model invites educators to redefine leadership as a locally situated, inquiry-driven endeavor.

Among these scholars, Becton et al. (2020) offer a compelling framework grounded in action research and advocacy. They outline four practitioner-leadership profiles: Coalition Builders, Visionary Leaders, Vocal Risk-Takers, and Social Justice Champions. These profiles reflect different ways educators might address challenges and enact leadership within their school communities. Rather than promoting a singular model, the framework encourages flexibility, allowing educators to adopt different profiles depending upon the context or nature of the challenge they are addressing.

Engaging in scholarship aimed at creating meaningful change in schools requires EPS to be equipped with the tools and skills that allow them to identify problems of practice and investigate them in ways that lead to actionable solutions. Faculty in Ed.D. programs play a critical role in supporting this development by intentionally structuring and sequencing coursework to build relevant skills (Flood, 2024); valuing the lived experiences of doctoral candidates, whose research questions often emerge from workplace observations rather than solely from gaps in the literature (Donaghue & Adams, 2023; Flood 2024); and preparing candidates to navigate the challenges they may encounter in their professional settings, including instances of anti-intellectualism among colleagues and supervisors (Czerniawski, 2022). Additionally, faculty should teach

research approaches well-suited to insider contexts, such as Participatory Action Research (PAR) - a collaborative, cyclical process in which educators systematically investigate issues within their classrooms or schools, implement changes, and reflect on outcomes to inform ongoing practice (DeMartino and Renn, 2023).

The SAGE Protocol

In response to the need for structured reflection and identity development in Ed.D. programs, we created the Scholar Advocate Guided Engagement (SAGE) Protocol. This tool uses adaptive questioning and discussion prompts to help faculty and candidates in Ed.D. programs engage in productive conversations that put research into action. The approach builds on the CPED Scholar Activist Framework developed by Becton et al. (2020) and expanded by Storey and Fletcher (2023) and utilizes discussion as a powerful tool in shaping EPS identities (Donaghue & Adams, 2023). According to the model, scholar activism work typically falls within four roles which we define in Table 1.

These profiles emerge from a body of literature that positions research as a form of activism when it is used to ignite practical change to improve the lives of participants. We have chosen to use the term "advocate" while acknowledging that we should use caution regarding conflation of terms like "activist" and "advocate" (Storey & Fletcher, 2023). This decision responds to the common misconception that "activism" entails civil disobedience and could evoke images of current protests in the media (e.g., protests against Tesla) and clashes with law enforcement. Teachers may feel particularly vulnerable during political moments when educators' actions are being scrutinized, so carrying a label with potential for misinterpretation could pose a barrier to advancing their valuable ideas. Advocacy, on the other hand, is a term that, in its vernacular usage, more readily aligns with what the public expects teachers to do for their students.

Teachers conducting research on or about practices in their schools (like most of the learning associates in our Ed.D. program) may already feel at risk for backlash if their research yields results administrators view as unflattering to the school or district (Czerniawski, 2023; Storey & Fletcher, 2023). It is our aim to use the SAGE Protocol to help teachers identify issues in their schools and learn to use research to create positive change, which will ultimately require buy-in from administrators and families in their communities.

Meant to be used with EPS in Ed.D. programs who are at the beginning, middle, and end of their dissertations, the tool is intended to guide discussions that will help faculty advisors co-develop roadmaps with their advisees that envision ways research can facilitate action in PK-12 schools. It is important to note that aspects of all four roles are likely relevant for all EPS and may change over the course of their research. For example, EPS may become more vocal about issues after they've deepened their understanding and gathered evidence to support their positions through research.

The tool is ideally intended for use across different courses in an Ed.D. program as EPS work on developing their Dissertations in Practice (DiP) and for private consultation between EPS and university faculty. Once EPS are comfortable using the part of the tool relevant to their current stage of research, this tool can also be used for peer feedback sessions and ongoing self-evaluation. Appendix A provides the Middle: Data Collection and Writing segment of the protocol since that was the section used for the findings referenced in this paper. Next steps for the protocol include considering ways to adapt it as part of an artificial intelligence (AI) chat model to allow more effective independent use of the tool.

Using the SAGE Protocol

To test the Protocol, the four authors - two university faculty (Authors 1 and 2) and two Ed.D. candidates (Author 3, a special education consultant and Author 4, a high school world language teacher) - used the prototype protocol in preparation for a joint presentation at the 2024 CPED Convening in Honolulu, Hawaii. Prior to the convening, each faculty member partnered with one of the Ed.D. candidates to conduct a protocol-guided conversation focused on the candidate's DiP. These conversations were structured to clarify each candidate's evolving leadership identity, identify the advocacy strategies most aligned with their school context, and move them forward in their research process. The pairs then reflected on the experience and offered feedback to improve clarity, adaptability, and usability of the protocol. Their insights informed on-

Table 1

Defining the Four CPED Scholar Activist Profiles

Profile	Description	Teachers in this role identify/consider
Coalition Builder	The coalition builder brings people together to work towards mutual goals.	• their professional and personal relationships with other individuals within the community who can be part of their network • how the context of their work situation allows them to carve out time and space for collaborative work
Vocal Risk Taker	The vocal risk taker amplifies critical issues publicly and speaks out regarding structures that privilege some groups of people over others.	• their willingness to face opposition and criticism for addressing a potentially controversial issue • job security (e.g., tenure) and their ability to take risks at work • access to or the ability to gather sufficient information about the problem to provide convincing evidence and dispel skepticism • if they are not part of the group of individuals marginalized by the problem, how they will consult and collaborate with individuals with lived experience • potential risk factors for themselves if they are part of the group that has been marginalized
Social Justice Champion	The social justice champion identifies equity issues in the context of their workplace and advocates for more equitable practices.	• if the issue is one that can be changed but is not currently being addressed • if the issue is one directly related to marginalization of a group of people within their context (e.g., at their school or for the families of their students) • if the issue is causing harm and will continue to cause harm unless individuals in the organization make active changes
Visionary Leader	The visionary leader identifies innovative and creative ways to address issues and forge opportunities.	• issues within their organization that have not been effectively addressed in conventional ways • novel or innovative ideas for how to address those issues • connections among one or more issues that have not been previously identified and ways these connections lead to new insights about the issues

going tool development and laid the groundwork for further refinement of the protocol.

After returning from the conference, the two faculty members introduced the SAGE Protocol to members of the current Ed.D. cohort during a dissertation writing retreat for current Ed.D. candidates. The aim was to help candidates reflect on their EPS identities, identify the leadership profiles they most aligned with, and articulate the next steps in the DiP.

The following section highlights the experiences of the two faculty members as they implemented the SAGE Protocol with Ed.D. candidates during a dissertation writing workshop. The structured conversations helped these EPS recognize how they were already embedding advocacy, innovation, and risk-taking into their work, often without consciously identifying their actions as leadership. (Please note that while most EPS in the Ed.D. program are PK-12 educators, some work in other educational settings, including universities and nonprofits.)

The section concludes with reflections from the two Ed.D. candidate co-authors, who describe how engaging with the protocol has fostered their growth as mid-career educators and helped shape their evolving identities as EPS.

Author 1's Experience in the Writing Workshop

Author 1 used the protocol with the following EPS: (1) a special education teacher who started an inclusive book writing club; (2) a community college mathematics developmental educator who wanted her adult learners to develop self-regulation and goal setting skills; (3) a middle school mathematics teacher who was exploring the self-efficacy beliefs of other mathematics teachers; (4) a middle school success coach building a professional learning community (PLC) to help her colleagues employ instructional practices that are culturally responsive to their students' lives; and (5) a music educator working with a history educator to incorporate soundscapes into history lessons to foster deeper engagement with learning history. Each of these teachers had moments during the discussion that led to illuminating insights about their work and they became visibly excited as they discussed their projects, giving deeply meaningful responses to the questions in the protocol.

For example, the music teacher shared her belief in the power of music to convey emotion, build empathy in students, and help them appreciate perspectives that may be different from their own. She cited the sensory experience of sound as an important element for connecting with history content that transcends reading alone. As the conversation progressed, she identified with both the Social Justice Champion and Visionary Leader profiles. She revealed that sometimes other educators give her "some flack" for her novel teaching approaches, asking why she bothers. Her response to such criticism is to affirm that "[her] students are better for it" and that "they're worth it." Her convictions about the potential for music to create connections between content and emotion help her innovate and find ways to spark genuine engagement in students about the content they are learning.

Visionary Leader and Social Justice Champion emerged as popular roles for other EPS as well. For example, the special education teacher who started an inclusive book writing program also felt most affinity with these identities. She shared how she had recruited a student in the autistic support room for her book club and helped him find a niche that made him eager to write despite his initial reluctance. She shared that the first day the student had said: "I'm not doing it. Do I look like an author to you?" In return she told him he did look like an author to her and prompted him to consider the type of book he might want to write. He replied that "maybe I could be a chef" and "maybe I could write a cookbook," which was exactly what he ended up doing. This teacher also managed to secure grant funding for her book writing club, which helped her gain support with her administration because she was bringing in money rather than asking for money.

The two highlighted stories here show how, far from stagnating and falling into a rut, veteran teachers can and should continue to experiment and innovate in their classrooms and how some of these innovative approaches have the potential to inspire colleagues and students alike.

Author 2's Experience in the Writing Workshop

Author 2 used the protocol with two EPS: (1) a middle school teacher conducting classroom-based interventions and (2) a higher education Student Success Coor-

dinator tasked with supporting student retention and engagement.

Both EPS had collected data and were at the data analysis stage. Their conversations with Author 2 surfaced three common themes: (1) the importance of collaboration and networking; (2) how personal and leadership growth led to their changing identities; and (3) excitement and surprises along the research journey.

Some of those surprises included the Student Success Center coordinator realizing she identifies with the Vocal Risk Taker profile as well as with the Coalition Builder role. The conversation guided by the protocol helped highlight her comfort in advocating for programs and building networks forcollaboration. Over the course of the discussion, Author 2 also pointed out how the EPS was stepping into a Visionary Leadership role, telling her she was “making really profound changes” through her advocacy. The conversation helped the EPS view herself as someone capable of rallying support and asserting leadership to secure the resources needed for student success.

Author 3’s Reflection on Using the Protocol

Author 3 was initially skeptical about how helpful the protocol would be. However, as she observed Author 4 engage in use of the protocol with Author 1, her thoughts shifted. She began thinking: “Wow, she is so lucky! She is actually going to leave this meeting with new ideas and directions." She appreciated the great interactive feedback Author 4 received and how well-positioned she now was to turn those ideas around in her writing. At the same time, Author 3 worried that her own conversation using the protocol would be less productive.

She expressed that her downfall was believing everyone else’s work was more meaningful and important than anything she could be doing and that “other people are researchers, not me.”

That began to change a few minutes into the discussion, when things she had not previously considered began to emerge and new directions began to unfold. She realized the process of asking questions she already knew the answer to was not meant for her to gather information; it was meant for her to reflect on her work so far. Answering these questions and then moving the discussion in new directions in response to the questions opened previously unidentified avenues for her work. She found herself producing a whole page of notes with fresh and creative ideas to try.

Another unexpected surprise came as the team began talking about her role as a researcher. She was finally able to recognize and acknowledge that she was just that - a researcher who was making a difference in her own little corner of the educational world. She was investigating a real problem and identifying real solutions. How empowering and motivating it was to finally acknowledge and feel as though she, too, could lay claim to a researcher identity!

Author 4’s Reflection on Using the Protocol

Author 4’s Ed.D. journey and engagement in action research have revitalized her teaching practice. After 25 years in the classroom, she embarked on the path to an Ed.D. to advance her credentials and reignite her passion for teaching in her place of practice. She saw too many mid-career educators fall into burnout and cynicism and was determined not to become another voice of frustration. Instead, through becoming an EPS she feels she’s found her place as a leader engaged in solutions-driven change.

The SAGE protocol’s themes of practitioner scholarship, advocacy through research, contextual grounding, and meaningful engagement with others who want to advance new ideas have been pivotal in reshaping her practice and mindset. As an EPS, she has learned to critically engage with research and analyze best practices that could be applied directly to her classroom and school community, helping to ameliorate the divide that has traditionally existed between research and practice (Chapman, 2024; State et al., 2019).

The transformative coursework has helped her move beyond surface-level ideas to deeper equity-driven, data-informed decision-making. She found herself in the role of Social Justice Champion as she learned to advocate for multilingual learners in social studies classrooms and sought to document and amplify teachers' voices to help push structural changes.

As a mid-career educator, she had previously experienced disillusionment as her ideals clashed with institutional realities. The SAGE Protocol approach ground-

ed her and helped her find pathways to advocate for equity, access, and student empowerment through meaningful, research-driven change.

Through collaborative inquiry, she engaged with colleagues, students, and the data she collected via ethnographic interviews and survey research. These processes helped her find her "why" again, making her work feel purposeful instead of routine and mundane. The SAGE Protocol has helped her reclaim agency over her personal growth and avoid stagnation and feelings of hopelessness. She now embraces her role as a mentor, advocate, and leader in transforming the educational landscape both within and beyond the walls of her place of practice.

Discussion

In an era marked by teacher shortages and burnout, the voices of mid-career educators are frequently overlooked. They need opportunities to define their professional identities, capture the spark of innovation, and remain committed to their work. These stories exemplify how mid-career educators, rather than burning out, can use reflective tools like the SAGE Protocol to recognize and deepen their leadership practices. They demonstrate not only capacity for innovation, but also a fierce commitment to student-centered change.

Professional development offers a key venue for mid-career educators in Ed.D. programs to flex their new learning and skill sets as EPS. The opportunity to engage in action research can stimulate the mid-career teacher's professional trajectory and sharing the results of this research with colleagues offers the potential for them to showcase their emergence as teacher leaders. Usually top-down in nature, schools would benefit from encouraging experienced teachers to take on new responsibilities and offer their own ideas about ways to design creative solutions for challenges schools face. Practitioner-focused Ed.D. programs not only benefit the individual educators but also the schools and communities they serve. The leadership these teachers bring can revitalize schools from the inside out.

The four profiles provide guidance to help EPS find their personalized pathways for becoming school-based leaders. Social Justice Champions help shed light on inequities that institutions have failed to recognize or effectively address. Vocal Risk Takers speak out with courage about those inequities while others remain silent. Visionary Leaders provide new ways to frame issues and creatively forge novel connections among ideas. Finally, Coalition Builders develop the networks of individuals who will do the necessary work to achieve desired outcomes. Teachers are the ones on the ground, doing the day-to-day work in classrooms that directly impacts students. Recognizing teachers as the individuals most directly connected to school-level change, schools should embrace the journey of EPS as they gain comfort in these roles and learn to use action research as a starting point for creating professional development tailored to their own educational communities.

As more experienced teachers join Ed.D. programs, they are redefining the role of the mid-career educator. In turn, schools and districts should reconsider their approaches to professional development (PD). District PD often entails one-size-fits-all, one-time events and lectures provided by expensive outside consultants (Barrett & Pas, 2020; Darling Hammond et al., 2017; State et al., 2019). This type of PD might raise knowledge levels, but it usually has little impact on changing existing teacher practices (Coles et al., 2015; Simonsen et al., 2008). Rather than focusing on expensive and less effective approaches, schools would benefit from providing PD to experienced teachers that helps them assume coaching roles with their early career counterparts and offers them the chance to try new ideas that can then be shared with others (Barrett & Pas, 2020; Chapman et al., 2024; Darling-Hammond et al, 2017).

Veteran teachers have typically achieved self-efficacy in their own classrooms, having mastered foundational teaching and classroom management skills and demonstrated persistence in the face of challenges over time (Milner, 2002). They are primed and ready to seek new horizons, especially those opportunities that position them to support their novice colleagues. It typically takes multiple weeks of engagement in new practices along with consultation, coaching, and feedback on performance for PD to lead to sustained, substantive changes in practice (Ramsey et al., 2022). As ongoing, site-based members of the school community, experienced teachers can provide the sustained, contextually-driven intensive support that is crucial for

the learning and retention of newer teachers who may grapple with implementation of evidence-based practices and classroom management, particularly in areas such as special education (Chapman et al., 2024; Milner, 2002; Ramsey et al., 2021; Simonsen et al., 2008; State et al., 2019).

Teachers face numerous barriers to quality professional development including cost, time, distance, and lack of resources such as substitute teachers and administrative support to travel to conferences or workshops (Barrett & Pas, 2020; Darling-Hammond et al., 2017; State et al., 2019; Toman & Maag, 2024). District and school administrators could ultimately save money and build a deep infrastructure of capacity within their schools by recognizing veteran teachers as a resource for providing embedded PD rather than just additional participants in a PD provided by outside groups.

Author 3 provides an example from her own practice about what practitioner-led PD can look like in action. She was able to transform her research into a professional development module that she implemented in the district where she works.

She conducted a 3-hour session where she shared data from her dissertation, using her findings to engage with staff and help them understand the reasons behind necessary changes to classroom management practices. In addition to the presentation, she provided them with a survey to request additional follow-up consultations for the purpose of coaching them in turning around these practices in their own classrooms. As an existing district employee, she has the ability to spend multiple weeks providing this support as part of her job, saving the district money and providing the follow-up that has been shown through research to make professional development meaningful and impactful Simonsen et al., 2008).

Tools like the SAGE Protocol can facilitate teachers' self-discovery journey as they imagine their next steps in their careers. Recommendations for future research and programming include the possibility of establishing a mastery-level state certification designation for practitioner-scholars and teacher leaders (similar to National Board Certification); expanding opportunities for experienced teachers to learn to create and lead professional development, including ongoing coaching of newer colleagues; and establishing a state-level council or think tank of experienced teachers from different disciplines and grade levels to share insights and provide guidance on policy and curriculum development. Experienced teachers have much to offer and with the right support, mid-career can be a time of flourishing and growth rather than winding down and burning out.

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Appendix

The Scholar Advocate Guided Engagement Protocol Excerpt (Middle Data Collection and Writing)

B. Middle: Data Collection and Writing

These questions are intended to support the advisement of doctoral candidates in an ongoing manner throughout data collection, analysis, interpretation, and dissertation writing. They guide conversations about initial findings, difficulties encountered, and new insights gained during the dissertation process. The questions help emerging practitioner-scholars shape the direction of their research and engage in ongoing assessment about how that work is going. They also offer the opportunity for emerging practitioner-scholars to revisit how their identities align with one or more of the four profiles over time.

Social Justice Champion

A. Are you changing awareness about the issue in your organization through your research?
   - How has your research increased awareness? Why do you think that?
   - What might it take to move from awareness to action? What would that look like?
   - Who could help move the organization from awareness to action? How might they help?

B. Have you gathered data that demonstrates the problem is causing harm?
   - What will you do with this data? With whom might you need to share it? (Who might be in a position to act on this data?)
   - What might you do if there is evidence of immediate, active harm that cannot wait until you finish your dissertation to be addressed?

C. What is your plan to address possible backlash from your school or district to evidence that a practice or situation causes harm (especially if it might negatively affect the public image of the school or district)?
   - Who is in a position of power and might help you in response to such backlash? How might they help you?
   - How might you know if your research is having unintended negative effects on those marginalized by the issue? How could you ameliorate such effects?

Vocal Risk-Taker

A. What allies and collaborators have emerged as a result of your amplification of this issue?
   - How are you working (or how do you intend to work) with these individuals?
   - What opposition have you faced so far? How did you contend with that opposition?
   - How have/might your allies and collaborators assist(ed) in addressing opposition?
   - What is your plan if you feel threatened or at risk for punitive action as a result of your re - search?

B. If you are not part of the group of individuals marginalized by the problem:
   - How have you worked collaboratively with the marginalized community? Who are your key contact persons and what insights are they offering you?
   - How have you developed insight into the community's perspective on the issue? What perspectives might be missing and how can you fill in those blanks?
   - How are you currently grappling with your own positionality in response to your work within the marginalized community?

C. If you are part of the group of individuals marginalized by the problem:
   - Who else have you connected within the community and what commonalities have you found across your experiences?

- How are you situating your own lived experience within the broader lived experiences of others in the marginalized community and what does that mean for the next steps in your work?

D. What do your emerging findings indicate as features of the issue most in need of amplification?
   - Why have you selected those features of the issue?
   - Who needs to know about these findings?
   - How will you communicate that message to them in a way that will make them care?
   - Who might help with those efforts? How will they help?

Visionary Leader

A. What is new about your ideas?
   - How are your ideas different from what has been proposed in the past?

B. How has the reception to your ideas been so far?
   - Who has been supportive? Who has been unsupportive? Why?
   - What has changed since your proposal about your more novel or innovative ideas?
   - How has your data collection impacted or changed the way you think the problem needs to be addressed?

C. What more have you learned about the issue as a result of your research?
   - What findings support your initial conjectures?
   - What has been surprising or unexpected in your findings?
   - How might you use new information to help others view the issue differently?

D. If you have lived experience that is uncharacteristic of most previous researchers of the problem, how has your lived experience shaped the way you view the issue?
   - How might you use those insights to help those without lived experience recognize their own blind spots about the issue?
   - How have you connected with others who also have lived experience to enrich this previously overlooked or under-acknowledged perspective?

Coalition Builder

A. What connections have you built so far among your colleagues as a result of your research? What about the broader community in which your organization is situated?

B. What does your existing support network look like? Who is part of the network and what role does each individual have?
   - How has this network helped you work towards achieving your project goal?
   - What role might this network play as you try to put the results of your research into action once you've completed your dissertation?

C. What has the collaborative work related to your research looked like?
   - What aspects of the research have been collaborative? What does that collaboration look like?
   - What have you learned about the issue from working collaboratively with others?
   - How are you establishing this network in a more permanent way to serve as a support structure for ongoing implementation of action steps that emerge as important in light of your research?

Using children's literature to inspire service-learning projects in the early childhood classroom through pre-service teacher field experiences

Mark Anthony Conlon
Natalie Conrad Barnyak

Abstract
This article discusses a model, created through the collaboration of two professors at the University of Pittsburgh at Johnstown, for using children's literature to inspire service-learning during an Early Childhood pre-student teacher field placement. It defines service-learning to promote active citizenship and civic engagement for young children. Research on best practices in social studies and utilizing high-quality children's literature within the early childhood classroom to promote active citizenship through service-learning projects will be discussed. The article will provide a variety of instructional strategies for integrating relevant children's literature to support service-learning. Finally, the article describes an example of a lesson based upon the model and taught by a pre-service teacher majoring in Early Childhood Education.

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Introduction

"Life's most persistent and urgent question is, 'What are you doing for others?'"

Dr. Martin Luther King, Jr. (1957)

During her four-week field practicum experience prior to student teaching, Miss G poses the question, "What is a citizen?" to her third graders and draws their attention to a K-W-L chart (Ogle, 1986) on the board. Miss G explains to the students that they will list what they "know" under the "K," and what they "want to know" under the "W" regarding citizens. By completing the K-W-L chart, Miss G engages the children in the learning process and enhances their comprehension. First, the students activate their prior knowledge. However, they are unsure of the meaning of a citizen. Miss G describes a developmentally appropriate definition for the children and then questions them regarding the duties of a citizen. Next, she records citizenship under the "W" on the chart and leads them in identifying concepts they want to learn about, based upon the definition provided. They discuss a desire to learn more about citizenship, rules and consequences, volunteering, communities, and service-learning projects during their lesson. She further explains that at the end of the lesson, they will reflect on what they have "learned" under the "L." Then, Miss G enthusiastically states, "I have a book to read to you, and it will help you think about citizenship. I will be asking you a few questions related to the book as I read. The book is called *Just Help! How to Build a Better World* (Sotomayor, 2022)."

Developing student understanding of democratic citizenship is at the heart of social studies education (Villotti & Berson, 2019). However, many early childhood educators find it challenging to incorporate social studies because of the lack of time dedicated to the subject due to accountability measures and testing in other content areas (i.e., literacy, mathematics, and science) (Dougherty & Moore, 2019; Harrington, 2016; Hodges et al., 2019). In addition, mentor teachers and pre-service teachers (PST) often demonstrate a low conceptual understanding of citizenship and democracy due to a general lack of preparation for teaching those topics (Bousalis, 2022; Lanahan & Phillips, 2014; Scott et al., 2022). Therefore, intervention is needed in the early childhood classroom. One method of intervention is for teacher preparation programs to partner with mentor teachers and support early childhood PSTs' citizenship education knowledge by encouraging the use of children's literature in conjunction with social studies lessons to inspire civic engagement among their students (Baytaş & Schroeder, 2021). With accompanying high-quality literature, service-learning projects can be implemented with young learners to positively impact communities and increase citizenship knowledge among mentor teachers, PSTs, and pre-kindergarten through fourth grade learners. Within this article, a model is provided for implementing a literature- based lesson that led to a small-scale service- learning project to promote active citizenship within an early childhood classroom. First, active citizenship and service-learning will be defined. Next, research regarding best practice for integrating social studies and children's literature for young learners will be discussed. A model of early childhood fieldwork will be shared. Finally, a sample lesson that integrates children's literature to support service-learning will be described.

Defining Active Citizenship and Service-learning within the Democratic Classroom

The notion of a democratic classroom can be traced at least back to John Dewey's (1916, 2012) Democracy and Education. A democratic classroom, according to Dewey, rejects a top-down relationship where the teacher maintains all authority and instead facilitates student decision making about assignments and how classrooms are managed. While schools in the United States may talk about democracy, they rarely implement democratic practices in order to show their students how to behave within a democracy (Kira, 2019). Democratic behaviors and community-mindedness are not always natural orientations for young learners in the United States. Some students perceive a disconnect between the rhetoric about democratic ideals and their lived experiences within democracy, diminishing further their trust in democratic institutions (Castro, 2020; Parker, 2003). Without practicing active democratic citizenship in the classroom, such as through service-learning and community engagement projects, young children often instead display individualistic behaviors (Burgh & Thornton, 2021). To combat such individualism, the democratic classroom attempts to scaffold students' understanding of them-

selves as part of a community. Democratic classrooms promote this mindset by facilitating an "environment in which students recognize that they themselves are equal stakeholders in their educational experience" (Meinking & Hall, 2020, p. 189). Students are given the power to help guide their learning and experience collaboration. Through their collaborative opportunities students learn about community needs, just as they have individual needs.

