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EDITOR'S MESSAGE

It is my pleasure to present Volume 24 (Issues 1–2, 2024–2025) of the *Journal of the International Association of Special Education (JIASE)*. I extend my sincere appreciation to the authors who submitted manuscripts, the reviewers for their careful and rigorous evaluations, and all those who contributed to the preparation of this issue, particularly in formatting and copy editing.

We also wish to acknowledge with gratitude Renáta Tichá and Thomas J. Donaghy of the University of Minnesota, Minneapolis, USA, for their longstanding service as Editor and Technical Manager of the journal, respectively. Their contributions have been characterized by professionalism, consistency, and a sustained commitment to quality.

The publication of this issue was delayed due to the transition of editorial responsibilities and the reorganization of the journal's operational infrastructure across institutions and locations. These changes required coordination in layout design, formatting, and production processes. These challenges have now been addressed, and efforts are ongoing to ensure a stable and efficient publication process moving forward.

JIASE serves as an international forum for the dissemination of research and practice in disability, special education, and inclusive education at individual, group, and societal levels. In addition to empirical studies, the journal welcomes practice-oriented and praxis-informed contributions and encourages submissions from diverse contributors, including educators, practitioners, and families.

This issue includes seven articles reflecting a range of theoretical perspectives, methodological approaches, and international contexts. The contributions span Africa, Asia, and the United States and include both theoretical and empirical work. Collectively, they address issues related to equity, access, and participation for individuals with disabilities. The articles provide insights relevant to researchers, educators, practitioners, caregivers, and policymakers.

Prospective authors are invited to submit manuscripts to JIASE. The journal is committed to supporting both emerging and established scholars through a constructive and collegial review process. We also welcome expressions of interest from individuals who wish to serve as consulting editors. Submission guidelines are available on the International Association of Special Education website and at the end of this issue.

We also draw attention to the upcoming 19th Biennial IASE Conference, to be held in collaboration with Royal Thimphu College in Bhutan. The conference theme, *"Cultivating Inclusive Futures: Innovation in Special Education,"* addresses current challenges and developments in the field and provides an opportunity for international scholarly exchange.

Thank you for your continued engagement with JIASE and the work of the Association.

Girma Berhanu
Editor, JIASE

Addressing Workload Inequities: Enhancing Retention of Special Education Teachers of Color to Fulfill IDEA's Promise of Equitable Education

Doreen N. Myrie[1], Nicci T. Dowd[2], Michelle Latiker[3], Kadijah Kinds[4], Kristen Barnes[5]

[1]Doreen N. Myrie, Ed.D.
Department of Special Education, Jackson State University, Jackson, Mississippi, 39217
Email: doreen.n.myrie@jsums.edu
https://orcid.org/0009-0005-9855-6377

[2]Nicci T. Dowd, Ed.D.
School of Education, Marymount University, Arlington, Virginia, 22207
Email: ndowd@marymount.edu
https://orcid.org/0000-0002-9149-1196

[3]Michelle D. Latiker, Ph.D.
Department of Special Education, Jackson State University, Jackson, Mississippi, 39217
Email: dawn.m.latiker@jsums.edu
https://orchid.org/0009-0000-9895-4969

[4]Kadijah L. Kinds, Ed.D.
School of Education and Human Sciences, Mississippi College, Clinton, Mississippi 39056
Email: kkinds@mc.edu
https://orcid.org/0009-0004-4135-5972

[5]Kristen Barnes, Ed. S.
Office of Exceptional Education Services, Jackson Public Schools, Jackson, Mississippi, 39201
Email: kbarnes@jackson.k12.ms.us
https://orcid.org/0009-0005-1882-9559

Corresponding author:
Nicci T. Dowd, Ed. D
Marymount University
ndowd@marymount.edu

Author Contribution

Conceptualization: N.D., D.N.M., and M.D.L. Methodology: D.N.M. and N.D. Validation: M.D.L. Writing: original draft preparation: N.D., D.N.M., K.K., K.B., and M.D.L. Writing, review, and editing: D.N.M., N.D., K.K., K.B., and M.D.L. Supervision: D.N. All authors have read and agreed to the final version of the manuscript.

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Conflict of Interest

The authors declare no conflicts of interest.

Abstract

The Individuals with Disabilities Education Act (IDEA) guarantees equitable access to a Free Appropriate Public Education (FAPE) for all students with disabilities. Yet a persistent shortage of special education teachers, particularly teachers of color, threatens this mandate. While over half of public school students identify as students of color, only 18% of special education teachers share this demographic (National Center for Education Statistics, 2022a). This stark underrepresentation is compounded by systemic workload inequities, including disproportionate informal responsibilities such as cultural mediation, disciplinary interventions, and diversity advocacy. These "invisible labor taxes," combined with pervasive racial microaggressions and insufficient institutional support, contribute to elevated rates of burnout, attrition, and ultimately, inequitable student outcomes.

Grounded in the Equity-Centered Leadership Framework, this position paper argues that workload inequities faced by special education teachers of color erode teacher retention and compromise IDEA's fundamental goal of equitable education for students with disabilities. Guided by two critical questions: *"How do workload inequities affect retention?" and "What systemic strategies can address these inequities?"* We discuss these challenges and present solutions, including equitable task distribution, culturally responsive leadership, structured mentorship, and comprehensive anti-bias training. The Equity-Centered Leadership Framework provides an analytical lens for examining how institutional structures perpetuate inequities while offering pathways for systemic transformation through leadership practices that disrupt ableism, address intersectional injustices, and promote inclusive excellence. Drawing on extensive research literature alongside the firsthand expertise of all authors, certified special educators now serving in teacher education and leadership roles, this paper bridges scholarship and practice. While conclusions may not be universally generalizable across all contexts, the cited literature and empirical research consistently identify workload inequities as a decisive factor in retaining special education teachers of color and ensuring equitable educational outcomes for all students.

Keywords: special education, teacher shortage, teachers of color, workload inequities, IDEA, culturally responsive pedagogy, teacher retention, burnout, diverse workforce, education equity.

Introduction

Special education is a cornerstone of inclusive education, ensuring that students with disabilities can access equitable learning opportunities under the Individuals with Disabilities Education Act (IDEA). Central to this mandate is the expertise and commitment of special education teachers. Yet the field faces a persistent shortage of qualified teachers, compounded by the underrepresentation of educators of color. According to the National Center for Education Statistics (2022a), while over half of public school students identify as students of color, the number of special educators of color does not match the realities of the 21st-century classroom and the growing number of students receiving special educational services.

This disparity reveals more than a lack of representation; it exposes systemic workload inequities that undermine the retention and success of educators of color. Teachers of color are often assigned additional, informal responsibilities, such as cultural mediation, disciplinary roles, and diversity advocacy, without receiving institutional recognition or support. These "invisible labor taxes," coupled with racial microaggressions and limited mentorship, contribute to higher burnout and attrition rates (Billingsley & Bettini, 2019a; Kohli et al., 2021b). The result is not only diminished teacher diversity but also inequitable educational outcomes for students, particularly those from marginalized backgrounds. Diverse educators play a crucial role in fostering cultural understanding and enhancing engagement among students of color (Ladson-Billings, 2021a).

Grounded in the Equity-Centered Leadership Framework, this position paper aims to advance the conversation by addressing two key questions: *"How do workload inequities impact the retention of special education teachers of color?"* and *"What systemic strategies can address these inequities?"* The Equity-Centered Leadership Framework provides a critical lens for examining how institutional structures perpetuate inequitable workload distribution and offers pathways for transformative change through leadership practices that disrupt ableism, challenge intersectional injustices, and promote inclusive excellence (Barton & Larson, 2012). As a position paper, it extends existing literature by framing workload inequities as a central driver of attrition and a barrier to fulfilling IDEA's mandate. Importantly, it also reflects the lived expertise of the authors, certified special education teachers with extensive P–12 classroom experience who now serve as teacher educators and leaders. This dual perspective allows us to connect policy, research, and practice through an equity-focused leadership approach.

This paper advocates for systemic change that supports the sustainability of the special education workforce by offering actionable strategies, including equitable task distribution, culturally responsive leadership, mentorship, and anti-bias training. Informed by the Equity-Centered

Leadership Framework, these strategies emphasize the necessity of repositioning special educators of color as educational leaders with decision-making influence and creating supportive environments that redistribute workload responsibilities fairly. While the context may not be universally generalizable, the issues and evidence presented highlight workload inequities as a pressing challenge that must be addressed to ensure equity for both teachers and students.

Historical Context of Diversity in Special Education

The field of special education has evolved significantly since the enactment of the Individuals with Disabilities Education Act (IDEA) in 1975. This landmark legislation established the right to a Free Appropriate Public Education (FAPE) for individuals with disabilities, catalyzing a shift towards inclusive educational practices. However, despite these advancements, the representation of teachers of color within special education remains alarmingly low, reflecting broader societal and institutional barriers that have historically marginalized educators from diverse backgrounds (Ladson-Billings, 2021a).

The teaching workforce has undergone various transformations, particularly in response to the civil rights movements of the 1960s and 1970s, which advocated for greater equity in education. The typical classroom has diversified, but the teaching workforce has not kept up to serve the current demographics of the classroom. This disparity raises critical questions about the barriers faced by educators of color in entering and remaining in special education roles.

Historically, the teaching profession has been predominantly white, with systemic barriers that have limited access for teachers of color. These barriers include discriminatory hiring practices, inequitable access to professional development, and a lack of supportive networks (Ingersoll, 2018). Research indicates that such obstacles have contributed to the underrepresentation of teachers of color in special education, where the need for culturally responsive pedagogy is paramount (Kohli et al., 2021a).

The evolution toward a more diverse teaching workforce has gained momentum in recent years, driven by an increased recognition of the benefits of representation in education. Diverse educators bring unique perspectives and experiences that enrich the learning environment and foster inclusivity (Ladson-Billings, 2021b). However, despite these advancements, the persistent shortage of teachers of color in special education underscores the need for targeted interventions to address the systemic inequities that continue to hinder their participation.

Teachers of color have historically faced numerous barriers to entry in the field of special education. These barriers are often rooted in systemic racism and discrimination, which manifest in various forms, such as biased recruitment practices and the perception that teachers of color are less qualified (Billingsley & Bettini, 2019b). Additionally, educators of color frequently encounter microaggressions and cultural insensitivity within the educational environment, which can impede their professional growth and job satisfaction (Kohli et al., 2021c). The implications of these barriers are profound. A lack of representation among special education teachers affects the educators themselves and the students they serve. Research has demonstrated that students benefit academically and socially from teachers with similar racial and cultural backgrounds (Ladson-Billings, 2021b). In fact, not only students of color benefit, but all students do (U.S. Department of Education, 2024a). Therefore, addressing the historical barriers to entry for teachers of color in special education is essential for ensuring equitable educational outcomes for all students (Myrie et al., 2024).

Workload Inequity

Workload inequity refers to the disproportionate distribution of tasks and responsibilities among educators, wherein certain groups—particularly teachers of color—shoulder an unequal share of informal duties. This phenomenon often manifests through expectations to serve as cultural mediators, disciplinarians, and diversity advocates, roles that are seldom acknowledged in performance evaluations or compensated within formal structures (Oakes, 2017). Research indicates that teachers of color frequently assume responsibilities that extend beyond their core instructional duties, leading to feelings of isolation and professional undervaluation within school environments (Ingersoll, 2019).

Bristol (2020) and Kohli (2018) further noted that special education teachers of color are often sought out by administrators to manage behavioral challenges involving students of color, address culturally sensitive issues, and serve on diversity or equity committees, all while maintaining their specialized instructional workload. The cumulative impact of these additional, unacknowledged responsibilities contributes to elevated levels of occupational stress and emotional exhaustion. Carver-Thomas (2018) found that special education teachers of color experience burnout at significantly higher rates than their White counterparts, with workload inequity emerging as a major contributing factor.

Moreover, the lack of recognition for this extensive labor perpetuates professional marginalization, as teachers of color in special education are frequently overlooked for leadership opportunities despite their demonstrated

capacity to navigate complex educational challenges (Billingsley & Bettini, 2019b). Paisun and Masuwd (2024) identified this pattern of undervaluation as a key factor contributing to higher turnover rates among special education teachers of color, perpetuating instability that ultimately undermines the quality of services for students with disabilities. The intersection of racial and professional identities thus creates unique vulnerabilities that demand systemic attention and institutional reform.

Reflecting on our collective experiences as special education teachers across diverse schools and regions, we observed striking parallels with patterns documented in the literature. Despite working in different geographic and demographic contexts, we encountered similar forms of workload inequity, being called upon to mediate cultural conflicts, counsel students of color facing disciplinary issues, and serve on diversity committees, all while managing demanding instructional responsibilities for students with disabilities. These essential yet invisible duties weren't always recognized in evaluations or advancement discussions.

The consistency of these experiences across settings indicates that workload inequity among special education teachers of color is not an isolated occurrence but commonplace within educational structures nationwide. Now, as scholars who once navigated these inequities firsthand, we bring insider perspectives that deepen understanding of the lived realities behind the data. This dual identity as former practitioners and emerging researchers strengthens our ability to bridge theory and practice, ensuring that future scholarship remains grounded in the authentic experiences of those affected. The examples presented in this section paper illuminate the answer to the central question posed: *"How do workload inequities impact the retention of special education teachers of color?"*

Systemic Challenges Facing Special Educators of Color

Special education teachers of color encounter unique systemic challenges that exacerbate workload inequities. Kohli et al. (2021a) illustrate how racial microaggressions manifest in everyday interactions within schools, creating hostile work environments that impact job satisfaction and overall well-being. These microaggressions and a lack of institutional support and mentorship contribute to alienation among teachers of color (Kohli et al., 2021b). Furthermore, the additional informal responsibilities assigned to these educators, such as serving as cultural liaisons or disciplinary figures, often occur without adequate training or compensation, further complicating their professional experiences (Billingsley & Bettini, 2019c).

The effects of these systemic challenges extend beyond the teachers themselves, influencing student outcomes as well. Research has shown that the absence of diverse educators in special education settings can lead to a lack of culturally responsive practices essential for engaging students from marginalized backgrounds (Ladson-Billings, 2021b). The underrepresentation of teachers of color diminishes the potential for fostering an inclusive learning environment attuned to all students' cultural and social needs (Dee & Penner, 2017).

Consequences of Underrepresentation on Educational Equity

Systemic inequities may result from the underrepresentation of teachers of color in special education. As discussed throughout this article, this can lead to the disproportionate placement of students of color in special education, increased disciplinary actions, and reduced access to culturally responsive instruction. These consequences reinforce educational disparities and highlight the urgent need for a more diverse and inclusive teaching workforce.

The Importance of Teachers of Color Representation in Special Education

Representation in special education refers to how educators, specialists, and decision-makers reflect the cultural, racial, and linguistic diversity of the students they serve. This includes classroom teachers or paraprofessionals and those whose perspectives inform the policies and practices that shape the educational experiences of students with disabilities.

Despite the increasing diversity of student populations in the United States, educators of color remain underrepresented in special education roles. In a national findings report, scholars compared the disparaging percentage of special education teachers of color (18%) to students of color receiving special education services (47%) (Scott & Bell, 2025). Not only is there a well-documented trend of students of color being identified for special education services, but these students are likely to be identified as having emotional disturbance and intellectual disabilities (Harper, 2017). Such overrepresentation can lead to stigmatization, reduced expectations, and restricted access to inclusive and enriching educational opportunities (Morgan, 2020). When students of color are disproportionately placed in special education, it can lead to harmful stereotypes, lower expectations from educators, and fewer chances to participate in inclusive and enriching learning experiences (Morgan, 2020).

Furthermore, when biased evaluation methods are utilized to identify students needing special education services and

when the backgrounds of teachers do not reflect those of their students, serious concerns are raised about how fairness and cultural understanding were factored into the decision-making process of identifying students. To tackle these deep-rooted issues, schools need to make a conscious effort to hire and retain more diverse special education staff and use assessment and teaching strategies that are culturally responsive. Boosting representation is not just about equity. It is key to helping all students with disabilities succeed and feel supported in their learning environments.

Benefits of Diverse Teaching Forces for Students and Schools

When students of color see a representation of educators who share their racial or cultural background, they are more likely to experience a sense of belonging in the education environment. According to Cleveland and Scherer (2024), when teachers reflect the racial and cultural diversity of their student population, there is improvement in a student's social-emotional well-being and behavior. Additionally, as diverse teachers bring their diverse lived experiences to the educational landscape, students can benefit from a wealth of cultural knowledge and perspectives. Furthermore, teachers of color are also more likely to implement culturally relevant pedagogy, which affirms and validates students' identities and makes learning more meaningful (Blazar, 2021).

Schools with a teaching force of educators with heterogeneous backgrounds foster an environment that contributes to more inclusive decision-making, which can lead to more equity-focused practices (Heinz et al., 2025; Kite & Clark, 2022). Teachers with diverse cultural and racial backgrounds can help challenge dominant narratives shaping policies and practices. This is particularly important as such practices impact the educational well-being of students of color in general education classrooms and those receiving special education services (Rashid, 2023; Recknagel et al., 2022).

Correlation Between Teacher Diversity and Student Equity

Research shows a strong correlation between teacher diversity and improved student equity outcomes. Students are more likely to experience academic success, improved behavior, and stronger connections with their teachers when taught by educators who share their cultural background (Blazar, 2021; Rashid, 2023). Additionally, when the representation of teachers reflects the diversity of students, students, particularly students of color, are more likely to be referred to gifted programs and experience a greater chance of graduating high school (Grissom & Redding, 2016).

Teacher diversity also has a significant impact on disciplinary actions taken against students of color, playing a critical role in reducing discipline disparities. Lindsay and Hart (2017) found that Black students who are taught by Black teachers are less likely to be subjected to harsh penalties such as suspensions or expulsions. A reduction in disciplinary actions helps keep students engaged in learning and reduces their risk of entering the school-to-prison pipeline.

When schools employ a diverse teaching workforce, this practice can help address concerns about disproportionately placing students of color in Special Education. Educators of color bring to the classroom an understanding of cultural differences in behavior and communication. Students of color may come from homes where certain things are given a name. However, when students bring that vocabulary to the classroom, the teacher of color may understand what that student is saying. Therefore, the teacher is less likely to interpret the student's communication as a learning or behavioral deficiency. Instead, the teacher can affirm and validate the student's language and culture while praising the student for using the language of choice. The language that is accepted by the general population. This type of culturally responsive approach supports a student's linguistic development while at the same time reducing the student's chances of being referred for special education services (Reddig et al., 2021).

Success Stories in Bridging the Representation Gap

Although the challenges of underrepresentation in special education are significant, inspirational examples of progress remain. These examples demonstrate how intentionally recruiting, supporting, and retaining teachers of color can result in equitable outcomes for students with disabilities (Carver-Thomas, 2018; Iloh, 2024).

Grow-Your-Own (GYO) Programs can be found all around the country. Districts like Chicago Public Schools and Minneapolis Public Schools have implemented GYO initiatives that support paraprofessionals, community members, and teaching assistants in becoming certified special education teachers. Many of these individuals are people of color. Furthermore, these programs provide financial assistance, mentorship, and flexible coursework. Not only does this help to diversify the pipeline of educators and strengthen community ties (Grow Your Own Illinois, n.d.; Minneapolis Public Schools, n.d.).

Alabama A&M University, Fayetteville State University, and other Historically Black Colleges and Universities (HBCUs) have partnered with school districts to build a stronger Black teacher pipeline. Partnerships like these leverage faculty networks, community ties, and culturally responsive curricula to recruit and support future educators

of color. By utilizing financial aid, mentorship, and outreach strategies to attract Black students, these programs are designed to prepare educators to meet the diverse needs of students while addressing educational inequities (Merod, 2024).

Actionable Solutions for Addressing Workload Inequities

Equity Focused Leadership

In education, specifically special education, equity-focused teacher leadership is vital for reconstructing educational organizations that have historically marginalized students with disabilities. Equity-focused teacher leadership extends beyond classroom instruction; it challenges established structures of inequity and promotes inclusive educational environments (Barton & Larson, 2012). Special education teachers of color serve as the upholders and agents of change because they possess deep knowledge of pedagogy and barriers faced by students with disabilities, particularly those composed of race, socioeconomic status, and other identity factors (Artiles, 2011; Waitoller & Artiles, 2013).

Explicitly stating in the terms of equity-focused teacher leadership, several key points must be highlighted: (1) According to Kundu (2025), teacher leadership is important to school improvement and there must be an emphasis placed on interrupting unbalanced structures that affect students with disabilities (2) Special educators of color are repeatedly denied access to formal leadership positions and must be repositioned as educational leaders and advocates with decision-making influence (Billingsley et al., 2019) (3) Equity-focused leadership in special education encourages a commitment to inclusive practices such as Universal Design for Learning (UDL), culturally responsive pedagogy, and interprofessional collaboration (Gay, 2018; Kozleski & Waitoller, 2010). With his approach, special education is reframed as a core site of equity work instead of a marginal aspect of the educational system. Equity-focused teacher leadership disrupts ableism, addresses intersectional injustices, and focuses on inclusive excellence across schools, all require teacher leaders to be empowered in this space.

Promoting a Culture of Collaboration

With the need to recruit and retain teachers of color, educators of color are tasked with additional responsibilities. These include mentoring students of color, spearheading equity initiatives, or managing culturally sensitive classroom issues. Educators of color are often expected to pay the "invisible labor tax." However, educators of color are rarely formally recognized or receive compensation for their efforts (National Education Association, 2021). Unbalanced expectations contribute to burnout. Schools can remedy this by conducting routine workload audits and implementing transparent systems for assigning duties (Hunzicker, 2023). Collaborative planning and shared leadership models can also ensure that responsibilities are distributed fairly. Collaborative planning can also lead to a work environment that allows educators to thrive without being overburdened.

Culturally Responsive Leadership Practices

When leaders intentionally cultivate equitable and inclusive school environments, they practice culturally responsive leadership. Leaders who practice self-reflection while supporting culturally responsive teaching and curricula are better equipped to serve diverse student populations (Minnesota Department of Education, n.d.). The Professional Standards for Educational Leaders (PSEL) also emphasize equity and cultural responsiveness and urge leaders to confront institutional biases while advocating for inclusive practices (New York State Education Department, 2017). According to Carter (2021), leadership is pivotal in implementing culturally responsive reforms, especially in addressing achievement gaps and disciplinary disparities.

Mentorship and Peer Support Programs

Sustainable mentorship and peer support within schools represent necessities for retaining educators of color. Educators of color often experience professional isolation, microaggressions, and a lack of culturally affirming support in predominantly white institutions. Structured mentorship programs that pair new teachers with experienced mentors with similar cultural backgrounds can significantly improve job satisfaction and retention (Carver-Thomas, 2018).

