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Fostering Inclusive Dispositions: Integrating Disability Studies in Teacher Education

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ABSTRACT
In the era of inclusive education, every educator can expect to have students with disabilities in their classroom. Unfortunately, preservice teachers who are not specifically pursuing special education licensure are often only expected to take one course focused on teaching students with disabilities. Given the increased emphasis on less restrictive educational placements of students with disabilities, it is vital for teacher education to promote asset-based, inclusive approaches. In this article, we share the rationale for embedding critical perspectives from the field of disability studies into teacher education courses. We further detail five course design priorities that support teacher candidates' development of inclusive dispositions: (1) centering models of disability; (2) integrating disability history; (3) addressing language and terminology; (4) prioritizing first-person narratives; and (5) illustrating disability-inclusive curriculum. Inspired by our own experiences with developing and teaching introductory courses, the article follows one teacher educator's fictional journey of redesigning a "Special Education 101" class with these priorities in mind. This article spotlights small but powerful shifts teacher educators can make to prepare future inclusive educators who think, talk, and teach about disability through a critical lens.

KEYWORDS
disability studies, dispositions, general education, inclusion, teacher education

Dr. Paige is a new Assistant Professor of Special Education who has been assigned to take over her College of Education's "Special Education 101" course for non-special education majors. *This required class will be taken by students pursuing teaching licensure in the elementary grades, secondary content areas (i.e., math, science, social studies, English), or other areas (e.g., art education, music education, physical education). As she begins to review the previous year's syllabus and the course textbook, Dr. Paige notes that, in its current form, the course relies on a traditional "disability of the week" format. After a few classes introducing the principles of the Individuals with Disabilities Education Act (IDEA) and the basics of Individualized Education Programs (IEPs), the remainder of the class sessions are each dedicated to an individual disability category. The textbook chapters and class content cover the characteristics and causes of the disability, the learning and behavioral deficits commonly exhibited by students with that label, and a series of recommended interventions. Because Dr. Paige is committed to asset-based frameworks and critical perspectives on disability, she has some concerns about the portrayal of disability and special education in the course she has inherited.*

Historically, educational training, systems, and policies have approached disability and special education with a deficit orientation (i.e., focusing on students' limitations and addressing weaknesses rather than building on strengths; Keefe, 2022). The system of special education in the United States remains relatively young and has been predominantly driven by the clinical perspectives of its roots in psychology and

medicine (Sandoval Gomez & McKee, 2020). Traditional educational policies and practices tend to pathologize disability, drawing a contrast between "normal" and "abnormal" and seeking to remediate individual differences (Keefe, 2022). As a result, general education teachers often view disabilities as pathological, fixed conditions beyond the scope of their practice (Jordan, 2018). Many general education teachers likewise presume that all disabled students will require a fundamentally different kind of education than their nondisabled peers, leading them to conceptualize inclusive placements as a privilege (Dignath et al., 2022; Lalvani, 2015). However, years of educational research have demonstrated that high-quality explicit instruction and other interventions initially intended to serve students with disabilities, when applied in inclusive general education settings, benefit all students (e.g., Hughes et al., 2017). Furthermore, the least restrictive environment (LRE) provision of IDEA establishes students' right to be educated alongside their nondisabled peers to the maximum extent appropriate given supplementary aids and services (Yell et al., 2020).

According to IDEA, schools must offer a continuum of alternative placements (e.g., general education classes, special classes, home- or hospital-based instruction), with a preference for education in the general education classroom as often as possible (Yell et al., 2020). Yell and Prince (2022) explain that "school districts must make good faith efforts to maintain students in a general education classroom" (p. 75) and removal from general education should *only* occur if supports and services in that environment prove insufficient to provide the student with an appropriate education. Trends in LRE data indicate that over the last 25 years, inclusive placements have increased (Williamson et al., 2020). In fact, recent congressional reports show that about two-thirds of students with disabilities receive instruction in the general education environment for most ($\geq 80\%$) of the school day (U.S. Department of Education, 2023). As a result, a greater number of students with disabilities are spending more learning time with teachers who may not believe that such students belong in their classroom or are their responsibility to educate (Lalvani, 2015; Swindlehurst et al., 2019).

Despite this trend, non-special education teacher candidates often complete only a single course dedicated to teaching students with disabilities rather than seeing the needs of disabled learners represented throughout all content and coursework (Nusbaum & Steinborn, 2019). This common practice of separating general education and special education courses can ultimately reify preservice teachers' perceptions of disabled students as "others" (Keefe, 2022). Moreover, disability is commonly taught as a categorical list of psychological and medical conditions with much attention given to students' deficits and differences (Cosier & Pearson, 2016; Freedman et al., 2019). Critics of these approaches to teacher education note how they can perpetuate ableism – "attitudes, actions, and circumstances that devalue people because they are disabled or perceived as having a disability" (Ladau, 2021, p. 70) – at both individual and systemic levels (Keefe, 2022).

Regardless of grade level or subject area taught, all teachers must be prepared to include students with disabilities in their classrooms. Doing so requires not only an understanding of content and pedagogy but also the mindset that disabled students belong in and can succeed in general education classes (Jordan, 2018). Therefore, best practices for teaching students with disabilities should be meaningfully incorporated into all teacher candidates' methods courses (e.g., content-specific pedagogy, classroom management, assessment) rather than relegated to a standalone course (Keefe, 2022). In this way, preservice teachers can learn strategies to ensure their instruction is accessible and responsive to a wide range of learner needs (Ashby, 2018; Cosier & Pearson, 2016). With these skills and teaching practices embedded more holistically across teacher education programs, the traditional "Special Education 101" course can be reimagined to emphasize the development of teacher candidates' inclusive dispositions; that is, the attitudes, values, and beliefs that enable teachers to meaningfully include students with disabilities in general education classrooms (Bialka, 2017; Kurth et al., 2021). Even without broader program-level shifts, disability studies can be integrated into these introductory courses alongside other content.

The field of disability studies presents an opportunity to nurture such inclusive dispositions by offering an alternative perspective that actively challenges deficit-based and ableist approaches to education. Here, we adopt Susan Baglieri's (2017) definition of disability studies as "an interdisciplinary field of scholarship that seeks to expand the ways that society defines, conceptualizes, and understands the meaning of disability" (p. 5). Disability studies centers the idea that disability is a natural form of human difference that is constructed in a sociocultural context (Freedman et al., 2019; Keefe, 2022). Accordingly, a disability studies approach to education prioritizes the removal of barriers in the school environment, culture, and curriculum (Gilham & Tompkins, 2016), highlighting the importance of proactive, asset-based approaches to achieving educational access and equity for students with disabilities (Cosier & Pearson, 2016; Sandoval Gomez & McKee, 2020).

COURSE CONTENT AND STRATEGIES

When Dr. Paige meets with her Department Chair about her course planning for the semester, she expresses her concerns with the syllabus she has reviewed. She explains that she wants to help teacher candidates think more broadly about issues of discrimination, accessibility, and equity as they relate to students with disabilities. The Chair shares that Special Education 101 has historically received poor student evaluation ratings, with feedback suggesting that teacher candidates still do not feel comfortable or confident as leaders of inclusive classrooms after completing the course. The Chair adds that she sees potential for this course to align with the College's diversity, equity, and inclusion initiatives with some of the changes Dr. Paige has proposed. Dr. Paige is invited and encouraged to redesign the course as she sees fit for the next semester. Where should Dr. Paige begin? What changes are most critical for shaping the mindsets her teacher candidates need to become inclusive educators?

When applied to teacher education, a disability studies approach nurtures all teacher candidates' inclusive dispositions, seeking to prepare future educators who view disability as diversity, promote inclusion as a form of educational equity, and consider themselves allies and advocates for students with disabilities (Ashby, 2018; Freedman et al., 2019). Several scholar-instructors have detailed their approaches to infusing disability studies into teacher education at either a programmatic or course level. Common elements include teaching about the history of disability rights and special education; critically analyzing disability representation in media, film, or art; and including first-person narratives from disabled people themselves (Derby, 2016; Freedman et al., 2019; Gilham & Tompkins, 2016; Van Hove et al., 2014). These courses also often explicitly place disability into frameworks of social justice and critical theory (Ashby, 2018).

Although empirical studies of the impact of such courses are scarce, Derby (2016) demonstrated that a course introducing disability studies to preservice art education majors had a significant impact on their attitudes toward disability, particularly leading them to question the concept of "normal" and the binary of "able" versus "not able." Likewise, about half of the teacher candidates enrolled in a graduate disability studies in education course demonstrated shifts in their thinking about disability and inclusion (Broderick & Lalvani, 2017). More specifically, these preservice teachers began to conceptualize disability as a sociocultural experience rather than an individual impairment and to critically question educational practices that separate disabled and nondisabled students (Broderick & Lalvani, 2017). Bialka (2017) additionally revealed the power of coursework and fieldwork that frames disability as a form of diversity to shift teacher candidates' dispositions, regardless of their prior experiences with disabled people. Based on emerging scholarship, disability studies appears to be a promising approach to promoting preservice general education teachers' belief in the potential of students with disabilities and their commitment to inclusive education, both of which are correlated with higher-quality classroom instruction for all learners (Jordan, 2018).

As proponents of a disability studies-integrated approach to special education, we suggest that the standard "Special Education 101" course (i.e., an introductory-level course for non-special education majors) offers a compelling opportunity to instill in future inclusive educators a critical understanding of disability, a commitment to accessibility and inclusion, and the dispositions necessary to lead a classroom in which every student belongs (Keefe, 2022; Kurth et al., 2021; Sandoval Gomez & McKee, 2020). Accordingly, teacher educators can leverage disability studies to foster inclusive dispositions by incorporating the following five priorities:

1. Centering models of disability
2. Integrating disability history
3. Addressing language and terminology
4. Prioritizing first-person narratives
5. Illustrating disability-inclusive curriculum

Centering Models of Disability

First and foremost, teacher candidates need to be introduced to different ways of conceptualizing disability. In order to become more culturally competent educators of students with disabilities, preservice teachers should begin to think about different frameworks, or models, of disability and how those models influence the individuals, families, classrooms, and educational systems with whom they will engage throughout their careers (Dunn & Andrews, 2015). Although individuals think, feel, and understand disability in unique ways, models help explain collective perspectives and, often, the policies and practices they inform (Ladau, 2021).

Two primary models of disability are typically discussed in contemporary educational settings: the *medical model* and the *social model*. These models highlight two distinct ways of conceptualizing disability. The *medical model* conceptualizes a disability as an individual impairment. The aim is to provide services so that the person's difficulties can be minimized or eliminated (Shyman, 2016). On the other hand, the *social model* defines disability as a societal construct rather than an individual condition. According to the social model, an individual's impairment only

TABLE 1: Comparison of Medical Model and Social Model Views

	MEDICAL MODEL	SOCIAL MODEL
Disability is…	A deficiency	A difference
Disability arises from…	Impairments (e.g., physical, cognitive, sensory) resulting from a medical condition	Barriers in environments, systems, and/or attitudes
Experts on disability are…	Doctors, scientists, and professionals	Disabled people
Disability issues are…	Individual problems	Societal concerns
The goal is to…	Minimize the impact of disability via intervention and remediation	Increase societal understanding and decrease environmental barriers

(Haegele & Hodge, 2016; Ladau, 2021; Shyman, 2016)

becomes a disability when an environment is inaccessible and thus prevents them from functioning fully. As a result, this model promotes social change focused on reducing barriers and increasing understanding rather than attempting to "fix" or normalize the disabled person (Haegele & Hodge, 2016). See Table 1 for a simple comparison of views commonly associated with each model.

Importantly, the medical and social models should not be viewed as a mutually exclusive dichotomy that requires "choosing sides" (Gallagher et al., 2014). For instance, an individual may experience a medical impairment that undeniably impacts their daily life (e.g., a painful physical condition) but also recognize the disabling barriers (e.g., physically inaccessible buildings, ableist assumptions, inadequate accommodations) that prevent their full participation and inclusion in society (Ladau, 2021).

Although the social and medical models are the most well-known, others have been identified in the literature. These include religious, charity, economic, human rights, cultural, and affirmation models. In the *religious model*, disability can be viewed as either a punishment or gift from God. The *charity model*

frames disability as a reason for pity, with disabled people seen as dependent upon the aid of nondisabled people. The *economic model* analyzes the costs of disability and focuses on how much a disability prevents a person from working and contributing to a financial society (Retief & Letšosa, 2018). In contrast, other models promote the celebration of disability as part of a person's identity. In the *cultural model*, disability is seen as a category of human diversity and a communal experience marked by shared history, language, and/or culture (Hopson, 2019). Similarly, through the *identity* or *affirmation model*'s framework, disabled people view their disability as central to their identity and as a source of pride. Lastly, the *human rights model* centers concerns about the quality of life of people with disabilities as basic rights issues and advocates for accessibility and civil rights for all (Retief & Letšosa, 2018).

It should be noted that no single model can fully encapsulate the individual lives and experiences of all disabled people (Ladau, 2021). Nevertheless, understanding a variety of models that have been embraced differently over time and by different people can offer teachers a

framework to begin to critically analyze educational systems and practices (Freedman et al., 2019). For example, preservice teachers need to understand the medical model in order to participate in the existing processes of disability categorization and special education eligibility that are largely based on this perspective (Gilham & Tompkins, 2016). Alternately, the social model underpins accessibility considerations and classroom accommodations, both of which are meant to minimize environmental barriers to learning (Sandoval Gomez & McKee, 2020). Additionally, teachers are likely to encounter families who perceive their child's disability through the lens of a particular model, such as the religious or charity model. Teachers need to be sensitive to these perspectives even when they differ from their own. Although a disability studies approach tends to be most aligned with the social model of disability (Cosier & Pearson, 2016), helping teacher candidates to understand the ideology of many different models will support their ability to critically reflect on their roles and practices as educators of students with disabilities.

Dr. Paige decides that the models of

disability would be a great way to start the semester and set the foundation for the rest of the course. On the first day of class, she invites her students to free-write for 5 minutes in response to the prompt "What do you know and believe about disability?" Students then engage in a jigsaw activity in which small groups become experts on one model of disability before creating new, mixed groups and sharing their information with others. She then has students analyze their free writing responses to look for evidence of different models within their perspectives. For instance, one teacher candidate recognized the charity model when she wrote "I believe it is important to help people who are less fortunate, like those who struggle with disabilities." Many others identified the influence of the medical model on their tendency to define disability in terms of diagnostic labels and symptoms.

As the course continues, Dr. Paige prompts her students to identify how the content they are learning about special education eligibility and IEPs aligns with one or more models of disability. After several weeks, she notices that her students have begun to reference the models on their own and often spontaneously suggest how traditional practices could be reframed through the lens of the social model.

Integrating Disability History

As teacher educators, it is important to remember that teacher candidates are likely entering our courses with little to no knowledge of disability history. More than likely, events central to the disability rights movement were not taught in their social studies classes (Mueller, 2021; Nusbaum & Steinborn, 2019). Further, most preservice teachers seeking initial certification have only ever lived in a world in which the Americans with Disabilities Act (ADA) exists. Most would have personally experienced

school settings educating students with disabilities in compliance with the most recent reauthorization of IDEA. Such lived experience can cultivate assumptions that special education has always existed in its current form or that accessibility was always the norm. Today's teacher candidates may be unaware of the long history of discrimination and exclusion of disabled individuals and the significant advocacy efforts that led to change.

The time constraints and content expectations for a single introductory course can make it challenging to incorporate a comprehensive, standalone unit on disability history. Instead, instructors can prioritize key events and strategically integrate historical content with mandatory course objectives. For instance, instructors typically cover the provisions of relevant federal legislation, such as IDEA, ADA, and Section 504 of the Rehabilitation Act, in an introductory course. However, knowing the requirements of the law and internalizing the significance of the law are two very different things. A disability studies approach to teaching these laws would accentuate the socio-political context surrounding their history as well as their intersections with human and civil rights. For example, rather than simply presenting the guarantees of Section 504 as they exist today, instructors can share historical narratives from the 504 Sit-In that demanded the passage of regulations regarding the Rehabilitation Act following lengthy delays. Likewise, they may teach about the Capitol Crawl to illustrate the key role played by disabled people in the passage of the ADA or highlight the impact of parent advocacy through critical court cases in securing the IDEA and subsequent amendments (e.g., *PARC*; *Mills v. Board of Education; Larry P. v. Riles;* see Yell et al., 1998). Sharing the stories behind the laws may enable preservice teachers to

gain an appreciation of the significance of key legislation and policies.

In addition to understanding the historical context of legislation, teacher candidates need to recognize the pervasiveness of ableism throughout history. This recognition is vital to shaping their ability to think deeply and critically about disability in the present day. Even briefly, instructors can introduce weighty realities such as institutionalization, forced sterilization, exploitative "freak shows," wage discrimination, and the eugenics movement (Anti-Defamation League, 2017). Although such topics may seem disconnected from the field of education at first glance, these historical contexts have and continue to impact systems, policies, and societal values.

Incorporating disability history into an introductory course has the potential to shape future educators' values, beliefs, and practice. Looking to the past provides context that is crucial for understanding current conditions and advocating for a better future. An awareness of disability history is essential for educators as they approach the important tasks of helping their students with disabilities develop a positive disability identity and cultivating accessible and inclusive learning environments (Mueller, 2021; Freedman et al., 2019). Furthermore, an increased awareness of the long history of discrimination against people with disabilities is likely to strengthen teachers' commitment to upholding the rights of their students under IDEA (Gilham & Tompkins, 2016).

Dr. Paige knows she wants to expand the discussion of IDEA and other federal legislation to include an overview of disability history. Given the lack of emphasis on this during her own education, she feels the need to educate herself first, so she downloads the audiobooks A Disability History of the United States by Kim E. Nielsen and Being Heumann: An Unrepentant Memoir of a Disabil-

TABLE 2: Examples of Non-preferred and Preferred Terminology

Non-preferred	Preferred (person-first)	Preferred (identity-first)
Handicapped Differently abled Handi-capable Special needs	Person with a disability	Disabled person
Afflicted by… Suffers from… Victim of…	Has a disability	Is disabled
Mentally handicapped Mentally retarded Mentally challenged Slow	Depending on specific area of disability: • Person with an intellectual disability • Person with a learning disability • Person with autism	Depending on specific area of disability: • Intellectually disabled • Learning disabled • Autistic
Wheelchair-bound Confined to a wheelchair	Person who uses a wheelchair	Wheelchair user
Normal Average	Person without a disability	Nondisabled

(Adapted from Ladau, 2021)

ity Rights Activist by Judith Heumann to listen to on her daily walks. In her research for course resources, Dr. Paige is excited to learn that Netflix offers the full version of Crip Camp: A Disability Revolution for free on YouTube. This documentary first highlights the experiences of teenagers with disabilities at Camp Jened in the early 1970s, and then follows their journey through active involvement in the disability rights movement in the United States. She decides to assign Crip Camp as "required viewing" and to hold structured class discussions before and after the students watch the film. She facilitates these class sessions using the Educator Discussion Guide in the Educational Curriculum offered on the official documentary website.

Addressing Language and Terminology

The words used to discuss disability are important. Historically, education and related professions have promoted (and often required) the use of "person-first" language (Dunn & Andrews, 2015). Person-first language, as the name suggests, places the person before the disability. For example, person-first phrases would include "a person with autism," "a student with dyslexia," and "children with disabilities." The intention of this language structure is to place the focus on the individual as a human being rather than on a diagnostic label or category. The emphasis on person-first language began in the 1970s and was directly related to the self-advocacy movement's goals of highlighting the inherent personhood of an individual with a disability (Crocker & Smith, 2019). Person-first language gained traction among professionals and soon became the preferred form of addressing people with disabilities (Dunn & Andrews, 2015). However, a growing group of disabled people prefer "identity-first" language, which uses the adjective form of the disability to describe the person, as in "autistic person," "dyslexic student," and "disabled children." The use of identity-first language is connected to the disability pride movement and the idea that one's disability is an essential part of their identity (Andrews et al., 2019). A preference for identity-first language is especially prevalent among Deaf, blind, autistic, and neurodivergent people who connect their disabled identity to a community or culture (Sharif et al., 2022; Taboas et al., 2023).

Appropriate and acceptable language changes over time, and individuals can have different preferences about how they and their disability are described. For example, terms such as "mental retardation" and "handicapped," though once widely used, are now outdated and considered offensive. Teachers need to ensure that they have replaced these words in their vocabulary with words like "intellectual disability" and "disabled" (Crocker & Smith, 2019). Additionally, words that convey negative assumptions about disabilities, like "suffers from," "confined to [a wheelchair]," or "mentally challenged," should be replaced by positive or neutral descriptors (Ladau, 2021). Teachers should be similarly aware that euphemisms, or words used to avoid saying "disability," are often viewed as condescending or demeaning by people with disabilities. Euphemisms like "differently abled" or

"handicapable" express that disability is inherently a bad thing that needs to be softened or downplayed (Andrews et al., 2019; Ladau, 2021). Understanding the contemporary pushback against euphemisms is especially pertinent in educational spaces, where terms like "special needs" and "exceptional learners" are widespread in policies and systemic structures (Keefe, 2022). See Table 2 for examples of non-preferred terms and their preferred alternatives in both person-first and identity-first forms.

Increasingly, professional organizations are shifting their language guidance to allow for both person-first and identity-first approaches (American Psychological Association [APA], 2021; Wooldridge, 2023). Rather than demanding rigid adherence to one form of language alone, educators can and should choose words that demonstrate respect for individual preferences. Nevertheless, many textbooks and professional materials continue to promote only person-first language and maintain the use of euphemisms in place of the word "disability" (Keefe, 2022). Educational policies and laws may contain outdated terms as a result of not having been updated in years or even decades. Teacher educators need to prepare preservice teachers to navigate the current terminology of educational systems while simultaneously interrogating their own roles in the respectful use of language related to disability (Ashby, 2018; Baglieri, 2017).

The syllabus that Dr. Paige inherited includes the following statement:

"Students are expected to use person-first language at all times and in all assignments in this course. For example, say "student with autism" instead of "autistic student." Person-first language reflects an understanding that a child is more than their limitations or special needs. This is a professional expectation in

our field, so failure to use person-first language in written assignments will result in a grading deduction."

Dr. Paige recognizes that this policy is outdated and oversimplified. Rather than simply adding a language policy to her syllabus, she decides to lead a short class activity about terminology and language preferences early in the semester. Her students watch short videos of people expressing their preferences for person-first or identity-first language and read Section 5.4 of the <u>APA Style Guide</u>. They engage in a class discussion about the nuances of language choice as educational professionals. Together, Dr. Paige and her students co-create a set of class guidelines related to using current terminology and respecting language preferences in all class discussions and written assignments.

Prioritizing First-Person Narratives

The disability community commonly reaffirms the phrase "nothing about us, without us" when speaking about disability issues (Ladau, 2021). This mantra communicates the idea that decisions about disability policy, practices, and services should only occur with the full participation of members of the disabled community. Including first-person accounts in teacher education is especially important given that the vast majority of instructors are nondisabled and, therefore, have only experienced special education as a professional (Dolmage, 2017). Integrating the voices of disabled people into introductory courses can effectively demonstrate real-world impacts and personal experiences with special education systems. Furthermore, direct experience with disabled people has been shown to benefit preservice teachers' attitudes toward disability (Carlson & Witschey, 2018).

Storytelling is a valid and useful pedagogical tool for instructors to use in

the classroom. Research has shown that first-person narratives are exceptionally memorable due to their novel structure and emotional nature (Landrum et al., 2019). The emotions and narrative structure of storytelling from an individual within a disability can produce critical discussions with a classroom of teacher candidates (Jorgensen et al., 2011). Utilizing stories from real people with disabilities is additionally useful because teacher candidates often come with limited to no experience with disabled people. As a result, they may hold unconscious biases that result in stereotypes and stigmas (Jordan, 2018). Sharing a range of first-person narratives can help candidates understand the variability of experiences with special education and, in turn, reflect on the variability of the students they will one day teach.

The voices of individuals with disabilities can also serve to contextualize the often-abstract concepts of special education. For example, central principles of IDEA, such as the right to an IEP, procedural safeguards, or parental participation, can be difficult to explain without the critical context of how these policies play out in the real world. The narratives of students, families, and professionals can help to make complex ideas and concepts more relevant and personal to preservice teachers (Suzuki et al., 2018). By hearing a personal story of how an IEP comes together, for example, preservice teachers can gain a glimpse into how real-world policy gets put into practice.

Including first-person narratives in courses provides an opportunity for the disability community to be involved in the preparation of professionals across the United States (Ashby, 2018). Instructors can use different strategies and mediums to highlight disabled voices. Some may have access to local disability groups that can assist with coordinating in-person or virtual guest speakers

TABLE 3: Evaluative Criteria for Disability Representation

Look For	Avoid
Promotion of respect and acceptance	Undercurrents of pity or sorrow
Accurate information	Tokenistic or stereotypical characters
Portrayal of strengths	Representing ordinary achievements as heroic or inspirational
Full character development beyond the disability	
Representation of invisible disabilities in addition to visible ones	Use of inappropriate terminology (e.g., special, crazy, sick, slow, dumb, suffering)
Depictions of diverse and valued roles and occupations of people with disabilities	Presentations of disability as an individual problem, not a societal one
Representation of disabled people with intersectional identities across diverse races, cultures, gender identities, ages, etc.	Portrayals of allies, friends, or siblings as inspirations or "saints"
Materials written or made by disabled creators	

(The Anti-Defamation League, 2013; Zepp et al., 2022)

or panels. Even if such synchronous interaction is not feasible, books, videos, and podcasts created by individuals with disabilities can be used to supplement course materials. In any case, instructors should abide by the idea of "nothing about us, without us" to ensure teacher candidates are learning from the lived experiences of disabled people in addition to the content expertise of professionals.