More recently educational policies related to civic education in the classroom have been emphasized. (Educating for American Democracy Initiative, 2021). "When civic education succeeds, all people are prepared and motivated to participate effectively in civic life. They acquire and share the knowledge, skills, and dispositions necessary for effective participation" (Educating for American Democracy Initiative, 2021. p. 5). Furthermore, civic education, especially in the early childhood classroom, is needed for students to fully process the changes affecting civic engagement, citizenship, and educational policy, among other issues, emanating from executive orders from the federal government (Exec. Order No. 14149, 2025; Exec. Order No. 14159, 2025; Exec. Order No. 14190). Teaching about democracy thus entails teaching about citizenship. Phillips and Moroney (2017) provide five concepts of citizenship which include: 1) "civic identity," based on one's participation in the community; 2) "collective responsibility," caring for others; 3) "civic agency," thinking through the actions that can be taken; 4) "civic deliberation," considering diverse viewpoints of others; and 5) "civic participation," collectively taking action for the betterment of the community (p. 88). Active citizenship can be defined as a person's engagement and participation in supportive community activities (Kersh et al., 2021). Democratic classrooms must then provide opportunities for students to co-create their educational environment, with the expectation that they will immerse themselves in the larger community, not just as students, but as active citizens.

Community support activities may be planned and conducted within different levels of engagement. Westheimer and Kahne (2004) provide a useful framework for understanding the various levels of community involvement citizens typically engage in. They first address the "Personally Responsible Citizen" which focuses primarily on individual character and behavior, such as picking up litter or obeying laws (p. 241). Westheimer and Kahne, however, criticize this model for lacking an emphasis on the need for collective action, or action through public institutions, sometimes failing to fully align with democratic principles. Next, they describe the "Participatory Citizen" as recognizing the need to engage in community-based service and initiatives, challenging students to plan efforts with the government or community organizations to care for people in need or change institutional policies. The "Participatory Citizen" embraces a more active role in their citizenship (pp. 241-242). Finally, the authors define the "Justice-Oriented Citizen" as being prepared to critically analyze social and structural problems of society, seeking to confront the root of social problems (pp. 242-243). While there is a clear preference for the more community-focused approaches, the authors note that the latter two types are less frequently adopted and may face implementation challenges depending on where educators teach.

The democratic classroom provides opportunities for students to learn about and practice their roles as citizens in a variety of ways. Teachers can begin preparing their students in democratic practices by creating assignments that incorporate service-learning. Service-learning projects provide teachers and their students with opportunities to practice all three types of citizenship (Westheimer & Kahne, 2004) and embody citizenship concepts (Phillips & Moroney, 2017). Such projects engage students in their communities, while tying the experience to academic content and incorporating reflection (Montgomery et al., 2017). Community engagement, especially in the form of service-learning projects, facilitates participation, action, equity, and inclusion. Students are able to move beyond their specific personal concerns while connecting with ideas and people that drastically differ from themselves and their experiences (Cress & Donahue, 2011). Service-learning projects also encourage PSTs and mentor teachers to engage their students as active change agents who can improve their communities while developing their civic roles, as opposed to the more passive citizens in waiting (Heggart & Flowers, 2019; Lin & Bates, 2015).

Social Studies Best Practices: Using Children's Literature to Inspire Service-Learning

Unfortunately, early childhood educators and PSTs may demonstrate low conceptual understandings of citizenship and democracy and a lack of substantial preparation for teaching those topics (Bousalis, 2022; Lanahan & Phillips, 2014; Scott et al., 2022). Institutions of higher education can help to combat this issue by providing opportunities to facilitate such learning during PST's field experiences in schools. In such experiences, mentor teachers and PSTs can collaboratively plan citizenship lessons and service-learning projects with support from university professors. This framework requires university professors to create meaningful assignments that guide PSTs through the initial planning stages by highlighting resources, providing feedback, and maintaining flexibility throughout the process.

Assignments that promote integration with a variety of disciplines are one way professors can encourage mentors and PSTs to identify opportunities for active citizenship and service-learning projects. Early childhood educators routinely teach using children's literature, which provides an opportunity for social studies integration (Batyas & Schroeder, 2021). Sharing children's literature can "expose the reader to certain moral dilemmas and give them the opportunity to evaluate and develop an understanding of the concept of citizenship" (Bradbery, 2018, p. 10). Children's literature focused on civics and government content may lead to active, student-centered, service-learning projects that enhance desirable citizenship habits.

Meaningful design is critical to assignments requiring cross-curricular service-learning projects. According to Hill (2017), the following elements must be incorporated within interdisciplinary service-learning projects: promoting collaboration with others while building healthy relationships, supporting school-based experiences to build civic engagement, focusing on students' interests as a motivational factor, allowing for self-reflection to consider one's own views and the views of others, and relating to standards aligned-practices to meet mandates. Thus, service-learning projects coupled with children's literature embrace interdisciplinary content ideas, engage learners in active citizenship, and promote learning in the English language arts.

Active citizenship practices also embrace equity and inclusion (Vilotti & Berson, 2019a; Vilotti & Berson, 2019b). Sharing children's literature with young students to promote service-learning encourages students to examine others' perspectives and develop empathy (Muetterties & Darolia, 2020; Torres, 2019). Teachers and PSTs can guide children as they learn how to identify and collaboratively solve problems while addressing issues of injustice and public awareness (Baytas & Schroeder, 2021; Hill, 2017). As Carr and Thésée (2017) note, teachers and children should facilitate "critical discussions, resolutions of conflict, critical thinking, and positive action to be included throughout the entire educational experience" (p. 2). Classroom curriculum and academic standards must align with learning opportunities that include collaborating with others and considering broader views of the world (Schlemper & Stewart, 2019). Thus, critical literacy can be used by mentor teachers and PSTs while integrating children's literature and social studies to develop lessons that require students to consider various perspectives and views, discuss topics related to social justice, promote social action, and analyze texts (Muetterties & Darolia, 2020).

Early Childhood Education Fieldwork: Integrating Children's Literature Within Citizenship and Service-Learning Lessons

During a 4 week field placement prior to student teaching, PSTs are required to implement a small-scale service-learning project within an early childhood classroom as part of their upper-level coursework. Early Childhood Social Studies and Literacy Methods professors collaborated over the last three years to develop a project that required PSTs to identify children's literature aligned with Pennsylvania civics and government Standards, English Language Arts Standards, and College, Career, and Civic Life (C3) Framework for Social Studies State Standards (National Council for the Social Studies, 2013). The authors of this manuscript collaborated across courses, requiring PSTs to unpack the standards (i.e., determining the big ideas that are focused upon within the standards) using the Understanding by Design (UbD) Model (Wiggins & McTighe, 2005). PSTs then worked within their Social Studies Methods course to develop compelling questions and their Curriculum and Instruction Methods course to write

essential questions to inspire integrated citizenship and service-learning lessons. The compelling questions and essential questions are derived by the PSTs through the Inquiry Design Model (Grant, Lee, & Swan, 2022) and the UbD Model (Wiggins & McTighe, 2005) during coursework. Thus, the questions drive young children's inquiry regarding how they may begin to support their communities.

Table 1 shows examples of aligning projects to relevant Pennsylvania Standards for Civics and Government with Core Standards for English Language Arts Reading for third grade, and the College, Career, and Civic Life (C3) Framework for Social Studies State Standards (National Council for the Social Studies, 2013).

After PSTs gain a familiarity with relevant standards, they are tasked with incorporating social studies standards into literature assignments. Author B supplements PST preparation for this phase of the project by working with PSTs to create meaningful assignments that embrace best practices for students selecting children's literature. During this phase, Author A's Social Studies methods course requires mentor teachers and PSTs to collaboratively develop service-learning projects inspired by children's literature in the two weeks prior to their four-week field placement, allowing for informed flexibility and adaptation as needed as the project becomes further developed. Such a framework encourages a team-teaching dynamic where both the mentors and PSTs are learning and constructing new knowledge together (Baeten & Simmons, 2014).

To identify high quality children's literature that they can apply to their service-learning projects, PSTs are provided with access to the libraries of Author A, Author B, and the university library, as well as databases to identify high quality children's literature that can drive citizenship lessons and service learning projects. PSTs are encouraged to work with their mentor teachers to examine their classroom libraries as well. Table 2 contains useful websites for educators and PSTs when choosing civics-centered, high-quality children's literature to incorporate into the classroom and inspire service-learning. There is a plethora of diverse titles to consider; therefore, teachers and PSTs must carefully choose the literature to best meet their students' and their community's needs.

Table 1

Indicators of the C3 Framework and a Core Standard Connected to the Lesson and Service-Learning Project

Relevant C3 Framework Civics Indicators	
D2.Civ.6.3-5.	Describe ways in which people benefit from and are challenged by working together, including through government, workplaces, voluntary organizations, and families.
D2.Civ.7.3-5.	Apply civic virtues and democratic principles in school settings.
D2.Civ.8.3-5.	Identify core civic virtues and democratic principles that guide government, society, and communities.
D2.Civ.14.3-5.	Illustrate historical and contemporary means of changing society.
English Language Arts Core Standard - Reading Literature – Grade 3	
CCSS.ELA –LITERACY.RL.3.3	Key Ideas and Details – 3. Describe characters in a story (e.g., their traits, motivations, or feelings) and explain how their actions contribute to the sequence of events.
PA Standards for Civics and Government – Grade 3	
5.2.3.C	Identify leadership and public service opportunities in the school, community, state, and nation.
5.2.3.D	Describe how citizens participate in school and community activities.

Table 2

Websites for Selecting High-quality Children's Literature to Inspire Service-Learning

Websites to Locate Civics-Centered Children's Literature
Center for the Study of Multicultural Children's Literature. CSMCL Best Books. https://www.csmcl.org/about1-cop0
National Council for Social Studies. Carter G. Woodson Book Award Winners. https://www.socialstudies.org/get-involved/carter-g-woodson-book-award-and-honor-winners
National Council for Social Studies. Notable Social Studies Trade Books for Young People. https://www.socialstudies.org/notable-trade-books
United States Board of Books for Young People. USBBY-CBC Outstanding Books. https://www.usbby.org/outstanding-international-books-list.html

Center for the Study of Multicultural Children's Literature, 2023; National Council for Social Studies, 2023a, 2023b; United States Board of Books for Young People, 2023.

Table 3

Checklist for Selecting High-quality Children's Literature to Inspire Service-Learning

Selection Criteria for Children's Literature	Yes	No
Presents a variety of diverse perspectives		
Offers an original theme regarding a topic of importance		
Promotes rich classroom discussions		
Incorporates moral dilemmas/social issues that are developmentally appropriate for young children		
Includes various communities for students to think about others who are not like them		
Illustrations compliment the text and accurately portray characters who are from a variety of races, ethnicities, and cultures		

Adapted from National Council for Social Studies, 2023b; Torres, 2019.

Author A and Author B also developed a checklist for PSTs to use when selecting books and are expected to defend their choices in Author A's Social Studies Methods course. Table 3 contains the checklist for selection of children's literature to encourage active citizenship and promote inquiry within the early childhood classroom.

Finally, the authors adapted Westheimer and Kahne's (2004) model and incorporated concepts from Daneels (2020) and Paul (2018) to identify high-quality children's literature that can drive impactful service-learning instruction with a focus on citizenship within communities.

Table 4 aligns models of citizenship and service- learning practices with examples of high-quality children's literature.

Description of a Sample Lesson and Service-Learning Project in an Early Childhood Classroom

The lesson and service-learning project occurred over six days in a third grade classroom within a rural town in Pennsylvania and was observed by Author B. Miss G, a PST, utilized a 35-minute block dedicated to English Language Arts to implement citizenship education. Prior to the lesson Miss G discussed volunteering and community service briefly with the students and brainstormed how they could help or volunteer in the community. The students generated three different ideas, which included: cleaning up the community (e.g., picking up trash), donating to the local food bank, or donating to the local Humane Society.

First, Miss G instructed students about citizenship via

Table 4

Types of citizens, examples, and related children's literature.

Type of Citizen	Personally Responsible	Participatory	Justice-Oriented
Description	Uphold ethical beliefs and values Act in a responsible manner Demonstrate care for others	Actively serve as a member of a group within society Organize and manage efforts Work with agencies (e.g., local government)	Critically analyze issues to determine the cause(s) Research issues and speak out regarding injustice (e.g., race, class, gender, poverty, pollution) Make an impact through systematic change
Example actions for young children	Donate to a food drive or clothing drive Donate to the Humane Society	Organize and oversee a food drive or clothing drive Assist at the Humane Society	Create a petition for businesses to use environmentally friendly products Start an anti-bullying program
Children's literature	*What can a citizen do?* (Eggers, 2018) *Home* (Lippert, 2022) *The Power of one: Every act of kindness counts* (Ludwig, 2020)	*Alex and the amazing lemonade stand* (Scott & Scott, 2012) *Maybe something beautiful: How art transformed a neighborhood* (Campoy & Howell, 2016) *Olivia's birds: Saving the gulf* (Bouler, 2011).	*Global citizenship: Engage in the politics of a changing world* (Knutson, 2020) *The Youngest marcher: The story of Audrey Faye Hendricks, a young civil rights activist*. (Levinson, 2017) *You are mighty: A guide to changing the world*. (Paul, 2018)
How to make a better world (Swift, 2020) *Note.* This book could be used to support growth for all "types of citizens."			

a PowerPoint presentation and discussion, allowing them to address their prior knowledge and their interests in the topic through a K-W-L chart. After the discussion, Miss G called the students together to read *Just Help! How to Build a Better World* (Sotomayor, 2022). While reading aloud, Miss G implemented further discussion to build upon knowledge uncovered in the previous portion of the lesson. Discussion centered upon the compelling question, "How can small acts of kindness and empathy make a big difference in our communities?" Through discussion, Miss G introduced foundational concepts of citizenship to her students. Throughout the read aloud, she provided opportunities for students to consider what citizenship is like through the lens of the main character to provide inspiration for her own students' service-learning project to follow.

Miss G then engaged students in a discussion about the main steps of service-learning projects, as identified by Kaye (2010): 1) Investigation; 2) Preparation; 3) Action; 4) Reflection; and 5) Demonstration. After time inquiring about service-learning opportunities in the classroom, Miss G and her students narrowed the options for a project to either collecting for the local food bank or the Humane Society. She tallied a majority vote, and the students chose to collect for the Humane Society. They were allotted four days to collect donations for their service-learning project. After collection,

Miss G had the students reflect upon their actions and the impact it had on them as citizens. Finally, she and the students evaluated their efforts and discussed how they could improve the project.

Discussion

The model described in this article demonstrates how social studies and literacy methods professors, PSTs, mentor teachers, and school administration, along with community partners can begin to incorporate citizenship education and service-learning projects inspired by children's literature within early childhood classrooms. Read alouds with children's literature allow students to consider various topics related to civic engagement through developmentally appropriate methods. In order to engage young children in meaningful inter-disciplinary lessons, the approaches in this article can be adapted for full-time early childhood educators, as well as PSTs, in their student teaching placements. As young children collaborate to implement service-learning projects, they learn firsthand how to work together, consider various viewpoints, and contribute to communities and society as a whole. Active citizenship must be just that, active, to build democratic classrooms and ultimately a democratic society.

The PST involved in the project, Miss G, and her students chose a project most aligned with the Personally Responsible model for citizenship (Westheimer & Kahne, 2004). Projects through the past few years have typically aligned with this model, reflecting the restrictive nature of the four-week placement and the PST status as a guest within the mentor teacher's classroom. Future research into the barriers that PSTs and mentor teachers encounter during this project is needed to further verify this hypothesis and identify potential opportunities, for early childhood educators to engage in the more active forms of citizenship education promoted by the Participatory and Justice-Oriented models (Westheimer & Kahne, 2004).

As well, further research should collect empirical and reflective data on knowledge growth regarding citizenship concepts from the learners participating and those facilitating the project (pre-kindergarten through fourth grade students, PSTs, and mentor teachers). There is a need to establish whether each of these groups better comprehend the concepts of citizenship and democracy after service- learning projects are implemented. Long-term studies identifying how likely PSTs and the mentor teachers are to implement service-learning projects inspired by children's literature and citizenship lessons beyond this assignment would also provide necessary data to prove the efficacy of the project.

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The interactive read-aloud: A case study of two children with an Intellectual Disability

Christine M. Cuozzo

Abstract

This instrumental case study explored the experiences of two children diagnosed with an Intellectual Disability (ID) during interactive read-alouds delivered at home. Participating parents implemented interactive read-aloud strategies with ease and reported joy in the experience. The uniqueness of each child and the role of choice in reading emerged as prominent themes.

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Introduction

The pioneering work of Whitehurst et al. (1988) in dialogic reading was based on the following principle: "The use of *evocative* techniques by the parent that encourage the child to talk about pictured materials is preferable to techniques that place the child in a more passive role" (p. 553). A read-aloud, in its noun form, presents children with an opportunity to listen to text that is more linguistically and cognitively complex than words spoken during casual conversation with children (Massaro, 2017). The notion of parents or caregivers implementing conversational techniques while reading picture books aloud to their children established the framework for this study, which is focused primarily on the adult usage of dialogic, or interactive, strategies when reading aloud to children with an Intellectual Disability (ID). One of the major purposes of the interactive read-aloud is for adults to guide children in making sense of text (Scanlon et al., 2017). Research has also demonstrated that the interactive read-aloud promotes students' development in oral language and increases reading motivation (Fisher et al., 2004).

Purpose

The purpose of this case study was to take a necessary initial step in discovering how children with ID experience dialogic interactions during read-alouds through qualitative research. Within an instrumental case study design, data is used to illuminate a certain issue or theme (Creswell & Guetterman, 2019). In this case, the issue is that elementary school aged children with ID are not well-represented in dialogic read-aloud literature. Currently, qualitative methods and instruments are embraced in interactive read-aloud research, but it might also be advantageous for researchers to consider implementing more instrumental case studies in an effort to better inform read-aloud practices for children with disabilities. Within an instrumental case study design, an exploration of participants within a bounded system can help to bring clarity to an issue or theme (Creswell & Guetterman, 2019). According to Creswell and Guetterman (2019), a bounded system might include an "activity, event, process, or individuals" (p. 477). The bounded system separated out for this research included children with ID and their parents ("individuals") engaging in an interactive read-aloud (an "activity"). The instrumental case study model depicted in Figure 1 helped to illuminate the issues surrounding the paucity of read-aloud research for children with ID.

Research Questions

Although case study data is not generalizable (Stake, 1995), the research provided key insights in response to the question: *What are the affordances and limitations of interactive read-alouds for children with ID?* This question was more specifically addressed through the following three sub-questions: (1) What are the read-aloud habits and routines of families with children with ID? (2) What are the observed and reported outcomes of human-to-human interactive read-alouds for children with ID? (3) Which interactive read-aloud strategies do parents/caregivers report are useful for encouraging communication?

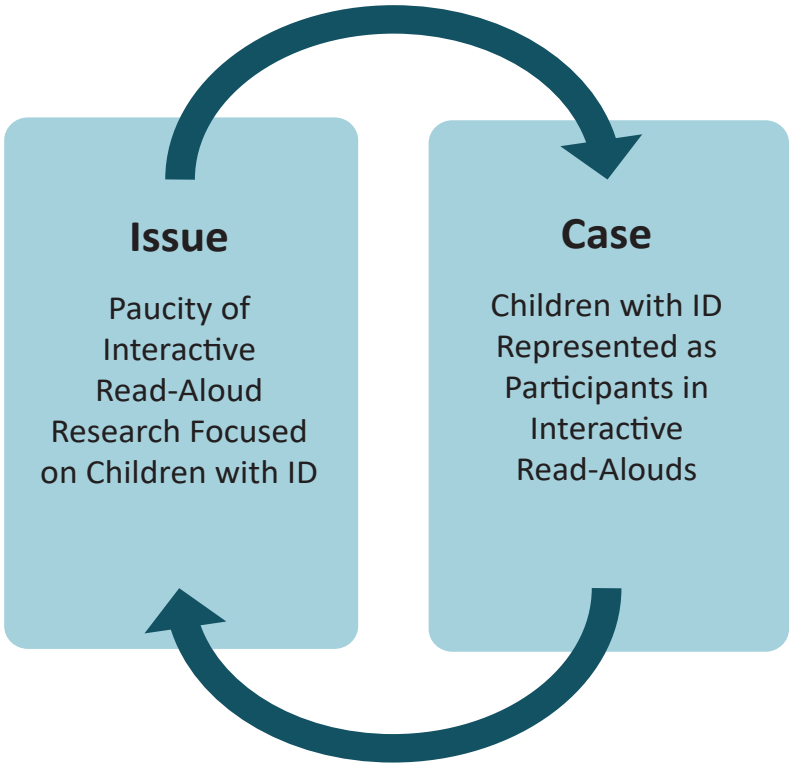
Literature Review

Becoming a Nation of Readers (Anderson et al., 1985) was a seminal work that promoted the practice of reading aloud to children. This document referred to the read-aloud as "the single most important activity for building the knowledge required for eventual success in reading" (Anderson et al., 1985, p. 23). Years later, Trelease (2019) confirmed this idea and praised the read-aloud as a learning tool more valuable than any others commonly used in school, such as worksheets or flashcards. Trelease referred to the read-aloud as the catalyst for independent reading. Research has also shown that read-alouds can help to foster an improved understanding of narrative discourse (Fisher et al., 2004). In sum, read-alouds are useful for promoting active engagement while also contributing to language and literacy growth (Collins & Glover, 2015; Lennox, 2013; Riojas-Cortez & Martinez, 2022).

Engaging in dialogue during read-alouds can positively influence children's language development (Acosta-Tello, 2019; Fisher et al., 2004; Lane & Wright, 2007; Whitehurst et al., 1988). The significant work of Whitehurst et al. (1988) revealed improvement in posttest scores on children's expressive language abilities when parents incorporated dialogic reading strategies, such as open-ended questions and verbal feedback, while reading aloud. This evidence points to the value of interaction during a read-aloud to promote and accelerate language development (Whitehurst et al.,

Figure 1

The Instrumental Case Study Design



Note. The figure displays a modified version of the model suggested by Creswell and Guetterman (2019). A relationship is portrayed between the "issue" and "case". In this study, the issue was illuminated through case study research, and case study research served to provide insights on the issue.

1988). When implementing dialogic reading strategies, teachers (or other adult readers) can raise the level of complexity in conversations by incorporating more sophisticated language that is a level above the student's ability (Lane & Wright, 2007). Acosta-Tello (2019) confirmed research findings about the effectiveness of dialogic reading and recommended that teachers engage students with dialogic reading strategies while reading aloud by actively asking questions and initiating text-related conversations. A study by Towson et al. (2021) also showed interactive book reading to have a positive impact on language development for children up to 6 years old with developmental disabilities or delays.

An interactive read-aloud supports and extends students' reading development through the use of dialogue and encourages active thinking while reading (Scanlon et al., 2017; Wiseman, 2011). Within the interactive read-aloud, "authority" is genuinely shared with children (Lennox, 2013; Smolkin & Donovan, 2002). Ultimately, these interactions can lead to improved outcomes for students (Lennox, 2013). During a classroom interactive read-aloud, teachers skillfully implement dialogic reading strategies *before, during, and after reading* to enrich students' language and thinking skills (Lennox, 2013). The following before, during, and after reading (BDA) techniques described within a classroom environment can easily be replicated by parents or caregivers in a home setting.

According to Scanlon et al. (2017), comments and questions should be woven throughout an interactive read-aloud to initiate conversations. For example, *before reading*, teachers can create anticipation and guide students in making predictions (Acosta-Tello, 2019). They can preview and discuss text then set a purpose for listening (Scanlon et al., 2017). *During reading*, teachers might ask questions or encourage students to make connections (Acosta-Tello, 2019). Although teachers should anticipate points of confusion and address those prior to the interactive read-aloud,

spontaneous student and teacher-initiated discussions and transactions with text should also occur during the interactive read-aloud (Scanlon et al., 2017). *After reading*, children might reflect on what they learned or why the author may have written the book (Scanlon et al., 2017). The goal of the interactive read aloud is for children to internalize the ways of thinking initiated through dialogue so that they will hopefully learn to transact with text independently (Scanlon et al., 2017).

When teachers or other adults model these types of metacognitive processes to children, they engage in extensive oral communication while unpacking their thinking; yet according to Van Der Molen et al. (2009), even children with mild ID experience extreme difficulty with both the storing and manipulating of verbal information. Therefore, children with ID must learn metacognitive strategies to build reading skills in a way that is suited to their instructional needs. Although students with ID can learn reading strategies, their reading behavior patterns differ from children who do not have ID (Fajardo et al., 2014; Perovic, 2006).

Children with ID have the capacity to learn, but as a result of language processing difficulties, it cannot be assumed that their learning follows the same progression as children who do not have ID (Fajardo et al., 2014; Van Der Molen et al., 2009). Although children with ID can learn to read – and there is strong evidence to support word learning through sight word practice (Browder et al., 2006) – read-alouds, specifically, may be the only means by which students with severe ID are able to access literature throughout their lives (Browder et al., 2008). According to Hudson and Browder (2014), "So much of learning depends on good listening comprehension skills for these students" (p. 27). Graphic organizers, such as Venn diagrams, and systematic instruction can also help children with moderate to severe ID to comprehend and interpret text (Dieruf et al., 2020).

Educators with a growth mindset understand that intelligence is not a fixed number and can change (Hochanadel & Finamore, 2015). According to Dweck's theory, "Adopting a growth mind-set helps…students [laboring under a negative stereotype about their abilities] remain engaged and achieve well, even in the face of stereotypes" (Dweck, 2010, p. 26). A growth mindset is focused on effort and motivates students to persevere when faced with challenging tasks (Dweck, 2010). Teachers or other adults who espouse a growth mindset acknowledge that students can develop their abilities through effort. A growth mindset motivates students to persevere when faced with challenging tasks. The use of "envisioning language" during interactive read-alouds for children with ID can set a positive tone and convey to children a belief in them (Denton, 2013, p. 36).

Methodology

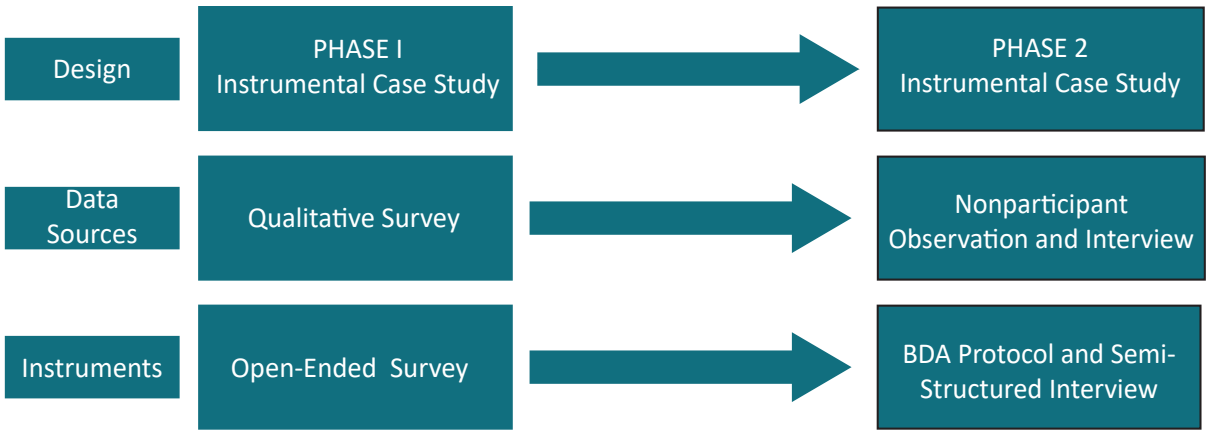
This study occurred in two distinct phases; therefore, it was framed through a two-phase research lens as illustrated in Figure 2. The objective of the two-part study was first to gather open-ended qualitative survey data about the read-aloud habits and routines of families with children with ID. During the next phase, the researcher analyzed video-recordings of the two elementary school aged children with ID engaged in interactive read-alouds at home. Each parent reader incorporated BDA questioning prompts using a BDA protocol instrument. The parents of the children then participated in follow-up interviews and were asked questions about the interactive read-aloud experience. Using the constant comparative analysis method (Glaser & Strauss, 1967), the researcher analyzed the data gathered from the surveys, the four read-aloud sessions, and the interviews to develop codes and themes.