Peer support networks like teacher affinity groups provide safe spaces for educators of color to share experiences and navigate challenges. These networks also help to foster collective resilience, a sense of belonging, and professional identity, which is critical in environments where educators may feel marginalized. According to the CDC, strong peer connections are linked to improved mental health and professional engagement, both of which are key to long-term retention (Centers for Disease Control and Prevention, 2024).

Anti-Bias Training and Professional Development

Professional development emphasizing anti-bias training is essential for fostering equitable, inclusive, and culturally affirming school environments. These trainings are designed to help participants understand systemic inequities and adopt practices that support all students, particularly those from historically marginalized communities. Anti-bias training helps educators develop

intercultural sensitivity and integrate inclusive practices into their teaching (Lin et al., 2008). Importantly, when educators feel supported through meaningful training and collaborative learning opportunities, they are more likely to remain in the profession (Cells et al., 2023). When designed with intentionality, anti-bias training can lead to improved student outcomes and a strengthened educator workforce (Woo et al., 2022).

Policy Interventions to Attract and Retain Educators of Color

Teacher residency programs and mentorship-based induction models are valuable resources for aspiring educators from underrepresented backgrounds. These programs provide financial support and sustained mentorship. According to a review by the Institute of Education Sciences (2022), teacher residency programs, particularly those that are part of partnerships between universities and local schools, enhance teacher retention and improve student outcomes in urban and rural settings. The availability of these programs prepares educators to meet the challenges of diverse classrooms while fostering stronger relationships between schools and their communities. This approach is beneficial because it recruits candidates likely to return and teach in the communities where they grew up (Thompson Policy Institute, 2025).

Institutional Changes

Recommendations for equitable workload distribution include shifting from a caseload to a workload model. According to Yecke and Hale (2001), the workload of special education teachers consists of six primary components that can be clearly documented: (1) specially designed instruction; (2) evaluations and re-evaluations; (3) due process procedures and IEP management responsibilities; (4) preparation time; (5) supervision of paraprofessionals; and (6) non-special education duties, such as daily supervision and other general school assignments. The American Speech-Language-Hearing Association (ASHA) supports a workload-based model that emphasizes the full scope of responsibilities handled by school-based professionals, extending beyond student headcounts to include documentation, collaboration, consultation, and other indirect services (American Speech-Language-Hearing Association, 2019). The recommendation is for institutions to adopt this workload-based model instead of focusing on caseload numbers for special education teachers.

Anti-Biased Leadership Training

Bias in special education refers to the marginalization that influences special education services, instruction, and student discipline. In an article discussing disproportionality in special education, Terry et al. (2022) explore the dynamics of race, identification, and placement for special education services while highlighting the biases inherent in decision-making. These systemic issues require special educators of color to spend significant time addressing inequities and advocating for their needs, diverting focus from delivering quality instruction and enhancing teaching practices. It is recommended to offer leadership training that emphasizes understanding the characteristics of students with disabilities, helping to prevent unfair treatment, and reducing the additional burden placed on special education teachers of color.

Peer Mentoring and Cultural Competency Programs

Peer mentoring is recommended as a strategy to build supportive relationships by pairing mentors and mentees based on shared experiences and cultural background, focusing on problem-solving and resource sharing. According to the National Center for Education Statistics (2022b), while over half of public school students identify as students of color, only 18% of special education teachers share that background. This demographic gap highlights the need to expand peer mentoring into broader, state-wide initiatives that strengthen mentorship opportunities specifically for special education teachers of color.

Cultural competency programs, along with peer mentoring, are essential methods for acquiring the awareness, knowledge, and abilities that educators need to effectively work with diverse populations. Understanding students' cultural experiences and backgrounds is an essential component of cultural competency training, assisting in the promotion of equity and inclusion in the school community.

Policy Advocacy

Policy advocacy is critical in sustaining and scaling efforts to diversify the educator workforce. Federal and state initiatives can address structural inequities and promote long-term change. These policies help shape educators' working conditions and influence those who decide to enter and stay in the profession. Advocacy ensures that equity is a sustained commitment embedded in law and practice. One example of policy advocacy is the Pay Teachers Act. This 2025 legislation proposes a national minimum salary of $60,000 for public school teachers. In response to staffing shortages, the organization aims to improve teacher retention by addressing economic disparities disproportionately affecting educators of color. This legislation ensures a livable wage. The legislation also seeks to make the profession accessible and sustainable. This is particularly important for individuals who are from historically marginalized communities and face financial hardships (US Department of Education, 2024a).

The Individuals with Disabilities Education (IDEA) Act is important in addressing workforce challenges. The primary focus of IDEA is to ensure access to and services to a free and appropriate public education for eligible students with disabilities. IDEA also mandates professional development and inclusive practices to benefit all learners. As such, these requirements create opportunities for educators to receive training in culturally responsive and sustainable practices.

Equity Assistance Centers (EACs), funded by the U.S. Department of Education, provide technical assistance and training. The training helps school districts address issues related to desegregation, harassment, and prejudice reduction. With the assistance of these centers, school districts can develop and implement equity-focused plans, analyze disparities in student outcomes, and build capacity for inclusive practices (U.S. Department of Education, 2024a).

The Fostering Diverse Schools Demonstration Grants Program is a federal initiative to support local and state education agencies in developing school diversity plans. Grants funded through this program help K-12 schools improve their student learning conditions by increasing socioeconomic and racial diversity. The FDS grant program also emphasizes the importance of mental health, academic well-being, and access to a well-rounded education as part of a broader equity agenda (U.S. Department of Education, 2024b).

Discussion

Attracting and retaining qualified special education teachers has been a persistent challenge in the United States. Research consistently identifies high attrition rates within the field, with many teachers leaving the profession prematurely (Ward, 2019). For example, the U.S. Bureau of Labor Statistics (2022) reported that nearly 90% of teachers plan to retire early due to burnout. Similarly, newly qualified teachers and those with strong academic backgrounds, particularly in secondary education, will likely exit the profession within the first five years (Gorard, 2020). Workload demands and the lack of work–life balance are among the most cited contributors to teacher burnout (Perryman & Calvert, 2020).

Additional factors that negatively influence retention include limited support from school administrators, inadequate compensation, student discipline challenges, and teachers' perceptions of not being heard by decision-makers. Inadequate teacher preparation programs and diminished motivation also contribute to early exits from the profession (Ingersoll, 2018). Consequently, schools and districts have introduced targeted initiatives to recruit and retain special education teachers (Fryer et al., 2012).

Retention strategies include financial incentives such as salary differentials for teaching in special education, scholarships to attract candidates, and bonuses for entry into the field or achieving high student performance outcomes (Dee & Wyckoff, 2015; Springer et al., 2011). Stipends for special education teachers have also been utilized to address compensation disparities. Beyond financial incentives, mentoring programs have been shown to support new teachers' professional growth by pairing them with experienced colleagues, providing essential guidance, and fostering job satisfaction (Kearney, 2014; Ronfeldt & McQueen, 2017).

Government policies have also sought to address retention challenges by improving teacher working conditions (Gorard, 2020). Research highlights that teachers are among the most important factors influencing student outcomes (Darling-Hammond, 2017). Therefore, retaining qualified teachers, particularly in special education, requires comprehensive policies that address contextual factors such as salary, workload, retirement age, class size, and access to social benefits (Harrison-Collier, 2013; Kelchtermans, 2017). By acknowledging these factors, policymakers aim to promote teacher well-being, which benefits students (Garcia & Weiss, 2019; Madigan & Kim, 2021).

Targeted supports are essential because stress is a primary source of burnout among special education teachers. Stress often manifests in emotional and physical deterioration (Hester et al., 2020). The Centers for Disease Control and Prevention (CDC) recommends that districts implement wellness programs that promote stress management to improve retention. Providing sufficient resources, such as administrator training in behavior management and access to content-specific support, can also reduce stressors and improve working conditions for special educators (Hagaman & Casey, 2018; Hester et al., 2020).

Our paper, along with the research reviewed, directly addresses the guiding question: "What systemic strategies can mitigate these inequities?" The findings highlight that effective approaches to improving retention in special education involve ensuring equitable workloads, increasing compensation, enhancing professional and administrative support, and reducing occupational stress through wellness and resource-based initiatives. Collectively, these strategies foster a more sustainable and equitable special education workforce while advancing improved educational outcomes for students with disabilities.

CONCLUSION

This paper has discussed the profound impact of workload inequities on special education teachers, particularly those from historically marginalized racial and ethnic backgrounds, and their implications for implementing the

Individuals with Disabilities Education Act (IDEA). The findings reveal not isolated incidents but systemic patterns of bias and structural barriers, including disproportionate task loads, insufficient professional development in culturally responsive pedagogy, and inadequate targeted support, that collectively contribute to burnout and attrition among special education teachers of color. Addressing these inequities requires intentional, data-driven interventions, such as comprehensive workload audits and transparent policies ensuring equitable distribution of responsibilities.

To address these challenges and advance equity, this paper offers recommendations grounded in the Equity-Centered Leadership Framework. These include: implementing equitable task distribution systems for teachers; adopting culturally responsive and anti-bias leadership practices; establishing mentorship programs tailored specifically to teachers from historically marginalized racial and ethnic backgrounds; embedding ongoing anti-racist professional development into school systems; creating regular professional learning communities where educators can voice concerns about workload fairness; systematically rotating non-instructional duties to prevent overburdening specific staff members; and establishing confidential, data-driven reporting mechanisms that promote accountability and enable educators to raise concerns without fear of retaliation. Additionally, this paper presents specific leadership behaviors that school administrators can adopt to promote workload equity and retain skilled special education teachers of color, while outlining practical strategies for cultivating inclusive and supportive work environments.

These strategies are essential for cultivating an equitable, inclusive, and sustainable special education workforce while ensuring full compliance with IDEA's mandates. While this paper integrates both research evidence and practitioner perspectives to strengthen its contributions, certain limitations must be acknowledged. Findings may not be universally applicable across all contexts, particularly in settings with divergent policy frameworks or resource availability. Future research should empirically test these recommendations across diverse educational environments to assess their effectiveness and contextual adaptability. Nevertheless, by prioritizing equitable workloads and comprehensive support systems, schools can develop a sustainable special education workforce that authentically reflects the diversity of the students they serve, ultimately providing equitable education for all students with disabilities.

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Against the Odds:
Efficacy of Teachers of the Deaf and Hard of Hearing in Kenyan Units

Units Author 1: Dr. Susan Wamae (Contact author)

University of Nairobi, Nairobi, Kenya

E-Mail: swwamae@uonbi.ac.ke

Physical address: 57794-00200 Nairobi, Kenya.

Author 2: Annette Leonhardt

Ludwig Maximilians University of Munich, Munich, Germany

E-Mail: Leonhardt@edu.lmu.de

Physical address: Leopoldstr. 13, 80802 Munich

Author 3: Melanie Pospischil

Ludwig Maximilians University of Munich, Munich, Germany

E-Mail: Pospischil@edu.lmu.de

Physical address: Leopoldstr. 13, 80802 Munich

Abstract

Teacher efficacy is an important attribute that affects learning and teaching. Teachers with high efficacy have been found to exhibit greater enthusiasm for teaching than their counterparts with lower efficacy. Efficacy studies have predominantly been conducted in general education and special education, in teachers for students with learning disabilities, mild intellectual disabilities, and behavioral disabilities. The present study examined the efficacy and teaching experience of teachers of the Deaf and hard of hearing (DHH) in Kenyan Units. Through a survey, the present study revealed that teachers rated themselves highly in their overall perceptions of self-efficacy. It was also established that the teachers faced numerous challenges at the Units. However, despite the challenges, the teachers reported strong confidence in their capabilities to teach DHH students. Implications of high efficacy levels and working environment are discussed in the study.

Keywords: teacher efficacy, deaf and hard of hearing, teacher experience, deaf Units

Introduction

Efficacy is a psychological construct based on an individual's evaluation of how successfully they can do something in a given situation (Waddington, 2023). Perceived efficacy is important to human beings because it directly affects behavior and indirectly affects goal setting, aspirations, expectations, perceptions of challenges, and opportunities in the social environment (Bandura, 2000). Efficacy is a belief in one's ability to coordinate skills and abilities to achieve a desired goal in a particular domain or situation (Maddux, 2012). This implies that self-efficacy is an individual's judgment about their task capability. It is associated with the performance of an activity at a desired level.

Social Cognitive Theory

Bandura's social cognitive theory forms the theoretical understanding of the concept in the present study. This theory defines self-efficacy as "a future-oriented belief about the level of competence a person expects he or she will display in a given situation" (Bandura, 1997, p. 3). People are seen not only as mere products of their environment but also as producers of their environment since they can select, create, and transform the circumstances of their environments. Further, people are agents who can influence events to shape their lives. An agent is an individual who can intentionally influence their functioning and life circumstances (Bandura, 2002).

The theory postulates that juxtaposed with individuals with low efficacy, individuals with high efficacy are more likely to put in the effort to accomplish challenging goals. They can persist during challenges because they believe they can master the challenges and difficulties (Bandura, 1997). Individuals with strong efficacy beliefs will resist any self-regulation disruptions presented by problems and challenges, leading to perseverance that attains the desired results (Maddux, 2012). A study by Cassidy (2015) investigated this concept in undergraduate students. His analysis suggests that students with greater efficacy were more resilient when presented with vicarious and personal adversity. Therefore, to succeed in their endeavors, an individual must possess the required skills and resilient belief in their ability to control events (Cassidy, 2015).

Teacher Efficacy

Research suggests that "teacher and teaching variables might be the most important factors in educating Deaf and Hard-of-Hearing (DHH) learners" (Knoors et al., 2019, p. 592). The present study focuses on teachers' self-efficacy in an educational setting. Teacher efficacy is "the teacher's belief in his or her capability to organize and execute courses of action required to successfully accomplish a specific teaching task in a particular context" (Tschannen-Moran et al., 1998, p. 233).

Self-efficacy in education has led to research about teachers' self-efficacy beliefs and how these beliefs relate to teachers' actions and classroom results. For instance, self-efficacy has been strongly associated with observed teaching performance, an indicator of a teacher's effectiveness (Klassen & Tze, 2014). Further, teachers' self-efficacy beliefs are associated with how much effort teachers invest in teaching, their career goals, their persistence in difficult times, and their resilience during setbacks (Dixon et al., 2014; Hoy & Spero, 2005). Therefore, teachers with generally low self-efficacy are prone to experience stress and burnout compared to those with high self-efficacy (Lauermann & König, 2016). This growing body of research indicates that teacher efficacy has far-reaching educational implications.

Efficacy studies have predominantly been conducted in general education (Klassen & Tze, 2014; Malinen et al., 2013; Dixon et al., 2014; Zee et al., 2016) and when in special education, on teachers for students with learning disabilities, developmental delays, intellectual disabilities, behavioral disabilities, visual impairment and DHH (Woodcock & Faith, 2021; Sarıçam & Sakız, 2014; Atiles et al., 2012; Paneque & Barbetta, 2006).

In special education, teacher efficacy has been associated with teacher satisfaction (Shaukat et al., 2019), the inclusion of students with disabilities in regular classrooms (Woodcock & Jones, 2020; Sharma et al., 2012; Nagase et al., 2021), attitudes towards inclusion (Savolainen et al., 2022; Hofman & Kilimo, 2014; Malinen et al., 2013; Weisel & Dror, 2006), and teachers' perceived efficacy while working with students with language impairments (Guo et al., 2014). Few studies, if any, have been conducted on the efficacy of teachers of students who are DHH, especially in African countries. The present study sought to fill this gap.

Units for the DHH

In Kenya, the educational options for children who are DHH are somewhat limited to special schools for the DHH, special Units for the DHH, and regular schools (Adoyo & Maina, 2019). Most children in Kenya who are DHH receive their education either in special schools for the DHH or in special Units for the DHH. The present study was based in Units for the DHH. A Unit is a self-contained classroom within a regular school where students who are DHH receive their instruction (Kauffman et al., 2023). The schools predominantly have students with typical hearing, and a small Unit for the DHH is housed within the compounds (Elder et al., 2015; Mweri, 2014). The present study distinguishes Units and resource rooms as distinct categories. The students who learn in Units receive all or most of their instruction from a teacher of the DHH, while

those in resource rooms receive instruction in selected subjects from a teacher of the DHH (Stinson & Kluwin, 2012). The Kenyan context has Units for the DHH, where the students receive all of their instruction from a specialized teacher of the DHH in separate classes. Typically, this school setting uses Kenyan Sign Language for instruction (Mweri, 2014) and the students are taught by specialist teachers trained in special education (Adoyo, 2007). The students interact with children with typical hearing outside the classroom during recess (Mwoma, 2017).

Purpose of the Present Study

The aim of the present study was to establish the efficacy of teachers of the DHH in Units and provide insights into their experiences. The guiding questions of the study were:

(1) What is the efficacy of teachers teaching in Units for the DHH in Kenya?

(2) What is the teachers' experience in Units for the DHH in Kenya?

Materials and Methods

The present study adopted a descriptive research design. At the time of the research, there were 27 teachers of the DHH in Units. With such a small population, non-probability sampling methods were used to select the sample for the present study, as random sampling procedures would have yielded an even smaller sample size. Snowball sampling method was used to select the study sample. This sampling method is recommended for small or specific populations (Aidley, 2019), as in the present case.

The present study had 23 participants, all of whom were teachers of the DHH. All the participants were from 11 Units of the DHH in Nairobi and Kiambu Counties. Therefore, the participation rate was 85% of the target population.

Ethics Statement

The study was ethically approved by the National Commission for Science, Technology, and Innovation (NACOSTI). This institution is mandated by the Government of Kenya to regulate and assure quality in the country's science, technology, and innovation sector.

The researcher explained in detail the study's purpose and research procedure so as to gain informed consent from the participants. All participants were asked to read and sign consent forms before participating in the study. Participation in the present study was entirely voluntary. The participants were given the option to decline participation or to leave parts of the questionnaires incomplete in case they were uncomfortable sharing any requested information.

Procedure

Psychological concepts such as efficacy and beliefs are adequately measured using structured questionnaires (Creswell, 2012). Therefore, the present study used questionnaires to collect data on teacher efficacy. The Teachers' Sense of Efficacy Scale (TSES) was used to collect quantitative data. The TSES was developed to measure the efficacy of teachers (Tschannen-Moran et al., 1998). The present study used TSES as it was deemed superior to other efficacy measures, and it had a stable factor structure; previous scales were reported to have psychometric problems (Hoy & Spero, 2005; Tschannen-Moran & Hoy, 2001a).

The researcher used the short, 12-item version of the TSES since it was analogous to the original 24-item instrument (Dixon et al., 2014; Zee et al., 2016). The TSES (short version) has 12 items assessed along a 9-point continuum with anchors at 1- Nothing, 3- Very Little, 5- Some influence, 7- Quite a Bit, and 9- A great deal (Tschannen-Moran et al., 1998; Tschannen-Moran & Hoy, 2007). A sample of the items in the instrument is provided below (Tschannen-Moran & Hoy, 2001b):

Item 5: To what extent can you craft good questions for your students?

Item 9: How much can you use a variety of assessment strategies?

The questionnaires were administered face-to-face and collected immediately after completion. The participants were given directions on how to complete the questionnaires, especially the meaning of the rating scales. Further, the participants were informed of the approximate time it would take to complete the questionnaires and were assured of their anonymity. The researcher was available to provide any clarification needed.

The present study also collected qualitative data. The researcher conducted a focus group discussion (FGD) to collect in-depth information on the teachers' experience of teaching DHH at the Units. Focus group discussions are apt for homogenous groups (Creswell, 2012), such as the participants in the present study. The focus group discussion had nine participants who were all teachers of the DHH in Units. These participants were selected because they had shown great knowledge in the area of education of the DHH and were eager to share their teaching experiences.

RESULTS

Descriptive Statistics

The present study had 23 participants, all of whom were teachers of the DHH drawn from 11 Units of the DHH. There was a 100% response rate to the questionnaires

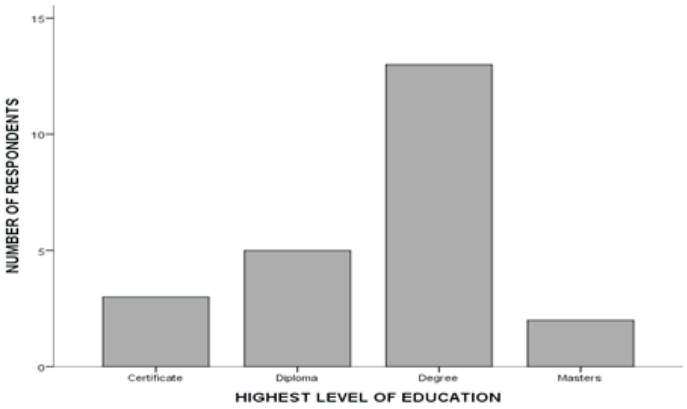
administered in the present study. Gender distribution of teachers showed that the majority (91%) of the teachers were female. Further, most teachers (91%) of the DHH were individuals with typical hearing, and only 8% were DHH. The age distribution of the participants showed that the majority (48%) were between 50-59 years. Very few (8%) participants were below 30 years of age, while the rest (44%) were between the ages of 30 to 49 years.

The participants' teaching experience in DHH settings was juxtaposed with their experience in general education settings. The results show that the median for teaching in schools for the DHH was nine, while the median for teaching in general schools was ten. These findings show us that, on average, the respondents had taught slightly longer at the general schools than at schools for the DHH. The interquartile range for the respondents' experience in schools for the DHH was 11, while that of the respondents at general schools was 18, as depicted in Figure 1. The interquartile range for the respondents' experience teaching at general schools was larger, indicating more variability in how long the respondents taught in general schools than in schools for the DHH.

Figure 1. Box Plot showing the teaching experience of participants in general and schools for the DHH.

Most (87%) of the respondents had received training in Special Needs Education (SNE) with a specialization in the Education of the Deaf and Hard of Hearing. One respondent had received training in General Education. Two were trained in other education fields: one in Early Childhood Education and the other in Special Needs Education with a focus on Intellectual Disability. The majority (57%) of the participants had attained a degree as their minimum level of education, as depicted in Figure 2.

Figure 2. Bar chart showing the highest level of education completed by the respondents.



Teacher Efficacy

The efficacy of teachers of the DHH in Units was measured using TSES, and the results from its three subscales are presented in Table 1. The results indicated that the total efficacy of teachers of the DHH in Units in Kenya was very high (M=8.00, SD=0.67). The present study did not conduct a confirmatory factor analysis on the TSES because the sample size was too small to yield reliable results.