Dr. Paige recently read Demystifying Disability, *a short paperback guidebook on disability written by a disabled author. As a nondisabled person herself, Dr. Paige recognized the power of learning about disability from someone who experiences it every day. She decides to assign the book in her class and to have students engage in a book study activity throughout the first month of the semester. She also uses several episodes of the* Disability Visibility *podcast to supplement class readings and assignments with perspectives from disabled individuals.*

Later in the semester, as Dr. Paige begins planning her class session focused on postsecondary transition planning, she recognizes an opportunity to em-phasize the individualized and personal nature of transition by inviting a guest speaker to class. Using her network within the local school district, Dr. Paige connects with a high school special education teacher with extensive experience leading the transition process. The teacher recommends that Sam, a recent graduate with a learning disability, visit the class with her to share how he participated in transition planning and made a successful transition to community college. Before class begins, Dr. Paige reminds her students that experiences are personal and that the visitors' stories are not reflective of everyone's experience. Students hear from the guest speakers, view Sam's transition plan, and have time to ask questions. After the visit, Dr. Paige and the class debrief in order to ground concepts from IDEA in the real-life experiences that were shared.

Illustrating Disability-Inclusive Curriculum

Once future educators have developed a critical perspective themselves, the next step is to bring these concepts into their future early childhood through grade 12 (EC-12) classrooms. Again, most teacher candidates never learned about disability history or experienced open discussion about disability in their own educational experiences; engaging with this content in teacher education can help preservice teachers become more comfortable infusing disability into their curriculum and, in turn, breaking this cycle for the students who will one day learn from them (Mueller, 2021). Instructors of introductory courses have the opportunity to prepare preservice teachers to represent disability in their instructional materials and to actively challenge ableism through the curriculum.

Disability awareness activities tend to be the most common way of reflecting disability in EC-12 classrooms. However, these often center on narrow views of disability during specific "awareness months," or even spotlight specific students (Cosier & Pearson, 2016; Lalvani & Broderick, 2013). For instance, schools may plan a spirit week for Autism Awareness in April, or a teacher may read a book about a d/Deaf character at the beginning of the year when there is a d/Deaf student in their class. Such activities

TABLE 4: Recommended Resources

Resource	Link	Brief description
Demystifying Disability	https://emilyladau.com/book/	This brief, accessible guidebook offers approachable information about disability models, language, etiquette, ableism, and more.
Disability Studies and the Inclusive Classroom	https://www.routledge.com/Disability-Studies-and-the-Inclusive-Classroom-Critical-Practices-for-Embracing/Baglieri/p/book/9780367682590	This textbook integrates key information about special education (e.g., law, policy, curriculum) with contemporary perspectives from the field of disability studies.
Crip Camp: A Disability Revolution	https://www.youtube.com/watch?v=OFS8SpwioZ4 www.cripcamp.com/curriculum	This Academy Award-nominated documentary focuses on a group of teenagers with disabilities who spend their summers together at camp in the 1970s and go on to become activists in the disability rights movement. Free discussion guides and lesson plans are available to supplement the documentary.
A Disability History of the United States	https://revisioningamericanhistory.com/portfolio/a-disability-history-of-the-united-states/	This book retells US history from pre-1492 through the present with the experiences of people with disabilities placed at the center of the narrative.
Being Heumann: An Unrepentant Memoir of a Disability Rights Activist	https://judithheumann.com/being-heumann/	This memoir tells the story of one of the most influential disability rights activists who played a leading role in the 504 Sit-In and the passage of the ADA.
The Year of Willowbrook 2022: The Last Great Disgrace	https://youtu.be/63lmoby2X6c	In recognition of the 50th anniversary of the original exposé of the inhumane conditions at the Willowbrook state institution, the Willowbrook Legacy Project presented an evening of reflection and discussion with Geraldo Rivera.
Disability: A Parallel History Podcast Mini-Series	https://www.yarnpodcast.com/disability-a-parallel-history	This three-episode *Yarn* Podcast Mini-Series traces the history of disability in parallel with the history of humanity from prehistoric times to the present day.
APA Disability Guidelines	https://apastyle.apa.org/style-grammar-guidelines/bias-free-language/disability	Expanded guidance on using bias-free language when writing about disability using American Psychological Association (APA) style, the standard style used in the education field.
Disability Visibility Podcast	https://disabilityvisibilityproject.com/podcast-2/	100 podcast episodes released between 2017 - 2021 feature conversations among disabled people about disability in culture, politics, and media.
One Out of Five Student Voice Videos	https://www.youtube.com/playlist?list=PLUExuVzzZ1EUAXf4hUHTTTz-PK8WnR2CvS	In this collection of short videos, students with disabilities share their experiences in schools and communities.
Schneider Family Book Award List	https://www.ala.org/awardsgrants/awards/1/all_years	Awarded yearly since 2004, The Schneider Family Book Awards honor children's and adolescent books that embody the disability experience.
Social Justice Books	https://socialjusticebooks.org/booklists/disabilities/	This webpage provides a selection of critically reviewed books for children, young adults, and adults that feature positive disability representation.
Reform to Equal Rights: K-12 Disability History Curriculum	http://www.emergingamerica.org/curriculum/reform-equal-rights-disability-history-curriculum	This comprehensive curriculum includes units of study for all grade levels that emphasize the history of disability activism and civil rights. Each unit includes supporting teaching materials and primary and secondary sources.
The Nora Project	https://thenoraproject.ngo/	*The Nora Project* works to promote disability inclusion in schools and communities. Their website includes free classroom resources, lesson plans, media recommendations, and the Nora Notes blog.

rarely result in more than surface-level consideration of disability. Worse, they can serve to reinforce stereotypes and the medical model of disability by over-focusing on labels and differences (Baglieri, 2017). Future teachers should instead be prepared to incorporate disability into broader diversity-focused curriculum efforts and to embed disability-related issues into relevant content. Preservice teachers might practice developing lessons on the disability rights movement to align with social studies standards or creating science activities that highlight accessibility in engineering, design, and technology. These experiences can help teacher candidates become comfortable including disability within academic content rather than setting it aside as a "special" lesson.

Children's and young adult literature can be another powerful way to represent varied disabled identities and issues in the classroom. Unfortunately, a 2019 study found that less than 4% of children's books featured a disabled main character (Cooperative Children's Book Center, 2020) which falls far short of representing the roughly 27% of people who identify as disabled (Centers for Disease Control and Prevention, 2023). Even within the subset of books that do include disability, many of their depictions can be stereotypical, tokenistic, or otherwise problematic. Therefore, it is vital that future teachers learn how to evaluate the texts that they may use in their instruction (Zepp et al., 2022). Instructors of introductory courses can help teacher candidates use their understanding of disability models, language, and perspectives to critically review potential classroom materials. For example, instructors might provide a selection of books featuring disabled characters and have students use a set of criteria like those shown in Table 3 to evaluate each book's portrayal of disability. Preservice teachers might even extend their

FIGURE 1: Sample Student-generated Core Values

5 Core Values
of critically inclusive teachers

1. There is no such thing as normal
2. Disability is not a bad word
3. Needs aren't special, they're human
4. Accessibility benefits everyone
5. Inclusion is a right, not a privilege

application one step further by crafting a complete lesson plan for a picture book read aloud activity or a young adult book study (Zepp et al., 2022).

Dr. Paige realizes that most of her students likely never learned about disability in their own school experience and that many of the representations they have seen in various forms of media focus on deficits or stereotypes. She decides that a simple starting point for her introductory course would be to expose teacher candidates to positive and diverse representations of disability in books. Using the list of Schneider Family Book Award winners and the Social Justice Books list (see Table 4, she selects a picture book that incorporates disability to read aloud in class each week. Dr. Paige aligns her book choices to her weekly topics when possible. For instance, she reads Fighting for Yes! *when she teaches about the disability rights movement,* Keep Your Ear on the Ball *in the class session focused on accommodations, and* I Talk Like a River *when she covers communication. She adds each title to a collaborative online document where students can contribute ideas for how they might use the book in a lesson in an EC-12 classroom.*

MOVING FORWARD

By the end of the semester, Dr. Paige's students are engaging with the concepts of disability, inclusion, and special education in profound and insightful ways. During their final class session, students work in small groups to brainstorm their major takeaways from Special Education 101 that will guide their practice as critically inclusive teachers. After combining their lists and concept mapping the big ideas, the class agrees on five shared values to which they will commit. One teacher candidate even volunteers to create a digital graphic that she shares with her classmates (see Figure 1).

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As training grounds for new educators, teacher education programs can serve either to preserve the status quo or to reimagine inclusive education alongside the future practitioners and leaders in the field. Through the lens of disability studies, teacher educators and preservice teachers commit to critically considering issues around disability rights, identity, ableism, accessibility, and inclusion. In turn, teacher candidates can deepen their appreciation for the "why" behind the "what" in special and inclusive education. The recommended resources found in Table 4 can be used to enhance teacher education courses with content related to disability models, history, language, first-person narratives, and curricular representation. Given that more students with disabilities than ever are being educated in inclusive classroom placements, it is imperative that all educators adopt asset-based, inclusive dispositions toward disability. Using disability studies to reframe "Special Education 101" courses is a first step toward reaching this goal.

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Professional Development for Paraprofessionals on Inclusive Practices using Disability Studies in Education

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ABSTRACT

Paraprofessionals serve a critically significant role on educational teams, yet often receive the least amount of training among educational professionals. This article details an online paraprofessional learning series created by a team of special education faculty. The professional development series draws on a disability studies in education (DSE) approach and high leverage practices to situate paraprofessionals as active contributors to inclusion as a social justice imperative. Aligned to the Council for Exceptional Children's (CEC) Core Competencies for special education paraeducators (2022), topics addressed in the series are: (a) foundations of inclusive education, (b) learner development and characteristics, (c) supporting UDL in the inclusive classroom, (d) supporting specialized instruction for the inclusive classroom, and (e) learning environments and behavior support. We offer research-based strategies to build paraprofessionals capacity for inclusion through a lens of social justice and equity. This article can serve as a resource for paraprofessionals, and a model of bridging research-to-practice for special education faculty and administrators seeking to increase continuity across pre-and in-service teacher preparation and paraprofessional professional development.

KEYWORDS
Disability Studies in Education; inclusive education; paraprofessionals; professional development

Access to quality inclusive education is foundational to meaningful educational outcomes and full inclusion of people with disabilities in society. Paraprofessionals[1] serve a critically important role in schools as members of educational teams, and as providers of direct support to students. As teacher educators committed to inclusive education, we recognize that "the paraeducator is often the key to how inclusive a student's education is…by how they support social interactions, make academic content accessible, and support the comfort needs of the student" (Rapp et al., n.p). Yet, while these educational professionals frequently work with students who have some of the most complex needs, paraprofessionals receive the least amount of training (Brown & Stanton-Chapman, 2017, Biggs et al., 2016, Carter et al., 2009, Walker et al., 2017).

In effort to address this gap, we, as a team of preservice special education faculty, developed an online professional development learning series focused on building paraprofessionals' knowledge and skills for effectively and inclusively supporting all students. In this theory-to-practice article, we discuss a professional development example that models integrating disability studies in education (DSE) approaches to inclusive education and high leverage practices in ways that complement the equity-oriented preparation provided to teacher candidates in a dual certification (elementary and special education) inclusive teacher education program. Through both, we offer an opportunity to increase continuity of practice. Our work could therefore be useful to

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[1] We use the term "paraprofessional" throughout this article acknowledging that this professional role may be titled in various ways across states and school districts (e.g., paraprofessional, paraeducator, instructional assistant, teaching assistant).

special education faculty in higher education, administrators, teachers, paraprofessionals, as well as those who support pre- and in-service teachers. Ultimately, this work has potential to build capacity among and across educational teams through a lens of inclusive education as a vehicle of equity and social justice.

In this article, we detail the structure and content of the online professional development modules situated in a DSE framework. We also describe research and practice-based strategies to support paraprofessionals in providing effective service to their students. Specifically, we provide the following:

1. A rationale for this necessary addition to the professional development and training literature for paraprofessionals to support inclusive classroom practices;
2. A conceptual framework for a paraprofessional professional development learning series situated in a DSE framework and current best practices for inclusive education;
3. An outline of professional development content aligned with the Council for Exceptional Children (CEC) Core Competencies[2] for Special Education Paraeducators (2022);
4. An example of implementation within a professional development school district

Our work toward more inclusive educational practice aligns with the federal mandates of the Individuals with Disabilities Education Act (IDEA) (2004), and the goal of improving inclusive outcomes for students with disabilities. For over three decades, research has shown the academic and social benefits of inclusive education (i.e., educating students with and without disabilities in age- and grade-appropriate classrooms) with the necessary supports (McLeskey et al., 2012; Sailor & McCart, 2014). Despite this evidence, students identified with disabilities are routinely educated in segregated classrooms, and many school decisions are made based on their perceived deficits (Jackson et al., 2009). Additionally, even with IDEA (2004) mandating the least restrictive environment, there remains a national overreliance on segregated settings (National Council on Disability [NCD], 2018; U.S. Department of Education, 2021b). Further, research shows students with fewer support needs often spend 80 percent or more[3] of their school day in general education classrooms, while students with more complex support needs often spend less than 50 percent of their school day in inclusive settings (McLeskey et al., 2012). This is particularly true for students with intellectual and multiple disabilities, who are primarily placed in segregated special education classrooms (NCD, 2018). Federal mandates combined with high rates of segregation of students with disabilities provide evidence that professional development on inclusive education is widely needed.

To address some of these gaps in inclusive service delivery nationwide, the NCD (2018) recommended the following:

1. Prepare teachers, administrators, and related service providers to implement effective schoolwide, equity-based educational services; and
2. Build state and local capacity for sustainable inclusive education practices. (p. 10).

The absence of specific reference to paraprofessionals in these recommendations is noteworthy. This omission is symptomatic of a larger gap in practice where paraprofessionals are assigned to classrooms or students with the highest support needs yet provided the least amount of training (Brown & Stanton-Chapman, 2017, Biggs et al., 2016, Carter et al., 2009, Walker et al., 2017). According to the Every Student Succeeds Act [ESSA] (2015), paraprofessionals are not required to have prior experience working in education or with individuals with disabilities. Further, states are not required to provide professional development for paraprofessionals around inclusive education specifically. Hiring and retaining paraprofessionals also continues to be a challenge due to lack of training, administrative support, respect, and low pay and benefits (Brown, & Stanton-Chapman, 2017; Giangreco et al., 2002; Tillery et al., 2003). The professional development learning series outlined in this article therefore reflects our attempt to address the gaps in literature and practice by intentionally and explicitly exposing paraprofessionals to professional development that aligns with the preparation of the teachers with whom they are poised to collaborate with to sustain inclusive schools. Specifically, we offer an accessible paraprofessional learning series grounded in research-based strategies that promote effective inclusive education, including (a) Universal Design for Learning (UDL), (b) cooperative learning, (c) differentiated instruction, (d) data-based instructional decision-making, (e) positive behavior interventions and supports, (f) peer-assisted learning, (g) culturally responsive teaching, and (f) multi-tiered systems of supports (NCD, 2018).

THEORETICAL FRAMEWORK

This content of this paraprofessional learning series embeds theoretical ideas

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[2] At the time we developed the PD series, these were referred to as "Professional Standards." For clarity and consistency, we use the most updated set of guidelines, i.e., "Core Competencies."

[3] States are required to report: (a) participation in general education classes 80 percent or more of the day, (b) participation in general education classes 40-79 percent of the day, and (c) participation in general education classes less than 40 percent of the day (U.S. Department of Education, 2021).

that are central to the field of DSE. Threaded throughout all modules is the concept that disability is a socially constructed phenomenon, rather than an individual attribute of students, as well as a recognition of the ways that the educational system relies on and privileges nondisabled ways of being by design (Baglieri et al., 2011; Taylor, 2006). This framework highlights the need for professional development that offers alternative perspectives to the static, deficit-based views of disability that paraprofessionals are likely to become enculturated to in schools through policies, practices, and attitudes that promote disability as an objective fact: a perspective authoritatively reinforced by Individualized Education Programs (IEPs). In particular, IEPs can serve as institutional biographies of students, rooted in the legally mandated presumption that a student's disability can and has been identified as a deficit within the student (Boyd et al., 2015). Emphasizing how individual characteristics become constructed through culturally- and politically-based notions of ability and disability is essential for countering the medicalized approach to disability in schools that is grounded in identification and remediation processes that stigmatize students labeled with disabilities (Baglieri et al., 2011).

A second key component of the theoretical framing of this paraprofessional learning series is the introduction of inclusive education as a philosophical foundation of education. Inclusive education has frequently been conceptualized in research and practice as a development in special education that is chiefly concerned with physical placement of students identified as having disabilities and the delivery of services in schools (Baglieri et al., 2011). The content of our professional development series aligns with a contrasting view of inclusive education as an attempt to change the culture and pedagogy of schools and society towards the goal of countering patterns of exclusion for all students (Danforth & Naraian, 2016). We therefore present inclusive education as an educational foundation grounded in continual, critical inquiry into attitudes and practices that affect all students' access to meaningful and dignifying education.

Recognizing that many pre-service and in-service teachers do not get exposure to DSE concepts, the modules intentionally begin with that theoretical foundation. Providing opportunities for teachers to confront their own beliefs and biases is also a way of addressing attitudinal barriers; which according to inclusion research remain the most significant limitation to inclusive educational opportunities for students with disabilities (Elder et al., 2015). The topics of the first two modules are less about skill or strategies, and more about asking paraprofessionals to develop their "why"—their purpose for, and their commitment to—supporting students with disabilities inclusively in schools. Drawing on adult learning theory, the design of these modules recognizes and responds to the fact that learning is not passive and that adult learners want to have more opportunities for self-direction and ownership over their learning (Knowles, 1984).

Another important element of Knowles' (1984) theory of andragogy as it relates to adult education is that adults bring a wealth of knowledge to the learning process, including their own experiences of education and an understanding of themselves as learners. In fact, many educational professionals report personal experiences that led them to pursue a career in education. In a DSE-centered response, an individual's sense of purpose in the profession may be affirmed or challenged when reflecting from a social justice lens (Baglieri et al., 2011). Ultimately, the decision that paraprofessionals come to about this theoretical question is going to drive their practice with students, therefore it is necessary for them to personally and professionally grapple with their beliefs and the impact on students as an essential foundation for implementing educational supports and strategies.

In the following sections, we detail the content of each of the five modules that comprise this paraprofessional learning series. This article may be useful in conjunction with the online modules as (a) a deep dive resource for participants using the online learning series that might be interested in a supporting academic article, (b) an illustrative overview for administration considering options to meet the professional development needs of their faculty and staff and (c) a guide for teacher educators designing professional development opportunities that align with the goal of sustaining inclusive practices.

DESIGN OF THE MODULES

We organized the paraprofessional learning series described in this article into five asynchronous online modules that are aligned to the CEC's Core Competencies for paraeducators (2022). Our decisions around module design respond to the need for a professional development format that is flexible in terms of length, location, school schedules, and resources (e.g., access to research, supplemental materials, "deeper dive" activities). We intentionally crafted modules in alignment with adult learning theory (Knowles, 1984) with the intent that they involve active engagement with learning and application to their everyday job role experience. Specifically, each module contains opportunities for some kind of activity, reflection, or applied practice. Each module also contains optional deeper dive activities with format choices that are audio, video, and

TABLE 1: Professional Learning Modules

Module	Topics addressed	CEC Core Competency areas	Selected Practical Activities Embedded
1	Introduction to inclusive education; presuming competence; historical and legal foundations for inclusive education; new understandings of disability	(2) Learner Development and Individual Learning Differences (7) Collaboration with Team Members	-Guiding question: "Why did you become a paraprofessional?" -Resources on the disability rights movement and disability studies (e.g. the social model, understanding ableism)
2	Overview of learner development and characteristics	(2) Learner Development and Individual Learning Differences	-Video or text choice for understanding special education categories and inclusive classroom supports
3	UDL in the inclusive classroom; multiple means of: engagement; representation; action and expression	(4) Assessment (5) Instructional Supports and Strategies (7) Collaboration with Team Members	-Team action item–identify strength-based approaches, and teammates for collaboration -UDL examples, interactive guidelines, and the myth of average TedTalk video.
4	Specialized instruction for the inclusive classroom; legal foundations; modification of English Language Arts (ELA), math, science, and social studies	(3) Special Education Services and Supports in the Learning Environment (4) Assessment (5) Instructional Supports and Strategies (7) Collaboration with Team Members	-Create your own on-the-go modification bag for classroom use -Make content area modifications to implement in practice
5	Learning environments and behavior support; constructs of behavior in schools; multi-tiered systems of supports (MTSS); social emotional learning (SEL)	(1) Professional Learning and Ethical Practice (6) Social, Emotional, and Behavioral Supports (7) Collaboration with Team Members	-Planning humanistic support for a student, identifying need and action steps

text based and that allow for more in-depth exploration of topical content. We recognize the need for effective professional development (online or in-person) that goes beyond "sit and get" or "one and done" approaches to content delivery, to professional development that is relevant to educators current classroom needs and includes opportunities to plan for implementing new practices (Wilkin-son et al., 2021; Zarate & Barcus, 2022).

The needs of adult learners, in particular educational professionals, and the design of the modules is also aligned with UDL principles (CAST, 2021) to model the kind of learner-led experiences we aim to equip paraprofessionals with the tools to contribute to through their role as critical supports for students. Similarly to the way in which UDL aims to develop expert learners who are purposeful and motivated, resourceful and knowledgeable, and strategic and goal-directed, responding to adult learners creates an opportunity to build on adults increased self-direction and experience, to allow learners freedom to make learning choices that engage them in activity, reflection, and practice opportunities with attention to what and
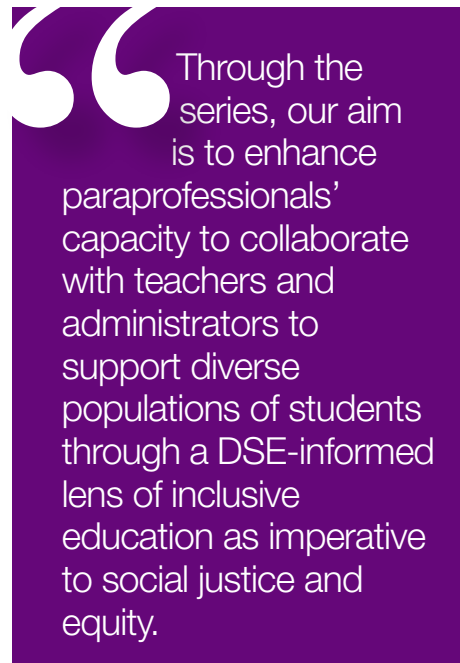
how they receive information. Thus, we designed the modules to model UDL with attention to the needs of educational professionals, while also modeling use of UDL in the delivery of the content. Our intent is that paraprofessionals will be able to experience relevant learning, make decisions in that learning, and take away specific skills or strategies that they can immediately apply in the field with their students.

Through the series, our aim is to enhance paraprofessionals' capacity to collaborate with teachers and administrators to support diverse populations of students through a DSE-informed lens of inclusive education as imperative to social justice and equity. See Table 1 for an overview of module topics, alignment to the CEC's Core Competencies (2022), and practical activities embedded in the modules. Each module consists of short (10-20 minute) captioned videos organized by theme, live links to supplementary resources (i.e., short articles, videos, podcasts, etc.) and instructions for "deeper dive" activities for participants to take ownership of their continued learning. Following each module, participants are prompted to take a brief multiple-choice assessment. Upon completion of all five modules, paraprofessionals receive a certificate documenting their participation.

Module 1: Introduction to Inclusive Education
Module 1A: Introduction

We begin the series by highlighting the problems inherent in exclusionary practices and placements for students with disabilities based on current data and the legal foundations of inclusive education. We discuss professional responsibilities of paraprofessionals, and explicitly situate collaboration among educational professionals as an imperative and expectation. A guided

> " Through the series, our aim is to enhance paraprofessionals' capacity to collaborate with teachers and administrators to support diverse populations of students through a DSE-informed lens of inclusive education as imperative to social justice and equity.

read of Van der Klift and Kunc (2019) asks paraprofessionals to (re)consider "helping" dynamics, with attention to how responses to disability in schools promote attitudes and actions that contribute to the degree to which students experience marginalization or belonging. Then, drawing on Kunc's (1992) seminal piece on belonging, participants consider how schools invert Maslow's hierarchy of needs (Maslow, 1970) by transposing Maslow's third and fourth levels (i.e., belonging, love, and self-esteem, respectively), thus creating contexts in which students must earn the right to belong. We emphasize that this reordering and exclusion occurs when schools fail to develop cultures of belonging, and, in particular, do not provide students with disabilities intentional opportunities to develop a sense of purpose as valued members of inclusive classrooms and school communities.

Module 1B: Inclusion and Presuming Competence

Carrying the thread of Kunc's (1992) foundational work, Module 1B begins by establishing shared understanding

that "When inclusive education is fully embraced, we abandon the idea that children have to become 'normal' in order to contribute to the world… We begin to look beyond typical ways of becoming valued members of the community" which ultimately supports the broader goal of cultivating "an authentic sense of belonging" for all children (p. 38-39). We invite paraprofessionals to consider this definition as a guide for their participation in the series and to do the necessary work of confronting assumptions about disability and difference. We then introduce the foundational concept of Donnellan's (1984) criterion of the least dangerous assumption which "holds that in the absence of conclusive data, educational decisions ought to be based on assumptions that, if incorrect, will have the least dangerous effect on the likelihood that students will be able to function independently as adults" (p. 141). This criterion urges educational professionals to resist deficit-based perspectives of students' capabilities and confront limiting constructions of intelligence. We detail ways that paraprofessionals can leverage instruction, environments and supports to reduce barriers to learning. This module concludes by emphasizing presuming competence (Biklen & Burke, 2006) — the assumption that each student has the ability to learn when given necessary support and opportunities–*as* the least dangerous assumption.