Phase One

The data collection process began with a qualitative survey that opened in mid-November 2023. For the purposes of this study, the survey posed mostly open-ended questions, which permitted respondents to provide responses in their own words. Not only did the initial survey relate information about the read-aloud habits and routines of families with children with ID, but it also contained data that helped to inform the remainder of the case study. Four respondents completed the survey and agreed to take part in the interactive read-alouds and the semi-structured interview. Based on specific survey responses, books were chosen for the interactive read-aloud sessions, and questions were formulated for the follow-up semi-structured interviews. Each of the four families received a shipment of eight children's books; however, only two survey respondents completed the second phase of the study.

Figure 2

Two Distinct Phases of the Instrumental Case Study



Note. The instrumental case study research design was carried out in two phases. The open-ended survey preceded the implementation of the other case study instruments. The survey informed the other components of research and provided supplemental data.

Phase Two

The second phase of research employed additional case study methodology to help address the research questions. Data sources included: (1) nonparticipant observation of four video recordings taken within participants' homes, and (2) transcriptions of follow-up Zoom interviews. After each interactive read-aloud session was completed, the two families submitted their recordings to a secure file storage for the researcher's viewing. According to Leko et al. (2021), nonparticipant observation can take place "after the fact via a video recording" (p. 4), as was accomplished in this study. Finally, the researcher conducted separate semi-structured Zoom interviews with each participating parent in mid-February 2024 to learn more about their perspectives on their child's read-aloud experiences and their perceptions of interactive strategies while utilizing the BDA protocol.

Participants

Brett and his mother, Kara, and Ava and her mother, Lisa, all participated in the second phase of the case study. (Pseudonyms were assigned to protect the privacy of the families.) Both children, Brett and Ava, were identified by their parent as having an ID diagnosis. At the time of the study, both families resided in the Northeastern United States. According to Stake (1995), with case study research, "There is emphasis on uniqueness…but the first emphasis is on understanding the case itself" (p. 8). The uniqueness of each of the participating children was evident as the researcher developed a more intimate understanding of each distinct case.

Brett, the youngest of six children, was 8 years old at the time of the study. Kara reported on the survey that Brett enjoyed the following types of books: "graphic novels, adventure, animal nonfiction, and comedy" (Kara, Survey).

Ava was 9 years old at the time of the study. Her one older brother joined as a listener in one of the recorded read-aloud sessions. Lisa said during the semi-structured interview that Ava usually enjoyed reading books about other girls, such as The Baby-Sitters Club series by Ann M. Martin, but she also noted that after participating in the interactive read-alouds, she realized her daughter enjoyed nonfiction texts too (Lisa, Interview).

Key Findings

After data coding and analysis, certain themes emerged. Table 1 displays how these themes align with each research question. Both participating families reported that the interactive read-alouds were a positive bonding experience. The role of choice emerged as one of the more prominent themes. Both child participants showed preferences for nonfiction books, but each one also displayed uniqueness regarding the types and amounts of responsive verbal feedback they generated

Table 1

Themes Related to Research Questions

Research Questions	Themes
What are the affordances and limitations of interactive read-alouds for children with ID?	• Positive read-aloud response • Varying degrees of interactiveness
What are the read-aloud habits and routines of families with children with ID?	• Time obstacles
What are the observed and reported outcomes of human-to-human interactive read-alouds for children with ID?	• Ease in implementation of interactive read- aloud procedures • The role of choice in interactive read-alouds
Which interactive read-aloud strategies do parents/ caregivers report are useful for encouraging communication?	• "During Reading" Questioning

Note. The main research question is noted in italics, and sub-questions are listed below. The themes listed connect to findings from triangulated data.

in response to the texts read to them.

Unfortunately, time was noted as an obstacle preventing each family from establishing a regular read-aloud routine; however, when presented with the read-aloud task, both adult participants demonstrated ease in incorporating the recommended interactive strategies and successfully encouraged communication with their child. The researcher created a five-minute Loom video with a corresponding slide presentation to provide participating parents with interactive read-aloud directions. Parents were also given an instructional sheet, or BDA protocol, with sample questions to ask before, during, and after reading. The BDA protocol appeared useful, as each parent could be viewed looking down at it during the recordings, but both parents relied rather heavily on "during reading" questioning, which disrupted the flow of some of the reading.

Discussion

The Uniqueness of the Case Study Participants

In terms of similarities, both children were third-grade students identified as having ID. In addition, both displayed a preference for nonfiction when presented with the assortment of books provided for the study. Apart from these similarities, each child participant was very unique. The demographic information, and the other reported and observed data, showed the distinctiveness of each case. As for demographics, Brett belonged to a large family and lived in an urban area. Conversely, Ava resided with a smaller family in a suburban community. The video recordings also showed that each child displayed different manners of interacting. Ava conversed freely during the interactive read-alouds, often without prompting, while Brett spoke very few words only when asked.

Neither family was questioned further about the full scope of each child's ID diagnosis. During the interview, Kara mentioed that Brett had a "reading disability" and "visual disability" (Kara, Interview). Lisa, however, did not refer to any disability other than ID. Although children may share a similar disability label, it is important to remember that each one is different and may have alternative needs.

Interactive Read-Alouds Can Be a Positive Bonding Time for Children with ID

Although the topic of "joy" was not specifically addressed in this study, the hope was for the experiences to be positive. Acosta-Tello (2019) noted the value of creating situations for children to fully engage in read-aloud experiences. Serafini (2001) considered the read-aloud as an experience to be savored. Joy stems from the full experience, which includes taking plenty of time to absorb all story illustrations and revisiting

the text multiple times in order to squeeze every bit of goodness out of it (Serafini, 2001).

By incorporating interactive strategies into each read-aloud, the families in this study were able to slow down and savor the experience. The data in this study showed positive responses to the read-aloud experience. Parents used words such as, "enjoy" and "excited" to describe the experience. One parent stated, "I definitely would say that I did enjoy reading aloud to him" (Kara, Interview). In reference to her child, the other parent said, "She…[was] like just so excited about it" (Lisa, Interview). According to Lane and Wright (2007), "Read-alouds provide a wonderful opportunity to promote children's love of literature, and they can be a treasured time together" (p. 673). Participating in interactive reading experiences that encourage active participation can help to infuse joy into the process.

Time Obstacles

Despite the joy found in the interactive read-aloud experience, both families reported "time" as an obstacle preventing them from establishing a daily read-aloud routine. Kara specifically noted "time" on the open-ended survey; however, she said, "I definitely would say that I did enjoy reading aloud to him [Brett]" (Kara, Interview). Lisa also mentioned that the family's busy sports schedule prevented her from reading regularly with her daughter.

In their research on children's attitudes toward being read to at home and at school, Ledger and Merga (2018) noted, "We acknowledge that the reasons for read-aloud infrequency or cessation [at home] may be complex" (p. 135). Ledger and Merga (2018) also emphasized that as a result of any obstacles that may be present on the home front, reading aloud at school is, therefore, critical. That said, schools must also continue to prioritize communication with families about the importance of reading at home (Ledger & Merga, 2018). Although time may be difficult to carve out of busy schedules, families should still be encouraged to read with their children as their circumstances permit.

Ease in Incorporating Interactive Strategies

Both families implemented the BDA interactive strategies with ease as observed in the interactive read-aloud recordings. With brief instructions, the participating parents were successfully able to engage their child with ID in interactive read-aloud sessions. The children in the study participated in the read-aloud sessions with both nonfiction and fiction texts. Each family recorded two nonfiction reading sessions and two fiction reading sessions, based on the children's choices. Every recorded reading session included interactive questioning from the BDA protocol. During the sessions, each parent glanced at the interactive questions and prompts, either on their phone or on a nearby printout, while engaging in conversation with their child about the read-alouds.

The Role of Choice

This study demonstrated that the role of choice is important when delivering any type of reading instruction. Neither child in this study chose only fictional storybooks as read-alouds. Interestingly, each family submitted two read-aloud recordings specifically using National Geographic Kids books. Both Kara and Lisa specifically noted that their children liked reading nonfiction. Kara recorded on the survey that Brett liked "animal nonfiction" (Kara, Survey), and Lisa said, "I noticed that…she [Ava] would have picked all nonfiction books" (Lisa, Interview).

In the first two videos that Kara sent, the recordings displayed how Kara allowed Brett to choose the books that she read-aloud. In each instance, she held out all eight books to Brett, and he was observed selecting animal nonfiction texts for the first two read-alouds. Ava's book selection process was not captured on video, but Lisa was intrigued by Ava's nonfiction selections and said, "It was really interesting to me, because I don't often give her that choice" (Lisa, Interview). Lennox (2013) reported that research shows teachers prefer to read aloud narrative storybooks, as opposed to informational texts; however, Lennox (2013) noted that nonfiction texts could lead to more "cognitively challenging talk" (p. 383). During the semi-structured interviews, parents shared that the nonfiction texts provided for the study were the preferred selections of the child participants.

Focus on "During Reading" Questioning

Finally, during the read-aloud sessions, both parents asked multiple questions using the BDA protocol, but a significant amount of the questioning occurred "during reading." In just one read-aloud session, for example, Kara asked Brett a total of 23 "during reading" ques-

tions. Lisa verbalized her thoughts about using too many "during reading" questions while she read with Ava. She said, "I noticed that…the questioning on every page, got a little tedious for her, and I felt like she was getting distracted" (Lisa, Interview). Similarly, Ness and Kenny (2016) noted that asking too many questions while reading can disrupt the flow of a story and interfere with the comprehension process. In Beck and McKeown's (2001) groundbreaking work on the topic of Text Talk, which encourages the use of conversational techniques to build meaning and vocabulary knowledge while reading aloud to children, the authors noted, "Simply asking more questions will not necessarily prompt richer comments" (p. 16). If the study were repeated, future participants would be encouraged to pause "during reading" no more than five-to-seven times (Ness & Kenny, 2016).

Limitations

Due to the study's time constraints, the researcher did not meet the families prior to the recorded read-aloud sessions. The researcher tried to select books that were of interest to the participants based on survey responses; however, without really knowing each child or the child's reading level, the researcher made assumptions about which books might be most appropriate and appealing for each child. Additionally, the video recording process had its limitations. Both children displayed a keen awareness of being recorded. This visible distraction could have affected the children's read-aloud responses, but it is difficult to determine how without knowing the children.

Clearly, a case study such as this would best be conducted over a long stretch of time. Stake (1995) noted that case study research is focused on getting to know a particular case well. The researcher could not get to know the cases "well" as a result of research time constraints. Creswell and Plano Clark (2017) stated that "qualitative data collection and analysis often require more time than what is needed for quantitative data" (p. 15). That said, although the study's time allotment was limited, the participants still were able to contribute snapshots of the routines and experiences occurring within their households. With extended time, perhaps a researcher could request a larger number of video recordings. This would give participants more time to become accustomed to the routine. If, for example, the same study was posed as a three-month read-aloud challenge, child participants might begin to act more naturally over time.

Finally, a mixed-methods research design might have provided richer data for the study. The instrumental case study data presented in this research was analyzed through constant comparative analysis. A quantitative data source could be used to enhance findings and extend themes. For example, a Likert scale survey could be administered to the adult participants following the video recorded sessions, either in addition to or in lieu of the semi-structured interviews. The quantitative survey might consist of questions asking parents to evaluate the effectiveness of specific before, during, and after read-aloud strategies utilized, their perceptions of strategy effectiveness, and their overall impressions of the child's oral responses during the interactive read-aloud. The survey data would provide a more in-depth understanding of the effectiveness of specific read-aloud strategies. Results could be analyzed using a Pearson correlation to determine if a positive relationship exists between the literacy strategies employed during an interactive read-aloud and the oral responses of children with ID.

Recommendations for Educational Practice

The results of this study elucidate the value of establishing a strong home-school connection. The five-minute instructional Loom video coupled with the BDA protocol, which included recommended questions and think-aloud prompts, seemed to adequately equip the parent participants in the study with the tools necessary for implementation of an interactive read-aloud. The parents in the study utilized the tools provided as a springboard to launch into discussion of text and help their children make meaning. Given the ease with which parents were able to follow the BDA instructions, teachers should continually think of ways to enhance home-school connections by creating and disseminating tools to support students' learning at home.

Next, choice can be a powerful motivator for students of all ages. Educators should not limit themselves to fictional stories when reading aloud to children. In Lu and Gordon's (2008) study on the effects of free choice in reading for high school students, the authors concluded, "On average, students agreed that giving them

more choices enriched their reading experiences" (p. 50). Although the participants in this case study were younger children with ID, free choice was motivational for them and positively contributed to their interactive read-aloud sessions. In this study, both children chose informational texts that helped to enrich their reading experiences. Although they were offered only eight titles to choose from, both chose information-rich books. Offering a variety of books and allowing for choice can help to entice even the most hesitant readers.

Finally, and most importantly, educators must recognize the uniqueness of students and differentiate instruction accordingly. Although students may possess a similar disability such as ID, each child is different; therefore, it is essential to get to know each learner as an individual. Adherence to a growth mindset provides a foundational cornerstone. Additionally, teachers must consider the unique needs of each family when partnering with them and intervening with advice on educational practices at home. Although this case study focused on children with ID in their home settings, it highlighted very important practices that can be carried over into the classroom. The research also illustrated that human-to-human interactive read-alouds promoted positive parent-child interactions and served to nurture the children's growth as readers.

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Acclimating to alternative pathways in teacher education: The more we do, the more we need to do

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Abstract

Due to widespread teacher shortages, a desire for teacher diversity, and the need for specific expertise in PreK-12th grade classrooms, individual state-level departments of education have instituted alternative pathways toward teacher certification. These pathways blend traditional educator preparation practices with Earn While You Learn opportunities as paid classroom teachers with the hope that they complete formal teaching certification requirements. This is a summary of how one university bridged their state department of education initiatives with local schools to support teacher candidates where they were and where they needed to be. The aim continues to be to develop life-long educators who not only survive but thrive at the frontlines of PreK-12 education. This article reflects upon the developments of a small private university over the past 8 years. By reflecting on these experiences, we aim to provide recommendations for implementing and supporting alternative approaches. Authors provide benefits, ongoing concerns, and recommendations for educator preparation programs and others who seek to bridge state-university-school partnerships to fully engage emerging educators who chose alternative pathways.

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Introduction

All of the United States departments of education now have alternative pathways to teacher certification. Due to a lack of traditionally prepared and qualified teachers, a lack of diverse teachers, and a lack of teachers with much-needed expertise, state departments have provided alternative pipelines to teaching certification that broaden candidate pools and help support statewide local educational agencies (LEAs) and other PreK-12 schools (Wilson & Kelley, 2022). This paper seeks to share the lessons learned from eight years of using the alternative instructional intern certification in Pennsylvania.

Even before the pandemic, one out of every five new U.S. public school teachers were already using alternative certification pathways toward state teaching licensure (McFarland et al., 2018). This increased post-Pandemic. In Pennsylvania, for the 2022-2023 school year, 25% of teachers were hired using alternative and temporary credentialing. This phenomenon was highest in urban settings followed by rural areas (American Association of Employment in Education, 2023).

The recent number of teaching certifications issued in Pennsylvania, traditionally or alternatively earned, is at a ten-year low point from almost 26,000 (8,000 by the IHE sector) in 2012-2013 down to approximately 8,000 (2,000 by the IHE sector) in 2022. These low numbers support mounting concerns as teacher shortages grow, impacting all areas of PreK-12 teaching. This has resulted in an increased emphasis on issuing temporary teaching emergency permits and instructional intern certifications (Pennsylvania Department of Education, 2023).

Emergency Permits

School districts, public and private, career tech institutions, intermediate units, and for-profits can request an Emergency Permit for an individual who is not qualified to fill a vacancy. In prior years, a position had to be posted for ten days, and then the LEA could request an emergency permit for an individual. These permits are valid from the day of issuance to the final day of the academic school year, including summer school or extended school year (ESY) programs.

There are conditions in which PDE may reissue the emergency permit for up to three years for a specific position. This issuance of emergency permits has quadrupled since the 2015-2016 school year and continues to rise (Pennsylvania Department of Education, 2023). During the 2021-2022 school year, over 6,000 emergency permits were issued, and these did not include the 16,000 additional emergency permits granted to day-to-day substitute teachers (PDE, 2023). The current alternative to an emergency permit is the intern certification.

Instructional Intern Certification

While intern is a term that can mean a great variety of things, an intern certification as an alternative pathway to formal teaching credentials is said to have its roots in California in the 1980s. The California Teacher Internship Program (CTIP) allowed individuals with a Baccalaureate degree to teach preK-12 and gain experience while completing coursework (Gold, 1986). Many intern programs at the state level are readily available and share similarities, such as aligning with respective state requirements, including competencies, modifying program course requirements, including field parameters, offering online and virtual options, and providing year-round accessibility to coursework. Differences include admission requirements (GPA, SAT, prior degree work); education course specifics and number of courses for program completion; sequence of coursework (i.e., methods, theoretical, historical); expectations for certifying exam completion; field requirements, including expectations for student teaching and classroom visitations; and how long an alternative certification may last (Walsh & Jacobs, 2007).

While the emergency permit and intern certification allow an individual to be the classroom teacher-of-record, several differences exist. Unlike the emergency permit that a school district provisionally approves, which is valid for up to three years and renewed annually, the EPP provisionally approves the intern certificate, valid for three years as long as the student is continually enrolled in coursework (9 credits a year). In order to initially qualify for the intern certificate, the candidate must have a cumulative GPA of 3.0 and pass examinations within the certification area. In both types of temporary certification, an individual is qualified to accept a paid full-time long-term teaching position in which the teacher candidate can complete

required clinical field hours (minimum of 150 hours) and subsequently, student teaching (64 days). This can be advertised as an Earn While You Learn opportunity for those interested in entering the teaching profession that want more than a job and rather, a career in teaching.

Context

The following lessons learned come from experiences at a small, private institution in Lehigh Valley, Pennsylvania.

This School of Education was among the first to embrace and become an approved provider of instructional intern certifications in Pennsylvania and now offers alternative pathways in elementary education, special education, and secondary education. The institute's Teacher-Intern-Program (TIP) began in 2016 with a program in secondary education (7-12th) in response to the critical teacher shortage in science, mathematics, and foreign language. The program offered career changers with expertise in high-needs content areas with an accelerated route to the classroom while ensuring preparation in pedagogy, assessment, and ability to meet the needs of diverse learners. When the state adopted a new Special Education PreK-12 certification band, the School of Education was well-positioned to be the first in the state to offer this instructional intern certification.

In 2016, the program began with 7 graduate-level students seeking certification in the following content areas: biology, chemistry, English, and Spanish. Since its inception, the program has grown and expanded in certification areas. For example, the 2023 cohort included 32 students in biology, communications, English, mathematics, social studies, special education, and early childhood elementary PreK-4. As the popularity of the intern certification program grew, an increase in the number of career changers as well as those who were not financially able to afford traditional pathways to teacher certification was noted by many.

Implementing the Intern Certification

According to the Framework for the Teacher Intern Certification Program (Pennsylvania Department of Education, 2012), intern certification programs:

> must provide flexible and accelerated pedagogical training to teacher interns who have demonstrated competency in a subject area, provided that the first year of teaching includes a minimum of one classroom observation each month by an approved college/university in this Commonwealth (22 Pa. Code 49.91(c).

Alternative pathways were designed to provide faster routes to certification and have been proven to do so (Matsko et al., 2022). While comparing traditional and alternative pathways in some 800 preservice teachers (PSTs), Matsko and colleagues found that in addition to reducing program length, the amount of coursework and length of student teaching were also shortened (2022). With these findings in mind, the faculty aimed to design an accelerated pathway to the classroom without compromising the quality of the coursework or impact of the clinical field experiences.

The faculty innovated identified areas of need. The education faculty began improving our TIP program by examining our coursework. We updated our courses by improving our content and ensuring it aligned with recent and substantiated research. Conversations about teaching philosophies, core tenets, and local PreK-12 landscape were part of the iterative process. Initial changes to the program included removing dated information from syllabi, updating content and instructional strategies, and sequencing of coursework and course availability.

In accordance with IHE trends for graduate-level students, course format evolved from traditional and seemingly restrictive in-person classes to online, synchronous and asynchronous ones, offered outside of typical teaching workdays and throughout the year. For this reason, it was critical that faculty undergo training to ensure online courses were learner-friendly, rich in content, and resourceful for students.

For the field, it was vital to the program that students were not limited to a one-and-only classroom while completing all field and student teaching requirements for a certification that covered a range of grades or incidence types. Without ensuring that field experiences are varied during their preparation, certified teachers may be significantly limited. Teachers who are hired through alternative certifications and have only one classroom experience may demonstrate limited

classroom abilities while their certification indicates otherwise; grade levels or incidence types, for example. Certified but limited in field exposures challenge school administrators who must assign teachers based on abilities (certification ranges) and annually reassign teachers to various grade levels.

For several related reasons, communication between IHE and LEAs needed to grow stronger if alternative pathways were to work for our graduate students seeking employment. To support teacher candidates who chose Earn While You Learn paid field experiences, and to help human resource departments and school administrators understand these opportunities and differences, department members became involved in marketing, advertising, and counseling, selling the alternative pathways to help fill the growing teaching vacancies and to invite those with emergency permits to develop pedagogical skill sets. Additionally, we were "on call" to assist those leaders when questions arose and negotiate placements to vary student (teacher) experiences while remaining within certification area while also addressing classroom shortages.

In the next section, we discuss our lessons learned from several years of supporting students in choosing alternative pathways and report on the benefits, concerns, and solutions that arose as the program evolved.

Lessons Learned

Unlike previous years, more graduate-level students applied to the EPP with working experience in schools as aides, paraprofessionals, or as uncertified teachers in private/parochial/charter schools as well as with a completed undergraduate degree in education (but without certification), a completed undergraduate degree in another subject area, or prior teaching certification and seeking another teaching certification. Some students came with newly issued emergency permits as recent classroom teacher hires; some came with expiring emergency permits that may or may not be renewed, while some were career changers. According to the graduate advisor, most students who enter the program are interested in the most accelerated model of teacher certification, completing the route as soon as possible.

In contrast, other graduate-level students were conscientiously choosing traditional routes and were not in a rush to enter classrooms as paid teachers, creating multiple tracks and pools of students. This resulted in identifying and communicating multiple tracks for completing coursework, working with students wherever they were on their pathway, and where they wanted to be in order to ensure they were able to work in the setting of their choice.

Alternative Pathways: Intern Certification over Emergency Permits

For those with emergency permits who entered the educator preparation program at our institute of higher education, it was an indication that these individuals were choosing the teaching profession over merely a temporary job. Students without emergency permits and most traditional students wanted to pursue the intern certification via our Teacher Intern Program (TIP). They hoped to begin teaching once the intern certification was earned. Some students wanted a traditional program, one course at a time, and wanted to wait to enter the field, due to financial reasons.

Over the past eight years, we have realized the following benefits:

1. **Increased communication between the institute of higher education and local education agencies in addressing teacher shortages and hiring of teacher candidates in our local area:** Alternative certificates allowed our students to fill teaching vacancies before completing a traditional program. With some but not all coursework completed, students were able to complete on-the-job training while teaching, which allowed them to support themselves as well as their families.
2. **Students living the life of a teacher:** As with typical field and student teaching, assuming the role of a classroom teacher affirms career choice and teaching journey. Students with alternative certifications who worked full teaching days throughout the academic year had more classroom ownership, including more administrative responsibilities, more student engagement, and more involvement with student families. The program also encouraged diversity in the teaching workforce by attracting individuals from various backgrounds and experiences, who may have been previously excluded from such opportuni-

ties due to the time and financial burden of traditional EPP models (PDE, 2023c).

3. **Individuality through greater support and ongoing development:** Student tracks were individualized during faculty advisement. Each student had the opportunity for on-going support with their graduate program advisor. Individual students brought unique experiences, different work conditions, varying motivations, and individualized professional goals in becoming teachers. Understanding individual context was crucial, and the process revealed that support for professionalism, pedagogy, content knowledge, classroom management, and/or student engagement above and beyond the coursework was needed. This also led to incorporating a dispositions rubric that was discussed during individual teacher-candidate meetings. These one-on-one meetings aided in the guidance that students requested surrounding job opportunities, handling challenging classrooms, and preparing university supervisors to work with the teacher candidates in the field. This whole-person approach fostered greater awareness for faculty and enriched their perspectives of the diversity and experiences of our student learners.

4. **Increased course enrollment and program retention:** By amending the flexibility and accessibility of our program offerings, we retained more students along their educational journey, regardless of whether they were on the accelerated, traditional, or part-time program track. Virtual learning became more pronounced during these past eight years, and we experimented with hybrid, flexible, synchronous, and asynchronous formats and discovered our new best practices. This also led to increased expectations for students and faculty about virtual class participation and incorporating virtual etiquette when participating professionally online.

5. **Collective Professional Development:** Unlike those who teach with emergency permits but do not engage in an EPP, the intern certification and participation in an EPP allowed students to grow exponentially while they were learning on the job. Meetings and seminars allowed cohorts to come together and discuss relevant educational topics such as culturally relevant pedagogies, trauma and wellness, school climate, or their day-to-day challenges and successes. Students shared comparisons and contrasts of real-life examples and applications in their classrooms, schools, and communities. Some students reported feeling increased self-efficacy because they could then discuss relevant hot topics with coworkers who may or may not have learned much about emerging issues, understanding, or best practices.

Challenges and evolving solutions

While benefits were noted, there were also challenges during the initiation, implementation, and continual innovation of an EPP that aimed to meet learners where they were and where they needed to be. We addressed some concerns early on, and some challenges still inspire our ongoing attempts to find solutions if we are to support the greatest number of teacher candidates. The following is based on anecdotal experiences from advising sessions and departmental conversations.