Table 1. Efficacy of Teachers of the DHH.

		Student Engagement	Instructional Strategies	Classroom Management
N	Valid	23	23	23
	Missing	0	0	0
M		7.95	7.92	8.12
SD		.892	.831	.661
Minimum		6	7	7
Maximum		9	9	9

Teachers' Experience in the Units

Data obtained through the FGD was analyzed using MAXQDA 10 software. The key informants were assigned culture and gender-neutral pseudonyms (e.g., Onyesha) instead of research IDs (e.g., Participant 1) to enhance the realism and authenticity of the participants' experience. The use of quotations has been found to add a dimension of realism, authenticity, and humanity to an issue under study since they convey the views and values of the participants concerning the issue (Cohen et al., 2011). Therefore, themes that emerged from the data were summarized and displayed in Table 2, which contains exemplars from the participants.

Findings from the FGD suggest that teachers of the DHH

Table 2. Experience of Teachers in the Units.

Theme	Exemplar
Lack of classrooms	Hodari: Like in my school, we do not have any extra room. The school admin one time tried to get an extra room for us but we don't. Sultan: Actually in Nairobi, we need a school for the Deaf whereby a whole room will belong to a certain level. Hodari: If we had a special school that could not happen because we would take all those teachers from all those units and all those learners make this school and we will teach normal and these children will perform.
Lack of personnel	Inira: We are just wishing that if the Government did something to us, to add us more teachers, to consider the Deaf, to consider the Deaf children as any other child in the society because teaching the Deaf child is not as teaching the regular child. Imani: How I wish maybe we could have teacher aids, even in schools for the Deaf so that they can help us manage the classes better, yeah.
Lack of parental support and involvement	Imani: You can imagine a parent on a visiting day comes, gives the child food, the child eats, they will eat when the parent is quiet and when they finish, anashika [they hold] the child mkono [the hand] then brings the child to the teacher and asks, muulize anataka nini, [ask him what he wants] what else does he or she need? Amani: I do not know kama ni [if it is] ignorance ama ni [or it is] overprotection. I have a student, class 7. She had a problem with the mother. Sultan: This parent is still in denial. The first thing is counseling the parent. If you are not capable, call different people to talk to the parents so that the parent can first of all get out of denial.
Heavy workload and time constraints	Tamu: We are stressed by time. Inira: I am teaching all the subjects, the 6 subjects in class 4. I am also teaching the SIX (emphasis) in class 7. Now you can imagine it is 35 min. You have to jump like a cartoon, give an example, give work very fast to the class 7. Then you come in the same 35min, you give the class 4s. Imani: Sometimes you are supposed to handle activities of daily living. This child… You have to… Maybe they do not know how to manage themselves so you take them to the washroom. So when that need comes in, then you have to leave the other children and take this one and you find that it… Sometimes it may not work because now these 35min, as I agree with my colleague, um, these are the 35 min that you are using to manage all these. Hodari: You realize that all these children need an IEP but because of the amount of work that you have and… Remember that we also have the madness that we have about mean score, that you sit down and ask yourself, "Am I going to plan my lesson? Am I going to make the rubric? Am I going to write the IEP?" Yaani [that is] the work that you have to do and to it is just too much for you.
School administration	Amani: Support from the administration is very minimal. Sultan: The admins in a school with Units for the Deaf, especially… They are supposed to know. Maybe if not, the Government should make sure that they have at least psychology for the Deaf. They need to learn some basics in KSL and psychology,… they need to have that knowledge.
Student characteristics	Tamu: So even for those who are maybe having one level (e.g., a class where I am having PP1 and PP2), and in the same class I am having those ones with MH and autism. Ujana: I'm teaching the lower class… these kids, they do not even have language… They don't even understand, according to me.

faced numerous challenges while teaching in Units.

Discussion

The present study aligns with some global trends in research on teacher efficacy. To begin with, there has been a trend towards the use of diverse methodology. Previously, quantitative methodology was more prevalent in studies on teacher efficacy, but the shift has been towards qualitative and mixed methodology (Lee et al., 2017). A second trend is in diversity of research contexts. Researchers recognize that teacher efficacy is context-specific, necessitating the exploration of teacher efficacy across different educational contexts, geographical regions, and teaching levels (Lee et al., 2017). Following these trends, the present study collected both quantitative and qualitative data from teachers of learners who are DHH within an African context. This population has been underrepresented in literature.

Teacher efficacy is about the teacher's feelings of competence (Knoors et al., 2019). The TSES results show that teachers in the present study reported generally high ratings concerning their overall perceptions of self-efficacy. They were confident in their ability to teach students who are DHH.

Participants' high efficacy levels were rather unexpected considering that the study's qualitative findings indicated that the teachers faced numerous challenges and deemed the Units an unconducive learning and teaching environment. Previous studies suggest that some factors could influence a teacher's assessment of efficacy. Such factors include parental involvement (Baş, 2022), school settings with support from the administration (Stipek, 2012), student characteristics (Sawyer et al., 2022), availability of teaching resources, and the quality of teaching facilities (Bandura, 1997). Therefore, the present findings were incongruent with findings from previous studies. We would expect that the efficacy levels of the participants would not be as high as reported (M=8.00, SD=0.67).

Interestingly, the findings in the present study are contrary to the model proposed of teacher efficacy, which seems to suggest that teachers consider factors related to the teaching task, such as the physical conditions of their teaching space, as they assess their efficacy levels (Tschannen-Moran et al., 1998). In the present study, it seems that such factors did not necessarily affect teachers' perceived efficacy.

It is important to acknowledge that people may overestimate or underestimate their abilities, and these estimations could influence their actions, such as the activities they pursue and the effort they expend on them (Ng & Earl, 2008; Vancouver, 2012). Research indicates that a slight overestimation of one's efficacy is positive in that it may increase persistence (Schumann & Sibthorp, 2016; Tschannen-Moran & Hoy, 2007). The teachers may have high regard for their competence as teachers of the DHH, despite their working conditions.

It has been established that teachers with high self-efficacy believe they can make a difference (Chu, 2013), which aligns with the sentiments expressed by the participants in the present study. Self-efficacy beliefs become self-fulfilling prophesies that validate teachers' perceptions of their capability or incapability (Tschannen-Moran & Hoy, 2007). Therefore, the present findings may reflect teachers' motivation and persistence in teaching students who are DHH, notwithstanding the myriad of challenges they experience in Units.

There is a shortage of teachers of the DHH in Units. This situation was greatly compounded during the data collection exercise because the body that employs teachers in Kenya, the Teachers Service Commission, had just implemented a teacher delocalization policy (Wanzala, 2019; Lucy & Chirchir, 2023). Consequently, some teachers of the DHH were transferred from the Units and given managerial positions in regular schools, significantly reducing the target population of the present study.

Shortages of specialized teachers for the DHH have also been documented in other African countries, such as Malawi (Phiri, 2021), South Africa (Kelly et al., 2022), and Zimbabwe (Musengi & Chireshe, 2012). This acute shortage of teachers for learners who are DHH is not unique to developing nations but has also been documented in Western countries. Recent studies by Singer et al. (2024) and Bowen and Probst (2023) report a severe lack of teachers for the DHH in the United States. Additionally, the American Association for Employment in Education (2017) has consistently reported a shortage of teachers for the DHH. A similar shortage of teachers of the DHH who can offer specialized language skills has been reported across 31 European nations (Krausneker et al., 2022).

The present study established that teachers of the DHH in Units faced numerous challenges. A number of these challenges have been reported in previous studies: Authors persistently report that schools for the DHH in Kenya lack learning materials such as subject textbooks (Awori et al., 2019; Makokha, 2012; Luvanga et al., 2020), that the schools did not have enough staff (Makokha, 2012); they had inadequate resources (Elder et al., 2015; Luvanga et al., 2020); that parents were not involved in their children's education (Adoyo & Maina, 2019), and that the large number of students in the classrooms left teachers overworked and unable to attend to students' needs (Makokha, 2012). These challenges are not unique to Kenya. A study by Mapepa and Magano (2018) in South Africa enumerates challenges faced in their inclusive

schools for the DHH. Some of the challenges experienced in South Africa, such as lack of teaching and learning materials, overcrowding, and lack of support from other professionals, were comparable to the Kenyan context.

The present study documented additional constraints that teachers faced, such as a lack of classrooms whereby students of different grade levels all learned in one or two classrooms in the Unit. Some teachers said they lacked support from the school administration and were regarded as auxiliary staff who supported teachers in the regular classrooms. Findings from the present study conclude that the Units are unconducive teaching environments for the teachers, ergo, unconducive learning environments for students who are DHH. These conclusions concur with those of Mweri (2014), who castigated the Units for the DHH and deemed them pathetic. Our findings also align with Piper et al. (2019), who concluded that special Units in Kenya were not known for their high-quality education services.

Limitations

The present study recognized and acknowledged the limitations faced in making this inquiry. The sample size was relatively small since it was drawn from a rather small population, which prevented quantitative analyses from being conducted in the present study. However, nonparametric statistics were used to control for the challenge of the small sample size. The sampling technique could have introduced bias into the study. These limitations imply that the findings from the present study cannot be generalized to teachers of the DHH in all the Units in Kenya.

Implications for Practice

More studies are needed on how to measure teacher efficacy. Future studies could investigate whether the TSES yields similar results in an African context through large samples with bigger effect sizes. Sample size limitations meant the present study did not establish whether the TSES had psychometric properties comparable to those reported in previous studies conducted in various cultural contexts.

Doubts about self-efficacy could sometimes be beneficial (Vancouver, 2012; Wheatley, 2002). For instance, such doubts could spur teachers to learn new strategies, reflect on their teaching, and motivate them to learn (Wheatley, 2002). TSES results indicate that, compared to the other subscales, the teachers in the present study received the lowest scores on instructional strategies (M=7.92, SD=.83). These relatively low scores should motivate the teachers to learn evidence-based strategies for teaching students who are DHH and implement them in their classrooms. Research suggests that individuals with high efficacy may experience lower performance (Vancouver, 2012). In this case, teachers with a strong sense of efficacy may not feel the need for new strategies and might not implement what they learned in in-service trainings (Tschannen-Moran et al., 1998). More research should be conducted on the implications of high efficacy and performance.

Teacher training programs in colleges and universities play a crucial role in determining the efficacy of teachers for students who are DHH. This is because efficacy has been found most malleable early in learning. Therefore, the first years of training teachers could influence the long-term development of teacher efficacy. The recommendation here is that teacher training programs should give student teachers more experience with teaching and managing classrooms of students who are DHH in different school settings and at varying levels of complexity.

A series of studies in South Africa investigated the efficacy levels of student teachers before and after they engaged in work-integrated learning (Matoti et al., 2011; Matoti & Junqueira, 2012; Matoti et al., 2013; Junqueira & Matoti, 2013). The findings from these studies underscore the malleability of student teachers' efficacy. Further, the findings highlight the impact of work-integrated learning on student teachers' efficacy. A study conducted in the United Kingdom (Coates et al., 2020) and another in the United States (Atiles et al., 2012) sought to establish the effect of field experience on student teachers' efficacy. The findings from both studies suggest that experience improves the teacher efficacy of pre-service teachers. Findings from these studies reiterate our recommendation on the importance of redesigning teacher training programs.

In light of the findings of the present study, especially considering the constraints teachers experience in Units for the DHH, it is imperative to create a conducive environment for teaching and learning in institutions for students who are DHH. Causton-Theoharis et al. (2011) criticized the rationale behind self-contained classrooms and suggested that these classrooms did not provide academic or social experiences superior to inclusive settings. Due to the heterogeneity of students who are DHH, there is no singular education placement suitable for all the students. However, a placement should provide high-quality teaching, learning, and service to learners.

Learning and teaching conditions should be studied to better educate students who are DHH. This process started when the present researcher and some teachers at the Units formed a team to advocate for an inclusive, full-fledged school for students who are DHH in Nairobi County to alleviate some of the challenges faced in Units. In such a school, students of different grade levels would learn in separate classrooms, and each classroom would at least

have a teacher to manage it.

In addition, the Teachers Service Commission (TSC) should allocate qualified teachers and assistant teachers of the DHH. TSC should also employ ancillary personnel qualified in occupational therapy, physical therapy, and behavior assessment and management to cater to students who are DHH with multiple disabilities. Regressive practices, such as assigning teachers of the DHH to teach in regular schools, which deprives students who are DHH of talented teachers, should be banned. School administrations can meaningfully reduce the workload of teachers of students who are DHH through equitable distribution of tasks at the school. Further, the Ministry of Education should allocate more funds to institutions for students who are DHH to buy learning and teaching materials, including IT devices.

Lastly, Quality Assurance and Standards Officers should frequently inspect institutions for students who are DHH to ensure these environments are conducive to teaching and learning, and recommend improvements.

Disclosure of interest

The authors declare that they have no known competing financial interests or personal relationships that could have appeared to influence the work reported in this paper.

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Bridging Language Barriers: Adapting the Picture Exchange Communication System for South Asian Children with Autism

Author: Melody Mann

Affiliation: University of Maryland, College Park

Email: melmann@umd.edu

Address: 103 Southampton Dr., Apt E, Silver Spring, MD 20903

Cell Phone: (510) 574-5371

Abstract

Autism spectrum disorder (ASD) is a multifaceted diagnosis that individuals experience in tandem with their personal identities and complexities. Culturally and linguistically diverse (CLD) learners with ASD experience their diagnosis through unique cultural lenses that are often overlooked by peers, practitioners, and care providers. In the United States of America, CLD students, particularly Asian students, are diagnosed with ASD at higher rates than White students. The evidence-based practices and interventions provided to Asian students with ASD are not always culturally responsive, inclusive, or adapted. Barriers in accessibility and accommodations thus persist for CLD children with disabilities in obtaining culturally sensitive interventions and supports due to existing gaps in inclusivity and awareness. To acknowledge the gap in culturally responsive evidence-based practices, this practitioner paper aims to culturally adapt the Picture Exchange Communication System (PECS) for Asian, specifically South Asian, learners with ASD. However, the methods can be applied widely across CLD communities. By integrating cultural considerations into the traditional six-phase PECS model, additional steps will be introduced to the preparation stages of PECS to promote collaboration, respect, and inclusion of all family members. Through exploring the link between PECS, social skills development, and cultural sensitivity, this paper offers practical strategies and cultural consideration questions for interventionists, practitioners, and educators to bolster inclusivity and foster a sense of belonging among the CLD students and families they serve.

Keywords: *Picture Exchange Communication System, autism, early childhood, culturally and linguistically diverse, South Asian*

Introduction

Students with disabilities work toward grade-level academic goals while striving to make progress on their personal, behavioral, and emotional objectives throughout the school year. In early childhood special education worldwide, children encounter various new experiences that, along with the nature of their diagnoses, pose challenges for their adjustment (Neeraja & Anuradha, 2014; Malik et al., 2018). Globally, rates of autism diagnoses are increasing (Kassim & Mohamed, 2019). Autism spectrum disorder (ASD) is a developmental disability that affects social-communicative behaviors (Alsayedhassan et al., 2020). Trained interventionists can reliably diagnose ASD as early as age two (Lord et al., 2006). Children with ASD face significant challenges adjusting to early childhood special education due to the nature of their diagnosis, which is rising worldwide in both developed and developing countries (Marsh et al., 2017; Zeidan et al., 2022)

In developed countries, such as the United States of America, autism is the leading disability diagnosis provided to individuals ranging from childhood to adulthood annually. The U.S. national average for autism is increasing as students with disabilities who identified with autism increased from 4.97% in the 2008-2009 school year to 10.51% in the 2018-2019 school year (Office of Special Education Programs, 2020). With this being the earliest onset of the diagnosis itself, 1 in 36 children in the U.S. is diagnosed with autism by the age of 8 (Centers for Disease Control and Prevention, 2023; National Institute of Mental Health, 2023). In developing countries such as India, 1 in 68 children has a diagnosis of autism in early childhood (Hossain et al., 2017; Patra & Kar, 2021). In India, it is estimated that nearly 2 million people experience autism, as most reported results are based on hospital-based data, which excludes rural communities' education systems and clinic settings (Chauhan et al., 2019). Since autism rates are rising, suitable support and interventions are needed (Kakooza-Mwesige et al., 2022; Lord, 2020).

Recognizing the Role of Cultural Diversity. ASD is a multifaceted diagnosis that individuals experience alongside their personal identities. Culturally and linguistically diverse (CLD) youth with autism navigate their diagnosis within cultural contexts that their peers may not fully understand (Durkin et al., 2017). CLD children with disabilities face challenges accessing interventions and supports due to a lack of cultural sensitivity and inclusion within the educational system (Aylward et al., 2021; Hinds et al., 2022). Furthermore, children receiving evidence-based practices are not always given interventions delivered in culturally appropriate ways due to gaps in awareness, accessibility, and adaptability (Substance Abuse and Mental Health Services Administration, 2022). The development of social skills is a critical area for intervention and support among individuals with autism and there are evidence-based strategies that are proven to support these outcomes (Soares et al., 2021). However, among these evidence-based approaches, research shows a gap in the implementation of cultural sensitivity and inclusion, which are needed to address the multifaceted needs of CLD children and youth with disabilities (Golson et al., 2022).

Asian children and youth are among the most diagnosed CLD groups with autism (Salari et al., 2022). In developed countries such as the United States of America, autism is diagnosed more often among CLD students than white students (Becerra et al., 2014). Asian students are diagnosed with autism more often than any other CLD group (Becerra et al.,2014; Wingate et al., 2014). When we look at developing countries such as India, there is a growing need for autism awareness (Bhavnani et al., 2022; Srivastava et al., 2023). Given this universal need, in this paper we explore how to culturally adapt an evidence-based practice called Picture Exchange Communication System (PECS) for Asian, particularly South Asian, users.

Picture Exchange Communication System (PECS)

Teacher training programs across the United States have supported the suggestion that implementing Naturalistic Developmental Behavioral Interventions (NDBI) supports students across cultures in obtaining their learning and personal goals during the school year (Kohler et al., 2001). Research shows that NDBIs, or naturalistic interventions (NI), are the behavioral and early intervention approaches that effectively support students with disabilities across their naturalistic settings (e.g., home, school, community). NDBIs incorporate areas of Applied Behavior Analysis (ABA) in students' daily activities to increase target behaviors or decrease interfering behaviors (Amsbary & AFIRM Team, 2017). NDBIs are versatile because both teachers and parents/caregivers can implement them across settings. In the classroom and household, many NIs, such as the Picture Exchange Communication System (PECS), have succeeded with students with disabilities.

Developed by Bondy and Frost (1994), PECS is an evidence-based practice used to teach learners with autism who have limited functional communication skills to initiate communicative exchanges within a social context. This intervention is a widely-used augmentative and alternative communication (AAC) tool that has been empirically proven to increase its users' communication rate (Chua & Poon, 2018; Ganz et al., 2013; Lerna et al., 2012). PECS' implementation versatility has been globally acknowledged in Europe, USA, Canada, Japan, Australia, Armenia, and elsewhere (Alsayedhassan et al., 2021; Avagyan, 2019; Corbett & Prelock, 2021; Al-dawaideh & Al-Amayreh, 2013). The practice at large has been effective from preschool, with learners who are 3-5 years old, to

middle school, with learners who are 12-14 years old (Corbett & Prelock, 2021). PECS has a total of six phases, which are structured to introduce communication concepts and reduce supports so the user can independently and spontaneously engage in social interactions (National Autism Resources, 2023). Before the intervention, the pre-phase preparation is one step where the interventionist performs a reinforcement assessment. The interventionist observes the child in their natural environment and notes the objects, toys, foods, and activities the child wants. Using this information, the interventionist creates symbols individualized to the child.

1. Phase 1 is the exchange when the child learns to trade single pictures for desired reinforcers. This phase requires two adults.
2. Phase 2 is about learning generalization. During this phase, the child—who is still using single pictures—is taught to generalize the use of exchanges across different places, people, and distances.
3. Phase 3 is about learning discrimination. During this phase, the child learns to differentiate from two or more pictures to ask for their desired reinforcer.
4. Phase 4 introduces sentence structure through requesting. The child is taught to sequence two pictures together (e.g., "I want," plus the desired item).
5. Phase 5 teaches the child to answer the question "What do you want?" with a request of their choosing.
6. Phase 6 introduces commenting when the child learns to respond to "What do you see or hear?" questions using appropriate symbols (e.g., "I see", "I hear"). Attributes are introduced, and sentence structures are extended.

Last, the post-PECS training phase bolsters the child's spontaneous language usage. The interventionist begins to teach new, more abstract language concepts to the child (e.g., numbers, colors, verb concepts, attributes, locations). The child can respond to "yes/no" questions (or native language equivalent) and comment spontaneously. All these steps are meant to promote the understanding of requesting, validating, and receiving through a system of symbolic exchange. When implemented with fidelity, PECS is 100% reliable amongst inter-rater observations across studies (Ganz et al., 2005).

Lack of Cultural Awareness in PECS. In the United States of America, PECS is used in an American English dialect where students are introduced to Westernized symbols, images, and ideologies within the six phases; PECS uses visual symbols and pictures that are unique to the user (Bondy & Frost, 1994; Migliarini & Stinson, 2021; Mohamad et al., 2022). These secular images and symbols often do not translate smoothly across CLD users due to the lack of cultural and linguistic diversity in PECS materials (Elhadi, 2023). Thus, by consistently promoting the use of Western-rooted PECS materials, interventionists and practitioners unintentionally perpetuate segregated practices in early childhood (Blanchard et al., 2021; Codrington & Fairchild, 2012).

To avoid the Western formatting of PECS, scholars globally are diversifying the pictures, delivery, and composition of PECS for CLD users. Tichá et al. (2018) and Avagyan (2019) adapted PECS to the Armenian language, accounting for its grammar and syntax amongst its language users. Similarly, Grycman and Avagyan (2014) adapted an alternative communication application, mirroring that of PECS, for Armenian and Polish children with speech disorders. Almeida et al. (2005) and Tamanaha et al. (2023) adapted PECS for users in Brazil by changing language and pictures to fit Portuguese and English. Rahman et al. (2019) similarly created PECS Pak, which effectively adapted PECS for Pakistani culture by manipulating symbols and pictures to be both digital and reflective of what is native in Pakistan. Last, the case study by Safi et al. (2022) observed parents in the United Arab Emirates using PECS by collecting their perceptions of the intervention and implementation. Results from this study found a need to culturally adapt the intervention and train families to conduct the intervention. Collectively, all scholars have standardized their approaches, highlighting the flexibility the PECS intervention has towards a global audience. Researchers have taken traditionally English-based PECS and adapted the symbol selection and language representations of each pictorial pairing to requests, actions, and desired reinforcements. This adaptation has succeeded across social skills development for users with autism in Brazil (Almeida et al., 2005; Tamanaha et al., 2023), Armenia (Avagyan, 2019; Grycman & Avagyan, 2014), Pakistan (Rahman et al., 2019), and Abu Dhabi (Eyadeh et al., 2023).