Module 1C: Historical and Legal Foundations for Inclusive Education

In order to understand more socially just ways of moving forward within the field of inclusive education, it is important to understand the history of marginalization of disabled people (Ferguson & Nusbaum, 2012). Understanding varied approaches to lan-

guage, such as person-first (people with disabilities) and identity-first (disabled people) frames is important for paraprofessionals because it is an aspect of disability rights that can inform the ways they interact with and about students. In this module, we discuss the Disability Rights Movement and its connection with other rights-based movements (e.g., Civil Rights Movement, Women's Liberation Movement) and the legal foundations for inclusive education.[4] By grounding in history and the law, we aim for paraprofessionals to recognize that discourse around inclusive education must not focus on *if,* but rather *how* students with disabilities will be included in general education classrooms.

Module 1D: New Understandings of Disability

Many educators have not been substantively exposed to ways of thinking about disability outside the predominant understanding of disability as a deficit. We support participants to expand their conceptualizations of disability in schools by introducing sociocultural perspectives of disability and offering explicit explanations for how such views build upon or contrast more conventional ideas. Module 1D introduces participants to the field of DSE and sociocultural perspectives on disability that have emerged from it. Drawing on inclusive teacher education texts by DSE scholars Baglieri (2017) and Baglieri and Lalvani (2019), we provide examples of a social model of disability and the many ways that ableism, or discrimination based on ability or disability, can manifest in schools (e.g., physical structures, attitudes, language). As a follow-up to the legal foundations addressed in the prior module, we introduce the idea of moving "beyond compliance:" striving for practices that

are not only compliant with the law, but that aim for dignifying access to the general education curriculum and classroom (Ben-Moshe et al., 2005).

Module 2: Learner Development and Characteristics
Module 2A: Learner Development and Characteristics Overview

The purpose of this module is to introduce paraprofessionals to characteristics often associated with students identified with disabilities, while recognizing the pitfalls of generalizations. Module 2A begins with a discussion of disability categories as defined in schools by the eligibility criteria for special education. We then ask paraprofessionals to consider both the beneficial functions (e.g., facilitating access to services) and potential harms of labeling students as having a disability (e.g., leading to an overemphasis on a child's inabilities). Through reflective prompts, we offer opportunities for participants to recognize that while disability labels communicate general information, they can be harmful if taken as the defining characteristics of students. We provide suggestions for participants to learn about students' individual needs and preferences through an ecological approach (i.e., attending to their behavior and performance in relation to aspects of the learning environment). Module 2A concludes by addressing the importance of moving away from deficit-based language (e.g., "suffers from") and euphemisms (e.g., "special needs student") towards person-first language, identify-first language, and language that emphasizes tools that students use (e.g., "student who uses a wheelchair").

Module 2B: Learner Development and Characteristics in the Classroom

In Module 2B, we offer more specific

strategies for responding to a range of student needs. We introduce a strengths-based approach as foundational to supporting students (Elder et al., 2018). Using a hypothetical IEP excerpt, we contrast a deficit-based description of a student to a strengths-based version. We highlight how deficit-based descriptions often focus on what the child is unable to do, make comparisons to students without disabilities, and overlook the impact of the environment or role of supports. In contrast, we demonstrate how a strengths-based approach identifies what a student *can* do, or is working towards, and emphasizes the impact of specific contexts and supports (i.e., tools, accommodations, modifications, and peer support) on the student's performance. Since paraprofessionals are likely to observe students across multiple environments, they are poised to note how students respond to the presence or absence of various supports. Using strengths-based approaches positions paraprofessionals as educational team members who can provide actionable input about adapting classrooms to support a student's meaningful participation and progress.

Module 2B also covers common academic and behavioral needs that paraprofessionals may support in the classroom. Drawing on Baglieri and Shapiro's (2017) DSE-informed approaches to creating inclusive environments, we highlight the following areas: literacy, mathematics, receptive and expressive communication, behavior (social and emotional), sensory, physical movement, and motor planning. For each area, we describe examples of characteristics and needs, followed by common supports (e.g., accommodations, modifications, assistive technology, related services). This content is intentionally organized around broad

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[4] For legal cases, see: Endrew F. v. Douglas County School District, 2017; IDEA, 2004; Girty v. School District of Valley Grove, 2001; Oberti v. the Clementon Board of Education, 1993.

areas of need, rather than specific disability labels, to reinforce the importance of resisting assumptions that all students identified with the same disability have the same needs. In each area we highlight practical examples of supports that paraprofessionals may implement.

Module 3: UDL in the Inclusive Classroom
Module 3A: Introduction to UDL

The purpose of Module 3A is to expose paraprofessionals to an overview of UDL (CAST, 2021) and offer insight into their role in incorporating UDL principles into practice in inclusive classrooms. UDL is commonly part of teacher preparation programs and professional development, but paraprofessionals often do not receive that same training. Because UDL can be applied across all educational environments to support inclusion of students with a diverse range of needs, understanding this framework can bolster collaboration between paraprofessionals and teachers in implementing inclusive practices. The aim of UDL is thus not to minimize difference but to (re)construct learning environments that welcome and enhance such diversity through incorporating flexibility and choice. DSE scholars have both embraced UDL and pushed the boundaries of its operationalization in inclusive education (Baglieri, 2020; Dolmage, 2015), however at its core there remains a commitment to "purposefully deploying UDL as counternarrative and radical multiplicity" (Baglieri, 2020, p. 64). Throughout these modules, we situate UDL as a DSE-aligned approach to proactively planning for learner variability as a means to more socially just, inclusive schools.

In Module 3A, participants reflect on their own learning experiences as an entry point to the three principles around which the UDL framework is organized: (a) Providing Multiple Means of Engagement, (b) Providing Multiple Means of Representation, and (c) Providing Multiple Means of Action and Expression, each of which we explore in sub-modules. We make clear that the UDL guidelines are not prescriptive. Rather, they offer places to start thinking differently about education, away from changing the learner and instead changing the environment. The module begins with an overview of UDL, starting with its origins in architectural universal design principles that aim to design physical spaces to meet the widest range of needs possible to reduce barriers to access (Meyer et al., 2014). Paraprofessionals then learn about the UDL Principles and their connection to "scientific insights into how humans learn" (CAST, 2018). Participants then consider the importance of proactively building in support and choice for all students, rather than retroactively modifying instruction for a few. We conclude with strategies for identifying common classroom barriers, navigating the interactive UDL guidelines, and collaborating with teachers to create more inclusive classrooms.

Modules 3B, 3C, and 3D: The UDL Principles

The remainder of the UDL modules offer in-depth overviews of each UDL principle, concrete examples for practice and opportunities to apply strategies to their work with students. The goal in each sub-module is for participants to dive deeper into the UDL principle and identify one strategy to integrate into their practice at a time. In this way, we draw on Tobin & Behling's (2018) "plus one approach" to encourage paraprofessionals to recognize areas where application of UDL will have the greatest impact within their sphere of influence (p. 169). At the end of each sub-module, we offer exploration activities, such as structured independent engagement with the interactive UDL guidelines (2018), and conversation starters for discussion with colleagues. We transparently provide participants with the chance to experience universally designed learning activities, while calling attention to the role UDL can play in deconstructing restrictive norms in schools. As integral members of educational teams, providing paraprofessionals tools to ground their practice in a UDL approach positions them to more effectively collaborate and creatively support a wide range of learners.

Module 4: Specialized Instruction for the Inclusive Classroom
Module 4A: Introduction and Legal Foundation

The purpose of Module 4A is to expose paraprofessionals to what specially designed instruction (SDI) looks like in practice and establish that all educational professionals share responsibility to remove barriers to participation for students with disabilities by routinely providing accommodations and modifications. To underscore the importance of providing accommodations and modifications we frame SDI through IDEA (2004) statute regulations which state,

Specially designed instruction means adapting, as appropriate to the needs of an eligible child under this part, the content, methodology, or delivery of instruction—
(i) To address the unique needs of the child that result from the child's disability; and
(ii) To ensure access of the child to the general curriculum, so that the child can meet the educational standards within the jurisdiction of the public agency that apply to all children. (Sec. 300.39 (b) (3) (i))

In addition to providing a legal grounding for SDI, we frame access to academic content through a DSE lens by emphasizing the need to remove barriers to participation for students

with disabilities in schools (Baglieri et al., 2011). Specifically, we discuss the ways that elements like unmodified schoolwork, deficit-based perspectives, untrained paraprofessionals, and rigid policies serve as barriers for students with disabilities. We emphasize that it is among paraprofessionals' responsibilities to change how they support students, rather than force students to adapt to the ways they prefer to offer support (Elder, 2020).

In this initial module, we introduce accommodations as adaptations that level the playing field in classrooms and offer examples within each of the areas that accommodations can change: (a) how materials are presented, (b) how students are to respond to instruction and show understanding, (c) where students are taught within inclusive classrooms, (d) how much time students have to complete tasks, (e) the order in which assignments are completed, and (f) how students keep themselves organized (San Francisco Public Schools, 2019; Vanderbilt University, 2021). We then make clear that while accommodations *do not* change what is being taught, modifications *do* change academic content (i.e., alter the playing field) and can be made across subject areas and activities. Given that paraprofessionals are often tasked with adapting content on the spot, we introduce the strategy of creating modification bags, or collections of supplies that are useful for making quick modifications. We then invite participants to create a modification bag with household items and/or supplies they have access to in school.

Modules 4B, 4C, 4D, and 4E: Content-Specific Examples of Modifications

In the remaining SDI sub-modules we break down specific modifications across curricula and make DSE-informed interdisciplinary connections to ELA, math, science, and social studies. We highlight examples like, (a) filling in one letter, rather than writing the entire word on a spelling test (ELA), (b) solving single-digit instead of triple-digit problems (math), (c) putting experiment directions in the correct sequence instead of filling out a lab worksheet (science), (d) identifying colors and cardinal directions on a map of the U.S. colonies instead of answering comprehension questions (social studies) (Vanderbilt University, 2021).

Module 5: Learning Environments and Behavior Support

Paraprofessionals serve in a range of roles related to implementing multi-tiered systems of support and students' IEPs including providing positive, consistent, respectful classroom learning environments (Bambara et al., 2015; Darling-Hammond & Cook-Harvey, 2018; McLeskey et al., 2017), supporting co-teaching (Friend, 2014), removing academic and environmental barriers to access and inclusion (CAST, 2018), conducting systematic evaluation for behavior support plans (Bambara et al., 2015; Downing et al., 2015); as well as utilizing strengths-based approaches (Elder et al., 2018) and restorative practices (Smith et al., 2015). This culminating content is delivered as one module that draws on prior learning and highlights current frameworks to underscore the importance of understanding and supporting student behavior and wellness as fundamental to the paraprofessional role.

Module 5 Part I: Multi-tiered Systems of Support (MTSS)

MTSS "is a data-driven, problem-solving framework to improve outcomes for all students" that relies on use of evidence-based practices (Center on Positive Behavioral Interventions and Supports, 2021, para. 1). Response to Intervention (RtI) and Positive Behavioral Interventions and Supports (PBIS) are examples of MTSS centered on academic instruction and behavior, respectively. These tiered intervention-based frameworks are designed to help educators assess the needs of all students and responsively provide differentiated levels of support, which also impact the responsibilities of paraprofessionals. Yet social norms around how behavior is understood inextricably influence the policies and practices used to respond to behavior in schools. DSE-informed approaches to inclusive education require more critical ways of understanding and supporting behavior. While MTSS models have seen some positive outcomes such as increased academic achievement and reduced suspension and dropout rates (Center on PBIS, 2021), there has also been overgeneralized application of these systems (Ferri, 2015). DSE scholars have raised concerns about how these missteps have re-inscribed racism and ableism through inequitable practices and may undermine inclusion (Bornstein, 2017; Ferri, 2012). Thus, part of this module involves a metacognitive activity in which participants identify their assumptions about behavior. Recognition that behavior is both socially constructed, and a form of communication serve as foundational ideas for this portion of the learning series.

Module 5 Part II: Social Emotional Learning (SEL)

We draw on the Collaborative for Academic, Social, and Emotional Learning's (CASEL) framework for applying evidence based SEL strategies which utilizes the relational ecology of schools (Brown, 2018). CASEL's framework revolves around five key competencies: (a) relationship skills; (b) social awareness; (c) self-awareness; (d) self-management; and (e) responsible decision-making. CASEL cornerstones its work on making "evidence-based social and emotional learning an integral part of education" so that all students have foundational skills needed to grow their social and emo-

tional lives and develop relationships in our increasingly complex world (2021, n.p.). We introduce paraprofessionals to SEL elements through a multi-tiered support model where Tier 1 (base) begins with building positive relationships and designing culturally responsive supports so that all students have opportunities to practice identifying emotions and managing responses or actions. We emphasize the importance of these supports in centering the potential of SEL to "... address various forms of inequity and empower young people and adults to co-create thriving schools and contribute to safe, healthy, and just communities" (CASEL, 2021).

Module 5 Part III: Behavior Support

Throughout this module, we encourage paraprofessionals to consider the communicative intent of students' behaviors and identify actionable next steps for supporting their students in restorative ways. We offer examples, discussion prompts and resources that center humanistic behavior supports (Causton et al., 2015) such as utilizing students as collaborative problem solvers, providing choice, and acting from a place of curiosity, empathy and care. We conclude with an activity that asks participants to identify a behavior of a specific student and reflect on: questions to enhance their own understanding of the behavior, collaboration opportunities, and strategies that simultaneously support the student's needs while maintaining their dignity. It is our hope that with this concluding synthesis activity, paraprofessionals draw on the content of this module, as well as their learning throughout the entire series, to recognize barriers, center students' identity and strengths, and plan proactively.

EXAMPLE APPLICATION OF THE PROFESSIONAL DEVELOPMENT SERIES

As special education faculty associated with a Professional Development School (PDS) District, we had the opportunity to bring this paraprofessional learning series to district and building level administration in three partner schools. Noting the value of providing this professional development to all paraprofessionals, administration committed to integrate the series into their professional development offerings across the three schools. This commitment involved: (a) informing faculty and staff, (b) scheduling time and space for paraprofessionals to devote to the training during paid PD hours (e.g., during minimum days for parent-teacher conference week), and (c) coordinating use of district laptops for large group training in each building. The asynchronous modules allowed participants to work at their own pace while also fostering a shared professional development experience and space for collaborative dialogue. The existing district-university partnership meant that paraprofessionals had the added benefit of opportunities to engage with some of the faculty module designers, who maintain a regular presence on site as part of their role bridging research and practice. This field-based application created space to implement theory to practice in a local school district. As PDSs that host clinical interns, this implementation of the professional development series for paraprofessionals further strengthened connections between what preservice teachers saw in their practicum experiences and what they were learning about in their DSE-oriented coursework. This example application modeled whole-school approaches to collaboration and continuous learning opportunities for all educational professionals.

While district-provided laptops and a common space in which paraprofessionals could progress through the modules at their own pace and bounce ideas off one another was good in theory, in practice it provided unanticipated challenges. At both school sites where we piloted the modules, some paraprofessionals could not attend each day of professional development, so they had to find time throughout subsequent school days to complete the modules. Additionally, some paraprofessionals were not as experienced with technology and online learning, so their pace was slower, and some did not complete the modules even though they attended each day of professional development. This meant they also had to find additional time to complete the modules during a future school day.

Also, at one school where we piloted the professional development modules, one paraprofessional skipped ahead in the modules and just completed the quizzes. This paraprofessional then proceeded to encourage other paraprofessionals to do the same to finish the modules in a shorter amount of time, thus negating the entire purpose of providing time for paraprofessionals to complete the professional development. The mandate for short-form, autoscored, multiple choice module quizzes was a barrier imposed by the professional development request. To support these issues we found it useful to pause the professional development, bring everyone together and discuss the ways in which paraprofessionals can and should engage with the content in order to gain the most from experience. Centering students with disabilities and how they can benefit from paraprofessionals taking up the module content and applying it in their school helped refocus the group on professional development goals. Opportunities also arose during implementation which were made possible by the fact that paraprofessionals were working through the online learning modules flexibly, but in a shared space. At another school where the pilot occurred, when paraprofessionals finished segments some of them moved into unprompted reflective discussions with each other and/or with the facilitator. In

one instance, the modules helped a paraprofessional make sense of her students' rights, but also raised a question for her about how a school incident was being handled with her child. She expressed that her new knowledge of the legal foundation and potential supports could assist her in navigating this situation with the school on behalf of her child.

From the pilot implementation, we share a few of the lessons learned from these challenges which might be helpful to others. We felt there needed to be some additional structure to how paraprofessionals started and completed modules. For example, we could have done a very short mini-lecture on module content before having paraprofessionals work on them independently. This could keep everyone on track and authentically engaging in module tasks while facilitators check more individually on each paraprofessional's progress. For those who finish the module early, they could be redirected to engage in a "deeper dive" activity or invited to a facilitated debrief discussion. We could also consider a semi-structured agenda for each day where paraprofessionals were engaging with one to two specific modules each day, thus allowing for flexible individual pacing, but mitigating the urge to rush through all five modules to completion. Another consideration could be to end each day with a reflective question or action idea from the embedded activities that could be used as a launch to start the session the next day. These adjustments would model differentiated learning related to the content, create an action-oriented element of accountability, and respond to the need for active self-directed learning for educators that is underscored in the literature, and reinforced from our pilot implementation.

IMPLICATIONS AND CONCLUSION

Our aims in writing this article include offering a resource to accompany to the learning series, as well as providing special education faculty and school administrators with a resource to conceptualize how to align professional development for paraprofessionals with current trends in teacher education, enhance consistency across educational teams and contribute to inclusion of students with disabilities in schools. By explicating our module design we offer a model for filling a need in an area where there has been limited training and/or professional development provided.

Paraprofessionals who take up these DSE-informed perspectives and inclusive approaches in their practice are positioned to view disability as a valuable form of diversity and consider students through a lens of competence and possibility. As such, paraprofessionals may develop stronger relationships with students with disabilities and their families and understand how to provide more equitable opportunities to those that they serve. We hope that paraprofessionals who engage with this content will recognize these approaches as social justice imperatives, and thus be more likely to implement DSE-informed inclusive practices on an ongoing basis. Providing this type of professional development may also support paraprofessionals to become more informed and inclusive practitioners, which may in turn develop their sense of professional purpose and belonging in the field.

Students with disabilities may be better supported in classrooms informed by consistency across teacher preparation and in-service professional development. Paraprofessionals with more robust professional development on inclusive practices may be able to collaborate more actively alongside special education teachers as members of educational teams, increase the independence (and interdependence) of students with disabilities in general education classrooms, and offer more global support to *all* students in any given setting.

As teacher educators, we know the importance of providing pre-service and in-service educators with models of inclusive content they can use to assist paraprofessionals in dissolving the barriers between special and general education in their respective school sites. New teachers need to be prepared to take up the collaborative expectations and support of paraprofessionals in applying DSE-informed inclusive practices, which can ultimately, and most importantly, increase access and achievement of all students in inclusive classrooms (Giangreco et al., 2010).

For administrators and school districts, this particular professional development option for paraprofessionals is not only free of charge, but offered in a flexible format conducive to tailoring to school district calendars. Ultimately, professional development opportunities that enhance paraprofessionals' role in sustaining inclusive education within an equity-oriented DSE framework can contribute to more cohesive practice, foster a culture of schooling that cultivates collaboration across educational teams, and increase time that students with disabilities spend in general education classrooms with necessary and respectful supports.

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Building More Flexible Special Education Teachers: UDL Integration in a Dual-Licensure Program

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ABSTRACT

In this article, we describe how our general and special education faculty collaborated to infuse the Universal Design for Learning framework into our special education preparation program, a dual-licensure special education and elementary education (K-6) undergraduate degree program. We describe the curriculum reform processes and outcomes of the UDL curriculum enhancement project, along with specific examples from multiple courses. Additionally, we highlight the need to continuously evaluate such efforts so that areas for improvement can be identified and addressed. For instance, we realized that our teacher candidates still needed more support to transfer what they learned about UDL from their coursework to their planning and practice in student teaching. In sum, we did not just create a plan, implement it, and consider it completed. We recognized a gap in the original plan, made improvements, and re-assessed, just as we would expect our teacher candidates to do when evaluating their own practice.

KEYWORDS
curriculum reform, dual licensure, preservice teacher preparation, Universal Design for Learning (UDL)

General education teachers are serving increasingly academically diverse classrooms across the United States, with more teachers indicating they are not as prepared to meet the varying-student needs (Bruggnick et al., 2015; Leko et al., 2015). Educator preparation programs (EPPs) have attempted to respond to the changing dynamics by creating coursework and programming designed to better prepare future educators to teach students with disabilities and all those who experience academic barriers in the learning process (Blanton & Pugach, 2011; Howerter et al., 2022; Tristani & Bassett-Gunter, 2020). Some EPPs have adapted by adding special education coursework to their general education curriculum, while others have moved to a blended approach, merging both general education and special education programming into a dual-licensure degree (Blanton & Pugach, 2011). Our educator preparation program already comprised a blended, dual-licensure degree, so a different approach was needed, and one that could provide a model for other EPPs in strengthening educator development.

In 2015, our teacher education department applied for and received a grant from the Collaboration for Effective Educator Development, Accountability, and Reform (CEEDAR) Center allowing us to implement a curriculum enhancement aimed at better preparing our program graduates to effectively teach students with varying needs while also guiding other institutions of higher education (IHE) interested in similar teacher education reforms. The CEEDAR Center, which operates through funding from the Office of Special Education Programs, provides technical assistance to state departments of education and IHEs across the country to build capacity among personnel preparation systems by preparing teachers and leaders to more effectively prepare students with disabilities to meet college and career readiness standards (CEEDAR Center, 2020). A team of four faculty

members (three special education, one science education) led the grant project and facilitated the curriculum enhancement process. In essence, our mission was two-fold: a) develop a model for collaborative cross-disciplinary reform in teacher education, and b) use the model to integrate Universal Design for Learning (UDL) into curricula for our two largest initial teacher certification programs: a dual-licensure (special education and elementary education) program and an elementary education licensure program. On average, about 50 dual-licensure candidates and 20 elementary education candidates graduate each year from our regional comprehensive university, which is situated in the southeastern US.

UDL is an educational framework that focuses on research-based practices that use flexible methods for optimizing teaching to meet the learning needs of increasingly diverse classrooms (Capp, 2017; Katz, 2015; Ok et al., 2017). The idea when planning with UDL is that barriers exist within the standard curriculum and teachers can minimize such barriers, thereby improving the academic outcomes for all students. UDL consists of three instructional principles which include: (a) varied ways of representing information, (b) multiple options for students to express their learning, and (c) flexible methods of motivating students to engage in the learning process (Meyer et al., 2014). Teachers can incorporate the three principles to proactively reduce learning barriers in the curriculum and increase student engagement through lessons that provide support and flexibility with the use of materials, technology, and classroom learning environments (Lohman et al., 2018). UDL is identified in the most recent federal legislation, the Every Student Succeeds Act (ESSA, 2015), where the expectation is that teachers

can support the learning of all students by using UDL in assessment, instruction, and technology (CAST, 2016).

UDL CONTENT IN TEACHER PREPARATION PROGRAMS

Whether students have an identified disability or not, many teachers feel unprepared to identify specific student learning needs and support those needs through appropriate instruction (Cameron & Cook, 2007; Ross-Hill, 2009; Ruppar et al., 2016). The lack of adequate preparation for teaching students with disabilities may even contribute to increased rates of teacher turnover (Gilmour & Wehby, 2020). McCray and McHatton (2011) reported that teacher preparation programs do not prepare general education teachers with sufficient skills to meet the needs of today's diverse learners. Meanwhile, Vitelli (2015) found that few teacher preparation programs have integrated UDL into their curricula despite research indicating an improved selection of strategies among the lesson plans of general and special education candidates when programs infuse UDL into their curricula (Frey et al., 2012; Kahn et al., 2017; Reinhardt et al., 2021; Spooner et al., 2007; Williams et al., 2012). Evans et al. (2010) noted that integrating UDL was their solution to preparing effective special education teachers for increasingly diverse, under-resourced rural communities. Flanagan et al. (2022) even suggested implementing UDL practices in online course content for special education teachers by requiring candidates to first identify learning barriers and then add UDL practices in a graduated and purposeful manner. Likewise, Walker et al. (2022) incorporated UDL to create a more inclusive and cohesive curriculum in their small special education preparation program.

Our teacher education department wanted to be similarly systematic in

our approach to infusing UDL into our curriculum, therefore we used the UDL innovation configuration (Israel et al., 2014) to guide our process. The UDL innovation configuration provides a comprehensive set of implementation recommendations for general and special education teacher preparation programs. According to this framework, teacher preparation programs should help candidates to develop both a deep understanding of the purpose and structure of the UDL framework as well as a set of skills related to planning instruction using the UDL framework. The essential UDL understandings identified in the UDL innovation configuration include ideas such as the proactive implementation of the UDL framework can improve the learning of students with varying needs across K-12 instructional contexts. The authors of the UDL innovation configuration further recommend that teacher preparation programs carefully support the candidates' translation of knowledge into practice in coursework and clinical experiences to ensure that they develop specific instructional planning skills. These skills include using the UDL principles, guidelines, and checkpoints to design accessible instruction and learning environments as well as using evidence-based practices and progress monitoring to maximize learning.