While charter, private, and parochial schools were all early adopters of the teacher candidates with alternative credentials, our local LEA partners embraced the Intern certification once they became more informed. Many of our graduate students chose charter schools over private and parochial positions and even public urban and suburban schools due to opportunity and for higher pay. This practice often led to greater concerns and challenges as provided below. Upon reflection of the alternative pathways and teacher candidates over the past eight years, highlights of concern include:

1. **Teacher Workload.** Reports came in about uncommon teaching schedules, for example, lacking standardized preparation and planning periods, contracts that included extended days, expectations of additional responsibilities, and, in Special Education, an unexpected and overwhelming caseload. While interviewing and accepting contracted positions, many students would call the IHE with a sense of urgency, requesting meetings with faculty and staff about whether to accept a teaching position and if placement and teaching load would satisfy the requirements for continuing their EPP plans. Faculty participated in mul-

tiple meetings with principals, human resource personnel, and others to help ensure that the candidate and positions were a good fit for all stakeholders while supporting both candidate and school needs. Most students heeded the advice while others chose situations advised against. This had an impact on in-person supervision when students chose jobs far from the school and/or midterm during a field semester.

2. **Teacher Burnout.** Unqualified teachers experience higher stress levels and burnout without proper preparation (Mijakoski et al., 2022). Throughout literature and from our own experiences, we found that new teachers felt the least prepared for classroom management. Classroom management can be difficult for newer teachers and teacher candidates to create a positive learning environment, address behavioral issues effectively, and maintain discipline. Burnout negatively impacts student well-being and job satisfaction. Some students expressed interest in leaving classroom teaching immediately after receiving their teaching certificate, regardless of whether they continued their studies in the program. Our group wondered how many potential teachers leave the industry before even receiving teaching certification and how the attrition statistics account for those who leave before even entering the teaching profession.

3. **Lack of administrative and coworker support.** Many candidates felt siloed to their own individual classrooms, and others felt unsupported by the teams they were on. We heard concerns with professional relationships, such as with coworkers who did not recognize alternative teacher candidates as real teachers, and concerns that they were trying to advocate for help from administrators and not receiving it. According to State Rep. Joseph D'Orsie, it is a lack of support from school administrators, and not salary, that leads to the attrition in his legislative district (Scicchiatno, 2023). We found that asking our university supervisors to conduct more school visits and student meetings weekly instead of monthly was the best way to develop individual professional disposition, strengthen relationships, and feel supported in their roles. This required restructuring the university supervisor role, such as recruiting more practitioners, expecting more than the mainstream expectations, requiring multiple and on-going training opportunities for supervisors to meet and discuss trends and solutions with EPP faculty and staff members. With new communication and documentation requirements, a new database system was created for supervisors and others.

4. **Low teacher candidate motivation, self-efficacy and self-esteem**. Over the years, emerging educators reported an increase in a sense of despair. Teachers that were not fully prepared to teach struggled to maintain proper lesson planning and preparation, student engagement, and classroom management. Self-efficacy is a person's particular set of beliefs that determine how well one can execute a plan of action in prospective situations (Lopez-Garrido, 2023, π 4). Self-efficacy, self-esteem, and motivation are all closely linked. Additionally, a feeling of ineffectiveness leading to low teacher self-efficacy is linked to attrition (Tschannen-Moran et al., 1998). Supporting candidates through additional efforts by university supervision, advising and peer groups helped to support these candidates to complete their semesters successfully. An ongoing concern is whether the teacher's decreased motivation impacts their students' interest in learning (Keane et al., 2018).

   Our efforts included discussions about perseverance, in group and one-on-one settings, calling attention to feelings of disillusionment, and encouraging students to improve various skills so they could be more effective for themselves and their students.

5. **Community Impact and Equity.** The lack of fully qualified teachers can adversely affect the school's reputation. Parents and the community lose confidence in the education system when they believe that unqualified individuals are responsible for a lack of student learning, the safety of the children attending those schools, and begin to raise legal and ethical concerns (Ingersoll, 1999). Educational standards and regulations are

in place to ensure that students receive a quality education, and assigning unqualified individuals to teaching roles violates these standards and causes concern throughout communities. We observed that placing unqualified teachers in classrooms can contribute to educational inequity. Those PreK-12th grade students with the lowest achievement were in schools that were the most willing to hire provisionally or alternatively certified teachers, often leaving us feeling that inequities were exacerbated. Reports from field supervisors led to efforts to advocate on our students' behalf with their administrators while protecting partnership agreements and relationships.

6. **Overloaded professional development.** Over eight years, there have been teacher candidates that felt they could not attend weekly and individual in-person evening seminar meetings. The concern was heard that there were too many school commitments as well as family obligations. One concern voiced was a feeling of being overwhelmed by district-mandated professional development.

First-year employees are required to complete the state-mandated induction program (PDE, CSPG 20). This two-year long program commitment requires PD components that often take place during out-of-class time and after-school; candidates have claimed that they are overbooked. Students reported that topics were sometimes redundant between LEA and EPP, topics at the school level that were above their understanding since they could not relate to the "experiences" just yet, and that mandates of both programs was a burden. Despite overloaded schedules, students reported an appreciation that the required in-person or cohort meetings with supportive faculty and classmates were well worth the inconvenience first perceived as reported during exit interviews.

Emergency-permitted students were more likely to fail to acclimate or reach expectations reserved for formally trained experts. With little understanding of the educative process nor of their own influence and impact on the entire school community and its stakeholders, it intrigued us to wonder, how many emergency-permitted educators left teaching before learning how to succeed in their teaching capacity and gain instructional certification? We believe the effectiveness of alternative teaching credentials depends on the type of alternative credential as well as the quality of the IHE program in order to realistically support candidates during their transition into teaching.

Recommendations

The following recommendations are based on lessons learned from eight years of offering alternative pathways to teacher certification in Pennsylvania at one small university. IHE administrators and those interested in providing solutions for institutional recruitment and local qualified teacher shortage concerns can consider these recommendations when reflecting on their own experiences:

1. **Reflect.** Reflect on the core tenets of your specific EPP program and align it with institute mission, vision, and values. Determine which resources are available or can be developed to support changes to program offerings, formats, and personnel needed to design, prepare, implement, and support ongoing changes that address students with alternative certifications.

2. **Dedicate time.** Dedicate time and expertise to reviewing and further developing courses that need to be efficient and effective, in content, format, and accessibility while aligning with adult-learning principles. Provide ample advisement and clearly communicated roadmaps for the journey into teaching and more permanent teacher certification.

3. **Ensure alignment.** Align program to state department competencies and parameters surrounding alternative pathways, including field and student teaching guidelines. Dedicate time and resources to maintaining this alignment on a regular basis. Decide as a department or institution if additional parameters and the logic or philosophy to support those additions are needed. With an accelerated program, teaching within the certification and grade-level area becomes vital. Decide how your program will ensure that proper field experiences and supervision is conducted.

4. **Collaborate.** Establish new and strengthened school partnerships with a variety of local

schools. PreK-12 schools benefit from access to teacher candidates, reduced recruitment costs, a workforce, and improved teacher stability (Carver-Thomas et al., 2021). Together, we interpret, support, and ensure the integration of teacher candidates into local classrooms. This requires more check-ins with changing personnel and working together to solve mutual concerns about teacher shortages. Create and conduct opportunities to collaborate regularly and represent thought leadership in your area.

5. **Communicate.** It is critical that programs communicate

   a. **with teacher candidates.** With growing amounts of information to ingest, digest, and practice to be successful, IHE EPPs should define clear program goals and structure, articulate the various approaches to traditional and alternative teaching certification pathways, individualize students, and provide roadmaps to help support their journey. We found notifications, announcements, and reminders pushed out through learning systems supported student success as just-in-time information for those with weaker or overwhelmed time management skills. A new emphasis emerged on the importance of course sequence to ensure students mastered core competencies before completing certifying examinations. Advising, coaching, and increasing support for exam preparations became necessary as more candidates needed to retake certifying examinations.

   b. **with local LEAs.** EPPs and schools should share data and evaluation results to assess partnership effectiveness, celebrate success, and identify improvement areas. This data-driven approach can help ensure that the program meets the needs of teacher interns and the schools where they are placed. The LEA and IHE should use data to assess the retention of teachers trained via alternative pathway certification programs.

   c. **with PDE.** The multitude of state certifying requirements changes regularly; funding opportunities are available to assist students and EPP innovations. Communicating involves keeping abreast of communications and participating in information-sharing groups.

6. **Provide quality mentorship.** Provide strong mentorship for teacher candidates by pairing them with experienced and effective coworking educators. We require contact information for a fellow teacher's name and administrator for those that are classroom teachers of record in an alternative pathway program. The fellow teachers are invited to meet and observe their coworkers during their field and student teaching experiences. This provides an additional lens to the teacher candidate's development and contributes to the work overseen by the university supervisor. In addition to faculty who work directly with education students in coursework, consider recently retired practitioners, for those with the most recent and most relevant PreK-12 experiences.

7. **Require weekly cohort meetings and/or seminars with supervisors.** Offer support services to help teacher candidates navigate the challenges of the program and their new role. This could include academic advising, counseling, and clearly communicated resources to address specific needs. Be sure to allow students to share their experiences in small groups with each other and create safe spaces. Topics may range and can be shared towards collective knowledge gains. Faculty can prompt discussion and should avoid lecturing. Some students, for example, teach in schools that have incorporated daily socio-emotional learning curricula with instructional practices. Provide opportunities to hear from each other and share knowledge. Many use different hardware and software for students and family communications, grading portals, applications, and practices, and small community discussions are beneficial to understanding changing and best practices.

8. **Provide high-quality and relevant learning.** Ensure that instruction aligns with what students need to know about success, such as communication when working with their families and class management. This involves conversations

surrounding diversity, inclusion, trauma, positive psychology, and solutions-based approaches to working one-on-one with students to solve classroom challenges. While many colleges offer interesting topics, focus on the important skill-building development that empowers early educators to be effective and efficient. While costly, consider that subject matter experts deliver these for the most impact on student learning.

9. **Networking Opportunities.** Facilitate networking opportunities for teacher candidates to connect with each other, coworkers, experts in the field, and potential employers. Networking creates a sense of community and can involve anyone in their higher ed institution, PreK-12 teaching position, families of students, and speakers at meetings, among a few. Teacher candidates who develop strong connections with the school community are more likely to remain with the district and in teaching after completing their certification, contributing to teacher stability (PDE, 2023c).

10. **Continuous Program Evaluation.** Implement a continuous evaluation process of program components to gather feedback from all stakeholders, including the new teachers, mentors, and school administrators. Interview your candidates upon certification about their experiences and consider the feedback for trends and patterns that inform improvement. Use this feedback to make internal improvements and adjustments as needed. Regular feedback, assessments, and evaluations contribute to continuously improving an EPP. Furthermore, allow faculty and university supervisors the opportunity to share their observations and experiences. Build an overarching evaluation plan for the program and monitor the specific changes.

Conclusion

A consensus among our team was that alternative and temporary certification programs required more IHE intervention and involvement by faculty and staff with students, school administrators, and PDE. We found it important to have staff dedicated to embracing challenges as they emerged, working with students that wanted and needed more advisement sessions and customized pathways, researching and navigating problem-solving solutions with multiple stakeholders, and basically, providing more as more was needed. This is an integral and ongoing component of our mission and responsibility being an EPP.

Now, with more awareness about the needs of our incoming students and future teacher candidates, individualization and support from entry through exit and into their early years of teaching is necessary if we are going to help those entering teaching to not only survive but thrive at the frontlines of PreK-12 education.

The American Association for Employment in Education (AAEE): Educator Supply and Demand in the United States Report for 2023 stated that enrollment in alternative teacher certification programs would likely increase and traditional programming would decrease. The reporting and recommendations provided herein claim that as an EPP, the more we do, the more we need to do. With support from federal and state departments of education as well as institutional leadership, through data-driven research and collective knowledge gain, Educator Preparation Programs can remain the keystone that bridges the future of teacher pathways in our schools.

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Teacher self-efficacy and standards aligned instruction for students with significant cognitive disabilities

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Abstract

Teachers of students with significant cognitive disabilities (SWSCD) face multiple barriers when attempting to provide standards-aligned instruction (SAI) in special education classrooms. Self-efficacy, or believing that one has the ability to accomplish difficult things, is the anchor of the conceptual framework through which this phenomenological research study was completed. Teachers identified between two and four barriers to providing SAI to their SWSCD, with a lack of professional development identified by all participants. Recommendations for teacher preparation focus on attention to the instructional skills associated with high self-efficacy and explicit connection of the need and requirement of SAI to SWSCD. Recommendations for future research include the frequency and effectiveness of professional development for teachers and administrators in this area.

About the Authors

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Introduction

The 1997 reauthorization of the Individuals with Disabilities Education Act (IDEA) required schools to provide access to the general education curriculum for all students, including students with significant cognitive disabilities (SWSCD). The IRIS Center defines SWSCD as having "one or more disabilities that significantly affect their intellectual functioning and adaptive behavior (e.g., social skills, activities of daily living). These students require intensive, individualized instruction and supports" (The IRIS Center, n.d.). Prior to IDEA 1997, these students were often exclusively taught life skills or functional skills. The instructional gaps experienced by these students are impacted by not only a lack of accessible content, but also a lack of teacher knowledge and expertise in aligning their instruction with the standards (Browder et al., 2006).

Teachers and special education case managers of students with significant cognitive disabilities (SWSCD) face a multitude of challenges with the charge to provide standards-aligned instruction (SAI). These include students whose learning process by nature is complex, as well as the need to balance academic instruction and functional skills. With a typical school day being roughly seven hours, there is much to teach and little time to teach it all. Special education is also a highly litigated field. During the 2020-2021 school year, the state of Pennsylvania recorded 73 written complaints, 303 mediation requests, 840 due process complaints, and 4 expedited complaints (Pennsylvania Department of Education, 2021). Special education teachers are charged with extensive data collection and the implementation of evidence-based programming with fidelity. Finally, special education teachers have general pedagogical training and training in disability-related strategies and are not content experts. Therefore, planning SAI is an additional task for which many quite simply do not have the training and expertise (Petersen, 2015).

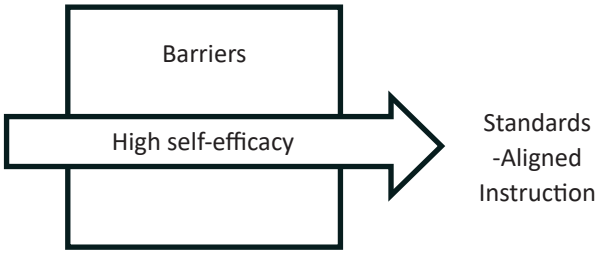
IDEA requires IEP teams to consider instruction in the least restrictive environment in which a child can receive meaningful educational benefit, which starts with the general education classroom with no additional supports (Individuals with Disabilities Education Act, 2004). However, it is common practice for students with disabilities to receive goal-based instruction within a special education classroom, and SAI within a general education classroom (Soukup et al., 2007). There is little research on general education content in special education classes, and there are only a few ready-made curricular materials that provide SAI in a format that is readily accessible for SWSCD (Taub et al., 2019).

Teachers with high self-efficacy are better equipped to provide SAI. Although it is an expectation by law that all students will receive SAI, Albert Bandura indicated that "expectation alone will not produce desired performance if the component capabilities are lacking" (1977, p. 194). He goes on to say, "given appropriate skills and adequate incentives, however, efficacy expectations are a major determinant of people's choice of activities, how much effort they will expend, and of how long they will sustain effort in dealing with stressful situations" (p. 194). Self-efficacy influences instructional choices and student placement decisions, but little research exists on its role in special education settings.

Adapted from the work of Hagan and Olivier (2022), the conceptual framework applied to this study illustrates how high self-efficacy enables teachers to work through barriers and provide SAI to their SWSCD. In facing many barriers to providing SAI to SWSCD, special education teachers with high self-efficacy are believed to have the skills required to work through the barriers and accomplish the task, which is illustrated in Figure 1.

Figure 1

Conceptual Framework



Research Questions

1. What barriers do special education teachers with high self-efficacy face when attempting to provide standards-aligned instruction to students with significant cognitive disabilities?

2. What enables special education teachers with high self-efficacy to provide standards-aligned instruction to SWSCD?

Literature Review

There are three things that need to happen in order for alignment of standards and instruction to truly occur. Those are: 1) matching the standards to the instruction; 2) matching the standards to the assessments; and 3) matching the instruction to the assessment (Kleinert Ed.D., Harold L. & Jacqueline, 2010). In some states, there may be additional extensions or translations of the standards; in Pennsylvania, there is the Alternate Eligible Content, also known as the Essential Elements.

It is important to identify the academic curricula taught to SWSCD, where the gaps in instruction are, and what methods and materials are used. Regarding ELA instruction, only a few sub-skills receive intensive focus by teachers of SWSCD (Karvonen et al., 2011). These skills are discussion (Language) and beginning reading (Reading and Literature). Most of the sub-skills receive moderate to intensive focus by half or less of teachers of SWSCD. When it comes to math, most teachers of SWSCD spend a considerable amount of instructional time focusing on skills related to number sense. Likewise, they spend very little time on everything else in the math domain. In other words, foundational math and ELA skills are the primary areas of focus for these teachers, and subsequently, their students.

SWSCD often receive academic instruction in both general and special education environments. Students who are included most in the general education classroom are more likely to work on grade level content as opposed to the other students who work on non-graded content for the subjects (Soukup et al., 2007). Conversely, though, students who are included most in the general education environment only worked on IEP goals a small portion of the time there, while students included in the general education environment less frequently work on IEP goals more frequently. This dichotomy does not need to exist, but it does and is prevalent throughout schools. Expectations for SWSCD in the general education environment are often not the general education content, nor are those the expectations for these students in the special education environment (Hanreddy & Östlund, 2020). Rather, the focus tends to be IEP goal work. The alternative curricular materials that are being developed can even be considered as perpetuating the segregation. Such is also the case with an educational program that focuses primarily on functional skills (Courtade et al., 2012). While it is true that SWSCD can benefit from learning functional skills, that is not a legitimate reason not to provide SAI. Likewise, an IEP that provides SAI can also provide instruction in functional skills, perhaps in unison but certainly in tandem. Improvements in educator preparation, pedagogy (universal design for learning, project-based learning, embedded instruction, culturally responsive teaching, and formative assessment strategies) and policy could be made to work toward consistency (Hanreddy & Östlund, 2020)

Special educators often have the autonomy and independent decision-making that leads to academic access for their SWSCD (Timberlake, 2014). While there is an IEP team, the special education teacher drafts the majority of the IEP document. They are certainly the primary person making decisions for the student on a daily basis as those decisions relate to their IEPs. Teachers often decide that SWSCD require instruction within their special education classrooms because their classrooms run differently, which they believe is necessary; however, having this autonomy and control with a lack of data driving the decision should be observed with caution. Autonomy is not synonymous with validity, nor should it be all-encompassing.

Teachers view student behaviors such as academic response, task management, and competing response as variables that contribute to accessing the general education curriculum (Lee et al., 2008). Student behavior is also specifically seen as a barrier to participation in the general education environment (Agran et al., 2002). When considering student behavior in relation to access, teachers look at instructional behavior, management behavior, and teacher focus. In reality, there are five variables that impact student access to the general education curriculum: student academic response, student competing response, teacher instructional behavior, teacher management behavior, and teacher focus. Teachers tend to focus less on SWSCD when they areteaching the curriculum, and more when they are addressing IEP goals. However, when special education teachers are given more responsibility for the curricu-

lum itself, they tend to be able to provide SAI to their SWSCDs (Dymond et al., 2006).

Special education teachers are often confused about what curricular access really means. They are overwhelmed by the logistics that surround it, and do not have the opportunity to work with other colleagues to ensure equitable and meaningful access occurs (Petersen, 2015). They identify resistance to general education curriculum access by various stakeholders (Agran et al., 2002). They lack professional development, and do not have a solid understanding of the need for general education access, Common Core State Standards, the Essentialized Elements of the DLM, the purpose of alternate assessments, as well as the connection of all of those to IEPs. These are all barriers to being able to provide SAI to SWSCD (Lee et al., 2008; Petersen, 2015; Taub et al., 2019).

Strong self-efficacy drives an individual to persist in difficult tasks because ultimately, they believe they will succeed (Bandura, 1977), and the task of aligning instruction for SWSCD to the standards has been identified as a difficult task (Petersen, 2015). Thus, not every teacher of SWSCD provides SAI (Karvonen et al., 2011) and it is hypothesized that self-efficacy is a characteristic that enables teachers to do so. Teachers with high self-efficacy have in-depth knowledge of their students, an effective approach to engaging with students, and strong knowledge of explicit teaching and behavior management techniques. When they feel confident with the content and their own knowledge of the student, they can assist students in achieving success with the instruction (Shaukat et al., 2018).

Albert Bandura says that "efficacy expectations determine how much effort people will expend and how long they will persist in the face of obstacles and aversive experiences" (p. 194). Many studies have focused on the effects of teacher self-efficacy on instructional practices, student performance, and teacher attitudes toward their work (Zee & Koomen, 2016). Higher efficacy of teachers of students with learning, emotional, and behavioral difficulties is due to in-depth knowledge of their students, having an effective approach to engage with the students, and having strong knowledge of explicit teaching and behavior management techniques (Kuronja et al., 2018). Specific to teaching science to students with disabilities, special education teachers who felt confident with the content and their own knowledge of the student, could assist the student in achieving success with the instruction (Ateş et al., 2019). Teachers with high self-efficacy are also more likely to try new methods, implement new programs, be organized, and be confident (Allinder, 1994).

Regarding the general teaching of students with disabilities, teachers who had a greater sense of self-efficacy also had higher levels of job satisfaction (Shaukat et al., 2018). When their background and training were sufficiently matched to their job expectations, they were happier with their abilities to teach students with disabilities. Being supportive of inclusion is also significantly correlated to higher self-efficacy (Saloviita, 2019). With inclusionary practices, there is a significant relationship between self-efficacy and inclusion efficacy (Ozokcu, 2017). Specifically, this was more prevalent with a number of specific categories: females, experienced educators, those with special education training, and those who had experience with students with disabilities. However, young teachers also had more inclusion efficacy in particular. The self-efficacy beliefs of general and special education teachers influence the decisions paraprofessionals make about where they support SWSCD for daily class activities (Ruppar et al., 2018). The self-efficacy of special education teachers is influenced by district expectations and teacher preparation, including their knowledge of content.

Methods

This qualitative, phenomenological study explores the lived experiences of Pennsylvania special education teachers with high self-efficacy in providing standards-aligned instruction (SAI) to students with significant cognitive disabilities (SWSCD). The study seeks to identify patterns in these experiences and understand the factors enabling teachers to overcome barriers. The research was conducted using individual interviews of special education teachers with high self-efficacy who provided SAI to SWSCD. Participants were recruited from school districts and intermediate units (IUs) based on their instructional roles and self-efficacy scores. The six participants provided SAI to SWSCD in at least one core subject and rated themselves on the instructional self-efficacy questions to reflect a total of 53 or more points. They taught students from kindergarten through 12th grade and had a range of 14 – 22

years of total teaching experience, with 8 – 16 years of experience teaching SWSCD.

All participants were required to rate their instructional self-efficacy. The questions used for the self-efficacy rating were taken with permission from the Teacher Sense of Efficacy Scale (Tschannen-Moran & Hoy, 2001). The long form identifies eight questions that target efficacy in instructional strategies. The responses available ranged from 1 (nothing) to 9 (a great deal), with the options of 3 (very little), 5 (some influence) and 7 (quite a bit) in between. The researcher identified 53 points as the lowest total number of points required to participate in the study. The six participants included in this study believed they had anywhere from quite a bit to a great deal of influence when responding to the questions from the self-efficacy scale. They felt they could respond well to difficult questions from their students, could gauge student comprehension of what they taught, could craft good questions for their students, and could do a lot to adjust their lessons to the appropriate level needed by their students. They believed they could use a variety of assessment strategies, provide an alternate explanation when students need it, assist families in helping their children do well in school, and use alternative teaching and learning strategies in their classrooms. These are all markers of high self-efficacy; teachers like these are more likely to try new methods, implement new programs, be organized, and be confident (Allinder, 1994).

The data collected for this study was done through virtual interviews. The meetings were recorded and transcribed, and the researcher coded the transcripts for common themes that emerged. This began with a review of each individual transcript to identify the major themes aligned with the research questions and conceptual framework. Responses were highlighted on the transcript and organized in a spreadsheet with the various codes as headings for each column. Once all transcripts had been reviewed thoroughly from both an individual and comparative lens, and all codes were identified and assigned, themes were then gleaned. Finally, within the information identified as evidence of high self-efficacy, there was an exploration for connection to the conceptual framework of how high self-efficacy enables teachers to work around or through the previously identified barriers.

Findings

Despite the complexity of providing SAI, teachers with high self-efficacy successfully navigated challenges. Four major findings emerged:

1. Teachers with high self-efficacy face between two and four barriers to SAI.
2. Teachers with high self-efficacy possess skills that help them navigate barriers.
3. There is a lack of professional development opportunities for SAI and SWSCD.
4. These teachers find purpose and value in providing SAI.

A key barrier cited by two participants was the lack of standards-aligned curricular materials. While others had access to some resources, they still struggled with consistency. Some teachers modified general education resources, yet materials for science and social studies were particularly scarce. Participant 6 noted that their class schedule did not even include these subjects. Participant 2 echoed this, stating that no alternative science or social studies programs were available.

Administrative support was another challenge. Five participants reported limited proactive assistance from their administrators. While some had supportive supervisors, resources were often provided only upon request. Participant 3 recalled struggling to develop a curriculum alone until a supervisor eventually provided materials. Participant 5 expressed frustration with administrators' lack of understanding, stating they often praised efforts without providing concrete support. In contrast, Participant 6 appreciated the efforts of one central office administrator who actively facilitated training and resources but felt building-level administrators lacked engagement.

Teaching students across multiple grade levels added complexity. Participant 3 described the challenge of piecing together various instructional programs to accommodate different students. Similarly, Participant 4 noted the difficulty of covering appropriate standards when students function at different grade levels, requiring supplementary instruction to bridge gaps.

Professional development (PD) was identified as a con-

sistent area of concern. All six participants reported a lack of PD specific to teaching standards. Participant 3 stated they had never received PD directly related to standards. Many mentioned the Dynamic Learning Maps (DLM) program, which provides state-mandated training (Accessible Teaching, Learning, and Assessment Systems, 2023). However, participants found these resources cumbersome and minimally beneficial. States began using the Dynamic Learning Maps (DLM) assessment in 2015. The DLM website provides two sets of guidance depending on a state's participation: the year-end model, which is the typical spring assessment, and the instructionally embedded model, which teachers can use to provide instruction and assess learning throughout the year (ATLAS, 2023). Fifteen states, including Pennsylvania, use the year-end model, and six states use the instructionally embedded model. As part of the development of the DLM website, the authors also created guides for Essential Elements, which are content-specific skills that are linked with the Common Core State Standards. This provides for greater ability to link instruction to assessment, and instruction to standards, as required by ESSA and IDEA.