This paper seeks to expand on the PECS adaptation for South Asian populations, building on the findings of the case study conducted by Rahman et al. (2016), which emphasized the need for PECS' cultural adaptation and later Rahman et al. (2019) who worked with Pakistani children and youth to do so. This is the only PECS adaptation that highlights a South Asian, specifically Pakistani, population. Rahman et al. (2019) discuss the efficacy of implementing an adapted version of PECS for South Asian users with autism in Pakistan. Researchers reported using adapted images within PECS (both soft and digital form) for private school users with autism in Rawalpindi but did not report their methodology. Thus, the following will build upon these findings by providing considerations for adapting PECS for South Asian users.

Rationale for Intervention and CLD Community Selection. PECS is an effective evidence-based practice to support users with autism (Quarta, 2024). This paper selected PECS because it can be adapted culturally, thanks to its ease of use, flexibility, and versatility. PECS provides many opportunities for involvement, cultural integration, and

social flexibility across participants (Dogoe et al., 2010). PECS will serve as a fruitful intervention for South Asian children and youth. South Asians are the primary CLD community of this practitioner paper. Asia is home to 4.6 billion people, comprising 40% of the world's total migrant population (International Organization for Migration, n.d.). South Asia consists of several countries, including India, Pakistan, Bangladesh, and Sri Lanka (Maiter & George, 2003), and due to migration, South Asians can be found worldwide (Ahmed & Lemkau, 2000). Given the large scope of Asia as a continent, I decided to focus on the South Asian community due to the limited literature on standardizing the cultural adaptation of PECS usage in developed and developing countries (Corbett & Prelock, 2021; Srinivasan et al., 2022). As a South Asian (specifically Punjabi) interventionist and former early childhood care provider from the United States of America, I have used PECS to serve South Asian children and youth. This paper merged my lived experiences, professional training, and research to address a growing need in the South Asian community.

Purpose and Goals. This paper aims to promote cultural awareness and cultural knowledge and build upon the cultural encounters of PECS providers. As modeled in Ahmed & Lemkau's (2000) guide to understanding South Asians, this guide will apply the concepts of cultural awareness, cultural knowledge, and cultural encounter to PECS. In this paper, cultural awareness refers to the process of becoming sensitive towards the cultural differences between the provider and PECS user; cultural knowledge refers to developing an understanding of the beliefs, practices, and coping strategies of the PECS user to individualize the intervention. Last, cultural encounter is the outcome for the PECS provider who, through repeated encounters, CLD communities will develop their own cultural competency. By examining the intersection among PECS, social skills development, and cultural sensitivity and inclusion, this paper is meant to provide action steps and guiding questions for interventionists, practitioners, and educators to utilize when fostering inclusion and belonging amongst South Asian users and other CLD users.

Methods

Practitioners, speech partners, interventionists, and/or family members administering PECS will be tasked with conducting the six phases of the model with their users. To bolster the cultural awareness of the evidence-based practice, the provider will implement cultural and linguistic adaptations throughout the preliminary steps of PECS during the symbol formation process, the intervention phases of the training, exposure, and execution of the communications itself, and generalization towards the conclusion of the PECS session.

Step One: Cultural and Linguistic Adaptations. Working with South Asian children and youth requires the administrator to take an applied focus which integrates the culture, language, and context of the user with autism (Sharma et al., 2020). South Asians follow a collectivistic cultural framework that celebrates group membership, community, and cohesiveness (Lomas et al., 2023). Further, South Asian communities emphasize religion/spirituality, family membership, and loyalty to elders of the household and respective neighborhood (e.g., elders in temples, community centers, grocery stores, and other naturalistic settings; Singal & Chopra, 2023). Culturally adapting PECS needs familial involvement, integration, and collaboration. Having members of the PECS user's family involved in the intervention itself creates a cohesive environment that adheres to collectivism and respects the natural setting of the PECS user.

In the traditional PECS model, the pictures and symbols are personalized to meet the needs of the child and the adult facilitator (Bondy & Frost, 1994). Cultural and linguistic adaptations primarily take place when the visual cues are curated. PECS can be customized to the cultural context and needs of each child user (Tamanaha et al., 2023; Safi et al., 2022). The symbols on the queuing cards can be tailored to reflect culturally and linguistically sustaining objects, traditions, activities, and social situations. The following table is an extended and adapted version (see Table 1).

Culturally adapting PECS breaks the initial Pre-Phase Preparation stage into two parts of *Reinforcer Assessment* and adds the phase of *Familial Involvement*. There is another phase, *Familial Follow-up,* which can be initiated as needed. These additional parts have been included to create a welcoming space for dialog and familial introductions.

Families can be invited into the PECS images and symbols to capture the user's preferences and identities. Begin by recruiting the PECS user's family and community members who participate in the learning process before the *Reinforcer Assessment*. A practitioner can do so by emailing and/or phoning the parent/guardian to schedule a meeting. The communication tone should be welcoming, excited, and enthusiastic, inviting collaboration. For example, "Welcome to PECS! I look forward to collaborating with you and your child. Please bring anyone you like to our initial meeting where we will discuss the intervention. I want to include all family members who wish to join [child's name] on this journey together."

Step Two: Begin Reinforcer Assessment. In the original PECS framework, this stage helps the adult communicative partner create stimuli based on the child's interests from their everyday settings (Bondy & Frost, 1994). However, this omits the child's cultural and linguistic traditions. Listen to the parent/caregiver/guardian of the PECS user to learn

Table 1 :

Culturally Adapting PECS for South Asian Families

Phase	Description
Pre-Phase Preparation	*Reinforcer assessment*: Interventionist observes child in their natural environments to take note of the different objects, toys, foods, activities the child wants. The interventionist takes note of the child's interactions with the family to note cultural contexts, language, and traditions. Using this information, the interventionist proceeds to create symbols.
	Familial Involvement: After the interventionist creates the symbols, the family is invited to review the materials. The interventionist makes room for familial feedback to ensure the materials are culturally and linguistically responsive and applicable to the child. If the family does not agree with the creation, the interventionist incorporates the feedback to correct the symbols.
	Familial Follow-up: Interventionist initiates a follow-up meeting with family if symbols were not culturally and linguistically sustaining for the child during the initial involvement meeting. The family has an opportunity to view symbols and provide feedback.
I	*Exchange*: Child learns to exchange single pictures for desired reinforcers. Two adults are necessary for the implementation of this phase. Physical prompting occurs from the second interventionist to exchange the picture for the desired reinforcer while the first interventionist provides the reinforcer. The fading of physical prompting occurs until exchange is independently initiated.
II	*Generalization:* Child is still using single pictures and generalizes use of exchanges across different places, people, and distances.
III	*Discriminate:* Child learns to differentiate from two or more pictures to request their desired reinforcer.
IV	*Request.* Child learns to request with the "I want..." symbol, followed by the symbol of child's desired reinforcer.
V	*Answers:* Child learns to answer the question "What do you want?" with a request of their choosing.
VI	*Relevance.* Child learns to respond to "What do you see or hear?" questions using appropriate symbols (e.g., "I see", "I hear"). The child is able to discriminate between these symbols and "What do you want?" questions. Questions can be tailored to meet a similar message using different prompts based on the child's cultural and linguistic context.
VII	*Spontaneous Language Usage:* Interventionist begins to teach new, more abstract language concepts to the child (e.g., numbers, colors, verb concepts, attributes, locations). The child is able to respond to "yes/no" questions (or native language equivalent) and engage in spontaneous commenting.

Note. The cultural adaptations made to PECS can be applied to CLD families broadly with considerations to the individualistic vs. collectivist cultures they identify with.

Table 2 :

Strategies for Implementation: Questions and Cultural Considerations for South Asian Families

	Guiding Questions for the Culturally Adapted Pre-Phase Preparation & Post-PECS Training	Criteria Met
	Pre-Preparation: *Reinforcer Assessment*	
1	Initiate small talk to establish rapport: "Tell me about your background [linguistic, cultural, and faith]."	**Y N**
2	Surveying Play: "When [child's name] plays, what do you see them doing most often? Where do they typically play?"	**Y N**
3	Cultural Competence: "Are there objects in the house that are important to you and the child that you would like me to incorporate as I create the symbols?"	**Y N**
	Familial Involvement	
4	Presentation: "I created these symbols based on our interactions and observations from the last session. I wanted to confirm with you I have captured accurately [child name's] preferences?"	**Y N**
5	Feedback: "What changes would you like to see made to these pictures and symbols to best capture (child name)'s preferences and identity?"	**Y N**
6	Confirmation and Clarity: "Is there anything inaccurately represented that I can adjust in the images and symbols created?"	**Y N**
	Familial Follow-up	
7	Review: "Thank you for your feedback in our last session. Your input helped ensure the images and symbols created reflect (child's name). Please take a moment to review the revisions and let me know your thoughts."	**Y N N/A**
8	Dialog: "After reviewing the revisions, how has this process been for you? What steps can I take to ensure I am meeting the needs of you and (child's name)."	**Y N N/A**

Note. Questions can be adapted to fit the family's unique cultural context. Consider the student's needs by surveying the natural environment where PECS will be administered. These questions are flexible guidelines that best capture the varying needs across South Asian communities.

the child's cultural identity. For example, after the family responds to the invitation, arrange an informational interview with all appropriate stakeholders. Table 2 highlights talking points during the meeting that can initiate collaboration.

Oftentimes in cultural surveying, practitioners may be so focused on data collection that they overlook moment-to-moment humanistic interactions with families (Baker et al., 2016; Webster, 2023). Table 2 aims to guide practitioners in posing curiosities and inquiries without offending the family. These questions use a collectivistic lens on learning-based strengths to create space for uniqueness and diversity across South Asian families (Roberts et al., 2017).

Guiding Questions for Reinforcer Assessment. A major cultural adaptation to the traditional approach to PECS is emphasizing familial input through the picture and symbolic creation process during the pre-phase preparation. This is a valuable time to involve the parents/guardians of the child user because it establishes a line of respect and regard for the family. PECS is commonly administered within classrooms, daycare centers, and intervention centers (McCoy & McNaughton, 2019; Thiemann-Bourque, 2010). These settings can be restrictive and do not always represent the child user's identities (Darling-Hammond & Cook-Harvey, 2018). Thus, when working with South Asian families, it is best to implement PECS within the user's household. The household setting is integral to the child's culture, heritage, language, and identity (Christensen & James, 2017). PECS introduced within the household allows parents/guardians to continue using it after the treatment for better and lasting outcomes.

Data Collection. To ensure the effectiveness of PECS' cultural adaptation, start collecting baseline data during the reinforcer assessment phase. Be sure to explicitly document the cultural modifications made to PECS to note the language and symbol adjustments. An interventionist can take notes in whichever mode is most convenient and appropriate for their setting, either by hand and/or digitally (e.g., tablet, laptop).

When beginning observations, interventionists should take note of the multifaceted approaches of the child's family. These extraneous factors can influence a) the child's reinforcer accessibility, b) the family's cultural expectations for the child's free time, and c) preferences for the child according to their beliefs that are not explicitly stated. Pay close attention to the PECS user's communication engagement and accuracy of symbol usage.

Step Two: Familial Involvement. Up next in Pre-Preparation, *Familial Involvement* takes place where interventionists validate their symbol creations with the family to avoid unconsciously perpetuating racially and culturally insensitive content. In collectivistic cultures, decisions are made as a household unit for what is best, applicable, and sustainable for the child (Roberts et al., 2017). Thus, the interventionist will start by inviting the family back for a meeting using the same mode of communication from step one (i.e., email or phone call). This meeting will permit the family members to take a joint approach in the creation of the PECS board. Family members will ensure the interventionist's pictorial representations are relevant for the PECS user.

For families to validate the PECS images, the interventionist should create a safe space for family members without undermining their presence and significance in the child user's learning process. For example, when starting the conversation an interventionist can mirror family members' body language (e.g., sit across from the family members face-to-face to present the materials created). Consider seating arrangements because some South Asian families prefer to sit on the floor (Zulfiqar & Prasad, 2022). Ask family members about their preferred seating arrangement during the meeting.

Guiding Questions for Familial Involvement. When working with South Asian families, lead with compassion in the conversations with family members. Due to the cultural norms of respecting professionals and authority figures, family members may not feel comfortable providing feedback on PECS-related matters to the interventionist (Pye & Pye, 2009). To overcome these boundaries, open in a friendly tone to the family members to encourage feedback. Interventionists should offer guiding points for two-way communication, welcoming constructive feedback from the family (see Table 2). When an interventionist presents themselves as a learner, they connect with South Asian values such as education, inclusion, and collaboration, which can lead to a fruitful conversation (Lomas et al., 2023). To best implement cultural sensitivity and responsiveness, use person-first language to explain how observations and stimulus creation occurred and then lead into collaborative language (e.g., we, us, together) during the review process.

Step Three: Familial Follow-up. During *Familial*

Involvement, if the family asks for changes to the pictures created, *Familial Follow-up* takes place. During this follow-up session, the interventionist tells the family how the symbols and images have been adapted to meet their needs (repeating the order of events in step two). This communal troubleshooting session creates a meaningful PECS board tailored to the child's identities.

The interventionist should make this experience comfortable by encouraging questions, feedback, and validation. When parents/guardians express their opinions, reassure and acknowledge them. Table 2 provides talking points for interventionists that allow the family members to lead the conversation.

Guiding Questions for Familial Follow-up. In the last phase of Pre-Preparation, focus the conversation on the family members. The interventionist thanks the family for their feedback. Leading with compassion validates the family's emotions and eases tensions. Repeat this step until family members and the interventionist agree on the stimulus created.

Procedural Fidelity. To ensure efficacy, begin conducting the PECS intervention as directed by Bondy & Frost (1998). Adhere to the original phases within the system to convey meaningful social exchange with the PECS user. In this cultural adaptation, the interventionist performs the full six phases of PECS without changing the implementation process of reinforcements, physical prompting, and fading strategies. Initiate the step-by-step training sequence of PECS through adapted pictures and/or response prompts. As stated earlier, note the differences observed with adapted images and/or language for data collection purposes.

Discussion

Cultural contexts can vary across households for CLD families. Even within the same racial and ethnic group, there can be fluctuations in the norms, expectations, and traditions that are observed in the household (Desmet et al., 2017). Asian, particularly South Asian, communities follow collectivist ideologies that honor the family as a unit to celebrate interdependence, respect for elders, and shared responsibilities (Maiter & George, 2003). When working with South Asian families who have children with autism, practitioners and interventionists should culturally adapt their approaches and practices to accommodate better cultural and linguistic differences (Rahman et al., 2016).

PECS is an evidence-based practice that is flexible for users across CLD communities, especially South Asians (Safi et al., 2022). PECS has empirically been proven globally to meet the communicative needs of learners with autism (Bondy & Frost, 1998). PECS is a six-phase model that is tailored to meet users' interests by creating symbols and pictures that are meaningful to them (Barnes et al., 2011). These symbols and images are then used in a social exchange where the user can exchange these images for a desired reinforcer (Thiemann-Bourque et al., 2016). This exchange system offers the user communication opportunities to engage and interact with their partner (Carr & Felce, 2006). PECS at large aims to empower individuals with autism to express their needs, wants, and thoughts effectively (Quarta, 2024). However, in PECS, families rarely get an opportunity to collaborate with their interventionist to alter and adapt their child's stimulus to best capture their cultural and linguistic diversity (Almeida et al., 2005).

It is important to decolonize evidence-based practices and approaches to early intervention experiences across South Asian and CLD communities (Sharma et al., 2020). PECS is flexible, so practitioners and interventionists can adapt their practices to meet users' cultural and linguistic diversity. South Asian communities want to involve family members in decisions about their children because it signifies respect, tradition, and community (Hossain et al., 2017). Thus, this manuscript highlights the adaptation of PECS to meet the diverse needs of South Asian communities.

In this adaptation, the Pre-Preparation phases were adapted. This approach differs from the traditional PECS model because it includes rather than isolates families. In the traditional structure of PECS, parents are either a) being told by an interventionist what to do and how to best implement the intervention, b) observing the interventionist with little to no room for feedback, or c) the interventionist comes into the setting as the authority figure, which makes the parents uncomfortable (Mohamad et al., 2022; Polat & Delialioglu, 2023). The benefits of the cultural adaptation of PECS within the initial stages promote community by bringing together all household stakeholders, creating space for discussion, and working collectively towards the common goal of enriching the child user's social skills.

Limitations. The generalizability of this cultural adaptation is limited as it speaks to collectivist cultures, particularly South Asian families. Though an interventionist can benefit from these suggestions,

they do not apply widely to individualistic cultures. Also, this adaptation does not account for all familial preferences. Next, the fidelity of implementation is limited because integrating family members in the Pre-Preparation phases may introduce variability in stimulus formation that could influence the consistency across interventionists and South Asian families. Further, the success of the cultural adaptation depends on family participation. Families may hesitate to get involved, have limited understanding, or not want to participate in the Pre-Preparation phases. Next, this cultural adaptation requires time and resources (e.g., training, money) that may limit the feasibility of implementing PECS in varying settings. Future studies can benefit from the empirical validation of this adaptation to ensure its efficacy in practice.

Conclusion

This paper provides cultural modifications for PECS interventionists working with CLD communities, particularly South Asian families, to foster cultural and linguistic sensitivity in evidence-based practices. By expanding the Pre-Preparation phases in the traditional PECS model, this paper prioritizes the involvement of families as active collaborators, which fosters a sense of community and respect for South Asian collectivist values. This cultural adaptation to PECS challenges traditional hierarchies in intervention practices, encouraging shared decision-making to enhance cultural relevance.

Though this adaptation addresses the gap in literature towards cultural adaptations to intervention practices of South Asian families, it also comes with limitations, including challenges with generalizability, fidelity, and resource demands. Despite these barriers, the proposed changes align with the broader goal of decolonizing evidence-based practices to serve CLD populations better. Future research is necessary to empirically validate these adaptations and explore their effectiveness across various cultural contexts. Cultural adaptation is an ongoing and collaborative process; thus, it is valuable to regularly assess the effectiveness of the adapted PECS system and make adjustments as needed. Interventionists and practitioners can use this cultural adaptation of PECS to make early intervention practices more equitable and meaningful.

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Examining the Relationship of Teacher Self-Efficacy and Knowledge of Inclusive Classroom Practices in India

Radhika Misquitta[1], Sunaina Shenoy[2], and Manika Khanna[1]

[1]The Gateway School of Mumbai, India

[2]University of New Mexico, USA

Author Note

Radhika Misquitta https://orcid.org/0000-0002-2358-1392

Sunaina Shenoy https://orcid.org/0000-0002-6450-4676

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Correspondence concerning this article should be addressed to:

rmisquitta@gatewayschoolmumbai.org

Abstract

The purpose of this study was to examine: (a) in-service teachers' growth in knowledge of inclusive education practices and self-efficacy to serve students with disabilities in their classrooms; (b) the relationship between self-efficacy and teacher knowledge and how they may influence each other. Participants included 13 educators from different schools across India. They completed a Teacher Efficacy for Inclusive Practices (TEIP; Sharma et al., 2012) scale and a Knowledge Survey at the beginning and end of an in-service training programme. Results indicated that while there was a significant increase in overall teacher knowledge from the pre- to post-test, this was not reflected on the self-efficacy scale. We also found a very small change between the two variables to suggest that efficacy and knowledge did not impact one another. Implications for research and practice in this context will be discussed.

Key words: teacher efficacy, teacher knowledge, inclusion, India

SDG key word: Quality education [SDG 4]

Teacher self-efficacy plays an important role in how well teachers address the diverse needs of students in their classrooms (Wray et al., 2022). Similarly, the extent of teacher knowledge of inclusive education practices impacts student achievement (Desombre et al., 2019; Forlin et al., 2014; Hauerwas & Mahon, 2018; Reyes et al., 2017). Given that both variables have been shown to impact student learning, this study seeks to examine in-service teachers' growth in knowledge of inclusive education practices and self-efficacy to serve students with disabilities in their classroom. The study also examines the relationship between self-efficacy and teacher knowledge and how they may influence each other.

History of Inclusive Education in the Indian Context

According to UNESCO (2006), inclusive education is seen as "a process of addressing and responding to the diversity of needs of all learners through increasing participation in learning, cultures and communities, and reducing exclusion from education and from within education." The goal is that the whole education system will facilitate learning environments where teachers and learners embrace and welcome the challenge and benefits of diversity. Within an inclusive education approach, learning environments are fostered where individual needs are met and every student has an opportunity to succeed.

Education of children with disabilities in India, as all over the world, has moved from segregation, special schools to integrated education (Rao, 2003). Historically, special education services were provided in segregated schools right from the 1800s, when the first schools for the deaf and blind were set up in Bombay and Amritsar respectively. But according to Saini (2000), education policy in India took shape only after it's independence from the British rule in 1947. Out of this, arose the Universal Education for All policy, which mandated free and compulsory education for children aged 6-14 years. In an effort to serve a huge population, with limited resources, children with disabilities were not addressed.

In the 1960's the government introduced various schemes to train teachers to teach kids with special needs, and in the 1980s, the Welfare Ministry set up an institution to monitor and regulate the disability rehabilitation programs across the country. According to Kalyanpur (2008), later policy efforts in the 1980s and 1990's were specifically directed towards students with disabilities, and included "The National Policy of Education, 1986, three major pieces of legislation (the Rehabilitation Council of India Act of 1992, the Persons With Disabilities [Equal Opportunities, Protection of Rights and Full Participation] Act of 1995, and the National Trust [for the Welfare of Persons with Autism, Cerebral Palsy, Mental Retardation and Multiple Disabilities] Act of 1999), came into effect to make primary education compulsory." (p. 56).

In 1995, India passed The Persons with Disabilities (equal opportunities, protection of rights and full participation) Act, which guaranteed "free and appropriate education of children with disabilities up to the age of 18 years". This law was finally enforced in 2005, with the National Curriculum Framework, which made it mandatory for every school to have a special education department that overlooked the inclusive special education needs of their students. The 'Persons with Disabilities (equal opportunities, protection of rights and full participation) Act' of 1995, laid the foundation for the philosophy of inclusive education. Later that year, the District Primary Education Program (DPEP) was set up, which addressed modifications and accommodations that would make curriculum more accessible to students with disabilities. This was the first time that the term "Individualized Education Plan" came into effect.