UDL CURRICULUM ENHANCEMENT PROCESS

Using a faculty-led learning community (FLCs) as our approach to supporting effective cross-disciplinary collaboration (Moore & Carter-Hicks, 2014), the general education and special education faculty in our department decided to integrate UDL across the 17 common courses and clinical experiences in the two programs (Whinnery et al., 2020). In our case, we used the CEEDAR grant opportunity to target cross-disciplinary collaboration since faculty in our depart-

FIGURE 1: Example Course Enhancements

Course	UDL Activities
Assessment	Use what you learned from the article to guide your assessment and analysis of the child's performance, curriculum, and instructional setting. CAST. (2020). *UDL tips for assessment.* Author. Retrieved from https://www.cast.org/products-services/resources/2020/udl-tips-assessments
Classroom environment	Use what you learned from the article to describe how you will organize your classroom to maximize academic engagement Minero, E. (2015, August 5). *Flexible seating elevates student engagement.* Edutopia. https://www.edutopia.org/practice/flexible-classrooms-providing-learning-environment-kids-need
Teaching English speakers of other languages (TESOL) methods	Based on the lesson, identify what guidelines are already incorporated into this lesson and how. What guidelines you could incorporate to help your English learner (EL) better understand the content and the process and by doing what?
Social studies methods	Modify history, civics, and multicultural activities to incorporate the guidelines (and checkpoints) for one or more of the UDL principles.
Mathematics methods	Identify and explain how you can use multiple means of representation such as a physical model, game, or technology to teach the mathematical concept.
Literacy methods	Administer assessments, create lesson plans based on assessment data, conduct lessons, and reflect on lesson outcomes during a clinical experience tutoring an elementary student in reading. Using the Universal Design for Learning (UDL) Guidelines, candidates reflect on their clinical experience.

FIGURE 2: Example Explicit Connections Between the 5E Instructional Model and UDL framework

PHASE OF 5E MODEL	UDL FRAMEWORK CHECKPOINTS
Engage: Find out what students may know and provoke curiosity about the lesson topic	7.2: Optimize relevance, value, and authenticity 3.1: Activate or supply background knowledge
Explore: Guide student exploration of phenomena through hands-on/virtual activities	2.5: Illustrate through multiple media
Explain: Debrief students on their explanations and evidence and introduce new concepts and terms	3.3 Highlight patterns, critical features, big ideas, and relationships 2.1 Clarify vocabulary and symbols
Elaborate: Guide student practice and application of new knowledge/skills	3.4 Maximize transfer and generalization
Evaluate: Assess student learning using various means both during and at the end of the lesson	8.4 Increase mastery oriented feedback

ment expressed the desire to integrate course content across disciplines in an intentional manner. Despite our department providing a dual, elementary education and special education degree option, our faculty historically operated in *silos* with limited collaboration across disciplines. Guided by the UDL innovation configuration (Israel et al., 2014), our general and special education faculty were able to collaboratively develop a common understanding of the UDL framework and systematically enhance courses throughout the program to (a) build student understanding of the UDL framework in foundational coursework; (b) provide clear examples of UDL applications across various instructional contexts in methods coursework; and (c) design practice opportunities for teacher candidates to use the UDL guidelines and checkpoints to address student variability in clinical experiences. Faculty worked together to study the UDL framework and innovation configuration before enhancing their courses with added instructional materials and activities related to UDL in their courses.

Course Enhancement Examples

Due to the large numbers of non-traditional students (e.g., working parents, para-professionals) and transfer students in our programs, we do not utilize a cohort model or hold our students to a strict course sequence. Instead, we provide a suggested course sequence to assist candidates with completing their programs in a timely manner. Elementary education and dual certification candidates are encouraged to complete the Educational Foundations course in either the first or second semester of their junior year. The IRIS UDL module (IRIS Center, 2016) was embedded in the Educational Foundations course to provide an introduction to the three UDL principles and how they could be applied to design curricula. More specifically, the IRIS module focuses on how the

UDL framework can be applied to the four main curricular components (i.e., learning goals, instructional materials, instructional methods, and assessments) to meet the learning needs of all students in the general education classroom. After completing the module, candidates completed a quiz assessing their knowledge.

We advise candidates to complete the content area methods courses (e.g., math methods, science methods, social studies methods) in the second semester of their junior year or the first semester of their senior year. In these courses, faculty provide the IRIS UDL module along with additional options [e.g., UDL at a Glance video (CAST, 2016)] as a review of introductory UDL content. Each faculty member also created activities and assignments to encourage candidates to make connections to UDL in their individual courses as shown in Figure 1. More specifically, in the science methods course, teacher candidates identify examples of explicit connections between the UDL framework and the 5E framework, a research-based instructional model for facilitating inquiry-based science instruction (Bybee et al., 2015). Figure 2 contains examples of the explicit connections between the UDL framework and the 5E model shared by candidates in class discussions. Candidates also use the UDL framework to consider additional ways to address learner variability and maximize engagement and learning in class activities and when independently designing 5E lessons for their summative course assessment.

Assessing the Curriculum Enhancement

In order to examine the impact of our curriculum enhancement, we reviewed 20 randomly selected pre and post-lesson plans (10 pre and 10 post) from two groups of about 70 candidates enrolled in student teaching, the culminating clinical experience in the final semester

of their degree program (Whinnery et al., 2019). The pre-enhancement group completed student teaching in fall 2016 and the post-enhancement group completed student teaching in spring 2018. Our university provided a general lesson plan template with sections for goals, methods, materials, and assessment as well as differentiation for all clinical experiences. At the time of the lesson plan review, the lesson plan template did not specifically prompt candidates to identify or address potential learning barriers using the UDL framework.

Our UDL team assessed the use of UDL within the lesson plans. We individually identified evidence of UDL checkpoints addressed within the 20 pre and post-lesson plans. Then we met as a group, discussed each lesson plan, and reached an agreement on whether the identified strategies were aligned with the UDL checkpoints. During these discussions, we often went back to the explanations and examples of UDL checkpoints on the CAST website to clarify our own understanding and help us to reach consensus on the match between a given strategy and checkpoint.

UDL CURRICULUM ENHANCEMENT RESULTS

The lesson plan analysis revealed that both pre and post-enhancement groups integrated some strategies aligned with the UDL framework. Checkpoints such as activating prior knowledge, offering guided practice, providing mastery-oriented feedback, clarifying vocabulary, and reducing distractions (UDL checkpoints 2.1, 3.1, 5.3, 7.3, and 8.4) were common across both groups. Figure 3 contains examples of common UDL checkpoints from our candidates' lesson plans.

However, following the curriculum enhancement, teacher candidates more often incorporated strategies such as offering alternatives for auditory information, highlighting critical

FIGURE 3: Examples of Common UDL Checkpoints From Pre- and Post-Lessons

UDL CHECKPOINTS	LESSON PLAN EXAMPLES
2.1 Clarify language and symbols	"Tell them that when we don't get along with others, a *conflict,* or a disagreement, can occur. Sometimes a third party may need to i*ntervene,* or get involved, to help solve the disagreement." (Post-lesson 1)
3.1 Activate background knowledge	"We have been learning about energy this week, and yesterday we learned about what changes energy can cause. Today we are going to be focusing on electricity." (Pre-lesson 1)
5.3 Build fluencies with graduated levels of support for practice and performance	"I will provide additional support for my two students who have trouble with number identification as I walk around the class observing. I will remind these students that they have a number line on their name tag and that they can use their 'magic finger' to track the numbers (just as we track when reading) to identify the numerals." (Pre-lesson 6)
7.3 Reduce threats and distractions	"They have the incentive of a group challenge to earn extra tickets for their group that can be used to 'purchase' things like lunch with a teacher, sitting in the teacher's chair, homework passes, and other desirable privileges. I will be keeping track of the groups, giving points to the groups as they work if they are on task." (Pre-lesson 1)
8.4 Increase mastery-oriented feedback	"On the activity sheet, students will label the parts of the plant and list three needs that a seed must have to grow. I will check for accuracy and assist any learner that needs remediation." (Pre-lesson 7)

FIGURE 4: Examples of UDL Checkpoints More Commonly Found in Post-Lessons

UDL CHECKPOINT	LESSON PLAN EXAMPLES
1.2 Offer alternatives for auditory information	"I will hold up the number word card 'Eighteen.' I will have the students say aloud what the card says. I will then place red/yellow counters under the document camera and I will have the class count along with me to 18." (Post-lesson 6)
3.3 Highlight patterns, critical features, big ideas, and relationships	"Generate words and phrases related to getting along with others. Model adding them to a graphic organizer." Candidate included an example concept map for "getting along." (Post-lesson 1)
8.3 Foster collaboration and community	"I will assign roles to each group member. One student will read the question and answer aloud, another student will write the answer and text evidence that the group agreed upon, and the last student will report the group's findings to the class." (Post-lesson 7)

features and patterns, and supporting peer collaboration (UDL checkpoints 1.2, 3.3, and 8.3) than candidates in the pre-enhancement group. Figure 4 highlights examples of checkpoints regularly implemented in the post-lesson plans. Contrary to the incorporation of additional elements of UDL in the post-enhancement curriculum, candi-dates rarely addressed many of the critical checkpoints for student engagement and action and expression.

CLOSING THE THEORY-TO-PRACTICE GAP
Senior Seminar

Based on the disparities identified in the lesson plan analysis, we realized that our teacher candidates needed more support to transfer what they learned about UDL from their course-work to their planning and practice in student teaching. In order to address this theory-to-practice gap, we designed a new session for student teachers in the corequisite senior seminar course. During the session, the instructor

FIGURE 5: Example Lesson, Class Profile, and Learning Barriers

Third Grade State Science Standard: Explain that stars can be different; some are smaller, some are larger, and some appear brighter than others; all except the Sun are so far away that they look like points of light.

Lesson Description:
1. Ms. Astro shows a Crash Course Kids YouTube video, "What are stars?" The video explains that stars can vary in size, color, and brightness.
2. Volunteers read sections from the textbook chapter, "What are the Sun and stars?" aloud for the class.
3. Students highlight the definitions of important terms as they read.
4. Students answer a few questions in their science notebooks such as, "Compare and contrast the Sun with other stars in the sky."

Class Profile:
- 3rd grade (10 boys, 8 girls)
- 6 students have IEPs (for SLD, ASD, and SI/LI) with varying levels of proficiency.
- 1 student has a 504 Plan addressing attention issues and on-task behavior. On-grade level in all academic areas.
- Remaining 11 students range from below to above grade level in all academic areas.

Possible Learning Barriers:
- Students may be overstimulated by the video and effects.
- Students are easily distracted by non-relevant information.
- Students may have difficulty understanding the speaker due to speed.
- Students may have difficulty reading grade-level text.
- Students may have difficulty writing complete responses in notebooks.
- Students may not have background experience in sky-gazing.
- Students may become frustrated with the pace of the lesson. Some may finish early. Some may require extra time.

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briefly reviewed the UDL framework and the UDL lesson planning process (Ralabate, 2016), and modeled how to identify and address learning barriers in various content area lessons. Student teachers then completed a guided practice activity in which they anticipated possible learning barriers given descriptions of "typical" general education lessons and a profile of a class of diverse learners (see Figure 5). They completed this activity in small groups composed of both elementary education and dual-licensure candidates. Next, the student teachers selected one learning barrier and used the UDL framework to identify possible strategies to minimize that learning barrier in small groups. The following UDL planning tool (Sadler et al., 2016) was provided to guide their thinking (see Figure 6). Finally, the student teachers identified learning barriers and logical strategies based on the UDL framework in their individual lesson plans and unit plans for their formal observations. The UDL planning tool was added to the general lesson plan template for all student teachers.

Professional Development for Clinical Faculty and Cooperating Teachers

We realized that our clinical faculty and cooperating teachers had an essential role in guiding our candidates through the UDL lesson-planning process. They were the ones to review candidates' lesson plans, observe their teaching, and provide mastery-oriented feedback on their plans and practice. Although two clinical faculty members had participated in the curriculum enhancement process and one was a member of the UDL team, several new faculty and adjunct faculty had joined the clinical team in the meantime. Therefore, we offered a UDL refresher workshop in spring 2021 to review the UDL framework and clarify the specifics of the UDL lesson planning process for all of our clinical faculty.

In addition, we facilitated two-day UDL professional development workshops for cooperating teachers hosting our student teachers in the summers of 2021 and 2022. Both the workshops for clinical faculty and cooperating teachers highlighted the observed gaps from the lesson plan review (e.g., lack of support for executive functioning) and focused on selecting appropriate strategies to minimize barriers using the UDL framework. Clinical faculty and cooperating teachers also practiced matching barriers and strategies aligned with UDL checkpoints (see Figure 7) and using the UDL planning tool to identify logical strategies to reduce barriers in example lessons. Finally, clinical faculty and cooperating teachers in their respective workshops role-played how to provide feedback to teacher candidates so that they would deepen their knowledge of student variability and consider a wide range of strategies to reduce barriers in their lessons.

CONCLUSION AND IMPLICATIONS

Our attempts to integrate UDL into our preservice teacher education program highlighted challenges in the areas of faculty collaboration and continuous improvement related to internal and external priorities. Despite our department providing a dual, elementary education and special education degree option,

FIGURE 6: Example Completed UDL Planning Tool

Learning Barriers	UDL Principles	UDL Guidelines and Checkpoints	Strategies
Students are easily distracted by non-relevant information.	Engagement	Guideline 7: Recruiting interest Checkpoint 7.3: Minimize threats and distractions	Cue up the video so that it begins where the presenter discusses the question "What are stars?" (00:27). Pause the video after about thirty seconds to invite all students to discuss the information they recall hearing with their shoulder partners.
Students may not have background experience with star-gazing	Representation	Guideline 3: Options for Comprehension Checkpoint 3.1: Activate or supply background knowledge	Provide a virtual stargazing experience Time-lapse video Planetarium software (e.g., Stellarium)
Students may have difficulty writing complete explanations in science notebooks.	Action & Expression	Guideline 5: Options for Expression and Communication Checkpoint 5.2 Use tools for Construction and Composition	Provide sentence starters for notebook entries. Allow students to use speech to text feature in Google Docs to compose entries.

our faculty mostly operated in *silos* with limited collaboration across disciplines. The UDL curriculum enhancement process compelled our faculty to share expertise across courses (e.g., math methods, science methods, TESOL methods, and special education) and clinical experiences while simultaneously forcing faculty members out of their comfort zones by allowing access to courses for collaboration among the FLCs and critical friends. In doing so, we created a shared vision and common language of UDL and what that should mean within our individual courses. This breaking down of our own barriers allowed us to make substantial changes across the program by working collaboratively in a coordinated manner, providing preservice teacher candidates with opportunities to practice planning and implementing with UDL in mind (Israel et al., 2014). This experience demonstrates the power of collaboration across disciplines in teacher preparation and models a systematic approach of sharing perspectives that supports the development of effective inclusive educators.

This systematic enhancement approach assisted the department faculty in addressing both internal and external priorities. The faculty were united in their commitment to preparing new teachers who could provide flexible, supportive instruction for all learners. The enhancement process was in all possibility as successful as it was due to their commitment to continuous improvement in this focus area. Additionally, the description of the enhancement process provided rich evidence for the upcoming Council for the Accreditation of Educator Preparation (CAEP) accreditation self-study and formative review. In particular, the faculty were able to highlight how the department "systematically, and continuously assesses performance against its goals and relevant standards, tracks results over time, documents modifications and/or innovations and their effects on EPP outcomes" (CAEP, 2020). In retrospect, while maintaining CAEP accreditation was certainly important to the faculty (and their institution), the faculty's genuine desire to improve the teaching effectiveness of their candidates was the greatest driving force in the change process.

Perhaps the most important implication of our UDL curriculum enhancement was our recognition of the continuous improvement needed within the model. We began with a plan to intentionally implement UDL throughout our program and then measure the impact on candidate lesson planning as a consequence of those enhancements. However, an initial sampling of candidate lesson plans did not demonstrate the impact we had hoped for. A gap was identified within our enhancement plan and an additional layer of support for our students was implemented in the senior seminar. In a sense, we evaluated our program, made intentional actions to improve the quality of coursework in our program using UDL, and then made adjustments to our plans after further evaluating the results. Such continuous improvements in higher education are made amid a delicate balance of administrative support and

FIGURE 7: Expression Checkpoints Card Sort Key

Barrier 1: Some students struggle to complete their notes due to writing fatigue. **Matching strategy: H**	**Strategy A:** Provide formative feedback that helps students reflect on their own progress so they can use that information to guide their practice and use of reading strategies. (Checkpoint 6.4)
Barrier 2: Some students struggle with how to get started to achieve a goal (e.g., improving fluency in multiplication). **Matching strategy: D**	**Strategy B:** Put a box around irregular shapes. (Checkpoint 4.1)
Barrier 3: Some students struggle to cut out irregular shapes. **Matching strategy: B**	**Strategy C:** Provide multiple exemplars and vary scaffolding (e.g., writing frames) based on the needs of the learners. (Checkpoint 5.3)
Barrier 4: Some students have poor spelling and grammar skills and struggle to prepare and present a report. **Matching strategy: F**	**Strategy D:** Provide a guide for developing short-term action steps to reach a goal (Checkpoint 6.2)
Barrier 5: Students vary in their writing skills (i.e., some are able to write a full essay while others struggle to compose a single paragraph). **Matching strategy: C**	**Strategy E:** Teach students how to make an outline of key information from their notes (Checkpoint 6.3)
Barrier 6: Some students have difficulty writing goals to address identified weaknesses. **Matching strategy: G**	**Strategy F:** Allow students to use spell-checking software and/or web applications like Grammarly. (Checkpoint 5.2)
Barrier 7: Some students don't understand what to do differently to be more successful readers. **Matching strategy: A**	**Strategy G:** Provide examples and graduated scaffolds of a goal-setting process (Checkpoint 6.1)
Barrier 8: Some students have trouble pulling information from their notes and using it to complete a research project. **Matching strategy: E**	**Strategy H:** Allow students to use their Chromebooks to complete their notes (Checkpoint 4.2)

the academic systems within, such as the recognition of underlying cultures within our department and the usefulness of the objectives being implemented (Temponi, 2005). Not only was our administration fully supportive of our UDL initiative, our faculty believed UDL was a useful approach to improving candidate planning and preparation for teaching diverse learners. In order to move forward, they shed their underlying cultures of working in silos and fully engaged in cross-disciplinary collaboration through FLCs and critical friends. This willingness to implement curricular decisions in a meaningful way is unlike the norm in higher education (Hilliger et al., 2022), where teaching staff are often said to feel powerless and left out of curricular decision-making (Vican et al., 2020). When teaching staff are included in continuous improvement though, they become more involved in reform efforts (Manteufel & Karimi, 2021) as was the case with our enhancement. Secondary to the cross-disciplinary curricular enhancement was our recognition to assess outcomes and implement alterations as needed. We did not set forth a plan, implement it, and consider it completed. We recognized a gap in the original plan, made improvements, and re-assessed, just as we would expect our teacher candidates to do when evaluating their own practice. This form of program evaluation placed us in a unique position to better meet internal and external accountability standards for continuous improvement. Going forward, we hope to continue our work to advance other priorities in our department and conduct research on the long-term impacts of the UDL curriculum enhancement on our teacher candidates.

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A Scaffolded Model for Preparing Doctoral Students to Teach in Higher Education

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ABSTRACT

Even though effective teaching is required when doctoral students assume positions in higher education, few doctoral programs have courses or formalized experiences designed around pedagogy for undergraduate and graduate students. The lack of pedagogical emphasis is especially concerning for newly minted doctoral students who will be preparing future special educators to teach students with disabilities in K-12 settings. In this article, the Continuum of Teaching Experiences (CTE) Model for preparing doctoral students to teach in higher education is described. This university teaching model depicts practice opportunities that promote pedagogical learning and prepare doctoral students for independent instruction of higher education courses. The CTE model scaffolds opportunities that provide doctoral students with varied entry points across a continuum of possibilities. Additionally, the CTE model is highly adaptable across multiple doctoral preparation programs, emphasizing a malleable framework that can be refined for variable programmatic needs.

KEYWORDS

doctoral preparation, doctoral programs, teacher educators, teaching in higher education, university teaching

Although special education doctoral programs vary across universities, frameworks consistently focus on the three pillars of higher education careers. The first pillar, comprising the majority of doctoral coursework, consists of research knowledge and skills from which students instigate a research agenda and implement corresponding studies, culminating with the dissertation. The second pillar is service, typically characterized by active participation and leadership roles within professional organizations as well as at the university and community levels. The third pillar is teaching courses in higher education. It is the teaching pillar which receives substantially less attention than research and service (Bidabadi et al., 2016; Fulton, 2018; Marx et al., 2016).

It is important to acknowledge concerns that the teaching pillar receives minimal attention because special education doctoral students will prepare future K-12 special educators to teach students with disabilities (SWD). As beginning special educators, their effectiveness in teaching SWD is heavily influenced by the quality of their higher education teacher preparation (Edwards et al., 2014; Utecht & Tullous, 2009). Mayton et al. (2017) noted that when an emphasis on translating research to practice in special education doctoral programs is absent, those doctoral students are less well prepared to train effective K-12 educators. Thus, it is essential to emphasize that teacher educators' instruction is of high quality and maximizes opportunities for teachers to learn and use research-based practices designed for SWD.

In this paper, we examine the issue of preparing doctoral students to teach higher education coursework. First, we describe the need for such preparation. Next, descriptors of knowledge and skills about higher education pedagogy are provided along with the structure for how that content can be delivered. A corresponding continuum of pedagogical experiences with varied entry points is necessary

because special education doctoral students bring a range of experiences in teaching adults to the doctoral program. Subsequently, the bulk of our paper describes a scaffolded model, which was developed as a framework for determining the multiple types of pedagogical experiences that can be accomplished across doctoral programs, thus maximizing doctoral students' experiences.

Need for Doctoral Students' Preparation for Pedagogy

It is surprising that even though effective teaching is required when doctoral students assume positions in the academy of higher education, few doctoral programs offer courses or formalized experiences designed around pedagogy for undergraduate and graduate students (e.g., Chen, 2015; Lynch et al., 2022; Marx et al., 2016). Additionally, there is seldom a planful sequence of mentoring and exposing doctoral students to teaching in higher education in a scaffolded manner, based on their unique background experiences. Even doctoral students who assume roles that require teaching (e.g., graduate teaching assistant, graduate student instructor, teaching assistant, instructor of record) may enter the college or university classroom setting without any, or sufficient, pedagogical preparation in higher education (Bok, 2013; Bonner et al., 2020; De-Chenne et al., 2012). Marx et al. (2016) noted this is prevalent among those with and without K-12 teaching experience. Moreover, Walker et al. (2022) emphasized distinctions between traditional teaching assistant positions designed to support faculty's teaching versus the same positions designed for preparing doctoral students to teach courses. That is, some teaching assistants (TA) are primarily focused on supporting a faculty member with activities such as managing course logistics and grading, while other teaching assistantships involve more mentoring from the instructor/faculty member. In essence, the TA title may sound as if intentional actions for teaching preparation are occurring when in actuality, actions are more supportive roles.

As far back as 2003 (Tyler et al.), 71% of more than 1,000 special education doctoral students reported low satisfaction regarding how well their program prepared them for teaching in higher education. Unfortunately, current data indicate this is still an issue in multiple doctoral programs (Bonner et al., 2020; Fulton, 2018; McNelis et al., 2019; Walker et al., 2022).

Interestingly, the lack of formal preparation for teaching in higher education is an international phenomenon (e.g., Bennett & Turner, 2013; Chen, 2015; Edwards et al., 2011) transcending disciplines, including social work (Maynard et al., 2017), business (Marx et al., 2016), and nursing (McNelis et al., 2019). In doctoral criminology and criminal justice programs, almost half offer no pedagogical preparation for future faculty (Lynch et al., 2022). In contrast, for biology graduate teaching assistants, Reeves et al (2016) proposed three elements in the design of doctoral student preparation to teach in higher education: (a) content, (b) structure, and (c) activities. The content element encompasses what doctoral students should know and be able to do, such as the institutional policies and procedures typically found in syllabi, curricular knowledge, and pedagogical methods. The structure and activities elements involve how doctoral preparation programs will transmit the pedagogical knowledge and skills to doctoral students. Each are briefly discussed next.

Content: Knowledge and Pedagogical Skills Needed

Although special education doctoral students typically have experience teaching K-12 students with disabilities, it is not a natural nor intuitive shift to apply pedagogies for children to college and university students. Adult learners bring prior life experiences to the classroom, can be more self-directed, more motivated, and reflective when applying their learning to practice. Many learning theories and an entire literature base are devoted to informing andragogy, or adult education (Gouthro, 2019; Knowles et al., 2020; Merriam, 2001; Merriam & Bierema, 2014). Teaching adult learners is complex, inclusive of contextual variables doctoral students consider when teaching in higher education. For example, contexts include the type of institution (e.g., research-intensive university), the general class size, the delivery format, as well as graduate and undergraduate students' characteristics (e.g., background experiences) (Reeves et al., 2016). Additionally, teaching online courses requires skills and knowledge that are unique to the online learning environment (e.g., facilitating online student collaboration and communication) (Hew, 2018).

Overall, there is consensus that doctoral students should acquire pedagogical skills of planning, instructing, and assessing graduate and undergraduate students while in their doctoral program (Lederer et al., 2016; Reeves et al., 2016). Before the more complex task of planning out a 15-week sequence of topics for a course syllabus, a doctoral student may first employ a backward planning approach to design a part of a class or just one class (see Wiggins & McTighe, 2005). The teaching session would demonstrate alignment across the identified learning objective(s), the sequence of instructional learning experiences that take place during the session, and the formative assessment technique(s) used to determine if the undergraduates have achieved the identified learning objective(s). When planning a

full syllabus, other skills needed include an understanding of educational standards and policies in postsecondary environments (e.g., academic misconduct, ethical grading practices). In addition to planning, some noteworthy pedagogical skills needed to teach in higher education include using active learning strategies with adult learners and the use of interactive engagement methods of instruction such as effectively monitoring student needs, asking questions, and responding to or eliciting learners' comments and questions (Freeman et al., 2014; Lumpkin et al., 2015).