All participants exhibited confidence in their teaching abilities and a strong belief in their capacity to support students. They described themselves as patient, creative, flexible, and self-motivated. Participant 1 confidently stated, "When it comes to content… I can make it work…I know how to teach." Others expressed determination to work around barriers, with Participant 3 highlighting how they designed an entire program based on what they had learned worked best. Participant 5 candidly asserted their ability to engage students in high-level work aligned with general education.

Problem-solving was a critical skill. Four participants emphasized modifying general education curricula to align with students' needs. Participant 4 detailed a structured process of aligning instructional levels with appropriate content standards while supplementing where gaps existed. Participant 6 linked SAI with functional skills to maximize instruction time. Participants 3 and 5 integrated multiple supplemental resources when core materials proved inadequate. Collaboration also played a role; five participants highlighted working with colleagues to enhance their instructional effectiveness.

Evidence-based instructional strategies were commonly employed. Teachers used differentiated instruction, flexible groupings, formative assessments, pre-teaching, and re-teaching. Participant 3 viewed student behavior as communication, using it to identify instructional gaps for students exhibiting behaviors during instruction. Participant 5 discussed the use of tiered instructional materials to allow for student progression.

Organization and planning were indicated as essential. Five participants stressed the importance of maintaining structured routines and advance preparation. Participant 2 emphasized leveraging classroom assistants to ensure lessons were well-executed. Participant 3 highlighted the significance of routines for student success, while Participant 5 noted that breaking complex projects into manageable components supported engagement.

Strong relationships with students also played a pivotal role. Participant 1 openly expressed love for their students, while Participant 3 emphasized how understanding student interests enhanced teaching effectiveness. Participant 5 refused to impose limits on student potential, tailoring instruction to accommodate different learning styles.

Job satisfaction emerged as a defining characteristic. Participant 1 described feeling excited to work daily, believing that dedication and care defined an effective teacher. Participant 3 expressed deep commitment, calling their job rewarding. Participant 5 viewed teaching as more than a job, emphasizing the importance of core values in education.

Teachers viewed SAI as instrumental in preparing SWSCD for broader learning opportunities. Participant 1 believed SAI facilitated age-appropriate interactions and socialization. Participant 2 saw it as a framework for guiding student growth. Participant 3 emphasized that SWSCD, given time and practice, could achieve significant milestones. Participant 4 linked SAI to increased inclusion opportunities, while Participant 5 noted its role in promoting independence and peer connections. Participant 6 observed overall academic and social growth in students receiving SAI.

Participants also shared personal experiences that

contributed to their instructional approaches. Some had additional certifications in related fields, while others had co-teaching experience in general education or personal connections to special education through family members. These experiences informed their perspectives on student learning and instructional effectiveness.

Discussion

Participants in this study identified four primary barriers to providing SAI to SWSCD. A common challenge among all teachers was the lack of administrative support. In this research, the primary concern was the absence of proactive leadership encouraging or equipping teachers to provide SAI. While some participants had administrators who responded to requests for resources, they did not receive preemptive guidance. This suggests a possible connection between the lack of curricular materials and weak administrative expectations. Because administrators play a key role in reviewing materials and recommending instructional programs, addressing this barrier would require prioritizing SAI resources.

Another shared barrier was the lack of professional development. Professional development is often determined by district-wide priorities, and because special education teachers serving SWSCD represent a small fraction of the workforce, they may not receive specialized training. Most district-wide professional development focuses on general education initiatives, making it difficult to provide targeted training for teachers of SWSCD.

The teachers in this study self-identified as having high self-efficacy and provided SAI despite challenges. None described the process as simple, but their responses reflected confidence, perseverance, and adaptability. Research indicates that teacher self-efficacy is a key factor in students' access to general education curriculum, with experienced teachers generally reporting higher self-efficacy (Ruppar et al., 2018; Kazanopoulos et al., 2022; Ozokcu, 2017). However, the extent to which experience directly influences self-efficacy remains inconclusive.

Teachers with high self-efficacy believe in their competency, which enables them to persist despite difficulties (Allinder, 1994). They focus on problem-solving rather than questioning their ability to succeed. Teachers with confidence in their instructional skills are more likely to explore different strategies until they find effective methods for their students.

Organization was another key characteristic identified. The ability to align cross-grade level standards within a single lesson requires careful planning. Teachers with high self-efficacy apply organizational strategies to streamline their instruction and ensure continuity across academic years. Developing core instructional units allows teachers to refine and improve their methods rather than constantly starting from scratch.

Study participants employed evidence-based teaching strategies known to improve student outcomes. The focus was not only on what they taught but how they delivered instruction. While SAI for SWSCD is complex, using high-fidelity instructional practices ensures that instruction is effective and research-supported (Zee & Koomen, 2016). Seeing measurable student growth further reinforces teacher motivation and commitment to providing SAI.

Teachers in this study also expressed strong job satisfaction, which research links to higher self-efficacy (Shaukat et al., 2018). They reported that providing SAI was meaningful and contributed to student success. Teachers with high self-efficacy tend to have a more inclusive mindset and are more effective in implementing inclusive practices (Ozokcu, 2017). Despite the challenges of SAI, these teachers viewed their work as purposeful and fulfilling.

Limitations

This study has several limitations common to qualitative research, including subjectivity, researcher bias, and participant reactivity. The researcher's background as a former teacher of SWSCD who provided SAI may have influenced interpretation of findings. Additionally, the researcher's role as an administrator in one of the participating districts may have affected participant responses.

Another limitation is the reliance on teacher self-reporting. Teachers were not required to provide evidence of their SAI implementation, so the accuracy of their responses is unknown. While they confirmed providing SAI in at least one core content area, the fi-

delity of their instruction was not independently verified. Furthermore, the study's small sample size of six participants limits generalizability to a broader population.

Recommendations for Teacher Preparation

This study explores barriers to providing SAI to SWSCD and the strategies used by high self-efficacy teachers to navigate those barriers. The findings suggest that while challenges persist, teachers with strong self-efficacy are capable of overcoming them through competency, organization, evidence-based instruction, and student-centered approaches.

Teachers in this study identified between two and four barriers, yet they successfully provided SAI. Notably, they did so despite a lack of PD in this area. Their ability to navigate challenges highlights the importance of developing teacher self-efficacy through targeted professional growth opportunities and administrative support.

Findings from this study have direct implications for both special education teachers and administrators. Teaching is inherently complex, and barriers exist in all classrooms. Research consistently shows that teachers with high self-efficacy achieve better student outcomes and are more effective in overcoming challenges. Teacher preparation programs should explicitly connect teacher success to the various instructional strategies associated with high self-efficacy. The coursework should also focus on providing the importance and necessity of SAI, especially when focused on SWSCD.

Administrators play a key role in shaping the instructional landscape. Many teachers in this study felt that administrators lacked sufficient knowledge about SAI, which limited the support they received. Administrator preparation programs should prioritize a focus on SAI for SWSCD to build administrators' capacity to guide and support SAI implementation effectively.

Encouraging collaboration between special education and general education teachers can help bridge gaps in instructional planning. Teachers of SWSCD benefit from partnerships with general education colleagues, particularly in content areas where special educators may have less expertise. Providing structured opportunities for interdisciplinary collaboration could improve instructional alignment and reduce barriers to SAI implementation.

Recommendations for Future Research

Future research should focus on professional development for teachers of SWSCD and their administrators. Professional development has been linked to improved teacher self-efficacy and inclusive practices, making it a crucial area for further exploration. Studies examining the impact of targeted professional development on teacher self-efficacy and instructional effectiveness could provide valuable insights into best practices for supporting educators in this field. Further investigation into the effectiveness of Dynamic Learning Maps (DLM) resources is also recommended. While these materials are designed to support SAI, many teachers in this study found them cumbersome or impractical. Understanding teacher perceptions of DLM resources and their impact on instructional planning could help refine their application in special education settings.

Additionally, research should assess administrators' knowledge of SAI expectations and how their understanding influences instructional leadership. Providing professional development for school leaders may improve their ability to support teachers effectively, ensuring that SAI is prioritized in instructional planning and resource allocation. Finally, a larger-scale study replicating this research with a broader participant pool would enhance generalizability. Expanding the sample size could provide a more comprehensive understanding of the challenges and enablers associated with providing SAI to SWSCD.

Conclusion

This study highlights the role of teacher self-efficacy in overcoming barriers to SAI for SWSCD. While challenges such as lack of curricular materials, administrative support, and professional development persist, teachers with high self-efficacy employ problem-solving skills, organizational strategies, and evidence-based practices to navigate these obstacles. Their commitment to student success and instructional effectiveness reinforces the importance of fostering self-efficacy among educators.

Findings from this study align with previous research

on teacher efficacy, inclusive practices, and barriers to SAI. Teachers who believe in their abilities are more likely to implement innovative strategies, persist through difficulties, and experience job satisfaction. Addressing systemic barriers through targeted support, professional learning, and administrative engagement can further empower educators and enhance outcomes for SWSCD.

By fostering high self-efficacy among teachers and providing the necessary resources and training, schools can create an environment where all students, including those with significant cognitive disabilities, receive high-quality, standards-aligned instruction.

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Competency-based apprenticeship models & alternative assessments in teacher preparation programs

Caroline D. Millen

Abstract

The traditional teacher preparation model and traditional assessments are outdated, necessitating flexible and accelerated pathways to address declining enrollment and educator shortages. Apprenticeships and competency-based education offer viable alternatives, emphasizing skill attainment over traditional timelines. Effective alternative certification programs require structured support to ensure teacher retention and preparedness, addressing critical gaps in education. Through a review of traditional and alternative certification pathways, key terminology is defined, current literature is reviewed, and practical, research-based solutions are proposed.

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Introduction

The Need for Alternative Certification Pathways

Declining enrollment in educator preparation programs and persistent teacher shortages require higher education institutions to reevaluate how they attract, prepare, and retain teacher candidates. Traditional teacher preparation models typically include four years of undergraduate coursework or additional years of post-baccalaureate/graduate coursework plus extended field and student teaching experiences. Traditional programs may not accommodate the realities of today's prospective educators, many of whom are working adults, parents, or career changers. Flexible, accelerated, and competency-based certification pathways are essential for ensuring both teacher quality and accessibility.

An alternative certification pathway refers to a non-traditional route to obtaining a teacher certification, typically designed for individuals who already hold a bachelor's degree in a subject area but lack formal teacher training. These pathways offer an expedited route into the classroom compared to traditional undergraduate programs, combining coursework with supervised teaching experience. A competency-based pathway, which can be integrated into traditional or alternative programs, focuses on demonstrating mastery in specific skills and knowledge rather than simply completing a set number of credit hours or seat time.

An early definition of competency-based education (Schalock, 1976) states: "The language of competence has come to represent an educational movement which places primary emphasis on the outcomes desired of learning, and evidence of outcome achievement, in contrast to the emphasis that has been placed historically in education on materials, procedures, curriculum organization, and other stratagems designed to facilitate learning" (p. 10). Schalock goes on to critique the disorganization and variance of procedures across institutions, which makes an attractive concept difficult to implement. The search for an operational definition continued with Spady (1977), who ultimately established competency-based education as, "a data-based, adaptive, performance-oriented set of integrated processes that facilitate, measure, record and certify within the context of flexible time parameters the demonstration of known, explicitly stated, and agreed upon learning outcomes that reflect successful functioning in life roles" (p. 22). The importance of emphasizing outcomes over timelines remains relevant today.

Pennsylvania has adopted competency-based models, but they are primarily post-baccalaureate, such as the Residency Certificate which is for candidates who hold a master's or doctoral degree in the subject area, a bachelor's degree plus three years of work experience in the subject area, and satisfactory achievement on subject area content tests (PDE, 2012). There are additional accelerated certification and intern certification pathways utilizing an approved program of study for those who possess a bachelor's degree. These are beneficial options, but being contingent upon having at least a bachelor's degree, we need additional alternative pathways to achieve certification accessibility. Apprenticeship models that enable candidates to learn while they earn, to demonstrate mastery of teaching competencies while earning a paycheck, may be the solution.

Redefining the Traditional College Student

The demographics of college students haveshifted substantially. The 'traditional' college student who enters college directly after high school and studies full-time without external obligations is no longer the norm. According to data from the National Center for Education Statistics (NCES, 2020A), 40% of full-time and 74% of part-time college students are employed. Interestingly, these figures were higher twenty years ago, with 53% of full-time and 85% of part-time college students working (NCES, 2020B). The vast majority (87%) of college students receive financial aid (Hanson, 2025). Even twenty years ago, about 71% of college students received financial assistance (Hanson, 2025).

A significant number of college students, about 22%, are parents (70% mothers, 30% fathers), and more than half of those have children under the age of six (Institute for Women's Policy Research, 2020). If employment and/or parenting are full-time occupations, it makes sense that pursuing higher education would be more challenging. Unfortunately, these parenting students tend to "complete college at a much lower rate than other students, even though they earn comparable course grades" (Urban Institute, n.d.).

In Northeastern Pennsylvania specifically, private non-

profit colleges and universities are closing or fighting to remain open: "As many as 80 colleges and universities may close over the next five years...The share of high schoolers enrolling in college immediately after graduation began decreasing before the pandemic and fell from 70% to 62% over the last decade" (Buffer, 2025). Meanwhile, "The region's only technical college had consistent growth in employment, enrollment and financial revenue…Net assets grew 39% in four years" (Buffer, 2025). Perhaps that institution's success comes from its implementation of the apprenticeship model.

These are not new phenomena; the 'traditional college student' has not been in the majority for decades. Institutes of higher education can no longer afford to follow a traditional model and must respond to this evolution in student identity and need. Accessible, alternative, and accelerated certification pathways like competency-based education and apprenticeships are essential for teacher retention and effectiveness.

The Apprenticeship Model and Teacher Shortages

Apprenticeship models provide an opportunity for teacher candidates to learn through structured, paid, work-based education while receiving mentorship from experienced educators. Although typically associated with skilled trades, apprenticeships are an approved and underutilized pathway for educator preparation. In Pennsylvania, only about 5% of registered apprentices are in education fields (Commonwealth of PA, 2025; PA Career Link, 2023).

The need for alternative pathways to certification is underscored by significant teacher shortages. There are not enough certified teachers to fill open positions, and that number is expected to increase. There are not enough students enrolled in teacher preparation programs, and that number is expected to decrease (Esaki-Smith, 2024; Marcus, 2025; White, 2025). Over 400,000 teaching positions in the United States were either unfilled or held by individuals who were not fully certified (Tan et al., 2024). Comparatively, "38% of all postsecondary institutions awarded degrees and/or certificates in education. These institutions conferred more than 300,000 degrees and certificates in education" (AACTE, 2022). According to the Learning Policy Institute (Tan et al., 2024), "The Pennsylvania Department of Education reported 865 unfilled teacher positions in October of the 2023–24 school year. The state reported that 17,003 teachers were teaching a subject or grade for which they were not fully certified (out of field) in the 2021–22 school year. Of those teachers, 2,499 were not fully certified and held an emergency certification." By definition, apprenticeship programs "help employers recruit, build, and retain a highly-skilled workforce" (U.S. Department of Labor, n.d.). With teacher shortages on the rise, alternative certification pathways like the apprenticeship model can help fill the gap.

A response to the scarcity of teachers, particularly in high-need disciplines and marginalized neighborhoods, has resulted in the development of alternative certification programs. There are certain programs that place an emphasis on immersive, on-the-job training with mentorship, such as Teach for America and urban teacher residencies. On the other hand, there are some programs that give limited pre-service preparation, such as online or alternative licensure paths.

While apprenticeships are commonly perceived as outside of academia, especially in the skilled trades, apprenticeship models of teacher preparation can operate as formal partnerships between institutions of higher education and PK-12 schools. All apprentices are required to complete a minimum number of hours of Related Technical Instruction (RTI), or coursework, while demonstrating competencies on the job under the mentorship of an experienced 'journeyworker', or someone who already possesses the credential/degree/certification sought. In education, for example, a 9-12 credit Child Development Associate (CDA) credential requires at least 144 hours of coursework plus 2000 hours of on-the-job learning. An associate degree requires at least 740 hours of coursework plus 4000 hours of on-the-job learning. A bachelor's degree requires at least 1372 hours of coursework plus 4000 hours of on-the-job learning. Typical associate and bachelor's degree programs already surpass those hourly requirements which creates an opportunity to replace approximately 20-30% of what would typically happen in class (e.g., lectures, tests, writing assignments) with practical, on-the-job learning experiences that cement understanding and create opportunities to demonstrate proficiency in the competencies. For example, a bachelor's degree typically requires 120

credits/1800 hours, which surpasses the minimum requirement of 1372 hours. Apprentices are eligible to receive scheduled wage increases as they achieve milestones and complete courses, which motivates them to continue their education and stay in their position, both upskilling the profession and preventing additional teacher shortages.

Effectiveness & Challenges of Alternative Certification Programs

Alternative certification programs offer accessible routes to teaching for candidates who may not follow conventional undergraduate journeys, supporting career changers, individuals with subject-matter expertise, and/or those seeking to teach in high-need areas. Alternative programs vary widely in structure, ranging from university-based programs to residency models and online certification pathways. While alternative certification programs aim to address teacher shortages and increase workforce diversity, concerns persist regarding their effectiveness, retention rates, and the preparedness of alternatively-certified teachers compared to their traditionally-trained counterparts. It is necessary to find a way to strike a balance between the competing demands of expedited teacher preparation and the imperative to maintain rigorous standards. Even though alternative pathways have also been subjected to scrutiny due to concerns over the quality and breadth of their training, traditional university-based programs have been attacked for what is believed to be their inflexibility and alienation from the realities of the classroom and of their students.

There has been a lack of consensus regarding the effectiveness of alternative certification programs. According to some findings, these models are effective in recruiting people who might not have otherwise entered the teaching profession, particularly in areas of urgent shortage such as STEM and special education (Swanson & Ritter, 2018; Cannon et al., 2022). The alleviation of teacher shortages is one of the key motives for the implementation of alternative certification programs.

Even though these alternative programs have the potential to attract a wide pool of candidates, including people from backgrounds that are underrepresented, research indicates that they frequently fail to meet expectations in terms of the retention of teachers over the long term. Studies have shown that alternatively-certified teachers do not exhibit significantly lower attrition rates compared to their traditionally prepared counterparts; this suggests that the rapid training that is provided to them may not adequately equip them for the challenges that they will face in the classroom (Robertson & Singleton, 2010; Hellman et al., 2010; Marder et al., 2020). Furthermore, concerns have been raised regarding the preparation of these instructors to give effective instruction because of the absence of thorough pedagogical training in several alternative certification pathways (Cannon et al., 2022; Bowling & Ball, 2018). Intentional, competency-driven fieldwork is essential in either alternative or traditional programs to ensure authentic classroom environments are experienced.

When it comes to the learning outcomes of students, there is evidence to suggest that the effectiveness of teachers who have alternative certifications might vary greatly. According to the findings of a few studies (Swanson & Ritter, 2018; Schmidt et al., 2018), instructors who enter the profession through alternative pathways may have a strong content understanding, particularly in areas such as mathematics and science, which can have a favorable influence on the accomplishment of their students. However, additional research demonstrates that the quality of training and assistance that is offered within these programs is not consistent, which raises doubts regarding the overall influence that these programs have on the learning of students (Mentzer et al., 2019; Marder et al., 2020; Bowling & Ball, 2018).

Furthermore, the professional motivations of alternatively-certified teachers frequently differ from those of traditionally-certified teachers. Many individuals enter the profession for extrinsic reasons, such as job security or financial incentives, rather than a passion for teaching (Xu et al., 2024; Antonetti & Sauers, 2023). Scheduled wage increases associated with apprenticeship models or funding opportunities to support these initiatives, which are not necessarily available in traditional certification programs, may be a factor.

Research-Informed Practical Solutions & Evidence of Impact

Successful programs, whether traditional or alter-

native, share certain characteristics: comprehensive mentoring, ongoing professional development, and robust field experiences (McKinney et al., 2017; Yildizer et al., 2018). On the other hand, programs that place a greater emphasis on speed rather than depth of training may be associated with higher rates of teacher turnover and a decrease in overall teacher effectiveness (Redding & Smith, 2016; Sass, 2015). To improve the quality of alternative certification programs, policymakers and institutions must invest in thoughtful program design to ensure quality and sustainability. (McKinney et al., 2017; Evans, 2010). The potential for alternative certification programs to act as a long-term solution to the persistent problem of teacher shortages is contingent upon their ability to properly prepare and retain quality teachers. If these initiatives lead to fewer teacher candidates or a decline in the quality of education, reforms are required to enhance the training and support structures.

Competency-based education emphasizes demonstrated mastery of skills rather than time-based benchmarks that align with the completion of courses and semesters. This model is particularly promising in teacher preparation where skills such as lesson planning, differentiation, and inclusive instruction must be practiced and assessed in context. Hao (2024) highlights the fact that a competency-based curriculum design brings an improvement in educational quality by concentrating on the practical competence of students. This method not only clarifies competency goals, but it also makes use of task-driven teaching strategies and comprehensive assessments, which ultimately results in students having a better understanding of the material and being able to apply it more effectively.

Mazzye et al. (2023) did a comparison study between the traditional model of teacher preparation and the residency model. According to the results of their investigation, applicants who participated in a residency model demonstrated a greater level of self-efficacy for literacy teaching when compared to those who participated in a traditional model. Additionally, candidates from the residency model were judged by mentor teachers as being better capable of teaching literacy. This finding suggests that competency-based education frameworks have the potential to generate stronger alignment between teacher preparation programs and practical classroom competencies, especially with the support of a mentor.

In addition, Harkins-Brown et al. (2024) addressed the urgent requirement for general educators to successfully include students with disabilities in their classroom environment. According to the findings of their research, a competency-based continuing education program was established with the intention of providing general educators with the knowledge and abilities required to implement inclusive practices. Significant improvements were seen in the participants' grasp of professional standards and their sense of self-efficacy in the implementation of inclusive practices. Not only does this illustrate the ability of competency-based education to improve teacher competencies, but it also highlights the potential of this approach to address major gaps in special education, which is particularly important considering the national teacher shortage.

Kadji-Beltrán (2024) makes an additional contribution to the discussion by utilizing a living-lab methodology to investigate the development of sustainability skills among preservice preschool teachers. Students were able to participate in projects that were based in the real world thanks to this forward-thinking approach, which encouraged critical thinking, collaboration, and a feeling of purpose in the context of teaching sustainability. The findings of the study demonstrated that participants experienced increased levels of self-assurance and effectiveness in their teaching jobs, highlighting the transformative impact that competency-based education has on the development of important competences for future educators.

Not only can competency-based education in teacher preparation improve preservice teachers' self-efficacy and practical abilities, but it also tackles broader educational concerns, such as inclusion and sustainability. These studies collectively demonstrate that this type of education is beneficial. The data demonstrates that competency-based education is an essential foundation for developing educators who are competent to handle the different requirements of today's classrooms, which will ultimately result in the development of an educational system that is more effective and responsive. It is important that future studies continue to investigate the optimization of competency-based educational frameworks to significantly improve educa-

tional outcomes and the level of readiness of teachers.

Alternative Assessments for Inclusive Practice

At the very least, it is time to develop new approaches to teacher training, methods, and assessments. My experience as a faculty member and as a leader of apprenticeship programs in the field of education has demonstrated the value and impact of competency-based learning and new ways to demonstrate proficiency outside of more traditional assessments like multiple-choice tests or essays. Following a model well-established in the medical community (i.e., residencies), future educators need to master their pedagogical practice with skills around understanding, applying, analyzing, evaluating, creating, and strategizing more than just memorizing basic facts. However, the go-to assessments tend to be the types that focus on this skill of recall. With a significant population of college students having learning disabilities themselves and/or (in my case) planning to teach PK-12 students with learning disabilities, prioritizing the skill of memorization is especially problematic and does them a great disservice. After implementing best practices and progressions, like a competency-based apprenticeship model, future teacher educators will be prepared and empowered to implement their own pedagogy that is accessible and approachable for all in their classrooms.

One form of assessment that shifts slightly from a traditional method to an accessible, modern method is open-book and resource-based assessments which reduce stress and improve performance. According to Wood et al. (2016), citing others, "Between 10-40% of all students experience some level of test anxiety, with these rates varying, depending on factors such as gender, race and socio-economic status" (McDonald, 2010; Segool et al., 2013; von der Embse et al., 2013). The stress and expectation of regurgitating memorized information within a time constraint is not productive, especially for this population.

Not only are open-book tests better for reducing test anxiety, but they may also lead to better performance, and have other benefits. According to Green et al. (2016), "Findings indicated that students taking open-book pre-quizzes performed better on open-book final exams, but not other major exams. Our research approach also revealed preliminary indications that our students value their textbooks more, and used them more frequently and extensively, to prepare for class using open-book testing protocols as opposed to using traditional closed-book testing procedures. Also, preliminary indications reveal that alternatives to traditional closed-book testing enhance student satisfaction with courses and textbooks and provide the potential to improve students' experiences in the workplace" (p. 19). In addition, Eilertesen et al. (2000), "Studied the effects of open-book testing on instruction and student learning in an action research project involving 13 teachers and approximately 350 secondary school students in Norway. Results show open-book testing to be instrumental in strengthening understanding in both cooperative learning and more traditional classrooms" (p. 91).

There are other ways to measure proficiency aside from traditional assessments (e.g., multiple choice, essays, true/false, matching, completion). It is important that future educators are competent and have a thorough understanding of their content areas and pedagogical foundations, but it is equally important that they know where to find an answer and are humble enough to check their resources when in doubt. Educator preparation programs must include intentional, inclusive, and practical assessments that encourage future teachers to know when and how to use their resources, and model that continuous learning for their own students. Competency-based assessment allows for a wider range of methods, including portfolios, performance tasks, simulations, observations of practice, and project-based assessments which can better capture a candidate's ability to apply knowledge and skills in authentic teaching scenarios.

Conclusion: Toward a Responsive and Rigorous Future

Designing a competency-based teacher preparation program involves several key steps. First, programs must clearly define the specific competencies future teachers need to master, often aligned with state or national teaching standards. These competencies should encompass not only subject matter knowledge but also pedagogical skills, classroom management, assessment strategies, inclusive practices, and professional dispositions. Second, learning experiences must be designed to help candidates develop these competencies through varied activities, including coursework,

fieldwork, simulations, and collaborative projects. Third, assessment methods must directly measure the demonstration of these competencies, moving beyond traditional tests to include performance assessments, portfolios showcasing student work and teacher reflection, observed teaching practice, and feedback from mentors and supervisors. Finally, competency-based education requires flexible pacing and individualized support, allowing candidates to progress as they demonstrate mastery and providing targeted assistance where needed. This approach, particularly when integrated with extensive clinical practice like residency or apprenticeship models, ensures that candidates are not just accumulating credits but are actively developing and demonstrating the complex skills required for effective teaching.