In the last 20 years, we have moved from the Right to Education Act (2010) with their goal of "Universal Education for All" and the National Education Policy (2020), which has promoted "inclusive and equitable education so that no child loses any opportunity to learn and excel because of circumstances of birth or background" (p.24). They go on to describe which socio-economic disadvantaged groups might benefit from this policy, and included groups based on social-cultural identities (e.g. scheduled castes, tribes), gender differences, geographical identities (e.g. villages, small towns), disabilities (e.g. learning disabilities) and socio-economic conditions (e.g. migrant workers). One of the goals of our study is to offer a glimpse into teacher practices that address the NEP (2020) goals of inclusion.

Teacher Self-Efficacy

The concept of self-efficacy was first put forth by Bandura (1977) who defined self-efficacy as a person's belief in their ability to successfully engage in a behaviour or handle a situation to achieve a desired outcome. This belief is specific to a particular behaviour or situation. For example, a person may have a different self-efficacy belief for speaking in front of large crowds, compared to speaking to new acquaintances at a casual gathering. Self-efficacy affects how much effort a person will put in and how long they will persist when facing challenges (Bandura, 1977). Bandura also suggested a feedback loop between self-efficacy and persistence, where success increases self-efficacy and therefore persistence. Self-efficacy can also be influenced by other factors including, (a) performance: doing well at something positively impacts a person's belief in their future success at the same type of tasks, (b)

observation: seeing someone perform a tasks successfully has a positive impact on a person's self-belief that they can be successful at the task, even if it is effortful, (c) verbal encouragement: a person can be convinced they will be successful at a task through someone else's encouragement, and (d) emotions: positive emotions associated with a particular task have been seen to positively impact a person's self-efficacy (Bandura, 1977).

Ashton (1984) extended Bandura's definition to the educational context by specifying that teacher self-efficacy is a teacher's belief that they are capable of improving student achievement. She conducted a survey to measure self-efficacy. Because self-efficacy is context-specific, researchers often investigate teacher perceptions in relation to a particular content area and/or student population. Special educators tend to report high general self-efficacy for teaching students with disabilities (Desombre et al., 2019; Paneque & Barbetta, 2006). Findings are less consistent for general educators' sense of efficacy for teaching students with disabilities. On one hand, Hauerwas and Mahon (2018) found that general educators had high self-efficacy for working with students with disabilities. The teachers in this study reported higher efficacy for providing instruction compared to managing behaviors and collaborating with colleagues and parents. In contrast, on the other hand,the general educators who participated in Desombre et al. (2019) and Schwab's (2019) research reported significantly lower levels of self-efficacy than special educators.

Teacher Self-Efficacy and Students with Disabilities

Several factors affect a teacher's self-confidence in working with students with disabilities. For example, student characteristics themselves can impact teacher self-efficacy. Schwab (2019) conducted a multiple regression analysis and found that teachers demonstrated lower self-efficacy for working with students who have behavioural, attention, and learning difficulties, but higher self-efficacy for working with students who have physical disabilities or exhibit prosocial behaviours ($p<0.05$) (Schwab, 2019). While there are several teacher characteristics that also impact their self-efficacy, the research literature has focused particularly on years of experience ($p <0.01$) (Whitley, 2010), and greater exposure to working with children with disabilities (Yakut, 2021) as highly correlated with self-efficacy ($p<0.05$). Another factor impacting teacher self-efficacy is how teachers perceive the learning challenges their students face (Woolfson & Brady, 2009); when teachers believe that external factors are responsible for learning challenges or that these difficulties can be overcome, they report feeling greater self-efficacy. Finally, teacher training can have a significant impact on self-efficacy. According to a study conducted by Lamture and Gathoo (2017) in which they compared the self-efficacy of general educators versus special education teachers in Mumbai, India, the authors reported significantly higher self-efficacy for special educators as compared to general education teachers for teaching students with disabilities ($p <0.05$).

Teacher Knowledge for Inclusive Education

Teacher knowledge of effective classroom practices (e.g.methods used to teach content area skills, such as reading, writing, math; classroom management skills, differentiating instruction for students with disabilities etc.) has been repeatedly shown to impact student learning (Brophy, 1986; Burroughs et al., 2019; Metzler & Woessmann, 2010). The better equipped teachers are, the greater the student achievement. Several frameworks outline the knowledge and skills teachers need to be equipped with to work with students with disabilities in inclusive settings (Florian & Spratt, 2013; Molbaek, 2018). Specifically, when examining inclusive teaching practices in the classroom, Finkelstein and colleagues (2021) outline five broad areas of inclusive teaching practices including: (a) Instructional practices such as Differentiation (Tomlinson et al., 2003) and Universal Design for Learning (UDL; Rose, 2000) that ensure teachers are catering to all learners; (b) Organisational practices, which include how teachers set up their classrooms and the classroom environment including setting up routines, and expected behaviours; (c) SEB practices, which include the classroom climate and culture, how teachers communicate with students, and how teachers responded to behaviour challenges; (d) Determining progress, which refers to how teachers assessed and monitored student learning including construction and implementation of the Individualised Education Plan (IEP), and use of formative and summative assessments; and (e) Collaboration and teamwork, which includes how teachers worked with other professionals and families of students with disabilities.

Teacher Self-Efficacy and Knowledge

Higher teacher knowledge on inclusive practices is typically associated with higher teacher self-efficacy (Fives, 2003; Lauermann & Konig, 2016). In their review of factors influencing teacher self-efficacy about inclusive education, Wray and colleagues (2022) noted that knowledge of inclusive education policies had a positive impact on teacher self-efficacy beliefs, and knowledge of ADHD was associated with greater self-efficacy to teach children with ADHD (Sciutto et al., 2000). However, research of the relationship between self-efficacy and teacher knowledge is mixed. When examining the relationship between self-efficacy and knowledge of literacy teaching for pre-service teachers, Sharp and colleagues (2016) reported that both self-efficacy and knowledge increased over time, but neither was a predictor of the other. Other studies of pre-service literacy teachers noted that self-efficacy and knowledge were positively

correlated (Leader-Janssen & Rankin-Erickson, 2013; Nicholson & McIntosh, 2019), while Catalano and colleagues (2019) reported a negative relationship between self-efficacy and knowledge for science teaching. Depaepe and Konig (2018) examined the relationship between teacher self-efficacy and knowledge for pre-service teachers and concluded that the two concepts were not related. Given these differences in the findings of the relationship between teacher knowledge and self-efficacy, we were keen to examine the influence of these variables in relation to inclusive practices for teachers in India.

PURPOSE

The purpose of this study was to examine in-service teachers' growth in knowledge of inclusive education practices and their self-efficacy to serve students with disabilities in their classrooms. Specifically, this study asked the following questions:

1. Is there a significant change in teachers' perceptions of self-efficacy to serve students with disabilities in inclusive classrooms after a six-month professional development course?
2. Is there a significant change in teachers' knowledge about inclusive education practices after a six-month professional development course?
3. Does teacher knowledge predict teacher self-efficacy both in pre- and post-settings?

Methods

Participants and School Setting

Participants included 14 educators from different schools across India enrolled in a six-month inservice inclusive education teacher training programme. The programme is run every year and open to all in-service teachers. Participants either chose to enroll individually, or were sponsored by their respective organisations. Three educators had a Master's degree, six had a Bachelor's degree, and five had diplomas. Eleven educators were working as general education teachers and three were working as special educators. The school curricula varied by the boards they subscribed to, including one educator from the International General Certificate of Secondary Education (IGCSE), one educator from the International Baccalaureate (IB) both of which are international boards; four educators from the Maharashtra State Board (SSC), three educators from the Central Board of Secondary Education (CBSE), and three educators from Indian Certificate of Secondary Education (ICSE), all of which are Indian boards. One educator was working in a Montessori set-up and one educator was working as a special educator in a clinical setting.

Inclusive Education In-Service Programme

Participants attended a six-month, in-service course on inclusive education practices. Each teacher completed 36 hours of training. The course included monthly in-person workshops, an online resource hub, weekly coaching and mentoring, an online WhatsApp community, and visits to inclusive schools.

Content covered during the in-service training included an understanding of inclusive education, its history, strengths, and challenges in the Indian context. It covered frameworks that support inclusive education such as Universal Design for Learning, and Differentiation, as well as pedagogical practices that included support for social emotional learning, active learning strategies, and student engagement.

MEASURES

Teacher Efficacy for Inclusive Practices (TEIP) Scale

Each participant independently filled in the Teacher Efficacy for Inclusive Practices (TEIP; Sharma et al., 2012) scale at the beginning and end of the Professional Development Program (PDP). The TEIP is an 18-point scale that assesses teacher efficacy in inclusive classrooms and focuses on areas of inclusive instruction, collaboration, and behaviour management for students with disabilities. Sharma and colleagues (2012) established the content validity and internal consistency of the TEIP scale. For the whole scale, the internal consistency measures (i.e., Cronbach's alpha) were 0.89 and for the subscales of inclusive instruction, collaboration, and behaviour management they were 0.93, 0.85, and 0.85, respectively.

Knowledge Survey

Each participant also filled in a researcher-developed knowledge survey that asked participants to share their understanding of key terms both at the beginning and end of the six-month PDP. The participants were asked to describe terms related to inclusive education in their own words including using examples. We selected these terms because they covered a broad understanding of inclusive education, frameworks that support inclusive education, as well as pedagogical practices critical to implementing inclusive education practices. We also assumed that participants would not be familiar with these terms unless they had explicitly sought to better understand inclusive education. The list was not meant to be exhaustive, but rather, broadly indicative of participants' understanding of inclusive education.

? Social model of disability: A way of looking at disability where the focus is on systemic barriers instead of the individual's needs.

? Universal design for learning (UDL): Proactively thinking about how we can provide learners through multiple means of engagement, representation, and action & expression.

Table 1

Pre- and Post Comparisons of Teacher Responses on the TEIP Scale

Survey Items	Mean (SD) Pre-Test	Mean (SD) Post-Test	t-statistic	p-value	Cohen's d
I can make my expectations clear about student behaviour.	5.00 (0.78)	5.14 (0.66)	0.69	0.500	0.77
I am able to calm a student who is disruptive or noisy.	4.71 (0.91)	5.07 (0.47)	2.11	0.055*	0.63
I can make parents feel comfortable coming to school.	5.00 (0.68)	5.29 (0.61)	1.42	0.165	0.73
I can assist families in helping their children do well in school.	4.86 (0.66)	4.71 (0.72)	0.81	0.435	0.66
I can accurately gauge student comprehension of what I have taught.	4.86 (0.53)	5.14 (0.553)	1.74	0.104	0.61
I can provide appropriate challenges for students.	4.50 (0.85)	5.00 (0.55)	2.18	0.047*	0.85
I am confident in my ability to prevent disruptive behaviour in the classroom before it occurs.	4.36 (0.84)	4.57 (0.75)	0.89	0.385	0.89
I can control disruptive behaviour in the classroom.	4.29 (1.49)	4.86 (0.86)	1.74	0.104	1.22
I am confident in my abilities to get parents involved in school activities of their children with disabilities.	4.14 (0.86)	4.79 (1.12)	1.97	0.069	1.22
I am confident in designing learning tasks so that the individual needs of students with disabilities are accommodated.	3.93 (0.92)	4.57 (1.01)	2.59	0.022*	0.93
I am able to get children to follow classroom rules.	4.64 (0.63)	4.93 (1.07)	1.29	0.218	0.83
I can collaborate with other professionals (e.g., counsellors or shadow teachers) in designing educational plans for students with disabilities.	4.57 (1.22)	4.50 (0.94)	0.29	0.775	0.92
I am able to work jointly with other professionals and staff (e.g. shadow teachers and other teachers) to teach students with disabilities in the classroom.	4.36 (1.27)	4.93 (1.07)	1.96	0.071	1.08
I am confident in my ability to get students to work together in pairs or in small groups.	5.00 (0.39)	5.50 (0.52)	3.61	0.003**	1.08
I can use a variety of assessment strategies (e.g. modified tests, performance-based assessment, etc.)	4.50 (1.09)	4.93 (0.83)	1.88	0.082	0.85
I am confident in informing others who know little about laws and policies relating to inclusion of students with disabilities.	3.64 (1.27)	4.57 (0.94)	3.48	0.004**	0.99
I am able to provide an alternate explanation or example when students are confused.	5.14 (0.66)	5.50 (0.52)	1.59	0.136	0.84

*p<0.05, **p<0.01, ***p<0.001

To answer this question, we conducted a paired samples t-test. The pre- and post-comparisons for teachers in our sample per item on the Teacher Efficacy for Inclusive Practices (TEIP, Sharma et al., 2012) scale has been represented in Table 1. The TEIP uses a 6-point scale, with higher numerical ratings indicating higher self-efficacy. Although, we did not find an overall difference between pre (M=3.02, SD=0.77) and post scores (M=3.47, SD=0.78) on the TEIP scale (t(13)=1.54, p=0.14), we found statistically significant differences on five out of 18 individual statements, namely: (1) I am able to calm a student who is disruptive or noisy (t(13)=2.11, p<0.05); (2) I can provide appropriate challenges for students (t(13)=2.18, p<0.05); (3) I am confident in designing learning tasks so that the individual needs of students with disabilities are accommodated (t(13)=2.59, p<0.05); (4) I am confident in my ability to get students to work together in pairs or in small groups(t(13)=3.61,p<0.01); and (5) I am confident in informing others who know little about laws and policies relating to inclusion of students with disabilities (t(13)=3.48,p<0.01). We observed a moderate effect size on the first statement and large effect sizes on the next four statements.

Our second research questions states:

Is there a significant difference between pre- and post-data on the teacher knowledge scale?

Table 2

Pre- and Post Comparisons of Teacher Responses on the Teacher Knowledge Scale

Survey Items	Mean (SD) Pre-Test	Mean (SD) Post-Test	t-statistic	p-value	Cohen's d
Social model of disability	0.57 (0.85)	1.21 (0.89)	2.59	0.022*	0.93
Universal design for learning	0.29 (0.47)	1.36 (0.63)	4.37	<0.001***	0.92
Differentiation	0.36 (0.63)	0.36 (0.63)	0.00	1.000	1.04
Inclusion	0.50 (0.85)	1.14 (0.77)	1.98	0.069	1.22
Explicit instruction	0.21 (0.58)	1.07 (0.73)	3.12	0.008**	1.03
Lesson planning using backwards design	0.43 (0.51)	1.43 (0.85)	5.51	<0.001***	0.68
Growth mindset	0.29 (0.47)	0.79 (0.89)	2.18	0.047*	0.85
Executive functioning	0.29 (0.61)	0.64 (0.93)	1.58	0.136	0.84
Expected behaviours in the classroom	1.00 (0.78)	1.07 (0.92)	0.23	0.818	1.14
Sensory-motor	0 (0)	0.64 (0.84)	2.86	0.013**	0.84

*p<0.05, **p<0.01, ***p<0.001

To answer this question, we conducted a paired samples t-test. The pre- and post-comparisons for teachers in our sample per item on the Teacher Knowledge Scale has been represented in Table 2. This scale uses a 3-point scale, with higher ratings indicating higher teacher knowledge. We found a statistically significant difference on overall pre (M=0.37, SD=0.57) and post scores (M=0.97, SD=0.81) on the Teacher Knowledge Scale (t(13)=2.26, p<0.05. In particular, we found statistically significant differences on six out of 18 areas, namely: (1) Social model of disability (t(13)=2.59, p<0.05); (2) Universal design for learning (t(13)=4.37, p<0.001); (3) Explicit instruction (t(13)=3.12, p<0.01); (4) Lesson planning using backwards design (t(13)=5.51,p<0.001); (5) Growth mindset (t(13)=2.18,p<0.05) and (6) Sensory-motor (t(13)=2.86, p<0.01). For lesson planning using backwards design, we observed a moderate effect size and for all other areas we observed large effect sizes.

Our third research question states:

Does teacher knowledge predict teacher self-efficacy both in pre- and post-settings?

To answer this question, we conducted a Pearson's r correlation between composite scores on both measures across pre and post settings. We found a very small correlation between the two variables, teacher knowledge and self-efficacy, and this was not statistically significant both at the pre-test (r(13)=0.19, p=0.5149) and post-test (r(13)=0.22, p=0.4497) conditions.

? Differentiation: Responsive approach to creating modified content, assessments, and approaches to teaching.

? Inclusion: Creating classrooms where diverse learners can learn together.

? Explicit instruction: Crisp and clear instructions along with the gradual release of responsibility to the student.

? Backward design for lesson planning: Given the learning objectives, planning the assessment or outcome first, and then designing daily lesson plans.

? Growth mindset: The belief that each of us can learn and grow and our potential is not determined at birth. Mistakes are an opportunity to learn.

? Executive functioning: Function of the pre-frontal lobe that supports planning, organising, mental flexibility, impulse control, etc.

? Teaching expected behaviours: Teaching behaviours, reminding students of expectations, reinforcing students when they display the expected behaviours, and redirecting students to the expected behaviours.

? Sensory motor: Related to the seven senses including sight, smell, touch, taste, hearing, proprioceptive and vestibular.

The knowledge survey was coded using a 3-point scale from 0 to 1, with 0 being limited to no understanding, 1 being partial understanding, and 2 indicating a clear understanding of the term. The coding sheet was created keeping in mind key points that would be covered for each area. To ensure the coding sheet was comprehensive, the data was validated by having a cohort of experienced teachers complete the knowledge survey. Each response was rated separately by four coders and confirmed only when we had consensus.

Results

Our results are organised to answer each of our research questions. Our first research questions states:

Is there a significant difference between pre- and post-data on the self-efficacy scale?

Discussion

The purpose of this paper was to examine how in-service teachers' knowledge of inclusive education practices and self-efficacy to serve students with disabilities changed over time and how the two concepts were related. Our first research question examined teacher self-efficacy. Teacher self-efficacy reflects the confidence teachers have in their ability to perform certain tasks. Teacher self-efficacy for inclusive education refers to the confidence teachers have in their ability to serve children with disabilities in their classrooms. This study indicated that though there was a positive shift in teachers' self-efficacy for inclusive education, the change was not statistically significant. We noted a significant increase in six statements of the 18-item TEIP scale. Our second question examined teacher knowledge of inclusive education practices. We noted a significant increase in overall teacher knowledge from the pre- to post-test, and specifically, in six of the ten knowledge items including understanding of the social model of disability, UDL, growth mindset, explicit instruction, backward design, and sensory-motor strategies. Our third research question looked at how teacher self-efficacy and teacher knowledge were related and if knowledge predicted self-efficacy. Our findings indicated that it did not.

We discovered some trends in our data that are highlighted here. Firstly, overall scores on self-efficacy were high ranging from "somewhat agree" to "strongly agree" showing that none of the teachers disagreed with any of the statements. This is contrary to what you would expect with self-reported data, where teachers are likely to under-emphasise their abilities to follow inclusive practices; especially in an Indian context, where it is still a nascent concept (NEP; MHRD, 2020). Secondly, efficacy was high even during the pre-test, despite teachers not mastering content-area knowledge, though knowledge increased significantly from pre to post test. Thirdly, even though efficacy was high, teacher knowledge was not highly correlated to it. Despite not having the appropriate tools for inclusive education, teachers were confident of their abilities to implement these practices. Both these findings remind us of Klassen & Tze's (2014) study of the relationship between psychological characteristics (self-efficacy, personality) and external measures of teaching effectiveness (student achievement and evaluated teacher performance). They conducted a meta-analysis of 43 studies representing 9216 participants and found a significant but small effect size between self-efficacy and teaching effectiveness (r=.28), which was similar to our findings in the Indian setting.

Implications for Research

Based on these findings, we were curious about measures of self-efficacy and whether self-reported data was sufficient in capturing this construct. According to Tschannen-Moran and Hoy (2001), persistent measurement issues have interfered with measuring the construct of self-efficacy. They claim that some nuances in the construct can be captured by expanding the descriptors and number of self-reported items on the survey. Instead of using a 6-point Likert scale ranging from strongly disagree to strongly agree like the TEIP scale, they developed a 9-point Likert scale called the Ohio State Teacher Efficacy Scale (OSTES) with descriptors ranging from "1-nothing, 3-very little, 5-some influence, 7-quite a bit and 9-a great

deal" (p. 796) to questions such as , "To what use can you use a variety of assessment strategies?" (p. 800). If we had used this extended scale, we might have found a stronger relationship between the two variables.

Moreover, we were interested in whether we needed to measure self-efficacy as a construct or just focus on classroom knowledge and tools to build a knowledge base in teachers. Woodcock et al. (2022) found that while teachers with high and low self-efficacy had similar conceptual understanding about inclusive education, they differed on their application of inclusive practices in their classrooms. Based on this, we argue that: (a) teacher knowledge by itself may not influence efficacy, but the application of this knowledge in classroom practices influences efficacy; and (b) despite efficacy levels, teachers need more support with the application of inclusive practices in classroom settings. We therefore concluded that we could focus on inclusive practices rather than efficacy for future studies on inclusion in the Indian context.

Implications for Practice

The primary contribution of this paper was developing a six-month professional development plan for teachers to implement inclusive practices in their classrooms in an Indian context. We can see from this paper that the programme has led to an increase in teacher knowledge, and therefore may be something that schools can adopt. The capacity-building model can be shared with other schools and teachers as they seek to become more inclusive.

Limitations and Future Directions

This paper explores self-efficacy and teacher knowledge surrounding inclusive education practices in India, and it is one of the first few studies that explores these concepts in this context. We need a larger pool of research studies to make more informed decisions about how best to prepare teachers for inclusive settings, and more extant studies to verify our findings. Moreover, we have a small sample size of 13 teachers in this study and would like to see larger pool of participants in future studies. This will help generalise the findings to other classroom settings in the country.

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The Impact of Physical Punishment on Students with Disabilities in the African Context: A Call for Inclusive Behavioral Approaches

Adetunji Noah Adekunle[1]*, Doreen N. Myrie[2], Joann Anokwuru[3], Rachel Korankye [4], Emmanuel Stephen[5], Sandra-Rose Success-Olaobaju[6]

[1]**Adetunji Noah Adekunle, MA.**
University of British Columbia
Vancouver, British Columbia
Email: noah.adekunle@alumni.ubc.ca
https://orcid.org/0009-0001-8605-4813

[2]**Doreen N. Myrie, Ed.D.**
Department of Special Education, Jackson State University, Jackson, Mississippi, 39217, United States
Email: doreen.n.myrie@jsums.edu
https://orcid.org/0009-0005-9855-6377

[3]**Joann Anokwuru, Ph.D.**
Vancouver School Board 39, Vancouver, Canada
Email: janokwuru@vsb.bc.ca
https://orcid.org/0009-0000-3632-0223

[4]**Rachel Korankye, MA**
Kent State University
Email: rkoranky@kent.edu
https://Orcid.org/0009-0005-7617-5696

[5] **Emmanuel Stephen, M.Ed.**
Inclusive Classroom Nigeria
Email:emmanuelstephen977@gmail.com
https://orcid.org/0000-0002-6703-4796

[6]**Sandra-Rose Success-Olaobaju, Ph.D**
RA International School, Bonny Island, Nigeria.
Email:Sandra.success-olaobaju@raisbny.com
https://orcid.org/0009-0002-1017-7945

Abstract

Education is universally recognized as a fundamental human right for all children, including those with disabilities (UNESCO, 2019a). Yet in many African countries, students with disabilities face barriers to equitable education due to the widespread use of physical punishment as a behavioral management tool. School personnel often misinterpret disability-related behaviors as defiance, leading to harsh disciplinary practices (UNICEF, 2020a). This paper examines the use of corporal punishment in Nigeria, Ghana, Kenya, Uganda, and Tanzania, with particular attention to its disproportionate impact on students with disabilities.