Bonner et al. (2020) itemize five competencies for doctoral students' preparation for teaching in higher education: (a) expertise in the content; (b) teaching philosophy; (c) course management skills (e.g., grading); (d) skills in instructional design; and (e) skills in varied instructional delivery structures. Further delineation of the last three competencies includes (Bowman et al., 2020; Fulton, 2018):

- Organizing and developing syllabi (e.g., objectives, topics per session, grading);
- Designing activities that elicit students' active involvement;
- Incorporating technology (e.g., as formative assessment; to demonstrate and practice content); and
- Targeting methods to increase inclusivity and recognize diversity in the classroom.

Researchers have found when doctoral students acquire such competencies and corresponding teaching experiences, their self-efficacy increases, affirmatively impacting their confidence in performing specific academic tasks, such as designing content-rich lectures, promoting active engagement, and monitoring students' progress (Boman, 2013; Greer et al., 2016; Lederer et al., 2016; Meadows et al., 2015; Vegara et al., 2013). Moreover, learning to teach

FIGURE 1: Cognitive Apprenticeship mental model sequence
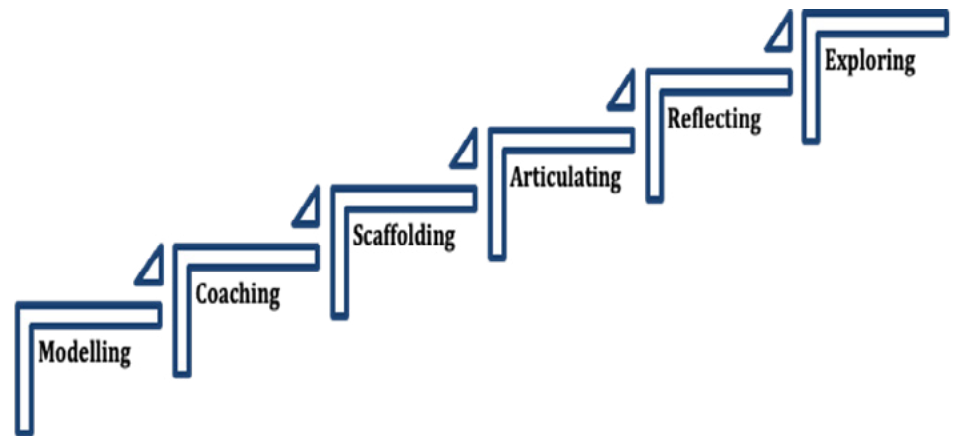
Note. Visual developed using content from Greer et al. (2016)

via multiple modes (e.g., face-to-face, asynchronous, synchronous, hybrid) is also essential, acknowledging the evolution of traditional in-person coursework to varied transmission forums (Bishop-Monroe et al., 2021).

Structure and Activities for Providing Pedagogical Preparation

The literature on *how* university doctoral programs prepare doctoral students to teach higher education courses is limited, with little insight about special education doctoral programs (McCorkle et al., 2022). However, a multidisciplinary body of literature provides exemplars of formats, such as coursework, workshops, and seminars (e.g., Lynch et al., 2022) which are generalizable to special education. The gamut of formats can range from a three-hour bootcamp (Bowman et al., 2020) to a three-credit course, whether face-based, online, or mixed transmission options. In addition to pedagogical coursework, workshops, and seminars, brief guest lecturing opportunities in courses can provide a scaffold for teaching that also exposes doctoral students to multiple faculty. Grossman et al. (2009) point out that multiple practice-based opportunities with reflection

encourage one's learning:

Most forms of professional preparation involve opportunities for novices to use their knowledge in a variety of practice settings; the nature of these settings will help shape what they are able to learn. In such settings, novices can experiment with their new knowledge and skills. (p. 2061)

Active practice can also consist of teaching reflections and case-based scenarios followed by discussions augmented by faculty mentorship (e.g., Bonner et al., 2020; Robinson, 2016; Vergara et al., 2014). The latter is typically characterized by an apprentice-style relationship with faculty, which can increase opportunities for practice, often spread over time (e.g., Meadows et al., 2015). Additionally, Lynch et al. (2022) noted benefits of expanding the diversity of faculty exemplars-in-action who serve as mentors because each brings varied skills, unique problem solving approaches, and experiences to the apprenticeship. These opportunities for mentorship can be scaffolded from brief sessions, such as designing and implementing an activity aligned with course outcomes, to independent teaching of a course.

As is discussed in the next parts of

FIGURE 2 : Continuum of Teaching Experiences Model (CTE)

Varied Entry Points	Answering Questions; Monitoring Student Needs	Monitor 1-2 Assignments	Develop Syllabi	Plan One Class/Part of Class	Develop Assignments and Assessments	Plan 2+ Classes	Collaborative Learning and Reflection	Full Responsibilities as Person of Record for Course (Hired for Pay)
Develop Instructional Materials					X			
Observe an Exemplar Professor(s)							X	
Guest Lecture: Pre-Record a Lecture/Talk for Asynchronous Teaching Session				X			X	
^Co-Guest Lecture with a Peer/Faculty (60-90 min)	X			X			X	
^Guest Lecture Independently (60-90min)	x			x			x	
^*Mentor Teaching with an Experienced Instructor**	X	X	(if able)	X		X	X	
^Teach Independently with eCoaching**	X	X	X	X	X	X	X	X
^Teach Independently Using Supports, As Needed	X	X	X	X	X	X	X	X

Note. ** Can be structured as an Independent Study and/or Teaching Internship Experience.   ^ Can be completed Face-to-Face (F2F) or in virtual settings

this paper, the structure and activities for preparing doctoral students to teach in higher education is contingent on the skills the individual brings to the experience. Doctoral students have wide-ranging pedagogical experiential levels. For example, students may enter a doctoral program with no experience teaching adults, whereas others may have delivered brief guest lectures for professional development sessions in their schools, while others may have planned and taught long-term comprehensive professional development courses. Thus, their entry point for higher education teaching ranges. In this paper, we describe a model which can be tailored for doctoral students, based on their background knowledge and skills. The focus of the model is to present a continuum of pedagogical experiences that are conducive to individualization based on doctoral students' background experiences.

THE CONTINUUM OF TEACHING EXPERIENCES MODEL

The Continuum of Teaching Experiences (CTE) model is a scaffolded framework which recognizes doctoral students' need for preparation to teach in higher education, but also acknowledges doctoral students' diverse entry points for such instruction. As operationalized by special education faculty at a mid-Atlantic university on the east coast of the United States, the scaffolded practice opportunities span the duration of doctoral students' preparation. The explicit goal is to promote pedagogical learning and to prepare the individual for effective and independent instruction in higher education courses. The theoretical framework that informs this model is the Cognitive Apprenticeship Theory (Greer et al., 2016).

Theoretical Framework

The *Cognitive Apprenticeship Theory* acknowledges the value of mentorship for the development and retention of future faculty (Collins et al., 1991; Greer et al., 2016). We selected this theoretical framework because it offers a progression of learning and practicing for doctoral students with fading support over time, and results in, increased self-efficacy for teaching (Greer et al., 2016; see Figure 1). Greer et al. (2016) noted the importance of transferring not just the explicit but also the implicit aspects of teaching in higher education. The Cognitive Apprenticeship begins with *modelling* via demonstrating tasks while verbalizing decisions made relative to procedures and techniques when designing and delivering instruction in teacher preparation courses. *Coaching* follows with constructive feedback provided by varied faculty members and peers. Initial feedback while teaching is *scaffolded* over time, as doctoral students' performances indicate proficiency and readi-

ness for more challenging pedagogies. As the doctoral student begins to perform more independently with teaching experiences, they are given opportunities to debrief (*articulate*), *reflect,* and refocus (*exploration*) per the Cognitive Apprenticeship sequence.

The CTE Model

The Cognitive Apprenticeship theory directly influenced the systematic and scaffolded approach we followed for preparing doctoral students to teach undergraduate courses in special education. As is shown in Figure 2, the CTE model identifies representative pedagogical experiences (identified horizontally at the top of the model) with expanding responsibilities as one moves from left to right. The culminating goal of the CTE model is on the far right with the doctoral student independently teaching as a higher education instructor of record. The listed instructional skills are not intended to be comprehensive of the complex pedagogical methods and variations to teaching in higher education, but they depict a scaffolded progression of higher education teaching activities. In addition, these generically described instructional skills are relevant to the changing academic environment, and are inclusive of the evolving delivery modes observed in higher education (i.e., face-to-face, synchronous, asynchronous, bisynchronous, hybrid).

Also, in Figure 2, the continuum of varied entry points for doctoral students are vertically listed on the far-left side of the CTE model. With faculty advisor guidance, doctoral students can enter at any point on the continuum based on their own comfort level and former experiential learning. This continuum captures a range of doctoral students' experiences with teaching; Some may be novices to teaching in any environment, whereas others may come to a doctoral program with knowledge and flexible

skills for adapting instruction based on adult learners' needs. An individual's entry point in the CTE model also varies depending on the mode of instructional delivery. For example, a first-semester doctoral student may have experiences delivering numerous guest lectures face-to-face, but in the context of delivering online teaching experiences, observations may be a more appropriate entry point. Following a description as to how the CTE model evolved, each entry point is operationalized.

Development of the CTE Model

The vertical listing in Figure 2 evolved from an initial list the first author had identified as formative, teaching-related activities experienced by doctoral students with a primary specialization in special education. These entry points were then sequenced to show a gradual adoption of more teaching responsibility and autonomy over time. When these activities were then shared with special education faculty who engaged with doctoral students, the continuum of experiences expanded (e.g., developing case studies). Finally, further iterations of the CTE model were made by the authors to increase clarity. A similar evolutionary process can occur for other programs' endeavors to develop a CTE model individualized for and aligned with their unique requirements.

The purpose of developing the CTE model was to organize and systematize a continuum of scaffolded experiences via practice opportunities for doctoral students to engage in throughout their doctoral preparation program. By doing so, doctoral students are provided with individualized, relevant, and meaningful teaching experiences. Each entry point on the CTE model is described next.

Scaffolded Experiences on the Continuum

Develop instructional materials. An initial teaching experience on the contin-

uum involves doctoral students modifying existing course material(s) for a faculty member or developing new material(s) for a higher education class session(s). This may be a common practice for those doctoral students who already work closely with a faculty member in some capacity as part of an assistantship. In this situation, the development of materials is typically led by the faculty member. However, a more autonomous experience is fostered for doctoral students who initiate and lead the development of materials used during course instruction. This type of pedagogical experience could include partial or full development of any of the following: an online module, screencasts, assessment items, a teaching scenario description, a student case study, a graphic organizer, adding content to a presentation (e.g., PowerPoint), an interactive digital learning exercise/game, a video, or organizing and designing folders and documents in a course's learning management system. Development of course material provides doctoral students with the opportunity to consider accessibility and the principles of universal design in higher education (see Burgstahler, 2015; Cumming & Rose, 2021; Reinhardt et al., 2021). Because the instructional material is used by faculty when teaching, ideally, doctoral students observe how their course material was used and how students engaged with the product so that they can then consider any adaptations to be made to the material(s). In addition, the faculty member who uses the material provides feedback to the doctoral student which may also lead to further refinements.

When developing materials for a course in higher education, a doctoral student should take the opportunity to become familiar with accessible, high quality, online materials available for instructional use (e.g., National Center on Intensive Intervention). Additionally,

considerations about scenarios and materials that are culturally responsive for the K-12 student population are crucial and may require exploration in areas not previously considered by doctoral students (e.g., implicit bias via the Equity Coaching Guide). Multiple resources have been developed via current and previous technical assistance and research centers funded by the Office of Special Education Programs. Doctoral students can access these resources to plan and implement instruction for future special educators: https://osepideasthatwork.org/find-center-or-grant/find-a-center.

Observations. Observational learning is grounded in the field of psychology and coined by psychologist, Albert Bandura. For those doctoral students at an early entry point on the continuum, observing teacher models in higher education may help to diminish the ambiguity and uncertainty of teaching tasks. Grossman et al. (2009) describe these visible opportunities as *representations of practice*. Doctoral students can witness faculty models enacting their professional role, engaging in authentic settings, and accessing pedagogical decisions (e.g., how to elicit student thinking; facilitate whole-group discussions). Followed by reflection, the observational experience on the continuum can help shape how doctoral students will approach teaching and learning. These observations involve discourse with the instructor before and after the class session(s). Such discourse includes information about the context of the class, course objectives, the goals for the class session(s), and how students will be assessed. The purpose of the observations in the CTE model is not so much to imitate another teacher, but to generate self-questioning after the observation(s) and for doctoral students to build upon their own pedagogical experiences of how they do/did (or did not) learn from instructors when they were undergraduate or graduate students. This

type of critical reflection along the CTE continuum is an important opportunity for professional introspective learning and growth about one's values, beliefs, and perspectives of self and others (Rodgers, 2002).

Guest lectures. As faculty in academia, it is common practice to invite colleagues to share their expertise on a topic as a 'guest lecturer' in the course. Guest lectures are typically arranged in the planning phase of one's syllabus prior to the onset of the semester. A guest lecturer typically presents to the class for a single session or a portion of a class session (i.e., 30 - 90 min on average). The CTE model explicitly notes scaffolded options for a guest lecture, such as initial activities for doctoral students with minimal background: (a) pre-record an asynchronous session: (b) jointly present with the faculty of the course; and (c) co-present with another doctoral student. That is, the psychological support of teaching alongside a peer or faculty can be less intimidating than teaching alone. Active-learning strategies (e.g., Peer Instruction, Crouch & Mazur, 2001) to engage undergraduates during the lecture can be determined during collaborative planning. Moreover, team-teaching or co-teaching with someone from another complimentary discipline exposes undergraduate learners to effective team teaching modeling and varied perspectives (Coleman et al., 2023; Weiss et al., 2014).
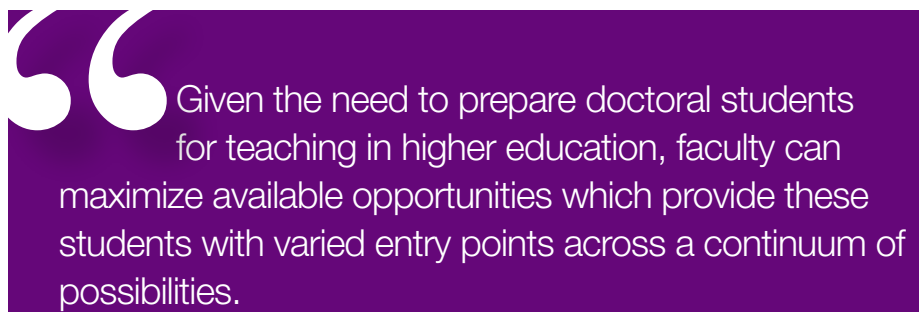
To do a guest lecture in higher education, the doctoral student typically already has expertise in the content (e.g., co-teaching models; explicit instruction; proactive management techniques), aligned with course objectives, to communicate to the class. However, doctoral students' content knowledge alone does not suffice; they must engage in distinct preparatory actions: (a) an initial planning session with the faculty member who teaches the course; (b)

arranging a date and time to present; (c) developing draft presentation material(s) to align with the needs of the audience; (d) providing the draft to the faculty member for review in advance of the guest lecture; (e) finalizing and refining the presentation based on faculty feedback; and (f) reviewing and practicing delivery of the presentation prior to the planned date. Conducting guest lectures or teaching one or two class sessions are meaningful approximations of the practice, or ways to improve teaching (Grossman et al., 2009).

Mentor teaching experience. High-quality mentorship between faculty and doctoral students who will prepare teachers is pivotal for fostering doctoral student preparation for instructional roles (Anderson & Anderson, 2012; McNelis et al., 2019; Richards et al., 2017). These types of mentorships can vary greatly. For example, Michigan State had a year-long program for future science-related faculty that included seminars and hands-on workshops in which a cohort of doctoral students engaged with mentors about teaching and learning (Vergara et al., 2014). In contrast, Starr and DeMartini (2015), describe a formal, one-on-one, faculty-student teaching relationship in which collaborative self-inquiry and self-study inclusive of verbal and written dialogue, interrogation, and observations of each other's teaching took place while each member of the dyad taught a semester-long course, independently. Researchers report that doctoral participants who receive mentorship about teaching in higher education attribute an increased teaching confidence, which they attribute to the mentoring received throughout their doctoral program (Ewen et al., 2012; Lynch et al., 2022; Vergara et al., 2014).

In the CTE model (refer to Figure 2), the mentor teaching experience can involve a doctoral student working with a

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faculty member throughout a substantial portion or semester-long undergraduate or graduate course and participating in varied skills (e.g., planning, lecturing, facilitating discussions, developing materials, assessing student work). In the mentor teaching experience, the partnership between doctoral student and faculty member is determined by a match between course content and the doctoral student's area of study as well as the faculty member's available time for mentoring. However, such mentoring can be mutually beneficial and result in rich time investments for both the doctoral student and faculty member.

In some institutions of higher education, a mentor teaching experience is a 3-credit internship whereby individualized learning objectives are targeted as an independent study. Others may have a less formalized process. Still others may be operating with more fragmentation, such as when some students have opportunities and experiences that all students and faculty are unaware of. Therefore, to benefit both students and faculty, a framework such as the CTE model can make explicit the ways in which higher education teaching is structured for doctoral students in that program. Thus, rather than fragmenting opportunities by which some doctoral students learn to teach in higher education, the CTE model, disseminated to all students and faculty, ensures the continuum of opportunities is evident and available to all.

Teaching independently with

eCoaching. In the CTE model, we integrate feedback and reflection in the development of future teacher educators so that even when doctoral students are independently teaching, the experience is not in isolation, and monitoring and support is provided. Traditional observations as well as intermittent "check in" meetings are scheduled as well as methods for acquiring student feedback at varied intervals during the course. Additionally, virtual observations, such as via eCoaching, can occur.

eCoaching is a scaffold in the model that refers to a non-evaluative approach to providing feedback and supporting the induction of doctoral students who are independently teaching in higher education. Weiss et al.'s (2022) description of eCoaching involves collaborative goal setting between a "coach" and a novice teacher and ongoing exchanges facilitated with technology, virtual observations, video-based analysis, and/or bug-in-ear (BIE) technology. BIE is a research-based K-12 practice to improve teacher behavior in which an expert mentor provides individualized, real-time coaching focused on targeted instructional behaviors of the teacher (e.g., use of open-ended questions; O'Brien et al., 2021; Rock et al., 2014). Technology is used to remotely deliver encouraging statements and corrective coaching prompts in real time.

The technology used by a faculty coach to provide real-time feedback for a doctoral student via BIE includes an

internet connection, two devices with a webcam, and a Bluetooth headset. The faculty coach and doctoral student each have their own device with a webcam to capture the classroom's video and audio. The faculty coach and doctoral student use a common platform to virtually connect during the doctoral student's instruction. The doctoral student's computer connects to the faculty coach's incoming audio through a Bluetooth headset that rests in the doctoral student's ear. During the live lecture, the faculty coach can privately provide verbal feedback and direction to the doctoral student in real time, as needed. In one study, after receiving encouraging and corrective feedback from the faculty coach via BIE technology to address individualized goals of improving student engagement and increasing use of wait time, two doctoral students who were independently teaching in higher education for the first time changed their instructional behaviors and reportedly valued the opportunity for immediate feedback (see Regan et al., 2017).

Independent teaching w/ ongoing supports. The final point on the continuum is when the doctoral student is hired as the instructor of record to independently teach a course. When doctoral students are hired as the instructor of record, their qualifications are reviewed via the same process as occurs for any other adjunct faculty hired to teach a course. State licensure requirements and other credentials as well as experiences are verified as occurs for other course instructors. Additionally, at least one faculty is responsible for monitoring the doctoral student's performance throughout the course, inclusive of mentoring and regular feedback sessions. For example, at the authors' institution, there are four ways to monitor the instruction of any new instructor. These include (a) direct supervision by a faculty member experienced in the course content, (b)

regular in-service training and support throughout course delivery, (c) planned and periodic evaluations (e.g., self-evaluations, mid-semester input from students), and (d) debriefing using content from the university's student feedback forms. Direct supervision by a faculty member entails, at a minimum, support for syllabi development, classroom observations followed by feedback sessions, and developing solutions for teaching challenges.

SUMMARY

Given the need to prepare doctoral students for teaching in higher education, faculty can maximize available opportunities which provide these students with varied entry points across a continuum of possibilities. The purpose of the CTE model is to provide a framework designed to scaffold varied starting points for doctoral students' higher education instructional experiences. The model is feasible for institutions that (a) prepare doctoral students who wish to teach in academia, (b) have the faculty who are willing to serve in mentorship roles, and (c) have an infrastructure that permits doctoral students to teach university courses before graduating. There are also limitations to consider. Currently, there is no empirical evidence to say that the collective teaching opportunities in the CTE model promote doctoral student learning and lead to teaching excellence. A future study will report doctoral students' perceptions and their mentors' perspectives about the experiences on the continuum. Additionally, determining how these teaching experiences on the continuum impact a doctoral students' self-efficacy for teaching in higher education is needed, as well.

Among the advantages of this framework is that it is highly adaptable across varying doctoral preparation programs, which can promote the smooth transition of doctoral students' teaching as they

shift into early career academia. The model can also be extended to include other positive professional learning practices such as microteaching, used to prepare K-12 teachers, (Benedict et al, 2016) or peer-to-peer evaluations of teaching experiences, used for early career faculty (Servillio et al., 2017). Another advantage of the framework is that doctoral students are not sacrificing their research focus when they acquire skills in higher education pedagogy. Shortlidge and Eddy (2018) found that doctoral students who focused on evidence-based pedagogies for teaching in higher education, experienced a synergy with their research (e.g., quantity of publications). Doctoral programs that intertwine a continuum of teaching experiences within their current curriculum can strengthen those students' preparation to teach in higher education.

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Purposeful Presence: Supporting Preservice Teachers' Co-Teaching to Meet Student Needs

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ABSTRACT

Co-teaching continues to be a common method of instruction, allowing students with disabilities to engage in the general education curriculum. While there are numerous exemplars of excellent co-teaching, there is more that can be done to assist preservice teachers as they learn to bridge the gap between the student's Individualized Education Program (IEP), the co-teaching setting, and the specially designed instruction students with disabilities need to make progress on their IEP goals in co-taught settings. This article provides a reflective matrix which faculty can use to scaffold novice teachers through co-assessment, co-planning, co-instructing, and co-reflecting by linking IEP goals to specially designed instruction (i.e., evidence-based and high leverage practices) and co-teaching models.

KEYWORDS
co-teaching, collaboration, evidence-based practices, IEP goals, high leverage practices

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Special education is ever changing as students with special needs are integrated to a greater extent into general education classrooms (Friend, 2016). All children should have opportunities to engage with and experience success in the general curriculum (e.g., Individuals with Disabilities Education Improvement Act [2004], Every Student Succeeds Act [2015]). Co-teaching helps support these inclusive practices and is found in many school districts across the nation. In their survey of state education agencies, Muller et al. (2009) identified 11 states that include co-teaching as a formal service delivery option. Making the most of the time available in a co-taught setting is of utmost importance to all special educators. However, addressing every student's learning needs and meeting Individualized Education Program (IEP) goals during co-teaching can be overwhelming to preservice teachers.

What is Co-teaching?

Co-teaching is defined as "two or more professionals delivering substantive instruction to a diverse, or blended, group of students in a single physical space" (Cook & Friend, 1995, p. 2). The purpose of co-teaching is clear: meet student needs in their least restrictive environment. To co-teach effectively, preservice teachers apply four components: co-assessment, co-planning, co-instructing, and co-reflecting. Co-assessment occurs throughout the co-teaching process, from the moment the team forms to planning, during, and following instruction (Conderman & Hedin, 2012). Co-planning allows the team to capitalize on the general education teacher's content knowledge and the special education teacher's pedagogical knowledge (Murawski, 2012). Co-instructing can take the form of one of six models defined by Friend (2016; see Table 1): (a) one teach, one observe; (b) station teaching; (c) parallel teaching; (d) alternative teaching; (d) teaming; and (e) one teach, one assist. Co-reflecting occurs throughout the entire process and can assist in developing a shared vision of the co-taught classroom (Fluijt et. at., 2016).

TABLE 1: Co-Teaching Models and Descriptions (Friend, 2016)

Co-teaching Model	Description
One teach, one observe	One teacher presents content while the second gathers data.
Station teaching	Instruction is divided into three parts, one teacher directed activity at each of two stations, and one independent activity, three groups of students rotate through the three stations.
Parallel teaching	The same content is presented by both teachers simultaneously, but the instructional strategies used are differentiated for the students' needs.
Alternative teaching	One teacher works with the majority of the students while the second provides remediation, pre-teaching, enrichment, etc. with a small group.
Teaming	Both teachers teach together in whole group, presenting simultaneously.
One teach, one assist	One teacher provides content, the other offers individual assistance as needed for the students.

TABLE 2: High Leverage Practices that Align to Co-Teaching

Co-teaching Component	High Leverage Practice
Co-assessment	HLP 4: Use multiple sources of information to develop a comprehensive understanding of a student's strengths and needs.
	HLP 5: Interpret and communicate assessment information with stakeholders to collaborative design and implement educational programs.
Co-assessment and Co-reflecting	HLP 6: Use student assessment data, analyze instructional practices, and make necessary adjustments that improve student outcomes.
Co-planning	HLP 12: Systematically design instruction toward a specific learning goal.
	HLP 13: Adapt curriculum tasks and materials for specific learning goals.
Co-instructing	HLP 15: Provide scaffolded supports.
	HLP 17: Use flexible grouping.

Special Educators' Expertise: The Reason for the Presence

Friend et al. (2010) listed two unique characteristics of co-teaching that distinguish it from other collaborative models of teaching, (a) a lower teacher-student ratio and (b) the expertise of the individuals involved in the co-teaching. Special educators are trained to provide specially designed instruction and utilize evidence-based practices to meet students' needs. In fact, as Friend (2016) emphasizes, the purpose of special education is to provide specially designed instruction which can be implemented in the co-taught setting. Yet these specialists, and their expertise in cognitive strategies and pedagogical knowledge, are not always utilized to the extent that they could be in the co-taught classroom (Harbort et al., 2007; Johnson et al., 2022; Kilanowski-Press et al., 2010; Mastropieri et al., 2005; Murawski, 2006; Scruggs et al., 2007). This is perhaps due to the lack of clarity in co-teaching roles (Otis-Wilborn et al., 2005) or because co-teachers do not view themselves as equal partners with shared responsibilities (Berry, 2021). Faculty can train and mentor preservice teachers so that they can develop these skills and mindsets.