Alternative certification pathways such as competency-based education, apprenticeships, residencies, and alternative assessments provide promising avenues for reimagining teacher preparation and addressing teacher shortages. Their overall efficacy remains contingent upon the quality of training, support structures, the motivations of the individuals entering the profession, and a commitment to both equity and excellence. Ongoing research, policy adjustments, and financial incentives are necessary to optimize these programs and ensure that they contribute positively to the educational landscape and those in need can access the opportunities. There are likely opportunities within every program to adopt aspects of competency-based education, including alternative assessments and intentional mentorship, to facilitate proficiency and mastery. By focusing on demonstrated competence rather than solely on time or credit accumulation, teacher preparation programs can better equip future educators with the practical skills and confidence needed to succeed in today's complex classrooms, ultimately contributing to a more effective and sustainable teaching force.

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Enhancing traditional student teaching: Advancing co-teaching models in Pennsylvania elementary schools

Amy Orville

Abstract

Teacher preparation programs aim to improve student teachers' experiences to produce high-quality candidates. A qualitative case study explored how university supervisors and cooperating teachers perceive co-teaching during student teaching, revealing that while organic co-teaching occurs often, planned co-teaching is rare. Key factors for success include collaboration, modeling, and responsiveness to student needs, while barriers include personality conflicts and unequal access to co-teaching opportunities. Through collaboration, co-teaching offers many advantages that often outweigh the challenges of implementing this non-traditional sixteen-week model in PreK-4 settings.

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Introduction

Co-teaching is an instructional model where two or more educators collaboratively plan, instruct, and assess a group of students within the same classroom. In the context of teacher preparation, co-teaching typically involves a cooperating teacher (an experienced classroom teacher) and a student teacher (a pre-service teacher) working together throughout the student teaching experience. Rather than the traditional "sink or swim" approach—where the student teacher gradually takes over the classroom—co-teaching emphasizes shared responsibility for planning, instruction, and assessment from the start. This model allows the student teacher to gain hands-on experience while receiving real-time feedback and modeling from the cooperating teacher.

Literature Review

Co-teaching was established in the mid-1980s as a response to federal mandates for special education students (Friend et al., 2015; Kloo & Zigmond, 2008; Pugach et al., 2011). In 1975, the Individuals with Disabilities Education Act (IDEA) mandated that children with disabilities be educated in the least restrictive environment (Bennet & Fisch, 2013; Kloo & Zigmond, 2008; Ricci & Fingon, 2017), prompting a shift from segregated special education pull-out classrooms to increased collaboration between general and special education teachers within general education settings, ultimately leading to the development of co-teaching (Hackett et al., 2021). In the 1980s and 1990s, schools across the U.S. adopted this model to meet legal requirements for access, inclusion, and rigor (Bennet & Fisch, 2013; Brinkmann & Twiford, 2012; Friend & Cook, 2013; Pugach et al., 2011).

In 2010, the National Council for Accreditation of Teacher Education (NCATE) introduced guidelines requiring universities to integrate significant hours of field clinical opportunities into pedagogy coursework (Isik-Ercan et al., 2017; Strieker et al., 2019). As a result, teacher preparation programs began offering hands-on classroom experiences to better prepare future educators before their student teaching. During this reform period, co-teaching strategies were implemented between student teachers and cooperating teachers. These strategies allowed student teachers to learn alongside experienced educators and apply their coursework in real classroom settings.

This study is significant because, while previous research (Arnt & Lyles, 2010; Kervinen et al., 2002) has explored co-teaching, it has mainly focused on the perceptions of student teachers and cooperating teachers. Limited research has compared the perspectives of university supervisors and cooperating teachers regarding the co-teaching model. The theoretical basis for this study is Jean Lave and Etienne Wenger's (1991) Situated Learning Theory. According to Lave and Wenger, students learn best by engaging in collaborative, real-world activities. In education, student teaching serves as an apprenticeship, where student teachers apply university-acquired knowledge in real classrooms while gaining insights from experienced educators. Situated Learning Theory suggests that students benefit from active participation within a community of practitioners. This study applies the theory to explore how educational professionals—cooperating teachers and university supervisors—perceive co-teaching during student teaching as a way to enhance the preparation of future educators by making learning more individualized and effective.

Methodology

This qualitative case study examined co-teaching during student teaching, focusing on how the model functions within teacher preparation programs. Given co-teaching's collaborative nature, qualitative methods enabled exploration of diverse perspectives and authentic classroom experiences (Tracy, 2020). The study aimed to compare university faculty and cooperating teachers' perceptions of co-teaching, identify factors that support or hinder its effectiveness, and understand why student teachers experience varying access to co-teaching during placements.

Conducted at a mid-sized public university in Pennsylvania with an established long-standing teacher education program, the study leveraged a strong partnership with local school districts to explore co-teaching within a cohesive educational community (Yin, 2014). Purposeful sampling identified two participant groups: seven tenured or tenure-track faculty with over three years of student teaching supervision, and six experienced elementary educators who had previously su-

pervised student teachers. Participants were diverse in background and held at least a bachelor's or terminal degree.

Data collection relied on semi-structured interviews with cooperating teachers, conducted via Zoom to maximize convenience and participation (Creswell & Poth, 2018). This method provided rich, contextual insight into daily classroom practices and educator perspectives (Tracy, 2020).

Findings/Recommendations

Through this investigation, there were four key findings that are illuminated throughout the data from the cooperating teachers and university supervisors. First, planned co-teaching during student teaching is not a prevalent practice used between the university partnered cooperating teachers and student teachers, but rather organic and unplanned co-teaching does happen frequently. Second, three effective factors that would enhance student teaching by using the co-teaching model include: collaboration, modeling, and meeting students' needs. Third, power struggle and the attitude/personality of the cooperating teacher and student teacher are the major barriers of an effective co-teaching model of student teaching. Finally, student teachers at the university are gaining differentiated access to co-teaching within their semester placements due to placement availability and the time to participate in this model efficiently.

Co-Teaching in Practice: Organic Collaboration vs. Planned Approaches in Student Teaching

Student teaching during the final semester of a teacher preparation program is a critical phase in developing future educators through real-world classroom experiences (Bastian et al., 2022; Olmstead et al., 2020; Rabin, 2020; Strieker et al., 2016). While much of the research has focused on the student teacher's relationship with their cooperating teacher, there is limited exploration of the collaborative dynamic between cooperating teachers and university supervisors (King-Sears & Jenkins, 2017; Simons et al., 2020; Stobaugh & Everson, 2019). Despite some studies addressing co-teaching, significant gaps remain in understanding its frequency, planning, and effectiveness in teacher preparation programs (Pancsofar & Petroff, 2016; Stobaugh & Gichuru, 2016; Thousand et al., 2007). In this study, both cooperating teachers and university supervisors acknowledged that planned co-teaching is rarely implemented or emphasized.

Key elements of co-teaching—co-planning, co-instructing, and co-assessing—are linked to improved student outcomes (Gallo-Fox & Scantlebury, 2015; Rabin, 2020). However, participants reported that co-teaching, when it occurs, tends to be unplanned and incidental, emerging from general mentoring practices rather than intentional collaboration. Strategies such as "one teach, one observe" or "one teach, one assist" were most commonly used (King-Sears & Jenkins, 2017; Simons et al., 2020; Stobaugh & Everson, 2019), though many participants felt these did not reflect true co-teaching but rather aligned with the traditional gradual release model (Rabin, 2020).

The study further revealed a disconnect between cooperating teachers and university supervisors. Cooperating teachers often looked to university supervisors for direction but felt co-teaching was not clearly promoted or supported by the university. Conversely, university faculty viewed the use of co-teaching as the cooperating teacher's decision. This misalignment points to a need for clearer expectations, shared understanding, and collaborative planning between these two key stakeholders.

To strengthen co-teaching in student teaching placements, improved communication and collaboration between university supervisors and cooperating teachers is essential. Clear messaging at the start of the semester, along with targeted professional development for all parties—including faculty, cooperating teachers, and student teachers—can help establish a consistent co-teaching framework (Olmstead et al., 2020). Through better alignment and shared responsibility, universities can more effectively embed co-teaching practices into the student teaching experience.

Building Stronger Classrooms: The Benefits of Co-Teaching in Student Teacher Development

Research highlights the significant benefits of co-teaching during student teaching, particularly when supported through strong collaboration between cooperating teachers and university supervisors (Bacharach et al., 2010; Rabin, 2020; Wassell & LaVan, 2009). Semi-structured interviews with both groups revealed three key

themes: collaboration, modeling, and addressing students' needs.

Cooperating teachers and university supervisors agreed that intentional co-teaching fosters more meaningful partnerships in student teaching. By co-planning, co-instructing, and co-assessing, both parties help ensure the student teacher is not working in isolation but is instead part of a shared instructional team (Soslau et al., 2019; Weinberg et al., 2020). This collaborative approach allows supervisors and cooperating teachers to offer consistent, aligned guidance to student teachers and reinforce key practices through unified messaging and feedback.

Modeling effective classroom practices was identified as another strength of co-teaching. Cooperating teachers play a central role in modeling real-time instructional strategies, classroom management, and decision-making, while university supervisors provide critical reflection and connect theory to practice (Alsudairy, 2024; Damiani & Drelick, 2024). This dual mentorship provides student teachers with a well-rounded and supportive learning environment (Bacharach et al., 2010; Weinberg et al., 2020).

A third key benefit noted by both groups was co-teaching's ability to better address student needs. The presence of two instructional leaders in the classroom—supported by the planning and feedback of university supervisors—allows for more individualized instruction and higher levels of student engagement (Bacharach et al., 2010; Olmstead et al., 2020). However, both cooperating teachers and supervisors acknowledged that effective co-teaching requires strong relationships built on trust, open communication, and shared responsibility. When these elements are missing, anxiety about evaluations or unclear roles can hinder collaboration and ultimately reduce the impact of co-teaching (Bacharach et al., 2010; Rabin, 2020).

To support these partnerships, teacher preparation programs should promote collaborative practices across both university coursework and field placements (Alsudairy, 2024). University faculty can model co-teaching strategies within methods courses, creating consistency between what is taught on campus and what is expected in the field (Damiani & Drelick, 2024; Ginsberg et al., 2021; Yoo et al., 2019;). By encouraging joint training and reflective opportunities for both cooperating teachers and supervisors, programs can strengthen co-teaching partnerships and create a more cohesive support system for student teachers.

Ultimately, when cooperating teachers and university supervisors are aligned in purpose and practice, co-teaching becomes a powerful tool for preparing future educators—one that promotes collaboration, reflective practice, and a shared commitment to student learning.

Barriers to Co-Teaching: Overcoming Power Struggles and Personality Differences

This study reveals several barriers to effective co-teaching, with particular attention to the role of cooperating teachers and their interaction with university supervisors. A significant barrier identified was the power dynamic within the student teaching triad, where some cooperating teachers maintained dominant control over the classroom and were hesitant to share instructional responsibilities. University supervisors noted that without their active involvement and clear communication, these patterns often went unchallenged, limiting the collaborative nature of co-teaching (Kervinen et al., 2022). When supervisors are not engaged in guiding expectations early on, co-teaching risks being reduced to a traditional "assistive" model rather than a fully collaborative partnership.

Another challenge stems from the attitudes and readiness of cooperating teachers to embrace co-teaching. University supervisors observed that prior experience with the traditional gradual release model influenced many cooperating teachers' reluctance to adopt co-teaching practices (King-Sears & Jenkins, 2020). Personality clashes and mismatched teaching philosophies between cooperating teachers and student teachers further complicated collaboration, highlighting the need for proactive supervisory support in addressing compatibility and fostering rapport (Keely et al., 2017; Murphy et al., 2009).

Although time and training were initially expected to be the primary obstacles, both cooperating teachers and university supervisors emphasized that the success of co-teaching largely hinges on the quality of professional relationships. Supervisors play a crucial role in setting expectations, providing feedback, and me-

diating challenges within the partnership. When the supervisor–cooperating teacher relationship is strong, it enhances alignment in mentoring approaches and reinforces a consistent vision for co-teaching.

To improve co-teaching outcomes, teacher preparation programs should provide structured opportunities for cooperating teachers and university supervisors to collaborate before and during placements. Tools such as interest surveys, planning checklists, and pre-placement discussions can help align expectations and identify potential strengths or concerns in the co-teaching partnership. By emphasizing mutual trust, shared decision-making, and consistent communication between supervisors and cooperating teachers, programs can better support student teachers and maximize the impact of the co-teaching model (Ackerman & McKenzie, 2023).

Bridging the Gap: Overcoming Placement and Time Barriers to Co-Teaching

Faculty members and cooperating teachers identified two key factors affecting student teachers' access to co-teaching placements: placement availability and time. Teacher preparation programs must build strong partnerships with local schools to ensure student teachers receive high-quality placements (Bacharach et al., 2010; Ginsberg et al., 2021). However, finding such placements is increasingly challenging due to the additional responsibilities educators face (Bacharach et al., 2010). Many cooperating teachers see co-teaching as a luxury, rather than a necessity, and the university often faces difficulty mandating its implementation. It is up to the student teacher to adapt to varying expectations at different school placements, leading to inconsistency in their experience.

Time is another major barrier to effective co-teaching, as identified by both respondents and research (Baeten & Simon, 2016; Gallo-Fox & Scantlebury, 2015). Coordinating time for co-planning lessons and resources proves difficult, as fluctuating schedules and lack of common planning periods hinder collaborative preparation (Gallo-Fox & Scantlebury, 2015). In some cases, the traditional gradual release model is favored, as it allows student teachers to work independently, without requiring concurrent planning time with the cooperating teacher.

The study found that while more messaging about co-teaching could be helpful, the primary barriers lie within each district's resources and available time. Many educators prefer giving the student teacher responsibility and offering feedback, instead of dedicating time outside of school to co-plan effectively. Respondents emphasized the need for additional professional development on co-teaching. Workshops and specific guidelines could help promote better co-teaching experiences (Bacharach et al., 2010). Universities could enhance co-teaching opportunities by fostering stronger partnerships with districts and providing professional development for cooperating teachers.

Conclusion

This investigation highlights that positive relationships built on trust and expectations form between faculty supervisors and cooperating teachers during student teaching. Although co-teaching is not commonly planned, it occurs organically when the student teacher needs additional support. Planned co-teaching could enhance the student teaching experience by fostering collaboration, modeling, and addressing students' needs. However, barriers such as power struggles and personality differences between the cooperating teacher and student teacher hinder effective co-teaching. Differentiated access to co-teaching also occurs due to variations in placement availability and time constraints. As a result, co-teaching is not implemented consistently across placements. To improve student teaching, universities and school districts can collaborate and implement research-based practices like co-teaching. As Ian Somerhalder said, "Collaboration – the ultimate intertwining of skills, passions, and knowledge – is what concocts the most shatterproof forms of changemaking."

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Exposing pre-service teachers (PSTs) to IEPWriter to help learn the most challenging aspects of being a special education teacher

Brittany Severino

Abstract

A three-week IEPWriter project was added to an undergraduate special education course offered at a mid-sized public university in Southeastern Pennsylvania to help Pre-Service Teachers (PSTs) learn how to manage and write Individualized Education Programs (IEPs). The PSTs completed a 10-item survey regarding their experience using IEPWriter to complete various special education paperwork tasks. Out of the 25 PSTs who participated, most (76%) had no previous experience, and all found the experience to help better prepare them for the paperwork responsibilities of being a future special education teacher.

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Introduction:

Many teacher preparation programs lack required coursework regarding special education law including how to write legally compliant Individualized Education Programs (IEPs) (Markelz et al., 2022), despite writing IEPs being one of the top responsibilities for special education teachers and one of the most challenging aspects of the job causing burnout among K-12 special education teachers (Brunsting, 2014; Hagaman & Casey, 2018), even more significant for novice teachers (Billingsley & Bettini, 2019; Gilmour & Wehby, 2020). Additionally, this creates a frequent turnover for open special education positions, causing school districts nationwide difficulty finding qualified candidates due to a rampant teacher shortage (U.S. Department of Education, 2024).

Reviewing how Pre-Service Teachers (PSTs) are prepared to write IEPs during their undergraduate experience is one factor that can help future special education teachers properly manage the paperwork requirements for a caseload of students once employed. The IEP is the most important document for a student, as it outlines all of their required special education services and supports, and is federally mandated by the Individuals with Disabilities Education Act (IDEA, 2004). Blasko and colleagues (2024) surveyed 218 special education teachers in Pennsylvania regarding their training in learning how to write an IEP, with 63% of the respondents feeling unprepared to write IEPs as certified special education teachers, and only 39% of participants learning how to write an IEP from start to finish. Insufficient IEPs can lead to due process hearings for school districts and families, and of most concern, cause a lack of academic or functional progress for a student. These findings show a need for teacher preparation programs to increase the training provided on IEP development and implementation for PSTs.

Werts and colleagues (2002) successfully implemented experiential learning experiences for PSTs associated with IEP development, such as using case study students and interviews with school administrators and parents. Additionally, scholars have supported PSTs in understanding the IEP implementation by engaging in in-person (Toledo, 2023) and virtual (Mason, 2023) mock IEP meetings. However, these studies involve PSTs creating and using hard copies of the IEP through a Word document. School districts have been using online special education data management systems for decades, such as IEPWriter, for special education teachers to complete the necessary paperwork and help ensure federal compliance (Serfass & Peterson, 2007). Jenkins (1986) examined the impact using IEPWriter had on 42 special education teachers in Hawaii to find it saved approximately 30 minutes on each IEP, and the quality of the IEPs, in meeting legal requirements, was significantly greater. Yet, no studies to date explore how exposing PSTs to these platforms can help enhance their learning of the IEP and help them gain proficiency with this essential job requirement.

Serfass and Peterson (2007) identify 19 commonly used online special education data management systems across the nation, including IEPWriter developed by Leader Services in 1968. IEPWriter states it is the most “prominent” IEP system in Pennsylvania, with 571 schools currently using it to write IEPs (IEPWriter, 2025). This study implemented a three-week IEPWriter project with 25 undergraduate PSTs enrolled at a university in Southeastern Pennsylvania to determine any potential benefits it could have in helping PSTs connect special education law with IEP development, including writing an entire IEP, revising an IEP, managing IEP due dates, reporting IEP progress monitoring, and documenting IEP team member communication using the IEPWriter platform. This study seeks to fill the current gap in the literature by identifying how using an online special education management platform, such as IEPWriter, within a teacher preparation program could improve how PSTs learn to write IEPs. A greater understanding of how to write an IEP and navigate a commonly used platform in K-12 schools can help increase IEP accuracy and decrease the stress or time novice special education teachers report spending on this essential job duty (Billingsley & Bettini, 2019; Gilmour & Wehby, 2020).

Methodology

The researcher and professor of this study engaged in the Scholarship of Teaching and Learning (SoTL) by inquiring about the impact of a specific teaching practice, the use of IEP Writer in this study, as a formal means to improve students’ learning, contribute

Table 1

Questionnaire Items

1.	Before taking this course, have you heard of IEPWriter or any similar online special education management software?
2.	Have you seen a special education teacher use IEPWriter or any similar online special education management software in your field courses or work experiences?
3.	How easy did you find IEPWriter to use and navigate?
4.	Do you prefer using IEPWriter to create special education documents or the Word template for these documents?
5.	Were the assignments in IEPWriter (e.g., IEP revision, progress monitoring, parent communication log) helpful in understanding how the policies we have reviewed in this course are implemented in the K-12 school setting?
6.	Did working in IEPWriter help you feel better prepared for managing a caseload of student's paperwork?
7.	How much time would you have liked to allocate this semester in this course to working in IEPWriter?
8.	Which case manager task did you find the most difficult to complete in IEPWriter?
9.	Which case manager task did you find the easiest to complete in IEPWriter?
10.	Do you have any additional thoughts or comments regarding your experience using IEPWriter this semester?

to effective teaching practices in higher education, and as a reflexive practice (Bishop-Clark & Dietz-Uhler, 2012). The SoTL project used a survey research design approved by the Institutional Review Board (IRB) at the researcher's place of employment, a mid-sized public university in Southeastern Pennsylvania, to collect and analyze survey data regarding PSTs' experience using IEPWriter. The questionnaire included 10 items, with most providing multiple-choice responses except for the last item, which was open-ended (Table 1).

IEPWriter Project

The IEPWriter project was added to a required undergraduate assessment course that reviews paperwork requirements for future special education teachers. All PSTs in the course are double majors, pursuing their certification in Special Education PreK-12th grade and Early Grades Preparation PreK-4th grade or Middle Grades Preparation 4th-8th grade in Pennsylvania. The course met twice a week, in person, for an hour and fifteen-minute class sessions over 15 consecutive weeks during the Fall 2024 semester.

The course typically includes learning about special education law and policy in terms of the evaluation process and special education documents, then students create the documents (e.g., Reevaluation Report, Individualized Education Program, Invitation to Participate, and Notice of Recommended Educational Placement) using Word templates available through the Pennsylvania Training and Technical Assistance Network (PaTTAN, 2025). However, students only completed these documents for one hypothetical case study student. In the K-12th grade setting, special education teachers are responsible for completing these documents for a whole caseload of students and typically use online software, such as IEPWriter, versus Word templates. The IEPWriter project was added to the last three weeks of the course to have PSTs apply their learning by practicing the skills they've learned using online software, that there is a high likelihood they will use once certified, and to get a sense of what it is like to do these skills for a caseload of students.

Each PST was given their username and password to log in to their IEPWriter account. The project consist-

ed of five parts using IEPWriter, including 1) creating a spreadsheet for paperwork due dates, 2) creating an IEP, 3) completing an IEP revision, 4) creating a progress report for academic and functional IEP goals, and 5) creating a parent call log to document communication. All PSTs were given a hypothetical caseload of 12 students receiving learning support services.

Participants

During the last week of the semester, and the conclusion of the IEPWriter project, PSTs were asked for their participation in the study. PSTs were asked to anonymously complete a 10-item questionnaire (Table 1) using Qualtrics. The PSTs were reminded that their participation was optional and would not have an impact on their performance in the course. All PSTs in the course (n=25) provided their consent and completed the questionnaire. All the PSTs (n=25) identified as female. Due to prerequisite requirements, 84% (n=21) of the PSTs were juniors, and 16% (n=4) were seniors. Most of the PSTs (92%, n=23) were Early Grades PreK-4th grade double majors, and a few (8%, n=2) were Middle Grades 4-8th grade double majors.

Items 1-9 of the questionnaire, written in multiple-choice format, were analyzed using descriptive statistics. The last item, written in an open-ended format, was analyzed using deductive coding based on the study's research question: *Do Pre-Service Teachers (PSTs) feel better prepared to complete the paperwork requirements as special education case managers after using IEPWriter?*

Results

All 25 PSTs completed items 1-9 of the questionnaire, with only three PSTs completing item 10, providing some additional feedback regarding their experience using IEPWriter. Most of the PSTs (75%, n=19) had never heard of IEPWriter or a different online special education management software before taking this course; however, most students (75%, n=19) have seen a special education teacher in their field or work experiences completing special education paperwork using an online platform. Only one PST responded with previous experience not only hearing of IEPWriter or a different online special education management software, but also some experience using the system.

When first introduced to IEPWriter in class, several students inquired about the requirement to create Word documents if they could have used an online platform instead. The instructor shared the importance of PSTs understanding the different sections of the IEP before using an online system to know what information goes where. Additionally, some schools in Pennsylvania may use a different system other than IEPWriter. Interestingly, after the IEPWriter project, 92% (n=23) of the PSTs preferred creating all special education documents using Word templates over IEPWriter. This could be due to most PSTs (68%, n=17) finding IEPWriter somewhat difficult to use and navigate. Students had trouble with the platform properly saving, causing some students to redo a section of a document. Some students had difficulty transferring information from the format of the Word templates to IEPWriter, even though they both requested the same information but visually displayed it differently. A student commented, "IEPWriter is clunky," a term commonly used to describe something that can be awkward to use or seem outdated. One PST identified IEPWriter to be extremely difficult to use, and seven PSTs (28%) thought it was somewhat easy to use.

Despite using IEPWriter being a learning curve for the PSTs, all participants found using IEPWriter helpful in replicating what case managers are required to complete in K-12 settings, with almost half of the PSTs (n=12) finding the experience extremely helpful and the remaining PSTs (n=13) finding it somewhat helpful. Additionally, the PSTs all felt completing the special education paperwork in IEPWriter helped them feel better prepared for doing it in their career; with 16% (n=4) fully prepared, 56% (n=14) mostly prepared, and 28% (n=7) somewhat prepared. All three PSTs who responded to item 10 identified that even though IEPWriter was "frustrating," "difficult," and "not very user-friendly" at times, they felt exposure to the system benefited them in learning the paperwork requirements of caseload management and feeling better prepared for their future career in special education. Furthermore, one PST noted how even problem-solving technical difficulties is part of the job, "It was frustrating at times because it is not the most user-friendly, but those struggles would also happen if you had to use IEPwriter in your district."

The PSTs completed various case manager tasks in IEPWriter connected to IEP implementation and management for three weeks out of a 15-week semester. Most of the PSTs (64%, n=16) felt this was the perfect amount of time to gain experience using an online special education management software. A third of the PSTs (n=8) would have preferred a little more time, and one PST would have preferred a lot more time working in IEPWriter. One PST noted in item 10, "just taking an extra day to explore IEP writer." Most PSTs (68%, n=17) found creating a student's IEP in IEPWriter to be the most difficult paperwork requirement to complete, followed by creating a progress report (28%, n=7). Most PSTs (80%, n=20) found documenting parent communication using the parent call log in IEPWriter to be the easiest function to use, followed by creating a Notice of Recommended Educational Placement.

Discussion

PSTs need exposure to as many job-related challenges in special education as possible to support them in being better equipped to handle those challenges once certified and increase retention rates. Current research shows how the paperwork requirements for special education teachers are one of the most challenging aspects of the job (Brunsting, 2014; Hagaman & Casey, 2018), and many feel their undergraduate training did not prepare them for it (Blasko et al., 2024; Mehrenberg, 2013). The 25 PSTs who participated in this study identified how having some training and experience using IEPWriter, an online special education management system, helped them better understand how special education law translates to completing special education documents (52% somewhat helpful, 48% extremely helpful) and feeling better prepared to manage a caseload of students' paperwork (28% somewhat prepared, 56% mostly prepared, and 16% fully prepared).