Research shows that punitive practices compromise learning outcomes, contributing to academic failure, high dropout rates, and reduced employability (Global Initiative to End All Corporal Punishment of Children, 2021). Beyond academic setbacks, physical punishment produces psychological, physical, and social consequences that harm entire school communities. For students with disabilities, these effects are magnified, as punishment often reinforces feelings of inadequacy and deepens marginalization (UNICEF, 2020a). Evidence further indicates that students with disabilities are more likely to experience corporal punishment than their peers, a violation of their rights that undermines both their inclusion and academic success (Global Initiative to End All Corporal Punishment of Children, 2021; World Health Organization, 2011).

To address this issue, greater awareness is needed among educators about the diverse ways disabilities manifest in student behavior. This paper advocates for teacher education, parental engagement, and policy reform to replace punitive practices with inclusive approaches. By equipping schools with evidence-based strategies, African education systems can create safe, supportive environments where all students, regardless of ability, have the opportunity to thrive.

Keywords: physical punishment, students with disabilities, African schools, inclusive education, behavior management, teacher education

Introduction

Education is a fundamental human right, recognized globally as essential for the development of individuals and societies (UNESCO, 2019a). The United Nations Convention on the Rights of Persons with Disabilities (CRPD) further reinforces the need for inclusive education, emphasizing that students with disabilities should have equal access to learning environments free from discrimination or harm. However, despite these international commitments, many students with disabilities in African countries such as Nigeria, Ghana, Uganda, Kenya, and Tanzania continue to face significant challenges in accessing quality education.

Due to African cultural beliefs, values, and norms, traditional practices of corporal, moral, and disciplinary punishments are usually imposed on people (children, youths, and adults alike) as correctional measures against their deviant and non-conformist behaviour. This practice has been adopted into African school systems. According to this ideology in African society and school system practice, any child with deviant behaviour (whether disability or non-disability based) must be corporally disciplined. However, the modern school system advocating for school inclusion for all as a universal declaration of human rights and non-corporal punishment (UN, 1948), including those with behavioural problems, has some elements of clash with the African culture and traditional practices.

Like most developing countries the world over, the aforementioned African countries are signatories of some international conventions (UN, 1948; UNESCO 1990, 1994, among others) which advocate inclusion (with non-corporal punishment) of persons with disabilities in school, family, and community settings. However, despite their provisions of inclusive education policies and legal frameworks, these countries have failed to address the conflicts arising in school settings between the international inclusive education convention specifications and their national African cultural beliefs, values, norms, and practices.

The use of corporal punishment in African schools remains widespread, even though research increasingly shows its harmful effects on children's development (Global Initiative to End All Corporal Punishment of Children, 2020). While the terms corporal punishment and physical punishment are often used interchangeably, there is a subtle distinction. Corporal punishment refers broadly to disciplinary actions that inflict pain or discomfort on a child's body as a means of control (Finkelhor, et al., 2019), while physical punishment specifically emphasizes the act of using physical force—such as hitting, slapping, or caning (Anja et al., 2021). In practice, both terms describe the same harmful behaviors that undermine children's rights and well-being. For students with disabilities, the consequences of such punishment can be even more severe. Disabilities may limit a child's ability to understand the reasons for the punishment, and in many cases, increase their vulnerability to both physical injury and emotional trauma (Pather, 2014).

This article will delve into five countries- Nigeria, Ghana, Kenya, Tanzania and Uganda in Africa on the impact of physical punishment on students with disabilities in Africa

schools: A call for inclusive behavioral approaches. In these countries, physical punishment remains a widely accepted form of discipline, even though evidence shows that such punitive measures are harmful to all children, especially those with disabilities. Corporal punishment, such as caning, slapping, or other forms of physical reprimand, is not only a violation of children's rights but also exacerbates the challenges faced by students with disabilities (UNICEF, 2020b). In Ghana, for instance, a study revealed that corporal punishment is frequently used in both mainstream and special schools, disproportionately impacting students with disabilities who may already struggle with cognitive, physical, or emotional impairments (Adom & Ampofo, 2020). This not only results in physical harm but also leads to higher rates of absenteeism, dropout, and psychological trauma among these students (Ame et al., 2021).

In Nigeria, physical punishment is similarly widespread, despite the country's ratification of the CRPD and efforts to improve inclusive education (Ojo, 2018). Teachers often resort to corporal punishment to enforce discipline, without considering the specific needs of students with disabilities. Such punitive methods fail to acknowledge that many students with disabilities, such as those with intellectual or developmental disabilities, may not understand the cause of their punishment, leading to confusion, distress, and disengagement from learning (Boldsen, 2022). In some cases, corporal punishment has been reported to disproportionately target children with disabilities due to misconceptions that they are inherently disobedient or incapable of learning (Bassey, 2016).

Tanzania also faces similar challenges. Despite national policies aiming to eliminate corporal punishment and promote inclusive education, enforcement is inconsistent, and physical punishment remains entrenched in school culture (Human Rights Watch, 2020). Research in Tanzania has shown that students with disabilities are often viewed as "disruptive" and are subject to harsher disciplinary measures than their non-disabled peers. This contributes to an environment of exclusion, where students with disabilities are made to feel unwelcome, often leading to their withdrawal from school altogether (Feinstein & Mwahombela, 2010).

In Kenya, despite the official ban on corporal punishment in schools in 2001, its practice remains prevalent, particularly in rural areas where monitoring and enforcement of policies are limited (Mwenesi et al., 2025). For students with disabilities, the impact of corporal punishment is especially severe. These students are often perceived as "difficult" due to their disabilities, leading to harsher punishments from teachers who may lack the training to handle their needs appropriately (Sungwa et al., 2022). For example, children with autism or intellectual disabilities may have difficulty understanding instructions or responding to conventional forms of discipline. Instead of receiving the support they need, these children are often punished more frequently and harshly, exacerbating their isolation and vulnerability (Najoli et al., 2019).

Similarly, in Uganda, while there has been progress in promoting inclusive education, corporal punishment continues to be a significant issue, especially for students with disabilities. Research indicates that students with disabilities in Uganda are frequently subjected to physical punishment as a means of managing behavior, with many teachers lacking the training to implement non-violent disciplinary methods (Moyi, 2017). For instance, children with hearing impairments may be punished for not following verbal instructions they could not hear, or children with learning disabilities may be punished for failing to meet academic expectations without consideration of their learning challenges (Zuberi et al., 2025). These practices further alienate students with disabilities from the learning environment, contributing to higher dropout rates and perpetuating cycles of poverty and exclusion (Genovesi et al., 2022).

Necessity of modern tools and approaches- Assessment, multidisciplinary strategies including community advocacy and watchdog groups, community specialized agencies supporting behaviour management, specific support teachers, in addition to parents and policy makers. In each inclusive school, a department of special education and educational psychology should be established to provide resources to staff and students, supervise and coordinate special education issues, and submit reports to the hierarchy regarding the progress and development of students who benefit from educational and non-educational support services.

Purpose of the Article

This article aims to explore the impact of physical punishment on students with disabilities in five African countries—Nigeria, Ghana, Uganda, Kenya, and Tanzania—focusing on how these disciplinary measures exacerbate the challenges these students already face. By highlighting the detrimental effects of physical punishment, the article seeks to advocate for more inclusive and equitable approaches to discipline that respect the dignity and rights of all students, especially those with disabilities. Drawing on best practices from inclusive education models, the article calls for the adoption of behavioral approaches that emphasize positive reinforcement, individualized support, and collaboration between educators, families, and communities.

In doing so, this article contributes to the ongoing discourse on inclusive education in Africa, aligning with international frameworks such as the CRPD and Sustainable Development Goal 4, which seeks to ensure inclusive and equitable quality education for all by 2030. The urgent need for reform in school disciplinary practices is underscored

by the recognition that education systems must be designed to meet the needs of every child, fostering environments where all students can learn and thrive without fear of violence or exclusion.

The challenges underlie the practice of inclusion of children with behavioural disorders and disabilities in schools. Generally, school (microscopic) inclusion is just part of community and societal (macroscopic) equity, diversity, and inclusion. Thus, the practice of school inclusion can only work well where equity, diversity, and inclusion are entrenched in the fabric of community and societal lives.

Consequently, teachers, parents, community stakeholders, and policy makers all have to train and work with the inclusive education initiative. At the level of advocacy, many human rights groups are aware of the risk of venturing into societies where human rights advocacy is sometimes misunderstood as political opposition, threatening and exposing the weaknesses of the national system, instead of praising its achievements. At the management level of behavioural support services in schools, there is a lack of a coordinated multi-agency task force comprising behavioural management experts, including special educators, clinical and school psychologists, disability healthcare specialists, human rights advocates, and social workers, who collaborate through the assessment and support of individuals with behaviorally disordered needs. All of these structures, systems, and programs should be put in place to enhance a smooth take-off and effective drive toward school inclusion.

Literature Review

Overview of Physical Punishment in African Schools

Physical punishment, often referred to as corporal punishment, involves inflicting physical pain, typically through hitting, slapping, or using objects like canes, to discipline students (Gershoff & Grogan-Kaylor, 2016). This form of punishment is intended to correct behavior but has been linked to adverse effects on children's well-being and educational outcomes (UNICEF, 2020b). Despite growing international condemnation, corporal punishment remains widely practiced in African schools (Global Initiative to End All Corporal Punishment of Children, 2021). In countries such as Nigeria, Ghana, Kenya, Uganda, and Tanzania, physical punishment is still seen as a necessary tool for maintaining discipline and controlling behavior in schools, including for students with disabilities (UNICEF, 2020b).

The persistence of corporal punishment in these countries is tied to deep-rooted cultural beliefs about child-rearing and discipline, where physical punishment is often seen as an essential method of teaching respect and maintaining order (Hecker et al., 2014). These beliefs are often passed down through generations, reinforcing the notion that strict discipline, including physical punishment, is necessary to ensure proper behavior (Mweru, 2010). However, research shows that physical punishment often leads to more harm than good, especially for students with disabilities whose behaviors may be linked to their conditions (Save the Children, 2020).

Students with disabilities are particularly vulnerable to physical punishment because their behaviors, such as difficulty focusing or communication challenges, are often misinterpreted as defiance or deliberate disobedience (UNICEF, 2020a). This misunderstanding can result in these students facing more frequent or severe punishments compared to their non-disabled peers, further alienating them from the learning environment and increasing the risk of negative educational outcomes (Global Initiative to End All Corporal Punishment of Children, 2021; Save the Children, 2020).

Historical and Cultural Context of Corporal Punishment in Education

The historical context of corporal punishment in African schools is deeply intertwined with colonial and post-colonial education systems, where physical discipline was institutionalized as a method of control and conformity (Fafunwa, 2022). Colonial authorities implemented corporal punishment as part of their strategy to enforce obedience and discipline in African students, a practice that persisted even after independence in many countries (Akala, 2018). This legacy continues to influence disciplinary practices in African schools today.

Culturally, many African societies have long considered physical punishment an acceptable and even necessary means of teaching respect for authority, with parents and teachers using corporal punishment as a traditional disciplinary measure to instill obedience and maintain social order (Parkes, 2015). This cultural norm reinforces the belief that children must be physically punished to learn respect and discipline (Hecker et al., 2014). The belief that children, including those with disabilities, should be strictly controlled and made to obey without question persists, particularly in rural areas where traditional practices hold strong sway (Adomako & Ampofo, 2020). In these regions, the emphasis on unquestioning obedience often leads to the justification of corporal punishment as a means of enforcing discipline and control, especially for students with disabilities whose behaviors are frequently misunderstood (UNICEF, 2020a).

Furthermore, corporal punishment is sometimes seen as a demonstration of care and concern for a child's future, with

the assumption that without strict discipline, children will not grow into responsible adults (Global Initiative to End All Corporal Punishment of Children, 2021). However, these cultural justifications overlook the damaging impact such punishment has on children's development, particularly for those with disabilities.

Generally, African cultural beliefs, values, norms, and practices underscore the disciplining of all children (disabled and non-disabled alike), including those with behavioural disorders. The colonial school system of disciplining people (children and adults alike) in African communities and other colonized societies, the world over, was to impose its authority. In most African societies, there is a lack of specialized community services with multi-agency assessment tools to help distinguish behavioral problems arising from behavioral disorders (due to organic dysfunction of the body system) from those of deviant behaviors of stubborn children or rascals (with deliberate mischiefs to disruption, harm, or bullying).

Disability and Misinterpretation of Behavior

Students with disabilities often face unique challenges in navigating educational settings, particularly in schools where corporal punishment is a common disciplinary tool. Their behaviors, which may be directly related to their disabilities, such as difficulty with communication, sensory sensitivities, or struggles with attention, are frequently misinterpreted as misbehavior or defiance by teachers who lack training in disability education (UNICEF, 2020b). For example, a student with autism may exhibit repetitive movements or struggle to follow instructions due to sensory overload. Yet, these behaviors may be seen as intentional disruptions that require punishment.

This misinterpretation stems from a lack of understanding about the nature of disabilities and the behavioral manifestations that accompany them. Teachers and administrators, who are often not equipped with the knowledge or resources to support students with disabilities appropriately, may resort to physical punishment as a means of controlling behavior, inadvertently exacerbating the very issues they aim to correct (Akindele & Shobola, 2016). In many educational settings, a lack of training in inclusive teaching strategies and behavioral management leads to reliance on traditional disciplinary methods, such as corporal punishment, which can harm students' emotional and academic development (Hecker et al., 2014). Also, the stigma associated with disability in many African societies can lead to the perception that students with disabilities are inherently difficult or uncooperative, further justifying punitive approaches (UNICEF, 2020a).

Common Misconceptions About Disability-Related Behaviors

One of the most pervasive misconceptions about students with disabilities is that their behavior is intentional and needs to be controlled through punishment. This misunderstanding often leads educators and caregivers to perceive behaviors associated with disabilities, such as inattention or impulsivity, as deliberate acts of defiance, which can result in increased disciplinary measures, including corporal punishment (UNICEF, 2020a). Research indicates that these misinterpretations can further marginalize students with disabilities, negatively affecting their educational experience and psychological well-being (Baker, 2011). For example, a child with attention-deficit/hyperactivity disorder (ADHD) may have difficulty sitting still or focusing, which might be misinterpreted as disobedience rather than a symptom of their condition (UNICEF, 2020a). Similarly, a student with a learning disability who struggles to understand instructions may be seen as deliberately ignoring the teacher, leading to punitive measures being taken.

Effects of Physical Punishment on Educational Outcomes

The negative impacts of physical punishment on students, particularly those with disabilities, in Africa, are not well-documented. While there is a growing body of research on corporal punishment in general, specific studies focusing on its effects on students with disabilities in the African context remain limited (Hecker et al., 2014). Many existing studies primarily address broader issues of corporal punishment without explicitly examining the unique challenges and consequences faced by students with disabilities, highlighting a significant gap in the literature (Global Initiative to End All Corporal Punishment of Children, 2021).

According to the World Health Organization (2011), physical punishment can significantly hinder students' academic achievement, psychological well-being, and school retention. For students with disabilities, who already face numerous barriers to accessing quality education, the use of corporal punishment compounds these challenges. Corporal punishment has been linked to lower academic performance due to the stress and fear it instills in students. Research indicates that students who experience corporal punishment often report feelings of anxiety and reduced self-esteem, which can negatively affect their concentration, motivation, and overall academic performance (Gershoff, 2002). Additionally, the fear of physical punishment can create an environment that is not conducive to learning, leading to disengagement and poor educational outcomes (Akindele & Shobola, 2016).

Prevalence of Physical Punishment for Students with Disabilities

Statistical evidence indicates that corporal punishment is

still widely practiced, with a significant portion of students with disabilities being disproportionately affected. In many African countries, surveys reveal that a considerable percentage of students, particularly those with disabilities, experience corporal punishment in schools, often at higher rates than their non-disabled peers (UNICEF, 2020a). Despite international efforts to end corporal punishment in schools, it remains prevalent in many African countries, including Nigeria, Ghana, Kenya, Uganda, and Tanzania. According to the Global Initiative to End All Corporal Punishment of Children (2021), over 60% of students in Nigeria have experienced corporal punishment, with children with disabilities being particularly vulnerable due to the misinterpretation of their behaviors.

A study in Ghana found that students with disabilities were more likely to be subjected to physical punishment, highlighting the ongoing challenges in addressing equitable treatment in educational settings (Adomako & Ampofo, 2020). Similar trends are observed in Kenya, Uganda, and Tanzania, where traditional views on discipline continue to justify the use of physical punishment in schools (Global Initiative to End All Corporal Punishment of Children, 2021).

Advocating for Inclusive Behavioral Approaches

The continued use of physical punishment in African schools, especially for students with disabilities, underscores the urgent need for inclusive behavioral approaches that support, rather than penalize, disability-related behaviors. Inclusive education models encourage the creation of learning environments that foster positive behaviors and respect students' dignity and rights. Such models align with international standards set by the United Nations Convention on the Rights of Persons with Disabilities (CRPD), which emphasizes the right to an education free from discrimination and harm (UNESCO, 2019b). Inclusive behavioral approaches, such as Positive Behavior Support (PBS) and Social-Emotional Learning (SEL), offer a structured, evidence-based alternative to physical punishment, thereby reducing the marginalization of students with disabilities and enhancing their overall educational experience (UNICEF, 2020b).

Although there are many types of behavioral disorders, during some years of community work for a private agency, Multipurpose Support Association Centre (MUPUSUAC) in Buea, Cameroon, Ndame (2017) identified eight main types commonly visible in African schools

(Cameroon context that may apply to the aforementioned and other African countries). They include: obsessive compulsive disorder (OCD), oppositional defiant disorder (ODD), pathological demand avoidance syndrome (PDAS), behavioural, emotional and social difficulties (BESD), bipolar disorder (BD), autism and autistic spectrum disorders (ASD), attention deficit/ hyperactivity disorder (ADD/ADHD), and asperger syndrome (AS).

Most of these behavioural disorders are explained in detail in Buttress and Callander (2010), sometimes co-occurring with personality disorders (APA Diagnostic and Statistical Manual for Mental Disorders-DSM-VOL.V), underlie communication, learning, including reading, writing, listening, and speaking, social interaction, attitude, attention, concentration, and focus problems of children with behavioural disorders.

In response to the needs of such clients, support services were offered in four stages at the "Pupil Referral Unit" of the Multipurpose Support Association Centre (MUPUSUAC) in Bolifamba, Mile 16, Buea, Cameroon.

I- Early intervention:

Through help, support, and equipping of significant persons (teachers and parents) in children's lives, they could detect early warning signs of behavioral disorders and other disabilities, and report them to support providers for early intervention.

II- Assessing to identify and remove or reduce barriers to school inclusion:

Through the provision of assessment and personalized educational (learning) and non-educational needs.

III-Raising awareness, expectations, and achievement:

Through staff training and skills development, and by engaging community stakeholders and policymakers in planning and implementing school inclusion.

IV-Delivering improvements in multi-agency partnership

Working with other community-based inclusive education supports providers, the education, health, social, human rights, and psychological services are integrated.

(Ndame, 2017).

The Need for Disability Awareness in African Schools

A fundamental barrier to creating inclusive school environments in Africa is the lack of awareness and understanding of disability-related behaviors among educators. Many educators in African schools lack training in disability awareness and inclusive teaching practices, often leading to the misinterpretation of disability-related behaviors as disobedience or defiance (UNICEF, 2020a). For instance, behaviors associated with autism, such as repetitive movements or difficulties with social interactions, may be perceived as intentional disruptions if teachers do not understand the sensory or cognitive factors

influencing these actions (Boldsen, 2022). To address this gap, targeted training programs that educate teachers on the diverse ways disabilities manifest in student behavior are essential (Hecker et al., 2014).

Training for Teachers and Staff on Understanding Disability-Related Behaviors

Training initiatives should focus on building teachers' capacity to recognize and respond to disability-related behaviors in a constructive manner. Educators need skills in identifying the underlying causes of challenging behaviors and strategies to differentiate between behaviors linked to disabilities and those arising from other factors (Baker, 2011). By equipping teachers with these skills, African schools can reduce their reliance on physical punishment and create more supportive, inclusive classrooms that enable students with disabilities to thrive. Moreover, awareness training encourages empathy and helps educators view behavior holistically, fostering an educational culture that prioritizes understanding and support over punitive responses (Adomako & Ampofo, 2020).

Strategies to Address Behavior Without Physical Punishment

Implementing strategies to manage behavior without resorting to physical punishment is crucial for protecting students' rights and well-being. Evidence suggests that positive behavioral approaches, such as Positive Behavior Support (PBS) and Social-Emotional Learning (SEL), are more effective in promoting constructive behavior while safeguarding students' emotional and psychological health (Sugai & Horner, 2020; UNESCO, 2019b). These approaches enable teachers to address behavior proactively and empathetically, reducing the need for physical punishment and fostering inclusive learning environments.

PBS strategies, which involve multi-tiered systems of support, offer tiered interventions that provide universal support for all students and targeted or intensive interventions for those with specific needs, such as students with disabilities (Barnett, 2024). By implementing PBS, African schools can shift from punitive discipline methods to a supportive framework that promotes positive behavior through reinforcement and teaches students socially acceptable alternatives. For instance, functional behavior assessments (FBAs) can help teachers understand the motivations behind a student's behavior, enabling them to implement individualized interventions that address each student's unique needs (McCahill et al., 2014).

Social-Emotional Learning (SEL) also plays a significant role in behavior management by teaching essential skills, including self-awareness, self-regulation, empathy, and interpersonal communication. SEL equips students, particularly those with disabilities, with tools for managing emotions and interactions, which can reduce disruptive behavior and improve classroom dynamics (CASEL, 2022). Integrating SEL into school curricula helps students build resilience and navigate social situations constructively, thus decreasing the likelihood of behavioral issues that might otherwise lead to punitive responses (Durlak et al., 2011).