FIGURE 1: Blank Needs-based Co-teaching Matrix

Student Needs (IEP Goals)	Dates And Units of Instruction	Evidence-Based Practice; High Leverage Practice	Co-Teaching Model	Evaluation
Student: Goal:	Date: Unit:	EBP: HLP:	Model: ☐ one teach, one observe ☐ station teaching ☐ parallel teaching ☐ alternative teaching ☐ teaming ☐ one teach, one assist	Student data: Teacher Perception: 1 2 3 4 *1= least effective* Notes:

Collaboration is so significant to the success of learners that the Council for Exceptional Children (CEC) and the Collaborative for Effective Educator Development, Accountability, and Reform (CEEDAR) have identified it as one of the four domains of high leverage practices necessary for preservice special educators to master (HLPs; McLeskey et al., 2017). The HLPs under the collaboration domain that relate directly to co-teaching include HLP 1: Collaborate with professionals to increase student success, and HLP 2: Organize and facilitate effective meetings with professionals and families. Co-teaching as a special education service delivery model should flow from these, and other HLPs. Table 2 lists key HLPs and their associated components of co-teaching. Through these practices, preservice teachers will learn to use specially designed instruction that is evidence-based (Hedin et al., 2021) and document a consistent trend toward student academic achievement through data collection of IEP goals. To change practice and implement best practices, preservice teachers need scaffolds, supports, and the opportunity to reflect while they apply learning from the college classroom to clinical field placements.

Co-teaching Matrix

The matrix in Figure 1 provides a quick and easy framework for aligning students' learning needs, IEP goals, evidence-based practices, high leverage practices, and co-teaching models. Teacher education faculty can mentor preservice teachers who are actively synthesizing and applying content from college coursework in co-teaching settings through this matrix. The matrix is best completed as a team (i.e., preservice teacher and co-teacher) under the guidance of the teacher education faculty supervisor. This structure can be used to nurture the developmental nature of co-teaching because, after instruction, the preservice teacher and their co-teachers can use this tool to reflect on the instructional goals, lesson, and student learning outcomes, providing significant information for identifying next steps and possible modifications for instruction and co-teaching roles. This 6-step process will help to sustain the evidence-based practices (EBP) and accommodations in the co-taught classrooms because all stakeholders will see the impact they have made on all students' learning in the classroom, not just the students with disabilities (McKenzie, 2009).

Step 1: Identify the Goals (co-assessment)

Identifying the students and the IEP goals to be addressed is the first step in completing the matrix. Teacher education faculty should model the process for identifying the goals for instruction from the student's IEP. After identifying the IEP goal, the preservice teacher should review the current progress monitoring data and analyze the additional assessment data available to them. Conderman & Hedin (2012) outline several types of assessment data to review: standardized test scores, curriculum-based measures, and pre-assessment data. Using the data from these sources, the preservice teacher will complete a copy of the matrix in Figure 1 for each co-taught clinical field placement identifying students' learning needs and IEP goals to be addressed in each co-taught class. This is the first step in the broad planning and sets the stage for the remaining steps. Using the IEP during planning is necessary because only 86% of special educators reported using the students' IEP while planning co-taught instruction (King-Sears & Bowman-Kruhm, 2011) and few lesson plans include accommodations and modifications (Bryant-Davis et al., 2012). The example in Figure 2 shows how a preservice teacher completed this

FIGURE 2: Sample Completed Needs-based Co-teaching Matrix

Student Needs (IEP Goals)	Dates And Units of Instruction	Evidence-Based Practice; High Leverage Practice	Co-Teaching Model	Evaluation
Student: Joe Goal: Determine main idea and supporting details of an expository text (Common Core RI.6.2)	Date: November 4-15 Unit: Novel Study (Holm, Jennifer L. *The Trouble with May Amelia.* Atheneum, 2011)	EBP: Graphic organizers HLP: 14; 15	Model: station teaching (general education teacher teaches content in small group, Ms. Smith teaches use of the graphic organizer in small group)	Student data: summative assessment: Joe- 82% Class average- 95% Teacher Perception: 1 2 ③ 4 *1= least effective* Notes: Try alternative teaching to pre-teach graphic organizers
Student Needs (IEP Goals)	Dates And Units of Instruction	Evidence-Based Practice; High Leverage Practice	Co-Teaching Model	Evaluation
Student: Rashia Goal: Fluently divide multi-digit numbers using the standard algorithm (Common Core 6.NS.2)	Date: November 4-8 Unit: Division	EBP: Direct instruction HLP: 16	Model: alternative teaching (general education teacher teaches larger group, Ms. Smith pulls a few students to the side of the room to use direct instruction)	Student data: summative assessment: Rashia- 88% Class average- 92% Teacher Perception: 1 2 3 ④ *1= least effective* Notes: Very effective!

step for two of their students using their standards-based IEP goals for math and English/language arts.

Step 2: Identify the Unit (co-planning)

Stefanidis et al. (2018) found that higher levels of co-planning lead to more positive perceptions of co-teaching. To this end, various planning models have been introduced (e.g., Murawski, 2012; Pratt, 2017; Weiss & Rodgers, 2019). However, preservice teachers need frameworks that provide opportunities to synthesize these components into an effective co-taught lesson plan. Therefore, the second step in completing the matrix is the responsibility of the co-teaching team in the collaborative setting. Working collaboratively with their co-teacher, the preservice teacher will identify the units of study and dates. They could also indicate the Common Core or state standards for those units.

Some co-teachers may choose to do this step together during a planning meeting, while others may choose to do it through email, or by way of an asynchronous lesson planning document (e.g., Google Doc). Most schools follow a curriculum map that may be used to copy and paste timelines into the matrix.

Step 3: Select the Strategy (co-planning)

As preservice teachers are forming

their skill set, it is the perfect time to establish clear practices for co-planning because "effective co-planning leads to effective instruction," (Hedin et al.., 2020, p. 303). Further, co-planning leads to more positive perceptions of co-teaching (Stefanidis et al., 2018) and more successful co-teaching experiences (Scruggs et al., 2007). Berry (2021) suggests that teacher preparation programs should focus on preparing "teachers with the skills and dispositions necessary to plan, assess, and teach together" (p. 104). Wexler et al. (2021) encourage co-teacher partners to plan for evidence-based practices and to consider how these practices will be implemented to fidelity.

Therefore, after the students' needs and instructional content have been addressed, the preservice teacher should focus their attention on identifying EBP that align with the students' specially designed instruction indicated on their IEP. EBP are those that have been proven effective through research with a particular population of students. Faculty can guide the preservice teacher to select the appropriate strategies needed to address the content and meet the needs of the students in the classroom. Torres (2012) provided guidance on where to find EBP. Some websites included: (a) Best Evidence Encyclopedia www.bestevidence.org, (b) National Autism Center www.nationalautismcenter.org, (c) National Secondary Transition Technical Assistance Center www.nsttac.org, and (d) What Works Clearinghouse www.ies.ed.gov (p. 67). Other resources can be found at (a) IDEAs that Work https://osepideasthatwork.org/federal-resources-stakeholders/tool-kits, (b) the IRIS Center https://iris.peabody.vanderbilt.edu/, and (c) the National Center on Intensive Intervention https://intensiveintervention.org/.

In addition to identifying an EBP, preservice teachers would benefit from identifying the HLP that coordinates with the EBP (McCray et al., 2017). The HLP can be EBP or they can be practices that provide improved outcomes for all students across a variety of placements and content areas. The 22 HLPs are clearly explained in McLeskey et al. (2017). Selecting both the EBP and HLP to use during co-teaching allows the preservice teacher and their collaborators time to review the critical components for instruction to make the most of the time they have with the students.

Step 4: Identify the Co-teaching Model (co-planning)

Next the preservice teacher should select the co-teaching model(s) that would be the most effective given the classroom situation, students' needs and IEP goals, and the instructional strategies. The nuances of each model will lend themselves to specific classroom settings and instructional content and arrangements. For example, in higher-level content areas, such as advanced sciences and math, from time to time, there may be students who struggle with a particular concept. In this situation, the preservice teacher may choose the alternative teaching model. This would allow the co-teacher to present the content the preservice teacher to provide re-teaching and remediation of a particular skill to those students who need it. In this situation, the team may choose the alternative teaching model, with the co-teacher presenting content and the preservice teacher providing re-teaching and remediation of a particular skill to those students who need it. In an elementary level classroom, co-teachers may find the content best suited to the teaming model where both teachers are presenting content simultaneously, or parallel teaching where both teachers are presenting the same content simultaneously but have broken the students into two groups to implement differentiated instruction.

Step 5: Implement the Instruction (co-instructing)

Once the first four steps have been completed, it is time to implement the instruction. Because the preservice teacher and co-teacher have preplanned roles and EBP, when instruction is implemented, each will know what to expect from the other, and what strategies and co-teaching model will be used. They will have had an opportunity to think about the implementation ahead of time and plan for fidelity in the implementation. They will be prepared to collect formative and summative student learning data (co-assessment) to be reflected on later (co-reflecting). The benefit of co-assessment is inherent in the collaborative process. The preservice teacher and co-teacher work together to provide assessment data through formative or summative assessments (Conderman & Hedin, 2021).

Step 6: Evaluate the Effectiveness (co-assessment and co-reflecting)

A shared vision leads to a practice that is ever changing as data are collected on the student learning outcomes and the preservice teacher becomes more comfortable in their role and co-reflect on their practice with their co-teachers (Fluijt et. al., 2016). Student academic outcomes should be the criterion for determining the IEP and service delivery model's effectiveness (see U.S. Department of Education 2017 clarification of Endrew F. vs. Douglas County). For preservice teachers, learning to co-assess and gather student data related to the IEP and co-reflect on the instructional changes needed to influence positive student outcomes can be a powerful professional development tool as learning to reflect is a process which needs support to be mastered (deBettencourt & Nagro, 2019).

Following the implementation of the unit of instruction, the matrix can be used on two levels for evaluation (the

co-assessment and co-reflecting aspects of co-teaching): student data and teacher perception. Preservice teachers should be encouraged to record student data and analyze the effectiveness of instruction using the data. Teacher perception through co-reflecting is equally as important in the data collection, though. Because time was spent setting a goal and planning to implement a co-teaching model and evidence-based strategy prior to the instruction, the co-teachers can evaluate the effectiveness of their participation and the fidelity of their implementation. Reflecting on this will help lay the groundwork for future connections between the team.

As preservice teachers practice co-reflecting, they will deepen their ability to collaborate. A successful collaborative partnership must include "a vision that will sustain you through the difficult times" (Keefe et al., 2004, p. 38), be based on a compatible perspective (Brownell et al., 2006), and be developmental in nature (Salend, 2008). With supports, preservice teachers and their co-teachers can co-reflect on their practice and co-assess to identify their expertise for each unit of instruction and make the most of their instructional time with the students, in turn enhancing their self-efficacy. Teachers' beliefs about their knowledge and skills plays a key role in their developing sense of self-efficacy and their ability to adapt to the co-teaching demands (Silverman, 2007).

CONCLUSION

This article provides a matrix that can be used to increase co-teachers (e.g., in-service, preservice, student teacher) engagement in planning for co-teaching and emphasizes the purpose of co-teaching: to meet students' learning needs in the least restrictive setting. The majority of students with high incidence disabilities spend most of their time in the general education classroom (National Center for Education Statistics, 2023), often supported by special educators serving as co-teachers. Van Gardenren et al. (2012) reviewed literature on co-teaching, subsequently finding 19 studies that included results of student learning outcomes which indicated favorable outcomes. More recently, Jones and Winter (2023) found positive academic outcomes for students with and without disabilities across a decade of statewide test scores. By beginning planning sessions with students' IEP goals, teachers are ensuring that students' learning needs drive planning, and ultimately instruction. Including discussion regarding EBP and HLP during the planning stages will encourage a more active co-teacher role in the classroom. Following implementation, preservice teachers can use this tool as one component of a more robust reflection on their practice in the clinical field setting.

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Building Resilience: Strategies to Combat Burnout and Attrition in New Special Education Teachers

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ABSTRACT

This article presents an overview of literature on special education teacher burnout and attrition, which has historically been a significant challenge that culminates in a cycle of teacher shortages and subsequent negative outcomes for students with disabilities. As a proactive measure to combat special education teacher stress, burnout, and attrition within the first few years of service, the article presents a framework (addressed as SMIRC) centered on practical, tangible strategies to take directly to the classroom for teachers, administrators, and Educator Preparation Programs. Recommendations for practice are included as supportive, proactive strategies aimed at increasing special education teacher retention.

KEYWORDS
attrition, retention, teacher burnout

In recent years, scholars have come to understand teacher resilience as a "trait that actively fosters well-being" (Pretsch et al., 2012, p. 322) and as "the capacity to 'bounce back,' to recover strengths or spirit quickly and efficiently in the face of adversity," (Sammons et al., 2007, p. 694) which is linked to "a strong sense of vocation, self-efficacy, and motivation to teach" (Sammons et al., 2007, p. 694). Masten (2014) defines resilience as "the capacity of a dynamic system to adapt successfully to disturbances that threaten system function, viability, or development" (p. 10). With the ever-changing circumstances surrounding education given the pandemic, fluctuations in funding, changes in legislation, and shifts in the sociopolitical climate, the ability to adjust to change and thrive when faced with adverse conditions has become critically important. For new teachers, this ability to adapt is uniquely challenging given the reality of learning a new job while doing the job, and for new special education teachers, the specialized demands and responsibilities often present additional challenges. It is unsurprising, then, that attrition and burnout in special education have been of significant concerns across recent decades (Barlow, 2022; Billingsley & Bettini, 2019; Boe & Cook, 2006; Goldring et al., 2014; Jones, 2020; Robinson et al., 2019), particularly during the first three years (Billingsley, 2004), during which time nearly one-third of all new teachers will leave the field (Cancio et al., 2018). The Office of Special Education Programs currently lists the nationwide special education teacher shortage at approximately 8% (Peyton & Acosta, 2022). In 1989, the attrition rate was below 6% but has remained near 8% since 2004 (Sutcher et al., 2019). "The difference between a 6% and 8% attrition rate might seem trivial, but in 2015-16 alone, a 6% attrition rate would have cut demand by nearly 25%, eliminating the need to replace approximately 63,000 teachers" (Sutcher et al., 2019, p. 12).

The concept of burnout emerged in the 1970s and was originally defined as "a state of fatigue or frustration brought about by devotion to a cause, a way of life, or a relationship that failed to produce the expected reward" (Freudenberger & Richelson, 1980; Gold, 1985). As burnout is a psychological construct, the body

TABLE 1: Categories of Retention and Attrition

Category	Description
"Absolute" retention (Boe, 1990)	Teacher remains in same teaching assignment at the school as previous year
Transfer within special education	Teacher transfers to another position (either in the same or different district) but remains in special education
Transfer to general education	Teacher transfers to position in general education (either in the same or different district)
Exit attrition	Teacher leaves education entirely (including those who retire, return to higher education, stay home with children, or enter a new profession)

(Billingsley, 2003)

of research on burnout draws parallels between burnout and depression, particularly with regard to the feelings of hopelessness and sadness (Gold, 1985), which remains relevant to those in helping and service-focused professions. Burnout as a whole "encompasses multiple components: emotional exhaustion, depersonalization, and feelings of reduced personal accomplishment" (Gilmour et al., 2022, p. 1). Professionals experiencing burnout are considered to experience a loss of concern or emotional connection to the persons whom with they work (Gold, 1985) and burnout is considered a precursor to attrition (Gilmour et al., 2022).

Billingsley (2003) presents four categories for defining retention and attrition presented in Table 1.

SPECIAL EDUCATION TEACHER ATTRITION

Billingsley (2004) reported that approximately half of special education teachers leave the profession within the first five years, which is supported by findings that demonstrate it is during this time frame that teachers experience higher levels of stress and burnout (Hester et al., 2020). Teacher attrition is a significant, heavily researched issue in special education, and has become even more prevalent in recent years as the teacher shortage has grown (Monnin et al., 2021; U.S. Department of Education, 2021).

Some researchers have documented unpreventable reasons for attrition, including having children or relocating, but perhaps some of the most notable reasons for leaving the field include a perceived lack of administrative support (Billingsley & Bettini, 2019; Hester et al., 2020) and burnout (Robinson et al., 2019). Hagaman & Casey (2018) indicated that the top three reasons new special educators leave the field include: 1) stress; 2) "lack of cooperation, recognition, and support from other teachers and administrators" (p. 283); and 3) a large and/or high-maintenance caseload of students with complex needs. These findings are consistent with other research findings related to attrition in special education across recent decades (Billingsley, 2004; Hester et al., 2020).

Stress and Burnout

Teachers who experience high levels of work-related stress are more likely to leave their jobs (Cancio et al., 2018). The consequences of stress for special education teachers extend to teaching quality, student engagement, collaboration with colleagues, and decreased feelings of accomplishment (Cancio et al., 2018). However, perhaps the most significant consequence of stress among special education teachers is burnout and eventual attrition (Robinson et al., 2019). Literature on special education teacher burnout attribute "low job satisfaction" (Robinson et al., 2019, p. 296) as a key indicator of attrition. Job satisfaction may be determined by several factors, including school environment/climate, access to resources, workload manageability, collaboration, perceived support, and ongoing professional development. When special education teachers experience high levels of stress, they are more likely to develop feelings of burnout, and then they become more likely to leave the profession.

Caseload Challenges

Regarding the demands of a challenging and/or too-large caseload of students, it is worth noting that research has also indicated that new teachers have specified that students' challenging behavior is not a contributing factor in attrition (Newton, 2018), but rather the stress of a lack of administrative support when handling those challenging behaviors that serves a predictive factor of attrition (Cancio et al., 2013). Although chronic exposure to challenging behavior can contribute to a negative emotional state and stress, perceived support in handling those challenging behaviors is meaningful and impactful on retention efforts (Cancio et al, 2013; Hester et al., 2020; Paris et al., 2021). A too-large caseload

is often a source of stress for special education teachers, which may contribute to feelings of burnout based on overwork and lack of manageability. Since special education teachers have additional responsibilities related to progress monitoring, data collection, paperwork, etc. (Billingsley et al., 2020), having too many students on a caseload may directly cause additional stress and feelings of burnout.

Lack of Support

A perceived lack of administrative support is frequently related to burnout (Billingsley et al., 2020). Conversely, special education teachers who perceive higher levels of administrative support report feeling less stress and higher job satisfaction (Robinson et al., 2019). Perceived organizational support is also related to teacher well-being and job satisfaction, yet special education teachers often report a lack of perceived organizational support (Ramadhani, 2020). With the increased demands of the special education workload, perceptions of administrative and collegial support are critically important, and the lack of perceived support contributes directly to burnout and attrition (Billingsley, 2003; Hester et al., 2020). House (1981) outlined administrative support in four specific areas, including information support (e.g., curriculum, classroom practices), emotional support (e.g., mental health support, appreciation, positive culture between special education and general education), instrumental support (e.g., on-the-job training, funding), and appraisal support (e.g., performance feedback).

TEACHER QUALIFICATIONS

Research has identified "level of certification as a predictive factor of burnout and attrition" (Hester et al., 2020, p. 349); however, emergency licenses are often issued to unqualified and/or unlicensed teachers to fill vacancies, leaving many students with disabilities taught by individuals who have not yet met professional standards (Peyton et al., 2021). Thus, the cycle continues, despite evidence linking teacher attrition to lack of experience and qualifications (Brunsting et al., 2014; Hester et al., 2020). Furthermore, research has demonstrated a link between teacher certification status in special education and turnover when teaching students with disabilities; specifically, teachers without special education licensure were more likely to leave the classroom, so holding the required certification (and thus having undergone more specific training) is significant in retention (Gilmour & Wehby, 2020). Research findings also show that involvement in professional organizations, such as the Council for Exceptional Children, is associated with reduced stress of self-contained teachers (Cancio et al., 2018). These professional organizations may address both the needs for additional training and camaraderie.

OTHER CONTRIBUTING FACTORS TO SPECIAL EDUCATION TEACHER ATTRITION

In addition to the above-mentioned trends in the literature on special education teacher attrition, several other factors contribute to the cyclical nature of teacher burnout, attrition, and the subsequent cycle of vacancies. The following section discusses other contribution factors rooted in more recent events and culminating trends.

Low Enrollment in Educator Preparation Programs

According to a 2022 report by the American Association of Colleges for Teacher Education, between 2008 and 2019, the number of students completing traditional Educator Preparation Programs (EPPs) in the U.S. dropped by more than a third. The report found that the steepest declines were in degree programs in areas with the greatest need for teachers, including bilingual education, science, math, and special education (Knox, 2022). Certainly, the cycle of teacher shortages and EPP enrollment decline are related, and both are closely linked to the devaluation of teaching as a profession, epitomized by decades of stagnant pay, onerous workloads, and political demonization (Knox, 2022).

Influence of the Pandemic

The COVID-19 pandemic added an additional layer of stress to the teaching profession. Special education teachers were met with greater demands for ensuring their students received a free appropriate public education (FAPE) while navigating virtual and/or blended instruction. The challenges brought on by the pandemic required special educators to deliver content fully or partially online, and subsequently resulted in many disadvantages for students with disabilities surrounding their progress. While the pandemic influenced learning for all students, it exacerbated issues of access, equity, and inclusion for students with disabilities (Young & Donovan, 2020). When schools closed for in-person instruction in March 2020, teachers were tasked with facilitating learning for "all" learners through online learning platforms, such as Google Classroom and Canvas. Special educators co-taught classes with their general educator colleagues, while also learning how to assess students differently (Young & Donovan, 2020).

The shift to online instruction includes the proficient use of the various devices through which online learning is delivered (Garcia & Weiss, 2020). Fluent use of multiple devices, paired

with consistent Internet connectivity, presented obstacles for all stakeholders in online learning. Effective online instruction requires multiple components to produce positive outcome for K-12 students specifically (Garcia & Weiss, 2020). Further, school closures eliminated some critical aspects of school beyond academic work, such as the development of interpersonal skills, social problem-solving opportunities, and after-school activities that support children's mental and emotional well-being (Garcia & Weiss, 2020).

For teachers, many schools and school districts did not have a framework (or even the right language) to accommodate the shift to online learning (Garcia & Weiss, 2020), which presented unique challenges for planning and executing instruction—especially specially designed instruction to meet the needs of students with disabilities. Due to the increased work demands, many teachers, including special educators, left the workforce. For example, approximately 8.2% of North Carolina public school teachers reported leaving employment during the 2020-2021 school year (NCDPI, 2022). The 8.2% attrition rate for teachers during the 2020-2021 school year did show an increase from the previous year's rate of 7.53%, yet was only marginally higher than attrition rates during each of the three previous years beginning in 2017-2018, when the attrition rate was 8.1% (NCDPI, 2022). Of a total 94,328 teachers employed by the state's public schools, the 8.2% rate represents 7,735 teachers who were no longer employed in the teaching profession at the conclusion of the March 2021 reporting period (NCDPI, 2022). The trends in attrition in North Carolina mirror national trends of the decline of the teacher workforce post-pandemic.

For EPPs, the closure of university and college campuses had a unique im-

pact. Traditionally, pre-service teachers develop theoretical and pedagogical knowledge through coursework and have numerous opportunities to practice their skills through field-based experiences in K-12 partner schools (VanLone et al., 2022). When campuses and K-12 schools moved to remote teaching and learning, many pre-service teachers were unable to continue traditional field experiences (VanLone et al. 2022). As a result, many state departments of education waived field-based requirements and EPP faculty scrambled to develop alternatives that would support the continued growth of their pre-service teachers (American Association of Colleges for Teacher Education [AACTE], 2020).

Teacher shortages are, in part, due to high rates of novice teacher turnover (VanLone et al. 2022). Research has found that up to 44% of teachers leave the field prior to their fifth year and 10% leave before the end of their first year (Ingersoll et al., 2014; Ingersoll et al., 2018). The rates are even higher in schools that serve marginalized populations (i.e., students in poverty, students of color, and students with disabilities). High teacher turnover is costly and has negative outcomes on student achievement (Carver-Thomas & Darling-Hammond, 2017; Sorensen & Ladd, 2020). Although these challenges have existed for several decades, the COVID-19 pandemic exacerbated these difficulties for students, teachers, and EPPs alike. Further, the pandemic is likely to continue to exacerbate the teacher shortage issue as experienced teachers either retire early or leave the education profession (Garcia & Weiss, 2020; Monnin et al., 2021). Due to current trends in teacher shortages, developing a high sense of teacher self-efficacy during student teaching may leave novice teachers less vulnerable to burnout and attrition, which can contribute to

positive outcomes for students (VanLone et al. 2022).

Influence of Legislation

Legislation has stemmed from the pandemic in an effort to address learning loss and recovery, economic stimulation, and more, such as the COVID-19 Recovery Act signed into law in North Carolina. Many other states and countries passed legislation to navigate the unprecedented time, and the influence of the legislation continues today with regard to how educators address learning recovery. The funding provided via federal legislation in March 2020 was intended to provide districts with some relief to disseminate funds in a way that would prove positive impact to student learning, amid the global pandemic. Nationally, about $6.1 billion or 43% of the money spent at the local level went to a category described as meeting student needs, based on the fiscal year 2021 analysis. This includes spending on tutoring, summer and afterschool programs, rigorous curricula, additional school counselors, nurses, and school psychologists, and the implementation of community schools (Jordan, 2022).