Most of the PSTs (76%, n=19), juniors and seniors, identified not having any previous direct exposure to an online special education data management system in their field or coursework despite it being a job requirement. For the PSTs who have seen a special education teacher using one (76%, n=19), the experience of observing a mentor using the platform is extremely different than experiencing it for themselves. This observing versus hands-on learning using an online system is common for student teaching as well since PSTs do not have direct access to their mentor teacher's online account since they are a guest, soon-to-be certified, teacher in the school, and for confidentiality purposes. The PSTs in this study could log in to their own IEPWriter account and use the functions just as they would once they had become certified and employed special education teachers.

The majority of the PSTs (72%, n=18) shared that IEPWriter was difficult to use, but they overcame the technical challenges and were glad they had the experience using it. One PST specifically noted how overcoming technical challenges using an online special education data management system is another challenge they'd have to experience on the job that they got to experience in their undergraduate preparation with support.

Limitations

It is important to note that the findings of this study are from a small sample size (n=25) of female PSTs, using one (IEPWriter) of the various online special education data management systems available. The special education assessment course at the university where this study was conducted typically only has one-course section per semester for double majors, limiting the number of participants. It would be beneficial for future studies to continue to explore the potential benefits of teaching PSTs how to use a special education management software, such as IEPWriter, and to compare using a larger sample of students either at one college or university or at different institutions for increased generalizability. Additionally, this study yielded positive results; however, there are no previous studies that explore the implementation of using any online special education management platforms with PSTs to compare findings.

Implications for Future Educational Practice and Research

The opinions of 25 PSTs in this study show that implementing an IEPWriter project within an undergraduate special education course helped all PSTs better understand how to develop an IEP based on IDEA (2004) requirements and all the job responsibilities connected to IEP implementation. This finding highlights the importance of teacher preparation programs including as

many hands-on experiences as possible that PSTs will need to do once certified, including using online special education management systems and completing special education paperwork for a caseload of students. The students in this study had the opportunity to use IEPWriter for three weeks, which more than half (64%) felt this was an appropriate amount of time; however, most (72%) also found the system challenging to use. It is recommended that students have ample time and explicit directions on how to navigate online software before using it, connected with resources published by the online software, and have a protocol in place for how students can problem-solve difficulties as they arise as a class.

Future studies are needed to not only validate PSTs' experience or perception using an online system but to explore the short-term and long-term professional benefits, such as if teaching PSTs how to write an IEP using a special education online management platform versus Word documents increases the accuracy of IEP development. Additionally, longitudinal studies can see if special education management software can improve IEP development and maintenance for students once they are student teaching and again during their first year as full-time special education teachers, both of which are significant career transitions that require independent development of IEPs.

Conclusion

There is a national shortage of special education teachers, with the paperwork requirements of the position being a top reason why many novice teachers exit the field (Billingsley & Bettini, 2019; Gilmour & Wehby, 2020). This concern requires an inquiry into how PSTs can be better trained to handle this essential job responsibility once certified and obtain full-time employment. Studies have explored improving IEP development in undergraduate courses by using case study students, providing additional professional development, and engaging in mock IEP meetings (Mason, 2023; Toledo, 2023; Werts et al., 2002). However, no studies to date have explored the benefits of PSTs learning how to use online software to develop and manage special education paperwork or balancing doing this for more than one student. This study begins to fill the gap by showing how adding an IEPWriter project within an undergraduate course helped all PSTs (n=25) feel better prepared to develop and manage IEPs for a caseload of students. As this study elicits promising results, it is the first of many more that need to come to properly study the impact of how online special education management systems can help PSTs successfully transfer skills from the college classroom to their own K-12th grade classroom. PSTs require as much real-world learning experience and replication in the higher education setting to overcome potential job challenges and reduce the high attrition rates among special education teachers.

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The power of preparation and leadership: Strengthening teacher self-efficacy in schools

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Abstract

This study explores factors influencing teacher self-efficacy among preservice teachers and principal candidates. Through qualitative focus groups, findings highlight the significance of relationship building, social-emotional learning, and support systems in enhancing preservice teacher confidence, emphasizing the principal's role in fostering a supportive educational environment.

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Introduction

The exploration of teacher self-efficacy reveals critical insights into the beliefs and experiences of preservice teachers and principal candidates, highlighting the profound impact of supportive educational environments on their professional development. Teacher self-efficacy refers to educators' beliefs in their ability to effectively manage and influence student learning and classroom dynamics. Self-efficacy is a critical factor in influencing the effectiveness of teacher preparation programs. Research indicates that high teacher self-efficacy is linked to greater motivation, persistence, and successful implementation of teaching strategies, ultimately leading to improved student outcomes (Bandura, 1997; Tschannen-Moran & Woolfolk Hoy, 2001). Bandura asserts that teacher self-efficacy significantly shapes how teachers perceive their own capabilities. In particular, he argues that self-efficacy influences an individual's approach to challenges and tasks, often determining the level of effort and persistence they exhibit. To foster a positive sense of teacher self-efficacy, Bandura highlights three interrelated components: (1) confidence in one's abilities, (2) a perceived capacity to create meaningful change, and (3) a strong belief in one's professional performance. Collectively, these factors encourage teachers to set ambitious goals, tackle difficult situations, and interpret setbacks as opportunities to learn and grow.

Teacher self-efficacy is deeply intertwined with social and emotional learning (SEL), as both concepts emphasize the importance of interpersonal relationships and emotional awareness in educational spaces. Teachers with high self-efficacy believe in their ability to influence student learning and classroom dynamics effectively, and SEL serves as a foundational skill set for fostering such confidence (Bandura, 1997). For example, SEL equips teachers with tools to build trusting relationships, manage classroom behavior constructively, and empathize with diverse student needs (Durlak et al., 2011; Durlak et al., 2024). This relational and emotional competence enables teachers to create supportive and engaging learning environments, which reinforces their confidence in their ability to have a meaningful impact (Tschannen-Moran & Woolfolk Hoy, 2001). Furthermore, SEL supports teachers' resilience by promoting a growth mindset, allowing them to view challenges as opportunities for development rather than obstacles (Bandura, 1997; Goddard et al., 2000; Sodergen, 2023). In this way, SEL acts as both a catalyst and a sustaining force for teacher self-efficacy, ultimately enhancing student outcomes and the overall classroom experience. Building on Bandura's work, Tcshannen-Moran, and Woolfolk Hoy (2001) elaborated on the idea that teachers' confidence strongly influences their development and classroom practices. Teachers with higher self-efficacy perceptions tend to be better prepared to enter the field.

Bandura (2019) stated that self-efficacy is difficult to measure because it is not unidimensional. Preservice teachers often have mixed feelings about the multifaceted activities and skills needed to be a successful teacher. Self-efficacy is more than simply one skill or emotion but can fluctuate depending on the moment. Both principals and teachers are expected to develop complex skills, including high social-emotional awareness and strong relationship-building with students and their communities.

Additionally, principals are instrumental in nurturing teacher self-efficacy by creating environments that encourage professional growth. Research examining principal leadership demonstrates that a principal's own self-efficacy can influence both their leadership style and their support for teachers (Tschannen-Moran & Woolfolk Hoy, 2001; Leithwood & Jantzi, 2005). Further studies show that principals who exhibit higher self-efficacy are more likely to adopt innovative strategies, foster ongoing teacher development, and enhance student success (Winn et al., 2021).

Moreover, principals assume the responsibility of attracting, supporting, and retaining effective teachers within their schools (Kardambikis and Tepe, 2023). Part of this responsibility involves dismantling silos and forging communities of practice that unite principal candidates with preservice teachers, thereby modeling and promoting meaningful collaboration and shared learning. Research on principal self-efficacy and the development of a strong community of practice highlights the interconnectedness of a principal's belief in their abilities and the collaborative culture within their school. The principal is the one individual uniquely positioned in the school as the formal leader whose influence is directly tied to teacher performance (Hipp,

1996, as cited by Prelli, 2016).

Purpose of the Study

This study investigated how preservice teachers and principal candidates at Robert Morris University (RMU) perceive the demands and challenges of their respective preparation programs. The project centered on two main objectives. First, it sought to understand preservice teachers' beliefs about self-efficacy in tackling the complex elements of teacher development, particularly their confidence, their ability to engage students, and their access to support networks during the student teaching semester. Second, it aimed to examine principal candidates' perspectives on strategies to bolster novice teachers' self-efficacy as they transition into full-time classrooms.

Method

This qualitative study explored the perceptions and experiences of five student teachers and two principal candidates enrolled in education and special education certification programs in Western Pennsylvania. To gather detailed insights, the researchers employed two semi-structured focus groups at the end of the 2023–24 academic year, after final grades had been submitted. Preliminary findings suggested that preservice teachers regarded social and emotional learning, classroom management, and strong support systems as central to building teacher self-efficacy. Meanwhile, principal candidates identified leadership, school climate, and SEL as central to fostering a sense of capability among novice educators.

Participants and Programs

Participants were recruited through Robert Morris University's (RMU) student teacher seminar and principal candidate courses. A total of seven students agreed to participate in the virtual focus group. A total of five preservice teachers of eighteen were recruited for the preservice teacher focus group, including two early childhood education/special education majors, one early childhood and, one middle level major and one secondary major. Additionally, two of eight principal candidates were recruited for the principal candidate focus group.

Preservice teachers attended the student teacher seminar weekly throughout the professional year, which spanned both the pre-student teaching and student teaching semesters. The seminar classes were held for 15 weeks each semester, totaling 30 one-hour sessions. The seminars were structured to provide instruction on various aspects and challenges of the teaching profession.

The principal preparation program followed a hybrid model of synchronized online sessions throughout the fifteen-credit course sequence. Incorporated within the coursework was the required 360 hours of internship with a building principal mentor along with university faculty support. Integrated throughout the program was a development of a community of practice and leadership support.

Instructors from each program collaborated by attending each other's seminars addressing relevant issues encountered by both sets of students separately. This collaboration culminated with a mock interview, which facilitated interactions between the two groups and supported the professional development of future educators that allowed for the two groups to interact and support teacher development. In addition, the instructors met to talk about important challenges that each group faced over the course of the professional year.

Procedures

This study relied on two focus groups to better understand how both preservice teachers and principal candidates experienced self-efficacy development. Researchers used email invitations to recruit participants for online sessions, each of which lasted about an hour. Prior to the discussions, consent forms were collected, and participants consented to audio recording and transcription. To minimize bias, the instructor from the alternate seminar served as a moderator. Therefore, the principal candidate seminar instructor led the preservice teacher focus group, and the preservice teacher seminar instructor led the principal focus group. Each focus group also had a designated note taker who documented key points. The moderators discussed research objectives, neutral facilitation strategies, and effective questioning techniques beforehand. By using semi-structured interview prompts (Mason, 2002) and open-ended questions (see Appendix A), the sessions offered a deeper look into the participants' perceptions of teacher self-efficacy.

Data Analysis

The data were analyzed using an interpretive phenomenological approach, which enabled the researchers to better understand the lived experiences of the participants across the focus group discussions. Initially, researchers independently developed a coding framework applying codes to significant phrases within the transcript. The analysis followed a systematic coding procedure which allowed recurring ideas to emerge. More specifically, each researcher independently developed a coding scheme through line-by-line analysis and comparative evaluation of the transcripts. The steps included multiple readings of the data to identify recurring words and ideas, which were then grouped into meaningful categories. Researchers were divided into two coding groups, with each group applying their coding schemes to the transcripts. Inter-rater reliability was established within each team to ensure consistency and accuracy in the coding process.

After initial coding, the two groups compared their findings, reconciling discrepancies and refining the coding schemes. This collaborative effort allowed for a comprehensive phenomenological interpretation and deeper understanding of the data. Once finalized, the themes were quantified through word counts to provide additional insights into the prevalence and significance of the identified patterns. Table 1 illustrates the developed broad themes that highlight the participants' perceptions of lived experiences.

Table 1

Developed themes

Preservice Teacher Developed Themes	Principal Developed Themes
Social and emotional learning	Relationship
Classroom management	Leadership support
General Support	Community and climate
Curriculum/Fields	Empathy and love
Co-op and mentors	Boundaries
Relationships	General support
Behavior	

Finally, the researchers created general categories by collapsing the broad themes into three main categories (See Table 2 and 3).

Table 2

Preservice teacher collapsed themes

Collapsed Topic	Overall Theme
Relationship building and social and emotional learning	SEL, love, trust, empathy, boundaries, relationships, time, building relationships
Classroom management/behavioral challenges	classroom challenges, behavioral support, trauma, home life
General support	peers, mentors, friends, seminar, supervisors

Results

Based on the analysis of the data obtained from the focus groups, the researchers developed two sets of themes that are detailed in Tables 2 and 3. The results are consistent with existing research (Ingersoll & Smith, 2004; Darling-Hammond; 2006, Miller & McKenna, 2016), that emphasizes the importance of social and emotional learning in teacher development during the professional year. Through examining themes, the researchers linked preservice teacher and principal candidate perceptions to the development of teacher self-efficacy. The findings align with Bandura's (1997) theory that links positive self-efficacy development to (1) confidence in one's abilities, (2) a perceived capacity to create meaningful change, and (3) a strong belief in one's professional performance.

Table 3

Principal collapsed themes

Collapsed Topics	Overall Theme
Leadership support	Retention, boundaries, support
Social and emotional learning	Empathy, love, relationships
Community and climate	Community, climate, classroom

Preservice Teacher Focus Group Findings

The preservice teacher focus group results, while consistent with existing research (Ingersoll & Smith, 2004; Darling-Hammond, 2006; Miller & McKenna, 2016), emphasized relationship building and social and emotional learning during the professional student teaching semester. The three main themes, in order of importance, included: 1. Relationships and Social and Emotional Learning, 2. Classroom Management and Behavior Challenges, and 3. General Support (See Table 2).

Relationships and Social and Emotional Learning

The most frequently discussed topic for preservice teachers was relationship building and social and emotional learning for both the students and teachers. Concepts such as love, empathy, trust, and healthy boundaries were highlighted. Student teachers connected social and emotional learning directly to relationship building. For instance, participant 4 stated, “The relationships drove me. Once I got them (students) to understand that I wanted to be there and that I was someone they could trust, then they bought in.” Further, most participants agreed that building positive relationships with students was the first step to fostering connection and belonging in the classroom community. For example, participant 1 stressed, “I do think even as a student teacher we have a good amount of ability to motivate our students, especially through positive relationships with the other students and then through their view on school.”

The preservice teachers stressed that while they were in the classroom for a limited amount of time, social and emotional learning and positive relationships were essential to their successful teaching practices. The preservice teachers felt a sense of growing confidence as they phased into the classroom. This confidence provided a collective belief that they have the power to make positive changes.

Classroom Management and Challenging Behaviors

Not surprisingly, the participants expressed concerns about their ability to manage classroom behavior effectively, especially considering the COVID-19 pandemic. Participant 4 noted, “I felt like I had spent so many years learning all of these good things, but I didn't really have the time to apply them and work out the kinks.” Participant 3 further explained the struggle with gaining power to support student behavior to take full responsibility for classroom management. The participants discussed how difficult it was for some cooperating teachers to let the preservice teacher practice classroom management strategies. Participant 3 provided an explanation, “I feel like I didn't really get those classroom management skills and maybe that was out of me and my co-op teacher, but she kept kind of hopping in, maybe too early and kind of took over the classroom management part.” When discussing classroom management, participants agreed that relationship and trust were the most important. Participant 1 stated, “They're not really used to you very much, but then I think once I start probably around three weeks of constantly being in the classroom. I think they are like, okay she is gonna be here a while and we were building relationships, and I think that helped with motivation.”

Many preservice teachers in this study expressed concerns about student trauma and lack of control that extended beyond the school environment. Participants highlighted the need for more strategies to support students who are facing external stressors. Participant 1 shared, "I think sometimes especially with students who have [like you said] been beaten down or damaged by someone, maybe a previous teacher or something that's going on outside of school...I think a lot of the times those students just want to know that somebody cares about them and somebody actually genuinely wants to see them happy and successful and I think a lot of the time with those students who struggle actually taking the time to speak with them one-on-one can mean a lot to them." Collectively, the participants stressed the need for more understanding of trauma informed teaching practices.

General Support

Preservice teachers exhibit higher self-efficacy when they feel confident in their relationship with their peers (cohort), cooperating teachers, and university supervisors. This research indicated similar results, with three main themes highlighting the importance of strong mentorship and support. Preservice teachers stated that support from their peers/cohort, cooperating teachers and university supervisor/seminar were most important. Participant 1 noted, “My cooperating teacher/mentor helped me a lot. We had a great relationship. I would go to him after class and say, ‘That was terrible,’ and he would provide feedback and reassurance, which was invaluable.” Conversely, when the student teacher did not feel supported, it was difficult to phase into the classroom community. The overall support and mentorship were imperative for the development of confidence and belief in one’s abilities.

Additionally, many participants discussed the complexities of being included in the school community and

how this affected their overall confidence and development as classroom teachers. For example, Participant 2 stated, “Building community within your school building was an important part of observing all those classrooms when I first started.” Further the seminar class was discussed as being part of the overall cohort and university support framework. The researchers in this study emphasized a peer community of practice during the seminar classes. Participant 2 expressed the benefit of the dedicated time to come together as a community: “Seminar is like getting to see them [friends] and debrief about everything that was going on…solve problems together and then of course the professors because they walked us through everything.” The connection to support networks was emphasized as a vital component to the development of positive teacher self-efficacy.

Principal Candidate Focus Group Findings

Findings from the principal candidate focus group largely paralleled those of the preservice teacher group, particularly with respect to leadership support as a dominant theme. Three core areas emerged: leadership practices, social and emotional learning, and the overall school community and climate (see Table 3). Consistent with existing scholarship (McBrayer et al., 2020), these outcomes highlight the significant influence of principal leadership on novice teachers’ confidence and self-efficacy.

Principal Leadership

Effective principal leadership support was identified as crucial for cultivating a supportive environment that enhances teacher self-efficacy. The results of this study align with Tschannen-Moran & Wollfolk Hoy (2001). For example, participant 8 emphasized the significance of recognizing traits that predict high teacher self-efficacy:, “Personality, empathy, and a willingness to learn are critical qualities for new teachers. A passion for teaching and intrinsic motivation are essential for sustaining long-term commitment and enthusiasm in the profession.” By fostering a leadership approach that encourages risk-taking and learning from failures, principals contribute to a culture of continuous improvement. This supportive environment promotes collaboration among educators, leading to a cohesive and effective teaching approach.

Social and Emotional Learning

The principals in this study valued social and emotional learning and linked teacher self-efficacy to the overall SEL practices that were implemented in the school community. This is aligned with existing research, for example, the assertion that "Principals who demonstrate empathy and understanding create an environment where teachers feel valued and empowered to take risks in their teaching" highlights the importance of emotional intelligence and social-emotional learning (SEL) in leadership (McCarthy, 2010). This sentiment was highlighted by participant 7 who noted that “I don’t want them [teaching staff] to be afraid to come to me if they made a mistake or didn’t handle something the way they should.” Principals who practice empathy not only support teachers on a professional level but also acknowledge their personal challenges.

Principal Participants in this study valued and discussed SEL. For example, participant 7 explained how her relationships with teachers evolved once she became a principal: “I am now a principal of my former co-workers. So, I’m changing my attitude. Now my teachers who were peers are coming to me with questions, and I must use my principal brain – still being able to answer questions and build relationships.” Principals similarly noted their desire to support others’ professional growth, stating that “I had a great mentor - and I hope I can be that to somebody else.”

Community and Climate

By establishing a positive school culture, demonstrating empathy, promoting collaboration, and prioritizing supportive leadership practices, principals can significantly enhance teacher morale and effectiveness. As educational leaders, principals are uniquely positioned to influence not only the professional growth of their teachers but also the overall success of the school. Participants stressed the importance of providing a supportive and engaging school climate for new teachers and the entire school community; participant 8 acknowledged the unique challenges of an online learning environment but stressed that, “I want to create a community feel even though we are all over the world. That is my biggest goal right now.”

Participant 8 also summarized the importance of community: "Effective principal leadership is a key deter-

minant of teacher self-efficacy, as it shapes the school culture and provides necessary support for teachers." This emphasizes that principals are not merely administrative figures but are integral to establishing a positive school culture. A principal's leadership style directly influences the morale and motivation of teachers (Leithwood & Jantzi, 2005). When principals actively engage in fostering a culture that values collaboration, innovation, and risk-taking, they create an environment where teachers feel safe to experiment with new teaching strategies.

Discussion

Analyzing the student teacher and principal candidate focus groups data revealed significant insights into how both preservice teachers and principal candidates perceive the connection between social emotional learning, relationship building and teacher preparation programs. Several patterns have emerged from the data that can provide insights for teacher preparation and principal candidate leadership programs to support and develop positive teacher self-efficacy in higher education institutions. The preservice teachers identified a need for systematic and layered support and mentorship that can improve learning outcomes for both student teachers and principal candidates. This is consistent with past research that indicated preservice teachers learn and develop best with systematic and layered supports and mentorship (Wang, et al. 2020; Harrison & Lee, 2022). Furthermore, principal candidates who participate in structured and systematic supports , foster a positive school community which ultimately builds teacher self-efficacy (Moller, et.al., 2020;Smith & Wei, 2022). Both preservice teachers and principal candidates agree that building social and emotional learning and strong relationships are key to teacher self-efficacy. What sets this research apart is the integration of both the preservice teacher and the principal candidate perceptions of building teacher self-efficacy through SEL. By offering a dual perspective provides a unique understanding to the importance of building preservice teacher self-efficacy.

A key area for growth in teacher preparation programs is the need for systematic and layered support and mentorship for both student teachers and principals. The collapsed themes for both preservice teachers and principals identified an on-going need for relationships that build collaboration and support learning. The complex relationship building that occurs during the student teaching semester creates a valuable school climate that requires collaboration, caring, and continued growth. By establishing strong community of practices during seminar and course work that include the student teacher, principal candidates, university supervisor, and cooperating teacher, seminar faculty can facilitate meaningful exchanges that create learning spaces to support trust and reflective practices. This support framework not only enhances teaching practices but also fosters a deeper understanding of the challenges educators are faced with, ultimately contributing to increased teacher positive self-efficacy. Not only does this framework bring the principal and teachers together but it also requires higher education faculty to break down silos to plan and implement layered support in seminar and course work.

In addition to formal mentorship and support during seminars and coursework, informal support systems play a significant role in helping teachers navigate their professional journeys. The findings highlight the importance of fostering peer relationships between preservice teachers that can strengthen professional growth. By taking the time to build collective professional relationships, student teachers can build patterns of professionalism that can enhance confidence and increase self-efficacy. Surrounding these future educators with a supportive network enables them to build greater belief in their teaching abilities. Seminars and courses become opportunities to practice soft skills and problem solve together to build long-term teacher confidence and resilience, helping them to develop more belief in their professional identity and skills.

Preservice teachers expressed concerns about classroom management and supporting students with behavioral challenges. Analyzing the collapsed themes in Table 2 reveals challenges related to behavioral supports and trauma outside of the school community are significantly impacting preservice teachers. The need to process and reflect on behavioral challenges is intertwined with the broader discussion about social and emotional learning (SEL), which is ultimately rooted in the goal of building teacher confidence.

Participants in the study collectively emphasized the importance of integrating social and emotional learn-

ing (SEL) into educational practices as a key component to teacher preparation. Promoting a positive learning environment, whether in the student teaching placement, the seminar class or principal candidate program, requires embedding empathy, kindness and caring into our educational spaces. This supports the need for strategies that foster supportive and trusting relationships that contribute to the development of resilient educators. The alignment of mentorship and support with SEL principals can lead to more effective teacher practices and improved student outcomes. Moreover, the focus on SEL initiatives in higher education enhances the overall emotional health and wellness of educators and principals throughout their teaching career.

There are no better ways to begin developing a supportive community of practice than to model and embed SEL practices into teacher preparation programs. The establishment of formal collaborative communities of practice (CoP) is vital for enhancing both teacher and principal self-efficacy. Research indicates that collaboration among educators leads to shared learning experiences, which can significantly bolster self-efficacy beliefs (Goddard et al., 2000). By creating structured opportunities for teachers and principals to work together, teacher preparation programs can foster an environment of mutual support and professional growth that emphasizes support and SEL practices. This collaboration can take the form of multilayered support systems and mentoring, peer mentoring, co-teaching, and professional learning communities. Development of CoP through the student teaching seminar and principal candidate courses not only enhances self-efficacy but also promotes a sense of belonging and community among educators, which is crucial for job satisfaction and retention. Being creative and looking to include not only leaders, but cooperating teachers, university supervisors, and mentors into the higher education community of practice can build strong relationships that will ultimately affect new teacher identity and development.

Study Limitations

This study provides valuable insights into the perceptions of preservice teachers and principal candidates regarding teacher self-efficacy; however, several limitations must be acknowledged. The study included seven participants, which limits the broader applicability of its findings. Although the sample size is small and may not contribute to the broad applicability, it identifies important challenges faced by preservice teachers. It provides a foundation to build on future research and replication to gain deeper and ever-changing perceptions in order to build innovative support systems in teacher preparation programs.

Since the data were collected at a single private university, there is a risk that shared institutional norms influenced participants' responses. The relatively homogeneous composition of the group may have also increased the likelihood of conformity or social desirability bias during the focus group discussions. Consequently, these findings should be interpreted with caution and further verified through research involving larger, more diverse populations. Furthermore, the timing of the focus groups, conducted at the end of the academic year, may have skewed perceptions based on recent experiences. The qualitative nature of the data analysis introduces subjectivity, despite efforts to establish inter-rater reliability. Lastly, while the study focuses on teacher self-efficacy and principal support, it does not measure the direct impact of these factors on student outcomes, indicating a need for future research to explore these connections more comprehensively.

Future Implications

The findings from the focus groups, combined with teacher self-efficacy research, highlight several key points for teacher and principal preparation programs. Both preservice teachers and principals value positive self-efficacy and perceive it to be important to the development of new teachers. There is a need for more research that aims to understand and support preservice teachers' growth and learning to continue to attract and retain new teachers to the field of education. By prioritizing self-efficacy development in teacher preparation programs, enhancing principal leadership practices, promoting collaborative communities of practice, and emphasizing social and emotional learning, educational institutions can create a supportive and layered framework that empowers educators. In addition to individual needs, it would be beneficial to begin to understand the collective self-efficacy (Donohoo, 2017) that begins to develop in teacher prepara-

tion programs. This, in turn, leads to improved teacher retention, enhanced student outcomes, and a more positive school climate.