By adopting PBS and SEL, African schools can create educational spaces that promote inclusion, empathy, and understanding, replacing traditional punitive measures with proactive and supportive strategies. Such an approach not only benefits students with disabilities by providing the behavioral and emotional support they need but also contributes to a school culture that values diversity and fosters positive relationships between students and educators.

Positive Behavior Support (PBS) and Social-Emotional Learning (SEL)

Positive Behavior Support (PBS) and Social-Emotional Learning (SEL) are two evidence-based frameworks that are increasingly implemented in educational systems worldwide, including across African nations. PBS is a proactive, prevention-oriented approach to managing student behavior by fostering positive, supportive environments that encourage constructive behaviors (Sugai & Simonsen, 2012). By systematically addressing behavior through targeted interventions, PBS seeks to create a school climate conducive to both academic and social development. SEL, on the other hand, focuses on equipping students with essential skills, including self-awareness, empathy, self-regulation, and social skills, all of which significantly contribute to academic and life success (CASEL, 2022; Durlak et al., 2011). Together, PBS and SEL offer a comprehensive framework for nurturing both behavioral and social-emotional competencies.

In African educational settings, PBS and SEL provide a promising alternative to punitive disciplinary measures, such as corporal punishment, that have traditionally been employed (UNESCO, 2019b). By focusing on supportive, inclusive practices, PBS and SEL foster an environment where students feel respected, safe, and valued, which is essential for nurturing positive behavior and academic engagement.

Implementing PBS and SEL

Integrating PBS and SEL in African schools holds significant potential for improving educational outcomes, especially for students with disabilities. A growing body of research highlights the importance of culturally responsive approaches in implementing these frameworks effectively, emphasizing the need for practices tailored to the specific cultural and socio-economic contexts of African

communities (Osher et al., 2020). Notably, some African schools are beginning to adopt PBS and SEL, shifting from punitive disciplinary practices to inclusive, nurturing environments that support the well-being and success of all learners.

Evidence-Based Strategies for Supporting Positive Behavior

Successful PBS and SEL implementation relies on evidence-based strategies that integrate social and emotional learning into the curriculum, a recommendation endorsed by the World Health Organization (2011) and the Collaborative for Academic, Social, and Emotional Learning (CASEL, 2022). These strategies involve practices that address both behavioral needs and social-emotional development:

Functional Behavior Assessments (FBAs)

FBAs are pivotal for identifying the underlying causes of challenging behaviors. By understanding the motivations behind specific behaviors, educators can design targeted interventions to address the unique needs of each student (McCahill et al., 2014). This approach aligns with the individualized focus of both PBS and SEL, as interventions are personalized to foster sustainable behavioral changes.

Multi-Tiered Systems of Support (MTSS)

MTSS is a framework that provides a continuum of support for students based on their needs, offering universal interventions for all, targeted supports for some, and intensive interventions for a few. Research indicates that MTSS frameworks effectively promote positive behavior and social-emotional skills, mainly when applied in low-resource settings (Garcia & Weiss, 2020; Barnett, 2024). MTSS can provide scalable and sustainable support for diverse student needs in African schools.

Positive Reinforcement

Positive reinforcement techniques, such as praise and rewards, acknowledge students' efforts and promote desirable behaviors. These techniques are particularly beneficial for students who may struggle with self-esteem and confidence (Schieltz et al., 2020). Studies have shown that positive reinforcement effectively promotes engagement and motivation, particularly among students with disabilities who may face additional challenges in conventional learning environments (Goh et al., 2012).

Examples of Successful PBS and SEL Initiatives

Several initiatives illustrate the successful application of PBS and SEL in African educational settings. The Positive Behavior Interventions and Supports (PBIS) framework, for instance, has been implemented in various African schools, yielding positive outcomes, including reduced behavioral incidents and improved student engagement (Johnson et al., 2018). A notable example from South Africa demonstrates that PBIS can lead to a significant decrease in corporal punishment, heightened student engagement, and improved academic performance for students with disabilities (Mahlangu et al., 2021).

In Kenya, the Social and Emotional Learning Program has been introduced in primary schools, focusing on cultivating essential social-emotional competencies that enhance peer relationships and improve classroom behavior (Wangari, 2020). Similarly, Uganda's "Tujenge Sote" initiative ("Let's Build Together") integrates SEL into the curriculum, fostering resilience, emotional intelligence, and social skills among students, with a special focus on those with disabilities (Moyi, 2017). In Ghana, research has shown that SEL initiatives addressing emotional regulation and empathy contribute to a decrease in behavioral issues and stronger social ties among students (Ackah-Jnr et al., 2025).

These examples suggest that when African schools implement PBS and SEL, they not only reduce negative behaviors but also foster inclusive environments that prioritize students' dignity, rights, and holistic development (UNICEF, 2021). Such approaches align with the global goals for inclusive and equitable quality education, as articulated in Sustainable Development Goal 4, which emphasizes the need for supportive, learner-centered educational practices that enable all students to succeed (UNESCO, 2021).

Among the various evidence-based strategies for managing behavior without physical punishment, Social-Emotional Learning (SEL) stands out as a comprehensive framework that directly addresses the root causes of many behavioral difficulties. SEL emphasizes the development of critical skills such as self-awareness, self-regulation, empathy, responsible decision-making, and interpersonal communication (CASEL, 2022). These skills are not only essential for academic achievement but also for fostering resilience and positive social interactions, both of which are vital for children with behavioral disorders. One of the most significant strengths of SEL is its suitability for students struggling with emotional regulation disorders, such as anxiety, depression, or trauma-related behaviors. These conditions often manifest in classrooms as withdrawal, disruptive outbursts, or difficulty engaging with peers and teachers. Through SEL, students are taught strategies to recognize and manage their emotions, which directly reduces the likelihood of inappropriate behavior. For example, mindfulness-based SEL interventions have been shown to lower anxiety levels and enhance coping strategies, thereby reducing classroom disruptions and improving overall well-being (Durlak et al., 2011). In this way, SEL provides not just behavioral management, but long-term psychological benefits that help students

navigate both school and life challenges.

Role of Parental Involvement and Collaboration

Physical punishment often involves using force like spanking, beating, or slapping to cause discomfort to someone, especially a minor, as a form of discipline. The impact of physical punishment on students, especially those with disabilities, in African schools has been a primary controversial subject. Most Africans believe that physical punishment is necessary to discipline and correct students. However, recent research shows that it has a tremendous negative impact, mainly for children with disabilities who may experience emotional and psychological harm, impeding their ability to learn and develop social connections. Children with disabilities require additional support in a safe and conducive environment, which can be achieved through parental involvement and the collaborative efforts of schools and other stakeholders (ACPF, 2019; Gershoff & Grogan-Kaylor, 2016; Ojo et al., 2018).

Parental engagement plays a crucial role in understanding and managing children's behavior, especially in educational settings. A recent study highlights the significant role parents play in shaping student achievement and development through various forms of engagement. A study by Rose et al. (2023) stresses the importance of collaborative approaches between teachers and parents/caregivers in addressing student behavior issues.

Engaging parents and caregivers in understanding and managing children's behavior is important for ensuring positive outcomes. When parents are engaged, children exhibit improvements in academics, social skills, and classroom behavior (Silletti et al., 2024). Studies show that when parents participate directly in their children's education, children earn higher grades, feel more connected to school, and show a stronger motivation to learn (Silletti et al., 2024).

Parental involvement can come in the way of communicating a child's unique needs and the strategies for combating misbehavior when there is a need thereby avoiding punishment for the child with a disability. When parents are active and involved, teachers can be armed to reinforce constructive behavior without affecting a child's self-esteem. (Okon & Osuji, 2020).

Traditionally, most African communities believe in physical punishment, and this can hinder parents from openly opposing these practices. In contrast, research has shown that parents who follow up with school activities and communicate with teachers stand a better chance of standing up for better behavior management focused on their children's needs (Gershoff & Grogan-Kaylor, 2016).

Parental involvement also helps reduce challenging behaviors in children. When consistent routines are established, open communication between teachers and families is maintained, behavior concerns are addressed early, and better social-emotional skills and the well-being of children are established (Ren et al., 2022). Research indicates that children with highly involved parents have fewer behavioral issues and better social functioning (Casey Foundation, 2022).

Although many parents play important role in the school inclusive process of their children, from experience, many parents and guardians also face challenges. The uneducated ones may not bother about their children with disability because they fall short of knowledge about their national inclusive education policy, their disability laws, and the types of benefits made available for their child by the state. Many of these parents and guardians are also ignorant of how to apply for those benefits. Hence, it will be the responsibility of the human rights advocate to support parents in explaining and navigating those procedures.

Collaboration between schools and parents or caregivers builds a supportive network that benefits children's development. Cooperation between parents and teachers allows for the sharing of perceptions of a child's needs, strengths, and challenges (Silletti et al., 2024). This teamwork leads to more effective, tailored interventions that make managing behavior easier and more successful.

The need for collaboration between schools, teachers, and parents in creating a conducive learning environment for students with disabilities cannot be over-emphasized. Through teacher training programs, schools can adopt policies encouraging inclusive practices geared towards positive discipline (World Health Organization, 2020). Schools can collaborate with organizations that promote disability awareness to get materials, training, and policies that promote inclusive practices.

When teachers, parents, and the schools work as a team, the entire school community can become more inclusive, with an emphasis on positive and inclusive practices. This shared responsibility builds a safe and conducive environment for learning, especially for children with disabilities (Amnesty International, 2020).

Policy Recommendations

- Prohibit Corporal Punishment in All Settings: Governments should make laws like the South African Schools Act of 1996 (Mashau et al., 2015) and Sierra Leone's Basic and Senior Secondary Education Act of 2023 (End Corporal Punishment, 2023), which forbid physical discipline and encourage positive alternatives that ban physical punishment in all settings. Countries like Tanzania and Ghana should amend their education acts to align with the African

Charter on the Rights and Welfare of the Child.

- Mandatory Positive Discipline Training for Teachers: Teacher training programs should incorporate modules on positive discipline, child psychology, and behaviour management. Inspired by Rwanda's CPD Framework, training must be mandatory for all educators. Techniques from Finland's crisis management models can be adapted to African contexts for effective non-punitive discipline.
- Enhanced Monitoring and Accountability: Governments should partner with bodies like End Corporal Punishment and The African Committee of Experts on the Rights and Welfare of the Child (ACERWC) to monitor law enforcement and track incidents of corporal punishment. National child welfare monitoring units, modelled on Kenya's Children Services Directorate, should investigate complaints and recommend corrective actions. Data collection systems are essential for evidence-based interventions.
- Adopt Multi-Tiered Systems of Support (MTSS): Governments should implement MTSS frameworks to address behaviour comprehensively, offering universal support, targeted interventions, and individualized plans. South Africa's PBIS model successfully reduces disciplinary incidents and fosters engagement (Gagnon et al., 2021).
- Learn from Global Successes: African nations can adopt restorative justice models, such as those in New Zealand, which offer effective alternatives to punitive discipline (O'Driscoll, 2007).
- Strengthen School Policies and Infrastructure: Schools should adopt Child-Friendly Frameworks like UNICEF's, emphasizing safety, inclusivity, and non-violent teaching methods. Governments must allocate resources for training, awareness campaigns, and monitoring systems to sustain these initiatives.

Furthermore, in many African countries, policy and legal provisions are often promulgated without any corresponding budget voted by the parliament for inclusive education services. Hence, whether inclusive education is part of the education or social welfare ministry, its annual budget should be autonomous and managed with accountability and control. Additionally, these policies and legal frameworks are hardly implemented in full by African countries, thereby undermining the entire purpose and process of school inclusion (Ndame, 2012).

Recommendations for Teacher Education and School Practices

Incorporating Inclusive Pedagogy in Teacher Training Programs

- Following Rwanda's National Teacher CPD Framework (Rwanda Education Board, 2019), create courses on inclusive education and positive behaviour management required for all teacher training programs.
- Implement practical teaching modules based on UNESCO's Teacher Education Resource Pack (Saleh, 1993) that train teachers on disabilities and classroom management.
- In-service Professional Development includes setting up regular professional development programs that focus on developing Individualised Education Plans (IEPs) and functional behaviour assessment techniques.
- In-service Teachers should be taught how to calm a crisis using effective models from Finland's teacher education system.
- The countries in this study should create School-Wide Positive Behaviour Support (SWPBS) systems with clear rules for behaviour, consistent reward systems, and decision-making based on data.
- Create Multidisciplinary Support Teams with special education teachers, school counsellors, and behaviour specialists, following the model of South Africa's district-based support teams (Department of Basic Education, 2014).

Consequently, even if teachers were trained with inclusive initiative, most of them would hardly implement school inclusion since they themselves do not fully live the reality of equity, diversity, and inclusion in their community and society life. Some may also be influenced by circumstances and personally experienced at a given place and time due to the process of their teacher identity development (Ndame, 2019). Consequently, more emphasis should be laid on teachers' initial and continuous development training programs in Special and inclusive education.

Creating Supportive School Environments

The global impact of inclusive education is profound and far-reaching. The 1994 Salamanca Statement and framework for action on special needs education (UNESCO, 1994) were ratified by over 92 countries and embraced by over 200 participants from diverse corners of the world, including African countries. This shared commitment to the guiding principle of accommodating all children, regardless of their conditions, in schools is a powerful testament to the universal importance of inclusive education, and it is a movement we are all part of.

To meet the goals of truly inclusive, supportive and accessible education for all, the barrier towards inclusive education has to be dismantled, and the benefits seen

holistically, as it is a journey with an underlying principle of practice and not a conclusive concept (Kozleski et al., 2015). With this in perspective, an inclusive education environment benefits not only the child with a disability but also non-disabled children as it offers the following: full participation in the school, access to architectural structures, curriculum development, assistive technology and access to paraprofessionals.

Therefore, in addition to the need for schools to embrace supportive, inclusive school environments in African countries, the next crucial step is the development of national educational policies that foster child-centred/friendly pedagogy or frameworks. These are desirable and essential to ensure that school spaces remain safe and conducive to learning. As the United Nations Children's Fund (UNICEF) rightly asserts, every child, including adolescents, should have access to "inclusive social protection, where every child lives in a safe and sustainable environment with access to inclusive social services" (UNICEF, 2021).

The Core of Child-Friendly Framework

The essence of having a child-friendly school within inclusive education is not only providing quality education to all children, including children with disabilities but also the ability to challenge discriminatory attitudes between teachers, non-disabled children and children with disabilities. Also, having welcoming spaces in the school offers opportunities for change from a social perspective. As shared earlier in this paper, the negative attitudes and overarching stigma compound the reaction to students with disabilities.

Researchers such as Themane (2017) asserted that schools must create a safe and caring environment for all children to address the challenges of social exclusion and corporal punishment challenges. Furthermore, having a child-friendly environment benefits all students and the entire community interacting with children with disabilities. Anokwuru (2023) brought to the fore the social stigma attached to disability, activating a rippling negative attitude toward the individual. Buttressing this point, Haruna (2017) stated that within the Nigerian context, once an individual is stigmatized, they suffer from a "change of identity" (p. 102). This profound change of identity carries along with different forms of discrimination that affect the person.

The marginalization of children with disabilities is evident both within the community and school environments, with societal tags leading to normalized discrimination. By fostering inclusive education that prioritizes child-friendly approaches, we make significant strides toward supporting these children effectively. Embracing inclusive educational practices is not just an obligation but a moral imperative that benefits all members of society.

In conclusion, the pursuit of creating supporting inclusive school environments is vital not only for the empowerment of children with disabilities but also for the enrichment of the entire educational community. By dismantling barriers and fostering child-friendly environments, we can create schools that celebrate diversity and promote equal opportunities for all students. Addressing the stigma and negative attitudes surrounding disabilities is crucial in transforming perceptions and ensuring that every child feels valued and supported. National educational policies must reflect these inclusive principles, paving the way for a more equitable future where all children thrive together in safe, accessible, and welcoming learning spaces. As we move forward, it is our collective responsibility to champion inclusive education, reaffirming our commitment to a society that recognizes and nurtures the potential of every child.

Conclusion

This paper underscores the profound and detrimental impacts of physical punishment on students with disabilities in African schools, with specific attention to Nigeria, Ghana, Kenya, Tanzania, and Uganda. These impacts manifest across psychological, academic, and societal dimensions, significantly undermining this vulnerable population's educational and developmental outcomes.

Negative Impacts of Physical Punishment

Physical punishment disproportionately affects students with disabilities, exacerbating the challenges they already face within educational systems. Research highlights that these students often bear the brunt of corporal punishment due to misconceptions and lack of understanding of their disabilities by school personnel (Global Initiative to End All Corporal Punishment of Children, 2021; UNICEF, 2020b). For instance:

- Psychological Impact: Repeated physical punishment fosters feelings of inadequacy, fear, and anxiety among students with disabilities, further marginalizing them and impairing their social-emotional development (Ame et al., 2021).
- Academic Impact: The punitive environment disrupts learning, leading to increased absenteeism, school withdrawal, and poor academic performance, effectively limiting their long-term employability and life prospects (Feinstein & Mwahombela, 2010).
- Physical and Emotional Vulnerability: Many students with disabilities are at higher risk of physical harm and trauma due to their conditions, making corporal punishment particularly harmful. For example, students with sensory or cognitive impairments often cannot fully comprehend the cause of their

punishment, resulting in confusion and distress (Moyi, 2017; Sungwa et al., 2022).

Call to Action

The impact of corporal punishment disproportionately harms learners with disabilities, exacerbating more exclusionary measures, increasing stigma and undermining their right to inclusive education. Therefore, there is a need to address these negative impacts and advocate for systematic, holistic changes that foster care, belonging, and equitable and supportive learning environments. This begins with reformation in:

Teacher education programs: Pre-service and in-service teachers must receive inclusive programs on Nonviolent crisis intervention strategies (Nonviolent Crisis Intervention | CPI Training | Crisis Prevention Institute (CPI)). Furthermore, educators should be equipped with academic tools and the capacity to manage classrooms using the Positive Behaviour Support Plan (PBSP), conflict resolution, and emotional intelligence.

Policymakers: Legislative policies that explicitly ban corporal punishment in schools and community programs that students with special needs attend must be established and reinforced. Furthermore, clear penalties for non-compliance with the rules and policies must be imposed. It is pertinent for African countries to align their policies with national and international educational frameworks such as the Convention on the Rights of Persons with Disabilities (2006), the Human Rights Model of Disability (Degener, 2000), the Salamanca Framework on Inclusive Education (1994) and the Human Right Policy (1945).

School Practices: Schools across Africa should adopt the Child-Friendly framework and Child-Friendly Cities, which are evidence-based approaches. They should also adopt other interventions and strategies, such as Positive Behaviour Intervention Support (PBIS) and Safe and Caring schools, where the schools are safe and supportive for all learners. In addition, school administrators ensure that restorative practices are implemented to support social and emotional development spaces for all learners and repair any emotional trauma.

Teachers become aware of these interventions, policies, and strategies by engaging in professional development on creating spaces for inclusive, respectful, and safe learning environments for all, including special needs learners.

Finally, transforming the school environment and landscape requires an integrated and collaborative approach among key stakeholders, such as educators, policymakers, and families, advocating for sustainable change. The key stakeholders work together to implement nonviolent crisis intervention programs, which invariably eliminate corporal punishment for special needs learners. They share best practices for supporting special needs learners using inclusive education resources. Policymakers and Schools partnering with Public-Private Practice on funding inclusive education initiatives equip schools with resources and create awareness of corporal punishment's implications and rippling effect on special needs learners. In conclusion, engaging parents and caregivers in awareness campaigns about the harmful effects of corporal punishment and the benefits of alternative disciplinary approaches. Schools and other community programs foster partnerships with families to create consistent, supportive environments for learners with special needs at home and school.

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The Special School: A Vygotskian Theoretical Perspective

Dr Ben de Souza

Department of Secondary and Post-School Education

Faculty of Education

Rhodes University

PO Box 94

Makhanda 6140

South Africa

+27788207297

souzaben@outlook.com

ORCiD: https://orcid.org/0000-0002-6746-9511

Abstract

The need for inclusive education has gained momentum in recent years as education systems aim to promote equitable opportunities for all learners. This study explores the imperative issue of abolishing special schools through Vygotsky's sociocultural theory. This theory implies that inclusive education can facilitate the development of individuals with diverse abilities and nurture social inclusion. The study asks how abolishing special schools can promote a more inclusive educational environment. The author draws on personal reflections as a teacher and educator in Malawi to underline the potential benefits of mainstreaming learners with disabilities or special needs, arguing that this approach can enhance peer learning, social interaction, and overall development. Furthermore, the study explores the challenges and potential obstacles to implementing inclusive education, such as teacher training, resource allocation, and shifting societal perceptions. The study contributes to the ongoing debate surrounding abolishing special schools and emphasizes the importance of social and cultural factors in shaping inclusive education policies and practices. It also accentuates the potential of the sociocultural theory to guide educational reform toward inclusive and equitable education for all, bearing in mind that abolishing special schools does not entail abandoning the beneficial aspects of special education.

Keywords: Inclusive education, sociocultural theory, special education, special school, Zone of Proximal Development

Introduction

In pursuing inclusive and equitable education, abolishing special schools has become a growing topic in educational discourse (Anastasiou & Bantekas, 2023). A shift from the practice of segregating learners with disabilities or special needs in specialized institutions has gained momentum globally, driven by a commitment to promoting a more inclusive and socially just educational landscape (Mann et al., 2023). For example, in the United States (U.S.), the call for inclusive education is enshrined in the Individuals with Disabilities Education Act (IDEA). This legal framework has compelled the U.S. Department of Education and state-level educational authorities to undertake policy and practice measures to ensure that education in the U.S. is as inclusive as possible (Tichá, Abery, & Kincade et al., 2018). In the United Kingdom (UK), the shift to inclusive education is usually defined within the human rights framework. This framework entails that it is the right of every learner to get an equal educational experience in the same learning environment, regardless of their physical and intellectual differences. The framework has moved the UK government and educational players to support inclusive education through infrastructure development, teacher training, and school funding models that support inclusivity, although political vulnerability sometimes holds these efforts back (Slee, 2013). The foregoing situations in the U.S. and the UK are also evident in Australia (see Graham, 2024), Canada (see Bunch, 2015) and New Zealand (see Selvaraj, 2015).