In March 2021, President Biden signed into law the American Rescue Plan Act, the third federal relief package designed to address major financial, health and education needs caused and worsened by the COVID-19 pandemic (Parolin et al., 2021). The law allocated almost $130 billion to K-12 schools and approximately $39 billion to colleges and universities (Parolin et al., 2021). The law addressed six areas for funding dissemination, which included the following:

- Through the Elementary and Secondary Schools Emergency Relief Funds (ESSER), state education agencies across the nation received around $122 billion,

twice the amount of the first two relief packages.

- School districts and charter schools that received funding used at least 20% of the funds to address learning loss (or instruction disruption) (Parolin et, al., 2021).
- The remainder of the funds received were used on things such as mental health supports, technology supports and devices, and information dissemination to families, regarding supports for virtual learning, etc.
- States and school districts that received emergency relief funding had to adhere to "maintenance of effort" and "maintenance of equity" requirements.

Ultimately, the funds and guidance on how to utilize those funds, proved to be instrumental in assisting state, local, and private education agencies in tackling the many different challenges COVID-19 brought about for all students. For the teacher workforce in particular, legislation compliance adds an additional layer of stress and responsibility, as paperwork documenting adhering to legislation and policies can create additional work. For EPP faculty, embedding legislation compliance into coursework is essential in preparing special educators to adhere to the legal requirements of their profession, but challenging to address due to time constraints and lack of real-world/real-time responsibilities and obligations.

For more than a half-century, national policymakers have established federal education laws and programs aimed to promote equal opportunity in American K-12 education (Lips, 2019). Moving forward post-pandemic, the same urgency toward learning recovery and student progress in legislation must take place to ensure education institutions have the necessary resources and

funding needed to produce positive outcomes of student learning.

IMPLICATIONS OF SPECIAL EDUCATION TEACHER ATTRITION

Teacher attrition and resulting teacher shortages is harmful to students, teachers, and public education overall (Garcia & Weiss, 2019), and high teacher turnover rates are linked to negative impacts on student learning and teacher collaboration (Carver-Thomas & Darling-Hammond, 2019). The instability of the special education teacher workforce presents a threat to students' academic outcomes based on challenges in staffing (Garcia & Weiss, 2019). Furthermore, teacher burnout in education as a field is linked with worse academic achievement and lower student motivation (Madigan & Kim, 2021).

Academic Implications

The implications of teacher turnover and attrition on student academic outcomes are clear in the negative relationship between high levels of turnover and student achievement (Sorensen & Ladd, 2020). Research in New York City elementary schools showed reduced standardized test performance for all students—even those whose teacher stayed at the school (Ronfeldt et al., 2013). Research also shows that when a teacher leaves their classroom in the middle of the school year, students miss an average of 54 days of instructional growth compared to peers whose teacher remained in their classroom all year (Sparks, 2018). For students with disabilities specifically, research shows that special education certification is related to greater academic achievement in both math and reading (Feng & Sass, 2013). Considering the relationship between special education certification and attrition (Gilmour

& Wehby, 2020; Peyton et al., 2021), the resulting relationship in student outcomes is of significant concern. "It is striking that the field that serves the most vulnerable students and, arguably, requires the most wide-ranging teacher knowledge—drawing on medical, psychological, and pedagogical fields—is increasingly populated by underprepared teachers" (Sutcher et al., 2019, p. 6). Since schools are legally required to provide a FAPE and comply with relevant special education legislation (e.g., IDEA), lack of qualified staff could also present opportunities for litigation due to noncompliance rooted in failure to provide a FAPE (Mason-Williams et al., 2020).

Behavioral Implications

Teachers who serve students with significantly challenging behaviors (e.g., Emotional and Behavioral Disorders [EBD]) are often better equipped with training necessary to support students without affective responses (Cancio et al., 2013; Gilmour et al., 2022). Considering the importance of effective classroom management, special education teacher attrition—particularly those who serve students with EBD—has detrimental effects on both behavioral and academic outcomes (Gilmour et al., 2022). Furthermore, the cycle of challenging behaviors, emotional exhaustion (leading to burnout), and attrition creates a unique challenge in staffing classrooms serving students with EBD with highly qualified teachers while simultaneously focusing on positive behavior supports for students (Gilmour et al., 2022).

Cultural Implications

Schools that serve a higher proportion of students of color and students living in poverty are more likely to experience higher levels of teacher turnover (Carver-Thomas & Darling-Ham-

mond, 2017; Sorensen & Ladd, 2020), which has broader implications on student achievement and outcomes that mirror systemic issues related to less and inequal/inequitable educational opportunities. When a teacher leaves a school, they take with them their institutional knowledge, professional development, collaborative relationships, and knowledge of students unique to the school (Donley et al., 2019). Thus, high rates of teacher turnover disrupt the entire school culture, staff collaboration, and operations (Donley et al., 2019). In addition to the aforementioned implications on student learning, teacher turnover is also incredibly expensive, costing approximately $7 billion annually on recruitment, hiring, and training that could have otherwise been used for direct student support (Donley et al., 2019; Sorensen & Ladd, 2020).

RETENTION BY EDUCATOR PREPARATION ROUTE

To address the teacher workforce shortage, EPPs must develop creative solutions that strengthen existing effective strategies while generating new initiatives to enhance both the quantity and quality of teachers in order to best serve students, particularly those most vulnerable (Sztain, 2023). While there is little data to support any enrollment effects in EPPs specifically rooting from the pandemic, it is clear that the pandemic affected candidates' preparation for stepping into their own classrooms, primarily due to the disruption of clinical experiences. Effective solutions, therefore, must focus on both preparation and retention, and these two issues are connected: better prepared teachers stay longer in the classroom (Sztain, 2023).

A recent study from Texas analyzed data collected over the course of a decade to connect EPPs, teacher retention, and student learning (Sztain,

2023). The study showed the cumulative impact of having under-prepared teachers enter the classroom: students from low-income households who were more likely to be assigned under-prepared teachers over consecutive school years could be a whole year behind by ninth grade (Sztain, 2023). The study also demonstrated that teachers entering the profession through traditional EPPs that included multiple semesters of course-work and practice-based field experiences not only performed well in the classroom based on their students' learning, but they also had a 24% higher retention rate than those entering the profession through other routes (Sztain, 2023).

University-based EPPs play a significant role in preparing highly qualified teachers to step into classrooms. In recent years, alternative routes for teacher preparation, such as Teach for America (TFA), have become important to address the teacher shortage problem. Alternative certification programs were established to address the teacher shortage by increasing the quantity and diversity of teachers (Woods, 2016). Current research indicates that alternative certification programs have been largely successful in this regard, but only in the short-term because the teachers they prepare are significantly less likely to remain teaching (Overschelde & Wiggins, 2019). Traditional EPPs consistently yield better instructional knowledge, self-efficacy, and teacher retention than alternative preparation across all levels of schooling, with the exception of kindergarten (Jang & Horn, 2017). Research shows differences in traditional EPPs versus alternative certification programs based on different demographic characteristics (Overschelde & Wiggins, 2019). Black, Latinx, and other teachers of color, as well as male teachers, are prepared more often by alternative cer-

tification programs, compared to their white and female peers, respectively (Overschelde & Wiggins, 2019).

Effective Strategies to Enhance Teacher Retention and Recruitment

School leaders can bolster retention by developing a culture of trust, openness, and academic freedom in which teachers are respected and valued both inside and outside of the classroom (Shuls & Flores, 2020). Amidst several challenges, Teacher Preparation Partnerships have emerged in North Carolina as a promising strategy to strengthen the teacher pipeline through collaboration between EPPs, school districts, community colleges, and workforce development partners (NCFORUM.org, 2022). Strong relationships between K-12 school districts and institutions of higher education help to build the pipeline of highly qualified teachers.

Research shows a relationship between certain elements of teacher preparation on beginning teacher retention, which include substantial training in teaching methods and pedagogy (Ingersoll et al., 2014). Teachers who complete at least one methods courses generally have greater retention (Ronfeldt, 2021). Beginning teachers who receive more feedback during their own teaching, more opportunities to observe other teachers, and more opportunities for practice teaching are less likely to leave teaching after the first year (Ingersoll et al., 2014). Opportunities for practice-based teaching are also linked to positive impacts on feelings of candidate preparedness and efficacy on the job, but must receive high-quality feedback and coaching to maximize those impacts (Ronfeldt, 2021). Teachers who complete a traditional clinical experience are much more likely to remain teaching compared to teachers who never student taught (Ronfeldt, 2021), as the clinical experience semester

provides ample ongoing opportunities for feedback, coaching, and continued practice.

INTRODUCTION TO MS. CASEY

Ms. Casey is a special education teacher candidate currently completing her student teaching semester in a middle school math resource classroom. She was excited to start her student teaching as a special education teacher, after completing the first few years of college coursework. However, her enthusiasm is quickly fading, as she faces several challenges in her first few weeks of student teaching. One of the biggest challenges Ms. Casey is facing is the workload. Ms. Casey, like so many beginning special education teachers, is realizing that being a special education teacher requires much more than just teaching. She has been attending her weekly check-in meetings with her faculty mentor at her EPP, as well as attending the department meetings at her assigned school. Ms. Casey is starting to feel overwhelmed at the amount of work she has to complete for class, while preparing for licensure assessments.

Another challenge Ms. Casey is facing is related to student relationships and instruction. Many of her students have complex needs, and Ms. Casey is struggling to tailor her teaching strategies and materials to meet their individual, diverse needs. She feels her 6th and 8th grade classes have been going smoothly, but she has been struggling with her 7th grade class. She feels the students in that class simply do not pay attention and no matter what she does, they ignore her, which has created a chaotic classroom environment. Ms. Casey is hesitant to reach out to her teammates, as she does not want to be labeled as not having good classroom management, especially because she hopes to secure full-time employment at the school upon graduation. She has mentioned to her clinical educator and her EPP faculty mentor her struggles with the 7th graders but their advice has not yet resulted in improvements in student behaviors.

Furthermore, Ms. Casey is struggling with working with the other professionals on her multidisciplinary team. She has found that there have been communication breakdowns between the team members, so she is frequently unsure of her role as a student teacher not yet licensed regarding next steps or implications for her students. There have been persistent disagreements about the best strategies to use with two of her more complex students, which has caused tension between Ms. Casey and other members of the team. Ms. Casey feels like she is on an island by herself and goes home feeling defeated. On top of completing the paperwork in preparation for upcoming licensure assessments, teaching, managing behaviors, and all her other duties she realized she is responsible for, she is beginning to rethink her career path.

STRATEGIES TO COMBAT ATTRITION AND BURNOUT: INTRODUCING SMIRC

Despite the reality that special education is challenging, there also remain promising opportunities to build the resilience of new special education teachers in order to proactively combat burnout and increase retention. The following section will introduce SMIRC, a framework for EPP faculty to employ proactive strategies to support the retention efforts for new and preservice special education teachers before they even graduate from their EPP.

SMIRC was developed by special education faculty in an EPP in a high-poverty county during the 2022-2023 school year, as the field emerged from the virtual confines of the pandemic. Developed from a place of need to recruit teacher candidates to fill vacancies in local, high-needs schools due to shortages which mirror national trends (Monnin et al., 2021; U.S. Department of Education, 2021), the SMIRC framework seeks to equip EPP faculty with a toolset to proactively retain their special education teacher candidates by providing more opportunities for practice of professional skills and job-specific responsibilities. As the population of students receiving special education services rises (Monnin et al., 2021; U.S. Department of Education, 2021), the SMIRC framework provides tangible strategies to keep special education teacher candidates in their jobs long after graduation.

Self-care (S)

It comes as no surprise that burnout comes with physical ramifications, and research findings show that many teachers report leaving the field due to deteriorating emotional and physical health (Hester et al., 2020). While stress is commonly associated with teaching, engaging in self-care and wellness can lower the effects of stress and anxiety (Robinson et al., 2019). Teacher wellness also increases teacher attendance, which may also be impactful in teacher retention (Robinson et al., 2019). The glaring issue with regard to self-care is that burnout is detrimental to teachers' physical and emotional health, so the recommendation via the SMIRC framework is to promote a sustainable self-care and wellness plan. The CDC has emphasized the need for school districts to include wellness programs at the schoolwide level to promote stress management (Kolbe & Tirozzi, 2011), so bringing this recommendation to practice may help to promote self-care as a mitigation strategy. However, the misconception that self-care is

> The glaring issue with regard to self-care is that burnout is detrimental to teachers' physical and emotional health, so the recommendation via the SMIRC framework is to promote a sustainable self-care and wellness plan.

time-consuming and cumbersome must be addressed by providing educators at every level with a sustainable plan to engage in self-care.

For teacher educators, explicit focus on self-care is (understandably) rarely the focal point of a course or even a course objective. However, it can easily be embedded into course discussions as a proactive counter to all of the course content that presents the reality of the multiple challenges students will face once they enter the classroom. This may be as simple as allowing 3-5 minutes at the beginning of each class for a social-emotional check-in, such as a moment for students to share a celebration or encourage each other through a challenging time (Thomas & Howell, 2021), or sending "mindful messages" (Atkins & Danley, 2020, p. 35) to students and/or teacher candidates during times of particularly heightened stress. On the contrary, explicit focus on self-care may be more complex and embedded as a new course learning outcome. Research suggests the possibility for setting expectations for teacher candidate self-care through department-wide policy (Ollison, 2019) and practice, so that each course in the EPP builds to support candidates' self-care practices and regular implementation. For example, a course on methods in behavior management in special education may lead students in learning about self-monitoring interventions, token economies, and differential reinforcement procedures. The opportunity

here lies in the extension opportunity to engage students in dialogue about how they will maintain a self-care plan once they are handling these challenging behaviors as teachers. Perhaps students create a self-care plan as an initial assignment during the first week of the semester and then revisit at the end to revise their own plan for accountability after they have a better understanding of challenging behavior management.

Another strategy for incorporating self-care into special education teacher preparation is to utilize early field and clinical experiences. For students doing early field experience observation hours, many will conduct informal interviews with their clinical educators (cooperating teachers) for a reflection assignment, so perhaps they could ask a question or two related to teacher wellness/self-care to add into their reflection assignment. For students doing clinical experience as student teachers, many will conduct regular feedback and coaching meetings, so perhaps they could embed an accountability plan for teacher wellness into their existing coaching structure. The self-care and wellness experience would be maximized here if the student teachers had previous opportunities to create a plan (i.e., in other courses), and the focus could shift to accountability. Research has demonstrated that the use of a self-care survey instrument that provides a candidate self-assessment can support faculty member's follow-up and plans for next steps to support that

candidate (Thomas & Howell, 2021). Other academic disciplines (e.g., social work, counseling) already incorporate self-care into preparation coursework, so special education faculty should consider the same (Thomas & Howell, 2021).

Ms. Casey's EPP faculty mentor, Dr. Johnson, and clinical educator, Ms. Sampson, noticed the physical ramifications of her stress level, and Dr. Johnson recommended in their recent weekly check-in meeting that she should informally interview Ms. Sampson to better understand her self-care practices. Ms. Sampson expressed how going for walks at the park adjacent to the school building has helped her to decompress while enjoying the benefits of physical activity without any financial constraints. Ms. Sampson invited Ms. Casey to join her two to three times a week in the afternoons, and they began incorporating their walks into their weekly routine. Dr. Johnson began setting aside 3-5 minutes at the start of each check-in meeting to discuss Ms. Casey's social-emotional wellness. In their last meeting, Ms. Casey updated Dr. Johnson on her new afternoon walk routine, and expressed the benefits of the outdoor walks on her physical and mental health. Encouraged by the noticeable improvements in her self-care, Dr. Johnson continued to conduct brief social-emotional check-ins at the start of each meeting, and is also going to encourage Ms. Casey to complete a self-care self-assessment at the conclusion of the semester to encourage her to continue prioritizing her wellness.

Management of Time and Responsibilities (M)

Both the complexity and the quantity of caseloads, in addition to the legal mandates surrounding those cases, contribute to significant stress, particularly among new special education teach-

ers (Hester et al., 2020). Essentially, when a workload feels unmanageable, teachers may not intend to stay long-term, experience emotional exhaustion, and have limited resources of time and energy (Cancio et al., 2018). The recommendation to address the inevitable workload challenges is to incorporate more logistical preparation in EPPs, such as paperwork and data collection for progress monitoring, Individualized Education Program (IEP) goal writing, and other caseload paperwork responsibilities (Hagaman & Casey, 2018). This may be accomplished through guided field experiences (Hagaman & Casey, 2018) to support emerging professionals in their ability to bridge pedagogy to practice while also providing proactive logistical support in completing the workload requirements of caseload management. The goal with this recommendation is rooted in providing teachers with hands-on practice with caseload management and all the logistical tasks associated with being in the job before they actually get to the job, in an effort to better equip them to manage their responsibilities.

Guided field experiences may start informally with early field experience observations by giving preservice teachers specific activities to observe (e.g., progress monitoring assessments, formative assessments, behavior data collection, IEP goal writing) based on what is most relevant to the field experience required by individual courses. Once teacher candidates begin student teaching, their faculty mentors can consider more structured experiences with special education-related tasks, to better bridge the gap between research and practice (Hagaman & Casey, 2018). Clinical educators are an invaluable resource, but rather than overloading them with additional responsibilities, faculty mentors can rethink how to structure in these preparation activities

into the clinical experience semester.

Other examples of specific ways to better prepare special educators for their inevitable workload includes those hands-on opportunities to supplement course content in EPPs. For example, in a methods in behavior management class, students can engage in practice collecting data from videos of real students, as they may feel better prepared to efficiently and accurately collect behavior data with more hands-on, lower-stakes practice. To take this practice one step further, students can practice graphing the data and presenting it to analyze and rationale their decision making to mirror how they may present to parents or colleagues in an IEP meeting. The ultimate goal of these scenarios is to provide teacher candidates with "real life" preparation activities before the stakes are high with real life students, as they are likely to better manage their job responsibilities as case managers if they have more practice before stepping into the role. Beltman (2020) presents four lenses through which to view the notion of teacher resilience, and the use of contextual resources is essential in how teacher candidates and teachers utilize their contextual resources and harness them for their own learning and navigating of challenges. These contextual resources include those tangible supports that enable teacher candidates to more efficiently and effectively complete job-related tasks (Beltman, 2020), so any tangible support that EPP faculty can embed as contextual course resources may help to bolster teacher candidates' resilience before they face job-related stress and challenges.

In preparation for upcoming IEP meetings, Dr. Johnson showed Ms. Casey resources available through the PROGRESS Center and IRIS Center specific to IEP writing that they reviewed together during a weekly

check-in meeting. Ms. Casey was able to observe Ms. Sampson in the IEP meetings after having a structured opportunity to review relevant support resources. Although Ms. Casey has more to learn regarding IEP writing and meetings, the explicit support from Dr. Johnson and Ms. Sampson has put her at ease that she has more tangible experiences before she is solely responsible for these job duties upon graduation. Ms. Casey also spent time during a professional development day creating a task management plan provided by Ms. Sampson, and she outlined tasks that needed to be done daily, weekly, monthly, and quarterly. She has been using the task management plan as a checklist for the past few weeks, and she is already feeling more confident in her ability to manage her job responsibilities related to her student teaching caseload.

Identify Support and Resources (I)

Being a new teacher has often been compared to learning how to fly an airplane while flying the airplane. Following this analogy, it is even more complex with passengers (i.e., students) on board. New special education teachers often struggle to get their questions answered when their administrators have not received adequate training on how to effectively support special education teachers in particular (Bettini et al., 2015). Providing further training for administrators in special education-specific topics (e.g., behavior intervention plans, functional behavior assessment process, alternative assessments) may help to support new special education teachers feel more supported by their administrators (Hagaman & Casey, 2018). Some scholars suggest the positive influence of involvement in professional organizations (Cancio et al., 2018) as a proactive measure

for special education support, collegiality, and tangible resources related to classroom practice. Another recommendation to provide further support and resources is meaningful professional development that is directly targeted to tangible support based on changes in responsibilities, program changes, or student services (Hester et al., 2020). There are countless low-cost or no-cost resources available to special education teachers, so providing specific support in meaningful ways based on areas of need while also connecting new teachers to tangible, practical classroom practice strategies can be helpful in the retention efforts. Beltman (2020)'s contextual resource lens for understanding teacher resilience also includes mentors, and the strategies lens includes strategies for professional learning. Embedding both mentorship and professional learning in EPPs may again help to boost teacher candidate resilience. Since part of professional learning entails the art and science of learning itself, it is helpful for faculty to consider embedding elements of self-reflection of learning strategies as teacher candidates explore what specifically contributed to their learning.

Special education EPPs should consider providing scholarships (potentially grant-funded) for students to join a professional organization, such as the Council for Exceptional Children. Though students are frequently not able to afford the annual student membership fees, they can benefit from the professional collegiality, networking opportunities, and structured professional learning opportunities (Cancio et al., 2018), so EPP faculty can consider including membership fees in grant projects. If funding allows (potentially again grant-funded), EPPs can also consider bringing students to annual conferences at the regional, state, or national level. Although it may be

challenging to teach teacher candidates the specific skills they will need to identify resources and support, providing structured opportunities for practice engaging in resource-finding, collegiality, and professional development will equip teacher candidates with the tools necessary for sustainable practice. Lastly, faculty can consider providing preservice teachers with a list of resources during methods courses prior to clinical experience to maximize how teacher candidates benefit from tangible resources for classroom practice (Hester et al., 2020). The list should include evidence-based strategies and tools that students can refer to during student teaching, to ensure they are able to independently and effectively implement those practices. The list should also include teaching videos of effective teachers demonstrating various instructional strategies so student teachers can more effectively implement strategies learned during coursework, perhaps by utilizing existing evidence-based resources provided by the IRIS Center, CEEDAR Center, or the Institute of Education Sciences, for example.

Dr. Johnson applied for and received a grant aimed at supporting special education student teachers, and provided the funding for Ms. Casey's student membership for the Council for Exceptional Children (CEC) and special interest division for emotional and behavioral disorders. Upon joining the CEC, she received access to thousands of resources relevant to her job responsibilities, both live and pre-recorded professional development, and networking opportunities. Dr. Johnson encouraged her to attend the upcoming local conference for the state chapter. Ms. Casey decided to attend the conference with Ms. Sampson and they attended several sessions together on behavior support strategies. In the sessions, she networked and befriend-

ed several colleagues who serve in a similar role, and the new friends have started to share resources. One of the presenters also gave Ms. Casey a list of high-quality reputable organizations for professional learning resources and supports. One of the examples provided was the National Center on Intensive Intervention, which provided Ms. Casey with tools and strategies for data-based individualized for students with emotional and behavioral needs. She has also started to listen to webinars and podcasts on her drive to work to better understand some of the complicated processes that she is learning to navigate as an aspiring special education teacher. After returning from the conference, Ms. Casey proposed collecting Antecedent-Behavior-Consequence (ABC) data for one particular student in her 7th grade class using tools she learned from resources provided. Dr. Johnson and Ms. Sampson were thrilled to hear that she has already utilized some of the (free) resources provided and have encouraged her to continue utilizing these existing, evidence-based resources.

Relationship-building (R)

The responsibility of managing collaborative relationships with general education teachers, paraprofessionals, related service providers, and families is linked to increased stress for special education teachers (Hester et al., 2020). Relationships with students are often at the forefront of work in special education, and these relationships must extend to the entire multidisciplinary team to truly benefit every stakeholder. One recommendation is to utilize a strengths-based approach and encourage beginning teachers or teacher candidates to build relationships with intentionality and authenticity. Building upon strengths is likely to yield a positive outcome for both the professionals

and students, as each team member has respective strengths that they can contribute to student services. Leveraging the expertise and knowledge of an occupational therapist, for example, can assist a special education and general education teacher in providing relevant accommodations for students with fine motor difficulties, as this area is likely outside of the expertise of classroom teachers. More discussion on collaboration strategies and corresponding research rationale are presented in the following section. The last recommendation, which is arguably the most important, is to assume the best and check internal biases. In order to fully engage in meaningful relationships and focus on the shared goal of positive student outcomes, one must recognize and actively work to reduce implicit bias. Open and honest communication should be a priority, so the relationship can be cultivated into a healthy, mutually beneficial working relationship that centers student growth. Being mindful to assume good intentions when encountering challenges, while being cognizant of one's own motives and biases, will further assist in the relationship-building process in a positive manner.

Faculty in EPPs can focus on relationship-building in many ways, and many already do as part of special education teacher preparation. The lowest-effort strategy is for faculty to consistently model how to build positive relationships with various stakeholders, but this practice should be commonplace at the bare minimum. One specific way to focus on family relationship building may include an assignment that requires teacher candidates to create a communication plan with future students' families that they can take with them and utilize after graduation. Faculty can provide feedback on how teacher candidates can

take into account how to learn family communication styles and preferences to circumvent communication breakdowns, address cultural considerations, and problem solve inevitable challenges. Another recommendation for family relationship building is to create a plan for family involvement in IEP goals, specifically how to support families in implementing relevant strategies at home. To extend the communication plan recommendation, faculty can also embed relationship-building with related services personnel by incorporating action steps for how teacher candidates can forge relationships with other members of the multidisciplinary team, including occupational therapists, speech-language pathologists, adapted physical educators, etc. Providing these tangible opportunities during EPP coursework aligns with Beltman's (2020) contextual resources lens for and understanding and building teacher resilience, since professional relationships present a more positive and enduring context for teacher candidates in the face of adversity.

When students are doing early field experience, relationship building can be embedded by giving specific tips and recommendations for building relationships with the clinical educator. The clinical educator can also provide feedback in the existing evaluation forms on how the teacher candidate managed relationships with the relevant stakeholders, during both early field experience and student teaching. Many EPPs embed evaluations on candidate dispositions, so these existing structures can be modified to focus on relationship building while teacher candidates are still under the supervision of faculty mentors (and thus can receive and incorporate feedback to improve as needed).