As we move forward, it's essential to recognize the interconnectedness of self-efficacy, teacher preparation, and principal leadership. By investing in these areas, we can cultivate a thriving educational community that benefits all stakeholders. Fostering self-efficacy should be an ongoing commitment, supported by the rapidly changing educational expectations to ensure that the strategies in place are effective and responsive to the evolving needs of principals, educators, and students. The following action items outline key directions for future research in Educational Preparation Programs:

1. Build a Framework of Formal and Informal Support:

Mentorship plays a significant role in leadership development, especially for those transitioning from being a peer to a leader. This shift requires not only managing relationships but also developing confidence in one's leadership abilities. To support this transition, it is essential to integrate opportunities for mentorship and leadership development throughout the professional year for both principal candidates and preservice teachers. This can be achieved through seminars and communities of practice that connect student teachers with supportive mentors and principals. By doing so, we foster individual growth while building a thriving, engaged educational community.

In addition, further research is needed to explore the insights of not only preservice teachers and principals but also cooperating teachers and university supervisors. Supporting and developing a preservice teacher requires a network of mentors, each playing a vital role in their growth. Therefore, it is imperative to include all these voices in the future development of a comprehensive support framework.

2. Process Experiences and Healing Centered Teaching:

Encouraging an environment where making mistakes is seen as part of the learning process is essential. This mindset helps teachers embrace new teaching strategies and learn from their experiences without fear of failure. This is particularly important when it comes to classroom and behavior management skills. Integrating opportunities for teachers to process and reflect on their experiences, including any challenges or secondary trauma, can support strategies that enhance self-efficacy and foster a stronger sense of teacher self-worth. Providing interdisciplinary support throughout the program—through seminars, coursework, and classroom experiences—can significantly improve the overall health and well-being of teachers. This approach fosters a healing-centered environment, enabling student teachers to process, reflect, and grow throughout the professional year.

3. Embed and Embrace Kindness, Joyfulness, Empathy and Love (Social Emotional Learning):

A passion for teaching and intrinsic motivation are essential for maintaining long-term commitment and enthusiasm in the profession. When teachers are passionate about their work, it fosters a more engaging classroom community. This positivity is contagious, significantly enhancing students' learning experiences and outcomes. Incorporating activities into seminars and coursework that prioritize the health and wellness of both student teachers and principals is crucial for building healthy school communities. Future research and practice should focus not only on building the confidence and development of individual teachers, but also on cultivating collective self-efficacy—an essential factor that shapes the broader educational landscape.

4. **Mutual Trust Through Community of Practice**

Fostering a safe and respectful community of practice is built on the foundation of mutual trust. When teachers, students, and families trust each other, it enhances communication, cooperation, and overall satisfaction. Principals play a crucial role in cultivating this trust by being transparent, consistent, and fair in their interactions and decision-making. Incorporating activities throughout the professional year that bring preservice teachers and principal candidates together can help expand the community of practice and strengthen trusting relationships, which allow for deeper reflective practices and discussions that include tough topics and strong patterns of trusting collegial relationships.

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Appendix A

Focus Group 1

Preservice Teachers Guiding Questions

1. What was the most challenging aspect of being a student teacher?
2. How much influence do you believe you have had in motivating your students to learn?
3. How much influence do you believe you had in managing challenging behavior in the classroom?
4. Please share a situation that you felt demonstrated how a student struggled in the classroom and how you supported that student?
5. In what ways were you able to connect and build relationships with your mentors (cooperating teacher, university supports)?
6. What do you think was your greatest support to develop confidence as a teacher?
7. How connected did you feel to your principal?

Focus Group 2

Principal Candidates Guiding Questions

1. What was the most challenging aspect of being a leader to teachers/school community?
2. How much influence do you believe you have in motivatng teachers to thrive/build confidence in the classroom?
3. Please share a situation that you felt demonstrated how a teacher struggled in the classroom when they felt that they were not being effective in their practice.
4. In what ways were you able to connect and build relationships with new teachers to support their needs.
5. What do you think was your greatest support that helped you feel confi dent as a school leader?
6. What is your idea of a strong school community?

Building a cohort of mentor teachers to support novice teachers' implementation of positive behavior support, trauma-informed, and culturally-sustaining practices

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Abstract

A university was awarded a "Teacher Prep to Practice" grant from the Pennsylvania Department of Education for a project titled "Developing Culturally-Relevant Aspiring Teachers." The university collaborated with local school districts to host 2, 3-day "summer institute" professional development sessions, focusing on culturally relevant education, positive behavior support, trauma-informed practices, and effective coaching for novice teachers. The intention was to build a cohort of trained, veteran teachers equipped to serve as mentors for pre-service and early career educators. This paper provides an overview of the summer institute and shares the results of a related mixed-methods research study.

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Introduction

Effective teachers and a stable educator workforce are necessary for a high-quality education system (Darling-Hammond, 2000). Ongoing teacher shortages across the United States have sparked concerns about inadequate learning conditions and student underachievement (Berry & Shields, 2017). Additionally, difficult-to-staff school districts with higher populations of low-income and historically underrepresented students are at an even more significant disadvantage, facing severe disparities in teacher quality (Boyd et al., 2007). The growing early career teacher attrition rate, combined with the decline in individuals joining the profession, has led to a reliance on emergency teacher certifications, which has only exacerbated this systemic problem (Nguyen et al., 2022). There is an undeniable need to invest in comprehensive support for pre-service and early-career teachers through adequate preparation and high-quality mentoring (Sutcher et al., 2016).

A recent report from PA Needs Teachers and the National Center on Education and the Economy (2024) summarizes data on teacher shortages in Pennsylvania (PA), finding that state shortages and vacancies are at record-high levels. Many districts in PA rely on unprepared, emergency-certified teachers, creating a turnover cycle that negatively impacts student achievement and mental health (Boyce & Morton, 2024). The report points to several root causes of this crisis in PA, including recruitment challenges, unattractive working conditions, and teacher preparation experiences that do not give novices enough on-the-job clinical experience with support from highly effective mentor teachers. Recommendations to address systemic root causes of teacher shortages in PA include focusing on high-quality teacher preparation, including intentionally designed clinical experiences developed in partnership with local education agencies (Boyce & Morton, 2024).

There is an urgent need to boost and diversify enrollment in teacher preparation programs and ensure novice teachers can implement effective teaching strategies in their classrooms in PA. Constructive partnerships between high-quality mentor teachers, early-career teachers, pre-service teachers, and university supervisors can help advance new teachers' understanding and utilization of research-based teaching practices critical to teacher and student success. These practices include positive behavior supports, trauma-informed practices, and culturally relevant and sustaining practices.

Effective Practices for Novice Teachers

Positive Behavior Interventions and Supports (PBIS) is an organizational framework that supports students' social, emotional, and behavioral growth (Sugai & Horner, 2006). Within a multi-tiered system of support, PBIS is designed to support all students by implementing proactive, evidence-based practices. Essential prevention-focused practices include maximizing school and classroom structure, explicit teaching of routines and procedures, actively supervising students, providing high levels of student engagement through opportunities to respond to instruction, and having a continuum of strategies to reinforce desired behaviors and a continuum of strategies to respond to inappropriate behavior (Simonsen et al., 2008). Research suggests that when practices are implemented with fidelity, PBIS improves outcomes for both teachers and students (McIntosh et al., 2021; Michael et al., 2023). This is particularly important for early career teachers who leave classrooms at higher rates than their more experienced colleagues (Redding & Henry, 2019). A focus on developing effective PBIS practices through pre-service teacher preparation and early career induction programs is vital for a lasting, successful teaching career.

In addition to the benefits novice teachers experience through the successful implementation of positive behavior support practices, research suggests that those equipped with the knowledge and skills to support students who have experienced trauma or Adverse Childhood Experiences (ACEs) are more likely to avoid burnout and early career attrition (Kim et al., 2021). According to the Centers for Disease Control and Prevention (CDC) (2021), ACEs include abuse (physical, emotional, and sexual), neglect (physical and emotional), and household dysfunction (substance abuse, mental illness, domestic violence, incarceration, and parental separation). Exposure to trauma and toxic stress is associated with decreased self-regulation and school performance in students, yet teachers report feeling unprepared to effectively support students who have experienced trauma (Thomas et al., 2019).

Building teachers' knowledge of the nature and impact of trauma and practices to support affected students is essential for creating a trauma-responsive environment (Thomas et al., 2019). Trauma-informed practices involve understanding and acknowledging the impact of trauma on children, responding effectively to their needs, and working to prevent re-traumatization by fostering a supportive school environment (Reddig & VanLone, 2022).

Culturally relevant-sustaining education (CR-SE) (Ladson-Billings, 1995; Paris & Alim, 2014) promotes an asset-based approach to education and pedagogical practices that focus on student's strengths, including their funds of knowledge (Moll et al., 1992). CR-SE competencies encompass the three propositions of culturally relevant pedagogy: academic success, cultural competence, and critical consciousness (Ladson-Billings, 2014). Teacher practitioners, especially novice teachers, need support to implement theories into practice effectively (Howard & Rodriguez-Minkoff, 2017). By adopting these teaching practices, novice teachers can be better prepared to serve the diverse population of students in schools and create equitable learning opportunities for all students (Brown-Jeffy & Cooper, 2011).

Effective Professional Development

Emerging from a meta-analysis of professional development (PD) for teachers (Darling-Hammond et al., 2017) are features positively correlated with teachers' retention and use of knowledge, which are conducive to students' learning. Specifically, researchers found that seven characteristics in 35 studies examining PD led to positive outcomes for developing teachers' knowledge and practice. Effective PD (1) is content-focused, (2) incorporates active learning using adult learning theory, (3) supports collaboration, (4) uses models and modeling of effective practice, (5) provides coaching and expert support, (6) offers opportunities for feedback and reflection, and (7) is of sustained duration (Darling-Hammond et al., 2017). To model effective pedagogy, veteran teachers must demonstrate how to be intentional about their impact on students' development through "metacognitive reflection" (Darling-Hammond et al., 2017, p.8). During each session of PD, teachers must engage with each other and build a sense of community that embraces openness and honesty from feedback and reflection. Equally crucial for effective PD are access to adequate resources, a shared vision and direction for learning environments, and sufficient knowledge among facilitators (Darling-Hammond et al., 2017).

Purpose of Study

This research study is connected to a "Teacher Prep to Practice" grant, which was awarded to the Education Department at a university located in a rural area in central Pennsylvania for a project titled "Developing Culturally Relevant Aspiring Teachers" (DCRAT). As part of this grant, the university partnered with three local school districts to run two "summer institute" PD sessions for area public school teachers interested in serving as cooperating teachers to pre-service teachers or as a mentor to in-service early career teachers. We intended to build a cohort of trained, experienced mentor teachers who would know the critical practices taught in pre-service teacher preparation programs and understand how to best support and mentor these novice teachers. The PD focused on increasing teachers' knowledge, confidence, and use across four content areas, including (1) CR-SE practices, (2) positive behavior support practices, (3) trauma-informed practices, and (4) effective coaching and mentoring for novice teachers.

Given this unique PD opportunity for teachers, we wanted to learn about the experiences of participating teachers and the training outcomes. We hypothesized that participating in the summer institute would increase knowledge, confidence, and use across all four areas. We address the following research question through a pre-test-post-test survey: What is the impact of the summer institute training on teachers' knowledge, confidence in implementing, and use/ anticipated use of positive behavior support practices, trauma-informed practices, culturally sustaining pedagogy, and effective mentoring practices?

Method

Setting and Participants

The 3-day PD and research activities took place at a university located in central Pennsylvania. Teachers were recruited from three school districts located close to the university. Demographic data for each district is

described in Table 1. Following IRB approval, we explained the purpose and goals of the study at the start of the PD. Participation was voluntary, and 97.5% of those invited to participate opted to do so, and there was no attrition from pre- to post-test (n=38). Participants included elementary (95%), middle (21%), and high school teachers (26%). The participants identified as White (95%), Black (2.5%), and Multiracial (2.5%). One participant (2.5%) was in their early career, defined as the first three years of teaching. The remaining (97.5%) were veteran teachers with at least four years of experience.

Table 1

District Demographics

District	Student Race/ Ethnicity	Student Free/Reduced Lunch Eligible	Participating Teachers
District 1	White 74% Hispanic: 15% Black/ African American: 4% Multiracial" 7%	45%	N=18
District 2	White: 77% Hispanic: 8% Black/ African American: 5% Multiracial: 6% Asian: 4%	24%	N=10
District 3	White: 82% Hispanic: 9% Black/ African American: 4% Multiracial: 5%	56%	N=10

Research Design

We used a mixed-methods pre-test-post-test design to address all research questions. This method allowed for a direct comparison of knowledge, confidence, and practice use across the four content areas. The quantitative component consists of scaled response items, allowing for statistical analysis, and the qualitative component includes open-ended survey items, allowing for exploration of patterns and themes in responses. This approach enabled us to use insights from quantitative responses to inform our interpretation of qualitative, open-ended response items and vice versa. Participants anonymously completed the surveys via Qualtrics at the start and end of the training.

Procedure

The 3-day summer institute training was offered twice during Summer 2023, and teachers received a stipend, meals, and ACT 48 credit for attending one of the sessions. District administrators worked with the university team to recruit and select teachers to attend the training. Preference was given to teachers who had previously served or were interested in serving as a cooperating teacher for pre-service teachers or as a mentor for novices.

Content and activities focused broadly on four areas: positive behavior support practices, trauma-informed practices, CR-SE practices, and effective practices for mentoring novice teachers (see Table 2, pp 94-95). University faculty and staff created and facilitated both training sessions. The lead facilitator is a faculty member in the Education Department. Her research focuses on teacher preparation, special education, positive behavior supports, trauma-informed practices, and rural schools and she provides field-based supervision to student teachers working towards early childhood and elementary education certification. A second faculty member in the Education Department contributed to the training development. She has expertise in culturally relevant sustaining pedagogy and teacher preparation. Finally, a department staff member – the Director of Professional Education – assisted with facilitating the training. Her background is in Educational Leadership, and she has extensive experience providing PD to in-service teachers. The agenda, content, and activities were developed using features of effective PD that emerged from the meta-analysis of PD for teachers (Darling-Hammond et al., 2017). Efforts were made to develop training that included modeling of practices, active learning, feedback, and opportunities for self-reflection. Additionally, we worked to establish a cohesive, collaborative cohort among teachers from the three districts by setting aside time for discussion and action planning.

Measures

The primary dependent variable for this study was a survey of 37 items in total, the DCRAT scale. This scale was developed specifically for this study. It was designed to measure changes in participants' knowledge, confidence in implementing, and current/ anticipated use across four areas: positive behavior supports, trauma-informed practices, culturally relevant sustaining pedagogy, and effective practices for mentoring new teachers. We modified the CHAMPS Knowledge, Confidence, Usefulness Scale (Lane, 2020) and the PBIS

Self-Assessment Survey (Center on PBIS, 2023) as a model for the development of the DCRAT scale. On a scale from 0-5 (0 = none/ never to 5 = extremely familiar/ always), participants responded to 13 positive behavior support items, 6 trauma-informed practices items, 9 culturally-relevant sustaining pedagogy items, and 5 mentoring/ coaching novice teacher items separately rating their knowledge, confidence, and use/anticipated use for each item. Additionally, participants responded to 4 open-ended items that asked directly about the participants' perceived impact of the summer institute on their knowledge and confidence using practices across the four content areas. Reliability testing indicated that the DCRAT scale had strong internal reliability (Cronbach's α=.97).

Data Analysis

The responses to scaled survey items were analyzed using SPSS. Eight subscale variables were created for pre and post-tests in each content area. In addition to running descriptive statistics to analyze each subscale's means and standard deviations, a Wilcoxon Signed Rank Nonparametric Test was used to compare median statistical differences between the pre and post-test responses. The responses to open-ended questions were anonymized and uploaded to ATLAS.ti software for coding. Both top-down and bottom-up coding processes (Merriam, 2009) were used. The responses were analyzed using descriptive coding (Miles et al., 2014) to identify the emerging themes in the participants' responses. We identified and analyzed the themes (Round 1), generated the codes in relation to the research questions, and, based on the themes that emerged, organized the codes into categories and engaged in another round of coding using the codes from Round 1 (Round 2).

Results

Positive Behavior Supports

Table 3 reports the findings of the descriptive and inferential statistical analysis, including significance values (p) and effect sizes (r). Effect sizes between 0.10 – 0.30 are considered small, between 0.30-0.50 are considered medium, and greater than 0.50 are considered large. The Wilcoxon Signed Rank Test indicated that post-test scores were significantly higher than pre-test scores on knowledge ($p<.001$; $r = -0.55$), confidence ($p<.001$; $r = -0/51$), and use/anticipated use ($p<.001$; $r = -0/51$) of PBS practices. The qualitative analysis of the related open-ended response item revealed that the most frequently observed response in both pre-and post-test responses on what teachers can do to maintain a positive learning environment was on the importance of building relationships and creating an inclusive learning environment. In the pre-test responses, the theme that followed in frequency was the importance of setting up clear expectations and guidelines and being consistent throughout the school year. Additionally, participants' responses included flexibility and collaboration. On the other hand, one noticeable theme in post-test responses was the importance of growth mindset and asset-based approach, which was not mentioned in the pre-test. For example, one participant stated, "Reframe thinking from a deficit lens to an asset lens." Furthermore, another new theme identified is about addressing bias, as was stated by one participant: "We need to check our biases and view our students as the work itself, not an impediment."

Trauma-Informed Practices

Quantitative results from the Wilcoxon Signed Rank Test indicated that post-test scores were significantly higher than pre-test scores on knowledge ($p<.001$; $r = -0.56$), confidence ($p<.001$; $r = -0.57$), and use/anticipated use ($p<.001$; $r = -0.58$) of TIPs. We asked participants to respond to the question, "What can you do to form positive relationships with students?" because we discussed the importance of relationship building in both the training's positive behavior supports and trauma-informed practices sections. The most frequent theme identified in pre-test responses was the importance of knowing each student and providing individualized support. While this theme was also the most frequent one in the post-test, one theme found only in the post-test was the importance of diversity. One participant stated, "Teachers should see and celebrate students and their individual identities in our classes. We should also be using an asset-based perspective!" Third, on how teachers can address behavioral issues, the post-test responses included responses on celebrating the positives of the students and the importance of being aware of trauma effects.

Table 3
Knowledge, Confidence, and Use/Expected Use of Practices

	Pretest		Posttest		Wilcoxon Signed Rank Test	
	M	*SD*	*M*	*SD*	*Significance*	*r (effect size)*
PBS Knowledge	3.87	0.48	4.71	0.22	<.001*	-0.55
PBS Confidence	3.73	0.51	4.5	0.23	<.001*	-0.51
PBS Use	3.76	0.56	4.41	0.28	<.001*	-0.51
TIP Knowledge	2.66	1.14	4.41	0.51	<.001*	-0.56
TIP Confidence	2.5	1.05	4.2	0.57	<.001*	-0.57
TIP Use	2.49	1.11	4.18	0.6	<.001*	-0.58
CR-SE Knowledge	3.37	0.55	4.62	0.37	<.001*	-0.59
CR-SE, Confidence	3.27	0.53	4.44	0.4	<.001*	-0.55
CR-SE, Use	3.31	0.59	4.54	0.29	<.001*	-0.56
Mentor Knowledge	3.51	1.04	4.63	0.4	<.001*	-0.51
Mentor Confidence	3.59	1.03	4.55	0.45	<.001*	-0.46
Mentoring Use	3.36	1.11	4.37	0.81	<.001*	-0.56

*p<.05

CR-SE Practices

Quantitative results from the Wilcoxon Signed Rank Test indicated that post-test scores were significantly higher than pre-test scores on knowledge (p<.001; r = -0.59), confidence (p<.001; r = -0.55), and use/anticipated use (p<.001; r = -0.56) of CR-SE practices. On this topic, the participants were asked what they could do to provide equitable and inclusive learning opportunities for students from diverse backgrounds. In the pre-test, the most frequent response was on learning students' backgrounds and doing research. One of the most noticeable differences in post-test responses was that the most frequent theme was the value of providing culturally relevant teaching. For instance, one participant stated, "Design and facilitate culturally relevant learning that brings real-world experience." Additionally, another participant shared, "choose literature carefully and intentionally." The subsequent commonly observed response is on celebrating students' diversity, as in, "Develop projects that will allow students to explore/celebrate their own identities and interests." Furthermore, only in post-test did participants bring up the idea that they should take steps to address bias.

In terms of the ways to address bias in their schools, two differences were observed in the participants' pre- and post-test responses. First, responses on bringing awareness and offering PD increased from five to nine. Second, four new themes emerged: advocacy, diversity, belonging, and asset-based approach. The responses on advocacy included not only advocating for students but also for colleagues and students' families. Moreover, regarding ways to collaborate with students' families and communities, the most common theme in pre- and post-test responses was communication, from newsletters to apps. What is stated only in the post-test response was being proactive and inviting participation from families and communities. This indicates that the participants became more aware of the value of proactively reaching out and partnering with families.

Mentoring Novice Teachers

Quantitative results from the Wilcoxon Signed Rank Test indicated that post-test scores were significantly higher than pre-test scores on knowledge (p<.001; r = -0.51), confidence (p<.001; r = -0.46), and use/anticipated use (p<.001; r= -0.56) of TIPs. Regarding teachers' knowledge, confidence in implementing, and their anticipated use of mentoring novice teachers, the most frequently identified theme in the pre-test response was on the importance of providing feedback and regular communication. For example, one participant stated, "discuss each day with new teachers what is working and what is not working." The difference between pre-and post-test responses was that the teachers were more aware of providing guidance and scaf-

folding for novice teachers. This was also connected to positive behavior and trauma-informed practices, as was stated by one participant: "Help novice teachers to explicitly think about evidence-based practices in positive behavior, cultural sustainability, and trauma-informed practices." Additionally, the responses on reflections, both for mentor and novice teachers, were increased from two to six. Lastly, the importance of diversity was noticed: "I have one style of teaching and they will see that style but it may not be the style that they adapt to."

Discussion

Effective support for novice teachers equips educators with the skills necessary to address diverse classroom challenges and support student success. This study investigates the impact of a summer institute PD opportunity on teachers' knowledge, confidence, and use/anticipated use of practices in four key areas: positive behavior support, trauma-informed practices, and CRSE. We used the Wilcoxon Signed Rank test to analyze pre-test and post-test survey data, and our results reveal substantial and statistically significant increases in growth across all four targeted areas. Additionally, our qualitative analysis of open-ended responses provides context for participant perceptions and insights in these areas. The summer institute incorporated the core features of effective PD; it was intentionally designed to be highly interactive and collaborative, and we included numerous opportunities for discussion and self-reflection. The alignment of our training approach with the core features of PD underlines the importance of structuring teacher training experiences beyond traditional, passive learning methods.

In the context of Pennsylvania, where the education sector is grappling with significant challenges, including high teacher attrition and a critical shortage of qualified educators, the need for effective PD for novice teachers is more urgent than ever (Boyce & Morton, 2024). Our study's findings illustrate that a well-designed, interactive PD program can effectively build mentor teachers' knowledge and address these needs.

Strengths and Limitations

Our study includes some notable strengths that contribute to its overall impact. Utilizing a mixed methods approach, we can draw upon responses to open-ended items to develop greater context and insight into our survey results. We also relied on validated instruments to create our DCRAT survey, and our data analysis included descriptive and inferential statistics. Limitations of the study include the small sample size which may limit the findings' generalizability. Our study also measured changes within a three-day time frame, limiting our ability to understand the long-term effects.

Conclusion

Pennsylvania faces immediate challenges due to ongoing teacher shortages, a rise in emergency certified teachers, and continued early career attrition. Developing competent novice teachers who are equipped with the necessary knowledge and skills can help to address these challenges. Supportive, effective mentor teachers are an excellent resource for pre-service and early career teachers. Our 3-day summer institute was designed to build a network of trained mentor teachers who understand the skills necessary for early career success and how to support novice teachers effectively. The study's positive findings underscore the potential for similar initiatives to support novice teachers and contribute to long-term solutions for stabilizing the teacher workforce in Pennsylvania.

Table 2

Training content, activities, and resources

	Introduction/ Rationale for Training
Content	● Welcome and icebreaker ● Teacher shortages and attrition statistics, reasons, and impact ● Solutions for improving teacher retention
Activities	● Personal Identity Wheel University of Michigan
Resources	● Learning Policy Institute: Features of Effective PD
	Mentoring/ Coaching
Content	● Evidence-based practices for supporting novice teachers (modeling effective practices, providing specific feedback, video analysis, guided self-reflection, scaffolding support)
Activities	● Participant Guide: Reflect on experiences of supporting or being supported ● Video analysis: Practice observation and discussion of possible feedback and support ● Participant Guide: End of section reflection on strategies to support novice teachers
	Positive Behavior Support
Content	● Rationale for focus on prevention: Tier 1 practices within a Multi-Tiered System of Support (MTSS) framework ● Creating safe, positive learning environments (designing a safe environment, establishing positive connections, developing predictable routines, defining and teaching expectations, planning relevant instruction) ● Actively promoting student social, emotional, behavioral growth (engaging students in learning, foster positive relationships, active supervision, positive, specific feedback, class wide strategies to reinforce behavior, strategies to address behavioral errors)
Activities	● "Think, Pair, Share" discussion questions throughout section ● Participant Guide: Key Takeaways from section ● Action Planning: Select Activities for promoting self-development and outline strategies for supporting novice teachers in developing effective Tier 1 positive behavior support practices
Resources	● Center on PBIS (2022). Supporting and Responding to Students' Social Emotional Behavioral Needs.
	Trauma-Informed Practices
Content	● Overview of adverse childhood experiences (ACES) and toxic stress ● Trauma and brain development ● Creating a trauma-sensitive classroom ● Understanding the acting out cycle ● Strategies for de-escalation ● Understanding and responding to secondary traumatic stress in teachers

	Trauma-Informed Practices (continued)
Activities	● Video: TED Talk on ACES ● Participant Guide: Opportunities for discussion and self-reflection ● Action planning: Select Activities for promoting self-development and outline strategies for supporting novice teachers in developing trauma-informed practices
Resources	● Center on PBIS ● Trauma-Sensitive Classroom ● Adverse Childhood Experiences study
	Culturally-Relevant Sustaining Education
Content	● Overview of the new state CR-SE competencies and related terms ● Understanding context and specific challenges in rural school settings ● Understanding one's cultural lens, identity, and intersectionality ● Identifying bias in the system (implicit and systemic/ structural) ● Understanding how bias can impact all students ● Asset vs deficit based pedagogies ● Designing differentiated, culturally relevant, inclusive learning environments that celebrate all students ● Family and community engagement ● Understanding and addressing microaggressions
Activities	● Social Identity Wheel University of Michigan ● Identity Iceberg Anti-Defamation League ● "Think, Pair, Share" discussion questions embedded throughout ● Participant Guide: Key takeaways and self-reflection ● Action Planning: Identifying two areas for self-growth and strategies for supporting novice teachers in developing CR-SE competencies
Resources	● CR-SE Competencies (Pennsylvania Department of Education)

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