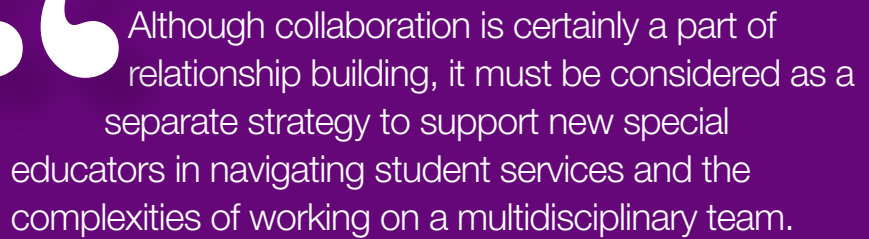*Ms. Casey reflected on the challenges she was experiencing with her 7th grade*

class, and she decided to consult with Ms. Sampson to re-work their daily pull-out schedule to allow for five minutes of relationship-building at the start of each session of specially designed instruction. Students were initially confused as to the change in schedule, but quickly realized the benefits of spending more time building positive relationships. Ms. Casey created a schedule for positive family contact, and she asked Ms. Sampson to review the plan for future use. Dr. Johnson created a family involvement plan assignment as part of the portfolio assessment at the conclusion of the student teaching semester. In this assignment, Ms. Casey created a plan for lunch and reading dates with students and their families, where she will invite students' families to come eat lunch with them and then observe a small group reading lesson to learn what they could do at home to support their literacy growth. Dr. Johnson and Ms. Sampson both expressed their enthusiasm for this plan and also provided feedback to encourage Ms. Casey to continue to consider lower-effort family involvement strategies to capture more opportunities.

Collaboration (C)

In alignment with relationships, special education teachers collaborate with several other professionals in the multidisciplinary team in providing services to exceptional children. Although collaboration is certainly a part of relationship building, it must be considered as a separate strategy to support new special educators in navigating student services and the complexities of working on a multidisciplinary team. It is a markedly different skill to collaborate with a general education teacher, administrator, or adaptive physical education teacher, for example, than merely build relationships with them, but learning to collaborate in a professional way can

be challenging and stressful for new professionals. When special education teachers are supported by general education teachers and are provided meaningful collaboration opportunities, they often report higher job satisfaction and experience higher retention rates. New special education teachers often indicate that being assigned a paraeducator was the most important resource or support to help them in their first year of teaching. Paraeducators help new special education teachers address day-to-day logistical tasks in a practical way that solves immediate/short-term problems. Furthermore, new special education teachers have identified mentorship specific to supporting students with disabilities as beneficial to their professional growth and job satisfaction (Hagaman & Casey, 2018).

The first identified recommendation for collaboration is to provide meaningful new teacher induction programs. Induction programs should provide meaningful, collaborative opportunities to connect with other teachers. Meaningful induction programs also present specific opportunities for collaboration, which may help to better equip new special education teachers with the tools they need to succeed during the first few years of service (Billingsley et al., 2019). Although induction programs occur after students leave EPPs, it may be helpful to consider developing an induction program assignment as part of special education administration programs. Many districts may have induction programs on a broad scale, so partnering with these programs to bring them to the school level (and even more specific to the content/subject area) may be a feasible way to address this recommendation. It may also be possible to model this recommendation by hosting an induction once candidates are admitted into teacher education majors, such as a 1-2 day workshop that

> Although collaboration is certainly a part of relationship building, it must be considered as a separate strategy to support new special educators in navigating student services and the complexities of working on a multidisciplinary team.

provides candidates with more information regarding their pathways, resources and supports on campus, and any other content-specific support.

Another recommendation for new special education teachers is explicit support in intentional collaboration with paraeducators (Hagaman & Casey, 2018). New special education teachers benefit from the tangible and logistical support the paraeducators provide them, which requires great intentionality in collaborating to maximize both teacher and student support. For teacher educators, courses that discuss collaboration and co-teaching should extend to explicit discussions of teacher-paraeducator collaboration. This instruction can include how to problem solve challenges (e.g., interpersonal issues, student-related disagreements, differences of opinions), how to maximize the instructional assistant in various co-teaching models, and how to provide training to instructional assistants that remains respectful of their strengths. Role play in problem-solving conversations can be particularly useful so teacher candidates feel more comfortable addressing confrontations that will inevitably arise. Research has demonstrated the importance of effective communication in collaboration and co-teaching (Friend & Cook, 2007; Ricci & Fingon, 2017), so guided practice and support navigating those professional relationships is critical to how special education teacher candidates develop those skills before even entering the classroom.

EPP faculty can also consider the effectiveness of modeling collaboration skills, by collaborating with general education faculty to host a workshop, guest lecture, or professional development session, for example (Ricci & Fingon, 2017).

The third recommendation is mentorship with an appropriate mentor and at an appropriate time (Hagaman & Casey, 2018). For students in Master's of Arts in Teaching (MAT) programs, it may be particularly helpful to embed mentorship in the clinical experience semester, especially for residency teachers who are in year 2 or 3 of teaching. Although faculty often serve as mentors during this semester, they can also consider holding structured conversations with residency teachers to support their ability to identify and form relationships with mentors. Another recommendation during the clinical experience semester is to incorporate a collaborative inquiry project based on challenges during student teaching. Research shows positive outcomes on teacher candidates' collective efficacy after engaging in a collaborative inquiry project (Osmond-Johnson & Fuhrmann, 2022), so this may be a specific collaborative opportunity that EPP faculty can embed toward the end of the clinical experience semester.

Dr. Johnson was excited to use the grant funding to create an induction program for recently admitted teacher education students. While Ms. Casey

will not be able to attend as she nears graduation, Dr. Johnson plans to send out a survey to solicit student feedback to best design an induction program that will proactively meet students' needs before and during student teaching. Dr. Johnson also created a collaborative inquiry project for the student teachers to complete during the final week of the course before graduation. After reading over the assignment guidelines, Ms. Casey identified her challenge as the persistent challenging behaviors in her 7th grade class. Her peers chose similar challenges, as behavior management was a consistent struggle for all of them. After working collaboratively to complete the project, Ms. Casey felt encouraged that her peers had similar struggles, and they were able to generate ideas to support their future students. With a stronger understanding of both collective and individual problem solving, Ms. Casey was inspired to utilize much of her new learning from her student teaching semester with her own roster of students in the upcoming school year. As Ms. Casey gained more experience and learned from her faculty mentor and clinical educator, she grew in her confidence in reaching out to ask for help and support. She began to feel more comfortable on days that had previously felt overwhelming due to work-related challenges, as she had more support and collegiality with professionals who often experienced the same challenges. Ms. Casey came to realize that she cannot necessarily remove some of her job responsibilities, but she can absolutely find support, resources, and community within her role. Many skills related to caseload management can be learned and practiced, so she grew in both confidence and capability with practice and utilization of the newfound support and resources.

CONCLUSION

The SMIRC framework embeds literature on teacher resilience and student support strategies with practical experience to provide EPP faculty with an actionable toolbox designed to retain teacher candidates before they even leave their EPP. Informed by the implications of burnout on attrition and student outcomes, the SMIRC framework seeks to change the narrative of special education teacher burnout and attrition by targeting teacher candidates during candidacy to promote retention after graduation. Schools and administrators cannot necessarily or realistically promise to make teachers' lives easier by removing responsibilities. However, schools, districts, and EPPs can work closely together to build resilient special education teachers by equipping them with tools needed to manage their ever-growing responsibilities. By focusing on logistical and practical tools introduced in the SMIRC framework, EPP faculty can proactively support new teachers to mitigate the stress associated with special education. As the field of special education will likely remain both challenging and rewarding, preparing new special educators to remain resilient in the face of inevitable job-related challenges is essential in proactively addressing burnout and attrition.

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Inclusion and Special Needs Education in Sierra Leone: Developing Local Expertise by Elevating Content and Context Connections

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ABSTRACT

Inclusion and special needs education has gained attention in recent years in the West African country of Sierra Leone. Policies addressing access to education are in place and various international partners have been supporting the growth of knowledge through short term in-person professional development, but policies have not translated into practice; systems and methods for identifying and teaching learners with disabilities are lacking and an in-country expertise is not fully developed. An innovative approach to international partnership was used where content expertise and context expertise were equally elevated so that practices fit Sierra Leone's needs and in-country experts in the field of inclusion and special needs education developed.

KEYWORDS

disability, inclusion, special education, teacher preparation, Sierra Leone, West Africa

Sierra Leone is a small country on the coast of West Africa bordered by Guinea to the north and northeast, Liberia to the southeast, and the Atlantic Ocean to the southwest. It has a population of 8.6 million with over half of the population living in rural villages and the rest concentrated in the capital city, Freetown, and other major cities including Bo, Kenema, and Makeni (WorldData, 2023). Sierra Leone was colonized by the British in 1808, became an independent sovereign state in 1961, and a republic with an elected president in 1971 (Embassy of the Republic of Sierra Leone in the United States, 2019). Sierra Leone is probably most known around the world for its devastating 10-year civil war (1991-2001), which caused the deaths of over fifty thousand people, displaced approximately two million people, and halted the country's social, economic, and educational development (Sahel, 2017).

Before the war, Sierra Leone's population was already divided regarding education. In the first half of the 20th century, only those with colonial ties were educated and during the second half of the century, despite the establishment of many grammar schools for the general population, most children did not attend because of expenses such as enrollment fees and required school uniforms (Wurie, 2007) as well as excessive difficulty commuting to schools, walking miles and even crossing rivers (Nyuma & Mondiwa, 2022). Children with obvious disabilities were often explicitly excluded from school or were not sent to school due to false beliefs about disability etiology and social stigma (Ali et al., 2014; Morin et al., 2022), which made attending school potentially physically or emotionally unsafe (Njelesani et al., 2018).

When the war ended, steps were taken to begin rebuilding hundreds of schools that were demolished, and reestablishing teacher training colleges. Attention was focused on making education accessible for young victims of the war: child mothers, ex-combatants, young adults who missed the opportunity for education because schools were not open, and those with war-related physical impairments (Maclure & Denov, 2009; Njelesani, 2019), but the state of education in Sierra Leone remains less than ideal especially for those with special learning needs who are acknowledged and allowed to

attend school, but receive no specialized instruction. Prior to the teacher preparation programs discussed in this article, no universities in Sierra Leone offered certificates or degrees in special needs education, and training was not provided beyond rudimentary principles of inclusion, clarification about disability etiology, and accommodations for children with vision and hearing impairments. This lack of adequate teacher preparation (Harris, 2020) along with overcrowded classrooms, insufficient materials (Amman & O'Donnell, 2011), and inconsistent teacher attendance due to low pay and difficult working conditions (Amman & O'Donnell. 2011; Chaudhury 2006) means that children with disabilities are not receiving the specialized and individualized instruction that is essential for their success.

Disability in Sierra Leone

According to the World Health Organization (2023), 16% of the world population experiences a disability that impacts everyday life. Often, the disability itself is not the impairment so much as the accompanying stigma, exclusion, and inequity that have been the tacit status quo around the world. The United Nations Convention on the Rights of Persons with Disabilities (CRPD; 2006) sparked new or renewed efforts to dismantle barriers faced by people with disabilities and many countries now have policies that prohibit disability-based discrimination as well as policies that mandate equal access to education.

Before the CRPD, Sierra Leone mandated that all children have access to education (Education Act, 2004) and in 2007 the Child Rights Act briefly but directly mentioned children with disabilities stating that they should be treated in a dignified manner and provided with education and training to become self-reliant. In 2011, the Persons with Disabilities Act established a National

Commission for Persons with Disabilities in addition to prohibiting discrimination and promoting equal opportunities for people with disabilities. During the time of these policies, children with disabilities were often still excluded from school because parents wanted to protect them from violence (Njelesani et al., 2018) or because expenses associated with schooling were prohibitive (Wurie, 2007). In 2018, Sierra Leone launched the Free Quality School Education (FQSE) program, which indicates that all core costs of education are provided by the government. As a result, more children with disabilities are enrolled in schools (Ministry of Basic and Senior Secondary Education, 2022), but they are not *meaningfully* included with curriculum and pedagogy that meets their needs (Bakhshi et al., 2021).

Sierra Leone's National Policy on Radical Inclusion in Schools (2021) boldly and explicitly addresses the barriers faced by children with disabilities, children from low-income families, children in rural and underserved areas, and girls who are pregnant or parenting. The most recent policy, the Basic and Senior Secondary Education Act (2023), which replaces the Education Act of 2004, aligns with and builds upon the National Policy on Radical Inclusion by directly addressing the topics of inclusive schools and staff members who have disabilities as well as mandating that a representative from the Persons with Disability Commission sit on the newly established National Board of Education and a pupil representative with a disability participate on the newly established Education Youth Advisory Group. This new law represents a meaningful step forward for children and youth with disabilities and the field of Inclusion and Special Needs Education in Sierra Leone because for the first time, a law names a specific disability category (Autism Spectrum Disorder),

defines *special needs education*, and uses language that alludes to specialized instruction and previously unrecognized disabilities (e.g., learning disability or mild intellectual disability): "Special arrangements to access education shall be made for pupils with mental health, autism spectrum disorder, and other related unseen disability and health issues" (p. 24).

The existing laws and policies, specifically the two mentioned above, provide a *structure*; they indicate *what* is to be done, but laws and policies do not generally prescribe *how* the specific policy components should be implemented. That is left to other entities; in Sierra Leone, that is the Teaching Service Commission (TSC), responsible for ongoing teacher professional development and the Tertiary Education Commission (TEC), which approves programs in higher education, such as university teacher preparation programs. The TSC, in collaboration with Handicap International, UKaid, and Njala University (in Sierra Leone) has created an Inclusive Education Training Manual (2021) and the Ministry of Basic and Senior Secondary Education, in collaboration with Education Partnership Group and UKaid, has created a National Policy on Radical Inclusion in Schools *Implementation Plan* to be used from 2021-2026. The implementation plan contains information about what should be done: screening and assessment, developing individual learning plans or individual education plans, adapting learning materials, and providing pre-service teacher training in special needs education. The plan also indicates implementation partners (e.g., CGA Technologies, Leh Wi Lan, Plan International), and development partners (e.g., European Union, Irish Aid, World Bank, UNICEF). The collaboration between these governmental and nongovernmental organizations (NGOs) is crucial if these policies are

to take root in the daily reality of Sierra Leone education. The role of the private sector, which typically includes people with specific expertise, is also especially important so that policies relevant for the education of children with special needs, though not limited to them, translate to evidence-based practices resulting in quality teaching and learning that is desperately needed in Sierra Leone. Despite all good intentions, however, there remains a policy-to-practice gap. Policies are written, plans are made, and training is provided, but little has changed for children with disabilities because the field of special needs education has not gained traction in Sierra Leone.

Most teachers have not received any form of training in how to work with learners with special needs. The training that has been provided by various organizations has been short-term and typically only included basic principles of inclusion, clarification about disability etiology, acceptance of children with medical-related disabilities such as epilepsy, and accommodations for children with vision and hearing impairments. For the field to gain traction, education leaders and teachers need in-depth training for extended periods of time that encompasses practical skills such as identification of children with disabilities through universal screening, curriculum selection and adaptation, teaching methods for teaching foundational skills such as phonics-based reading, and implementation of intensive interventions for students who are not making adequate progress. In other words, in-country expertise must be developed so that practices known to result in positive student outcomes are adapted for the culture of Sierra Leone, utilized regularly, and sustained over time. To address these deficits and to ensure that schools adequately provide for the education of learners with special needs, the University of Makeni decided to support the growth of special needs education in Sierra Leone.

The Fledgling Field of Inclusion and Special Needs Education in Sierra Leone

The University of Makeni (UNIMAK), a private university in the Northern Province of Sierra Leone, established a teacher preparation program when the university was founded in 2005. The program provided training for general education teachers and teachers who were seeking expertise in hearing impairment through a collaborative program with St. Joseph's School for the Hearing Impaired. At the same time, content related to inclusion and strategies for teaching children with other disabilities was offered through short-term, in-person professional development provided by various NGOs such as Plan International, Helen Keller International, SightSavers, and Handicap International, along with some university-sponsored experts and individuals from the United Kingdom, Germany, and the United States, and UNIMAK established the department of Inclusion and Special Needs Education (ISNE) which offered a Higher Teacher Certificate (HTC), a bachelor's degree, and a master's degree in education with concentration in inclusion and special needs education.

As a result, there are now a handful of people who have extensive knowledge of hearing impairment along with introductory-level knowledge in general disabilities, and UNIMAK is considered the hub for teacher training in inclusion and special needs education in the country. While the various professional development opportunities have certainly moved the specialty area at UNIMAK forward, the lack of cohesion between out-of-country professional development providers and the lack of follow-up from these providers has resulted in fragmented knowledge, which often does not fit the context of Sierra Leone and thus has not translated into practice. More importantly, these short-term learning opportunities have not resulted in the development of in-country experts in the field.

The development of expertise involves rigorous study over a long period of time (Elvira et al., 2017; Orlich Kuhlman & Ardichvili, 2015) because becoming a true expert means reaching a depth of knowledge that results in the ability to apply it in novel situations and transform it to develop new knowledge (Wallin et al., 2019). Research suggests that the development of expertise is dependent upon several factors including access to expert mentors or coaches and opportunities to practice and receive feedback (Klinge 2015). International mentoring creates barriers related to language and communication, limited face-to-face interactions, and cultural differences (van Bakel et al., 2021). To develop true experts in a field of study in a country where it does not currently exist, such as the case of developing experts in inclusion and special needs education in Sierra Leone, these factors must be purposefully put in place and barriers must be addressed in order to bridge the gap between *content*, the up-to-date knowledge of the field, and *context*, the location and culture where the content will be applied. The expert in a field of study is the key to the content knowledge and the local team is the key to deep understanding of the context. Each is impacted by the other, resulting in transformation of both. This innovative approach, though not fully conceptualized in the beginning, was employed by a team of one international *content* expert from the United States and three in-country *context* experts in Sierra Leone.

Developing Content and Context Expertise

In the summer of 2020, the first author, a professor from the United States, was planning for a full-year sabbatical and reached out to UNIMAK as a potential

host university through the Fulbright U.S. Scholar program. UNIMAK was interested in expanding their Inclusion and Special Needs Education department to increase the breadth and depth of content related to all disability categories and to develop procedures for identifying children with special learning needs - the *how* part of the National Policy on Radical Inclusion in Schools and the Education Act of 2023. Planning began through emails and virtual meetings in 2021-2022 and then the team was together in-person at UNIMAK for the entire 2022-2023 academic year.

The team determined that the practical work would include the expansion of the three existing teacher preparation programs (Higher Teacher Certificate, bachelor's degree, and master's degree) to include more disability categories (e.g., Autism Spectrum Disorder, Learning Disabilities, Intellectual Disabilities, Speech and Language Impairment), general pedagogy, intensive intervention methods, and systems for identification of children with disabilities. Knowing that the practical work would extend beyond the in-person time together, the primary goal for the in-person work was to begin a long-term partnership through which in-country experts develop so that the field of inclusion and special needs education grows within the country, transitioning it from dependence on other countries for knowledge and training to becoming collaborators and contributors to the field, worldwide. As such, the task of the content expert was to learn the context (the culture) and understand it well enough to bring content and context together and the task of the local team, context experts, was to learn the content well enough so that they could adjust it for application in the context of Sierra Leone. The connection between context and content laid the foundation for the practical work that followed.

The team engaged in a continuous cy-cle where an activity such as observing a teacher delivering a lesson was followed by discussions within the team and then beyond the team with other UNIMAK faculty members, education officials at the local and government level, and additional experts in the field of inclusion and special needs education. The activities and discussions informed program development decisions and shaped the direction of further activities. Think of it like this: The *activity* is taking the content to the context either in theory by thinking about it while observing or in reality by doing it (e.g., a teaching strategy). The *discussion* is checking the understanding of both the content and context experts and building mutual understanding. To illustrate, consider the following examples.

Student Engagement

The team began their work together with several weeks of school visits in order for the content expert to take in the school and classroom environments (context), see typical Sierra Leonean instructional styles, and observe interactions between children and adults and among children with and without disabilities. Visits included schools at all levels (primary through secondary) and all types (public, private, and separate special schools) as well as schools considered to be very good and not so good (schools are rated A, B, or C based on criteria such as teacher qualifications, structures and facilities, and exam scores). Because school visits happened in the capital city of Freetown (the largest city in the country), Makeni (the largest city in the Northern Province), and in rural villages, the expert also had the opportunity to better understand the communities in which the school systems exist.

During and after school visits, the team discussed their observations. One observation that prompted discussion early in the process was about the enormous class sizes, many well above 60.

Discussions with various entities over many weeks revealed that the class sizes were already large, but enrollment had increased substantially since the FQSE in 2018. Discussions also naturally lead to the topic of student engagement and how difficult it is for a teacher to meaningfully engage so many learners and how easy it would be for learners with disabilities to be disengaged and never identified as needing additional support. This had implications related to program development (university course content), in-service teacher professional development, and advocacy for learners with special educational needs in inclusive classrooms. All aspects were intertwined and required both content and context learning on the part of all team members. The content expert was challenged to think of new ways that existing research-based strategies such as think-pair-share (Barrett et al., 2021) might work in a classroom with over 60 students and context experts were challenged to think about how teachers might accept using such a strategy when the traditional teaching method is lecture, memorization, and unison responding. The team agreed that bringing a strategy from one context (e.g., country and culture) to another and implementing it without first fully understanding the new context is a waste of time at best because the strategy will not be implemented, and irresponsible at worst because it could be confusing and frustrating for students and teachers.

Reading Instruction

In subsequent school visits, the team observed instruction in the areas of reading, writing, and math. This provided the team with the opportunity to gain a mutual understanding of the existing content knowledge (e.g., reading skills) and pedagogical content knowledge (i.e., teaching methods) in addition to the government-prescribed learning standards. Observations of reading instruction along

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Prior to becoming the head of the Department of Inclusion and Special Needs Education (ISNE) at the University of Makeni (UniMak), Andrew Unisa Dumbuya was a teacher at St. Joseph's School for the Hearing Impaired for 36 years. He completed his bachelor's degree and master's degree in Inclusion and Special Needs Education at the University of Makeni in 2010 and 2021. He teaches courses related to inclusion and provides professional development to teachers in local schools. His research interests include exploring solutions for challenges faced by teachers of students with disabilities in mainstream schools in Sierra Leone.

with informal student evaluations of reading-related skills (e.g., letter-sound correspondence, sounding out words) revealed an urgent need in the area of reading instruction. In all observations of instruction, children were memorizing words rather than decoding words. Teachers wrote words, sentences, or paragraphs on chalkboards and pointed while students recited the words in unison. When students in grade levels from first grade through middle school were asked to say letter sounds or say the sound at the beginning, middle, or end of a word, most could not. When asked to read an unfamiliar word, even one that had the same ending letters as a word from a memorized passage, most could not. When students were given a passage to read at what should be their independent reading level according to their class level and learning standards, most students could not read the passage let alone answer comprehension questions about it. During team discussions, Sierra Leonean team members shared that they were aware of the reading problem and a feeling of urgency about it unfolded for everyone as the dialogue continued. Knowledge of the reading crisis was confirmed at the Foundational Learning Exchange (FLEx) summit (hosted by Sierra Leone in 2023) where it was reported that 70% of 10-year-olds in low- and middle-income countries are unable to read well enough to comprehend simple text (World Bank, 2022). This information had significant implications for program development, in-service teacher training, and advocacy for students with disabilities. The team decided to add reading instruction as a focus area in all three UNIMAK programs and began to address basic reading instruction strategies in Makeni-area schools immediately in addition to developing a website to provide teachers with a reliable and context-appropriate source for clear

information related to literacy instruction. Additionally, after close examination of the learning standards related to reading, the team became aware of the need to advocate for the government to reexamine them. The reading crisis is a significant barrier to identifying learners with unseen disabilities such as learning disabilities (e.g., dyslexia). These types of disabilities cannot be identified if quality reading instruction is not first in place in the classroom, so the development of a systematic process for identifying learners with unseen disabilities (e.g., Response to Intervention; Siegel, 2020) had to be put on hold while focus shifted to addressing the improvement of reading instruction.

The cycle described and illustrated in the two examples above played out in countless other ways. When the team provided in-service teacher training in inclusion and special needs education, they became aware of the need for many additional areas of teacher training (e.g., evidence-based practices for teaching reading, writing, mathematics). This informed a shift in the master's program courses to include learning how to design and deliver effective in-service training to practicing teachers. The delivery of university courses informed program development in terms of instructional design and delivery for teaching university students in Sierra Leone. The content expert learned how to adjust the content to be appropriate for the context (e.g., considering available resources) and the context experts learned new methods for teaching university students (e.g., use of free Google tools). Providing support for students' theses and dissertations informed program development to include specific research methods classes that would have maximum impact for practitioners and researchers in Sierra Leone. For example, bachelor-level students would learn action

research and master-level students would learn single subject research design. Both are common research methodologies used in special needs education.

Although the focus was special needs education, it was clear that supporting special needs learners also enhanced teaching and learning for learners without disabilities. For example, training teachers to deliver reading instruction using a phonics-based approach benefits all learners and it makes it possible to correctly identify children with reading disabilities. Every phase and element of the work led to deep thinking and conversations about the content and context connection and how each impacted the other resulting special needs education teacher training programs that are purposefully designed to be appropriate for the context of Sierra Leone.

The work that was begun during the 2022-2023 academic year represents the beginning of a long-term partnership. The intensive, immersive experience allowed the team to develop shared understanding related to both content and context and provided a foundation for authentic collaboration moving forward. This innovative approach to international partnership where content expertise and context (cultural) expertise are equally elevated should be seen as a model for international partners. While it may not be possible to spend a full academic year together in person it is critical for the team to be together in the context for a substantial period of time engaging in this collaborative cycle where activities and discussions inform mutual understandings.

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