In Africa, as the case is in most of the Global South regions, inclusive education is a back-and-forth educational aspiration (de Souza, 2021). For instance, in South Africa, the government introduced White Paper 6 in 2001, the key policy framework for the country's inclusive education aspirations (Rinquest & Simba, 2024). Through White Paper 6, South Africa has taken practical steps to make the country's schools fully inclusive by redesigning most of the infrastructure that prevented learners with disabilities from having access and ensuring that learners from underprivileged communities who were disadvantaged by apartheid-era systems are now entitled to equal educational opportunities (Walton & Engelbrecht, 2024). The South African situation reflects the African story in general and the southern African one in particular, as the history of special and inclusive education intertwines with the continent's colonial past (de Souza et al., 2024).

However, the shift from special to inclusive education raises critical questions about the feasibility of this transformation and the underlying theoretical foundations supporting it. Therefore, this theoretical and reflective study seeks to analyze this important issue critically, offering a Vygotskian theoretical perspective on abolishing special schools in support of inclusive education. The Vygotskian sociocultural theory implies that inclusive education, wherein learners with diverse abilities and needs are included in mainstream educational settings, can engender transformative learning experiences and promote social inclusion (Dervan, 2023).

While the merits of inclusive education are well-documented (see Gordon-Gould & Hornby, 2023; Akbarovna, 2022; Graham, 2020), this study is uniquely important because it offers a Vygotskian perspective that helps to surface the theoretical underpinnings that support this educational shift from special to inclusive education. This study considers the theoretical foundation and addresses practical implications, challenges, and potential obstacles in abolishing special schools. These encompass teacher training, resource allocation, curriculum adaptation, and the importance of shifting societal perceptions regarding diverse learners. The study aims to enrich the ongoing debate surrounding the transition from special to inclusive schools while adapting the beneficial tenets of special education (cf. de Souza, 2023).

Special and Inclusive Education: History, Considerations, Challenges, and Shifts

Historically, special schools emerged in response to the need to educate individuals with disabilities (Gerber, 2017). This separation of learners into specialized institutions can be traced back to the early 19th century when education was primarily designed for the "typical" learner. One of the primary problems with special schools is the lack of inclusion (Banks et al., 2015). In many cases, learners with disabilities are segregated from their peers without disabilities, which can perpetuate social isolation and stigmatization. Also, special schools often struggle with limited resources. These institutions require highly-trained staff, specialized equipment, and appropriate facilities to meet the diverse needs of their learners.

Furthermore, funding shortages can hinder special schools' ability to provide the necessary resources and support (Simplican et al., 2015). High staff turnover is another issue plaguing special schools, as dealing with learners with disabilities can be emotionally and physically demanding, and many teachers in these settings face burnout due to the challenging nature of their work. Stigmatization is a significant problem within special schools. Learners attending these schools may experience feelings of being different or inferior to their peers in mainstream education. This stigma can negatively affect their self-esteem and mental well-being. Special schools often have limited curriculum options, restricting learners' access to a well-rounded education. This limitation can hinder their future opportunities and employment prospects. Transitioning from special schools to post-school life is challenging for learners with disabilities from special schools. These schools often lack the necessary programs and support to help learners transition successfully to the workforce or

higher education (Smith & Tyler, 2011).

Over time, it became evident that segregating learners with disabilities had unintended consequences, including social isolation, stigmatization, and limited access to quality education (Richardson & Powell, 2011). This realization led to a gradual movement towards more inclusive practices in education. The importance of inclusive education is widely acknowledged, as it not only benefits learners with disabilities but also contributes to a more inclusive and accepting society (UNESCO, 2020). The inception of inclusive education can be traced back to the mid-20th century when an international movement shifted the education paradigm towards a more inclusive and equitable approach. The principles of inclusive education advocate for the education of all learners, regardless of their (dis)abilities, within mainstream schools and classrooms. This movement gained momentum in the latter half of the 20th century as awareness about the rights of individuals with disabilities grew. International frameworks like UNESCO's Salamanca Statement (1994) and the United Nations Convention on the Rights of Persons with Disabilities (UNCRPD, 2006) further stressed the need for inclusive education, emphasizing the importance of access to quality education for all learners, including those with disabilities. As such, inclusive education aims to break down barriers, reduce stigmatization, and promote a more just and inclusive society by providing equal educational opportunities for everyone (Sabela, 2023).

Transitioning from special schools to inclusive education comes with practical considerations and challenges. It involves a shift in philosophy, policy, and practice, which can be complex and demanding. One significant aspect is teacher training and professional development. Mitchell and Sutherland (2020) are of the view that inclusive education requires teachers to adapt their teaching methods to accommodate diverse learners, necessitating specialized training. Moreover, allocating resources, including assistive technologies and classroom support personnel, is important for ensuring the success of inclusive education (Alquraini & Gut, 2012).

Additionally, changing societal perceptions is a critical challenge. Negative stereotypes and attitudes towards individuals with disabilities can hinder the success of inclusive education. Advocating for inclusive policies and promoting a more inclusive culture are ongoing efforts (Slee, 2011). Adequate provision of support services, such as speech therapy, occupational therapy, and psychological support, within inclusive classrooms, is also crucial to address the diverse needs of learners with disabilities. These practical considerations are often accompanied by challenges such as resistance to change, concerns about classroom management, and the need to customize instruction to individual learner needs (Mitchell & Sutherland, 2020). Thus, implementing inclusive education requires a well-thought-out educational approach that addresses these practical considerations and challenges.

The movement towards inclusive education is not limited to a specific region; it is a global movement. Countries worldwide embrace inclusive education to promote social justice and equal opportunities for all learners (de Souza, 2022). The UNCRPD has been crucial in encouraging and guiding nations toward inclusive education (UN, 2006). Inclusive education is seen as a means to achieve Sustainable Development Goal 4 (SDG 4) of ensuring inclusive and equitable education for all by 2030 (UN, 2015). The transition from special schools to inclusive education represents a profound shift in educational practices driven by the pursuit of equity and social inclusion (Blanks, 2016). Nonetheless, research studies on inclusive education over the past three decades (including studies reviewed in this section) suggest a need for theoretical underpinnings to frame the shift from special to inclusive education, bearing in mind that theories are catalysts of transformation and change if approached from critical and realist perspectives. Therefore, this study takes Vygotsky's sociocultural theoretical perspective to emphasize the role of social interaction and collaboration in learning and development and provides a theoretical foundation for the shift.

Vygotsky, Sociocultural Theory, and the Prognostication of Inclusive Education

During the lifetime of Lev S. Vygotsky (1896-1934), the concept of inclusive education could not even be a dream. The concept of special education was still embryonic, and only developed countries of the era, such as Russia (later the Soviet Union), the U.S., and the UK, managed to run special schools for children with different disabilities and special needs. Nevertheless, Vygotsky's critique of the special school philosophy laid a strong foundation for inclusive education. His sociocultural theory is rooted in the idea that learning and development are inherently social processes shaped by cultural and social contexts (Vygotsky, 1978).

In sociocultural theory, the Zone of Proximal Development (ZPD) highlights the importance of interaction with more knowledgeable peers or adults in scaffolding and advancing learning (Vygotsky, 1978). Vygotsky's theory has been applied to various educational contexts, advocating for a constructivist approach recognizing the role of social interactions and collaboration in learning. Research studies such as Daniels (2008) and Sellman (2011) have demonstrated how Vygotsky's sociocultural theory of learning and development has been instrumental in framing the theoretical basis for inclusive education. Vygotsky's work emphasizes that learning is a socially mediated process within the ZPD where learners engage in

collaborative activities with more knowledgeable peers or adults (Vygotsky, 1978). The key tenet of Vygotskian theory is that learning is enhanced when learners of diverse abilities interact and learn from one another. His emphasis on the importance of social interaction and scaffolding resonates with the goal of inclusive education, which seeks to include learners with diverse abilities in mainstream classrooms and transform the mainstream system into inclusivity. In an inclusive environment, learners with disabilities or special needs can benefit from interaction with their typically developing peers, who serve as "knowledgeable peers" for their learning (Gargiulo & Bouck, 2019).

Vygotsky's theory offers insights into how inclusive education can be structured to promote equitable learning opportunities for all learners. Inclusive education, emphasizing co-teaching, collaboration, and peer learning, reminds us of Vygotsky's belief in the power of social interaction in facilitating learning. Inclusive classrooms create environments where learners with diverse abilities can interact and engage in collaborative learning experiences (Hymel & Katz, 2019). Thus, Vygotskian sociocultural theory surfaces the central role of social interaction through ZPD, mediation, and scaffolding in promoting inclusive education and advocating for the abolishment of special schools, as explained below.

Zone of Proximal Development (ZPD): The ZPD represents the difference between what a learner can do independently and what they can do with support from a more knowledgeable peer or teacher. It highlights the critical role of social interaction and collaboration in learning, as learning occurs most effectively when learners are scaffolded to reach their potential (Vygotsky, 1978). In an inclusive classroom, learners with disabilities or special needs can receive the necessary support to access their ZPD provided by teachers and peers. This situation allows them to engage in challenging, developmentally appropriate tasks that may otherwise be beyond their reach (Vygotsky, 1978).

Mediation: Vygotsky argued that cultural tools, such as language and symbolic systems, mediate cognitive development. These tools are instrumental in helping individuals think, problem-solve, and learn (Vygotsky, 1978). Inclusive education often requires adapting teaching methods, curriculum, and materials to accommodate diverse learners. Mediation, such as assistive technologies or alternative communication systems, agrees with Vygotsky's idea of cultural tools aiding learning (Vossoughi & Gutiérrez, 2016).

Scaffolding: Scaffolding is the process through which a more knowledgeable individual provides support to a learner within their ZPD, gradually reducing support as the learner gains competence. Scaffolding helps learners to achieve tasks they could not accomplish alone (Vygotsky, 1978). Inclusive education mandates that teachers scaffold instruction to meet the diverse needs of learners. Providing individualized support to learners and connecting with their unique ZPD is an inherent aspect of inclusive classrooms (Boettcher & Dammeyer, 2016).

Qualitative Reflection Methodology

This study employs a qualitative reflective research methodology (Mortari, 2015) to investigate the implications of abolishing special schools. The reflective research approach is particularly suitable for this study, as it draws on personal experiences and professional reflections gathered over years of teaching at various educational levels in Malawi. The reflective nature of this methodology complements Vygotsky's sociocultural theory, which emphasizes the role of social interaction, mediation, and the ZPD in learning and development.

The data for this study is derived from a series of personal reflections recorded over an extended period. These reflections encompass observations, interactions with learners, and experiences implementing inclusive educational practices in mainstream classrooms. The reflections were systematically documented to capture evolving thoughts and insights about the challenges and opportunities of inclusive education. Questions guiding these reflections are: (1) How do interactions between learners with and without disabilities affect learning outcomes? (2) What barriers do teachers face in implementing inclusive education? (3) How does the presence of diverse learners impact peer learning and social cohesion? (4) What support structures are necessary to facilitate successful inclusion?

These reflective entries served as a rich, narrative-based data source, offering an evident understanding of the lived experiences of a teacher and an educator navigating the transition toward more inclusive practices. The reflective narratives were analyzed using an insights generation approach. This process involved critical insights that speak to Vygotsky's sociocultural theory. First, personal reflections were compiled into cohesive narratives, highlighting significant experiences and illustrative anecdotes. Second, key themes related to social interaction, peer learning, and the ZPD were extracted. Last, the reflections were processed into concise insights. This step focused on articulating the implications of inclusive education for policy and practice.

The choice of a qualitative reflective research methodology was driven by its resonance with the study's theoretical and practical objectives. Reflective methods are particularly effective for capturing the complexity of teaching and learning experiences, providing a rich, contextualized understanding of how inclusive education unfolds. This

approach also acknowledges the researcher's dual role as an educator and investigator, allowing for a critical examination of personal biases and assumptions.

Ethical principles guided all aspects of this research. To maintain confidentiality, personal reflections did not disclose identifiable information about learners or colleagues. Furthermore, the study's reflective nature ensured that insights were framed constructively, focusing on systemic improvements rather than personal shortcomings.

Personal Reflections through Vygotskian Lenses

The transition from special schools to inclusive education is a transformative and multifaceted process that carries profound implications for education. In this section, I explore and reflect on the core concepts of Vygotsky's sociocultural theory and how they inform and enrich the discourse surrounding the abolishment of special schools. This shift towards inclusive education reflects a commitment to providing equitable learning opportunities for all learners, irrespective of their (dis)abilities or special needs.

Reflecting on my career journey, I am struck by the profound evolution that has defined my path from being an untrained teacher in a private primary school in Malawi to my role as an educator supporting inclusive education. It is a journey marked by challenges, growth, and a deep commitment to promoting inclusive learning environments. Fresh out of my secondary education, I was thrust into a classroom without formal training. The school lacked resources and support, and the diversity of learners' needs was staggering. This environment, although challenging, became the fertile ground for my passion for inclusive education. During this time, I encountered learners with various disabilities and special needs. Instead of being daunted by these differences, I saw an opportunity to learn and adapt. The lack of formal training led me to seek alternative ways to support these learners. I researched extensively, collaborated with other teachers, and tapped into any available resources to create a more inclusive learning environment.

As I transitioned into a trained teaching position in a secondary school, I made a concerted effort to integrate inclusive practices into my teaching methodologies. I started advocating for more inclusive policies within the school. I began implementing personalized learning plans and modifying teaching strategies to suit individual learner requirements. Witnessing the impact on the learners' engagement and academic progress fueled my dedication to this approach. My passion for inclusive education led me to seek roles at higher education institutions in Malawi. Here, my primary focus was to teach and advocate for the inclusion of students with disabilities at a university level. I worked closely with my colleagues to create accessible facilities and design activities that catered to diverse learning styles. I emphasized recognizing the strengths and unique abilities of students with disabilities. I strived to create a culture that celebrated diversity and encouraged a supportive community where everyone felt valued. This culture involved providing additional support and promoting an environment where students felt comfortable expressing their needs.

I now share practical examples and activities that I implemented, reflecting Vygotsky's principles in the classroom which focus on collaboration, peer interaction, and scaffolding to facilitate learning for all. These reflections are also a critique of my own practices through the Vygotskian theoretical lens.

Reflection #1: Social Interaction and Collaborative Learning

Teaching in an inclusive primary school classroom in Malawi, where learners have diverse needs and abilities, necessitates a flexible and effective approach to education. Vygotsky's theory provides a practical framework for promoting an inclusive environment, encouraging peer learning, and supporting the development of learners with disabilities. Vygotsky's theory emphasizes the importance of social interaction and collaboration in learning. In my classroom, I encouraged collaborative group activities that promoted interaction between learners with different abilities. For instance, during an English skills lesson in Standard 7, I formed groups with a mix of learners, including those with disabilities. Each group had diverse roles—some learners read, some wrote, and others recorded and listened. By doing this, I ensured that each learner made a unique contribution while learning from one another. To facilitate a supportive environment, I employed peer tutoring, where learners with stronger skills or knowledge in a particular skill assisted their peers. For example, during reading sessions, I paired a learner with dyslexia with a more proficient reader. The stronger reader helped break down difficult words and sentences, providing encouragement and guidance, thus demonstrating Vygotsky's concept of the ZPD. Over time, the learner with dyslexia developed improved reading skills and confidence through this collaborative approach. I encouraged a culture of peer feedback and reflection among the learners. After group activities or presentations, learners provided constructive feedback to their peers.

For instance, after role-play sessions, learners would discuss and share what they liked about each other's role-playing and offer suggestions for improvement. This practice developed their critical thinking skills and encouraged a supportive atmosphere where they learned from each other's strengths and areas for growth. Establishing inclusive classroom norms was important. I

introduced classroom rules emphasizing respect, empathy, and understanding of individual differences. We discussed and celebrated each other's strengths, promoting an environment where everyone felt valued and appreciated. This inclusive setting encouraged collaboration and ensured that learners with disabilities were integrated and actively participated in all classroom activities. Thus, inclusive primary school classrooms provided an effective framework for promoting an environment where learners with disabilities could thrive. Through collaborative group activities, peer tutoring, and the establishment of inclusive norms, the classroom became where they learned from the teacher and each other. Thus, learners developed both academically and socially, contributing to a more empathetic and supportive community within the school.

Reflection #2: The Role of Scaffolding in Inclusive Education

Vygotsky's theory emphasizes the role of social interaction, guidance, and support in facilitating learning. Implementing these principles in an inclusive classroom requires creative and adaptive teaching approaches to support learners' diverse needs. In Vygotsky's framework, the ZPD is important—the space between what learners can achieve independently and what they can accomplish with assistance. Using collaborative group work is an effective way to actualize this theory. For instance, when teaching essay writing in Form 3, I formed mixed-ability groups, pairing learners with disabilities alongside those without disabilities. Each group was given a complex writing task, with the more capable learners offering guidance and support to their peers with disabilities. This setup allowed them to learn from one another, with each individual contributing based on their strengths, thus promoting a supportive and inclusive atmosphere.

Tailoring instructional support to each learner's needs to adhere to scaffolding is crucial. For instance, I introduced a reading comprehension exercise where I provided multiple material forms—printed text, audio recordings, and visual aids—to accommodate various learning styles. Learners with visual impairments were given braille materials, while others who struggled with reading received extra support in decoding words and understanding the text. The support gradually decreased as they progressed, allowing them to take more independent steps in their learning. Vygotsky's theory stresses the importance of using tools and resources to support learning. In the classroom, I incorporated visual aids and technology to enhance the educational experience. For example, when teaching a comprehension lesson with a passage on Malawi's independence, I used multimedia presentations with images, videos, and interactive maps to accommodate different learning styles.

Additionally, for learners with hearing impairments, I used sign language videos and captioned videos to ensure their engagement and understanding of the material. Vygotsky's theory suggests that learning is significantly enhanced through social interaction. To implement this, I encouraged peer tutoring and mentorship within the classroom. They took turns being both tutors and learners, providing explanations, guidance, and support based on their areas of strength. During role-playing as a preacher, for example, a learner with a physical disability who had difficulty performing certain tasks was supported by a peer who offered physical assistance while explaining the steps. Scaffolding can ensure an inclusive and empowering educational experience. The key lies in understanding and meeting each learner's needs while gradually promoting independence and growth in their learning journey.

Reflection #3: Mediation and Cultural Tools in Inclusive Settings

My work in two Malawian universities, working with students with diverse abilities, including those with disabilities, has been a profound learning experience. Vygotsky's theory emphasizes the influence of social interactions, cultural tools, and the role of mediation in cognitive development. Implementing these principles in an inclusive educational setting involves catering to diverse needs and ensuring equitable student learning experiences. I facilitated group activities where students engaged collaboratively in problem-solving and discussions. I structured activities to encourage peer support, ensuring students with disabilities had assistance and felt included in the learning process. For instance, I organized group debates on lecture topics, allowing all students to contribute based on their strengths. Recognizing the importance of tailored technological tools, I ensured that students with disabilities had access to assistive technologies. This included providing screen reading software and using tablets with specialized applications, empowering these students to engage with course materials effectively. Adapting course materials was crucial. I provided lecture notes in advance and incorporated visual aids like diagrams and subtitled videos to aid students with visual or hearing impairments. This adaptation ensured that all students could access and comprehend the course content. I also used scaffolding techniques. I gradually reduced guidance as students progressed, allowing them to do tasks independently. This approach aimed to challenge them while providing the necessary support to enhance their learning. I encouraged pairing students with disabilities with their peers who had a strong grasp of the course matter. This promoted an environment of mutual learning, where knowledge and understanding were shared among students, promoting collaboration and support. By implementing peer-assisted learning, assistive technologies, adapted teaching materials, scaffolding techniques, and peer mentorship, the educational experience became more inclusive and supportive for all

students. This approach ensured that every student had the opportunity to thrive and succeed.

Reflection #4: Inclusive Education as a Whole-School Approach

As a secondary school teacher in Malawi, I was committed to creating an environment that promotes academic success and emotional well-being for all learners. I strived to create an inclusive, supportive, and collaborative learning environment. Here are practical examples of how Vygotsky's theory applied to my classroom and throughout the school.

Vygotsky's ZPD concept focuses on where a learner can grow academically with the right guidance. I applied this concept by encouraging peer learning and group activities. For instance, learners were encouraged to collaborate and help one another during classroom discussions or group projects, thus expanding their ZPD. Learners who excelled in a particular subject matter were paired with those who needed support, promoting a culture of mutual learning. Recognizing the importance of collaborative learning, I structured classroom activities that promoted group work, discussions, and cooperative problem-solving. For example, during note-making lessons, learners worked in small groups, enabling them to exchange ideas, discuss methodologies, and learn from each other's insights. This not only enhanced academic learning but also cultivated important social skills. Vygotsky's emphasis on cultural context was crucial in a diverse cultural setting like Malawi. I integrated diverse cultural elements into the curriculum, incorporating local stories, traditions, and examples that learners could relate to. This allowed for a more inclusive and culturally sensitive educational experience, making learning more engaging and relatable for learners from various backgrounds. I ensured an open-door policy, encouraging learners to discuss their academic challenges and personal concerns. I could better understand their needs and provide needed support by promoting a collaborative teacher-learner relationship. This approach reflected Vygotsky's belief that the teacher should be a facilitator, providing the necessary support for learners' development. Beyond my classroom, I worked collaboratively with fellow teachers and school administration to ensure that inclusive education principles were integrated school-wide. This included supporting workshops and seminars for staff development on inclusive teaching methods and promoting a supportive school culture. The Whole-School Approach philosophy enriched the academic experience and promoted a more supportive and nurturing school environment. It created a positive ripple effect, benefiting the entire school community and preparing learners for a more inclusive society.

Reflection #5: Promoting a Shift in Societal Perceptions

As a secondary school teacher in Malawi, I recognized the significance of promoting a shift in societal perceptions towards learners with disabilities. Vygotsky highlighted the importance of social interaction, cultural tools, and the role of the environment in shaping cognitive development. In Malawi, individuals with disabilities are often stigmatized. They are frequently marginalized and face barriers to education, employment, and social inclusion. In this context, leveraging Vygotsky's principles helped me create a more inclusive educational environment by emphasizing collaboration, scaffolding, and support within the classroom. One practical example of applying Vygotsky's ideas was through collaborative learning activities. I encouraged group work and peer-to-peer interactions among learners with and without disabilities. By pairing learners with different abilities, they could learn from each other. For instance, I structured group projects that required teamwork and cooperation, ensuring each member had a role. This approach helped break down barriers and encouraged mutual understanding and support among students. Moreover, I used the concept of scaffolding to support learners with disabilities in their learning process. Vygotsky's theory suggests that learners can accomplish more with the assistance of knowledgeable peers or adults. I applied this by offering individualized support, breaking down complex tasks into smaller, manageable steps, and gradually withdrawing support as the learner gained confidence and skill. For example, if a learner struggled with a certain English skill, I would provide extra guidance, resources, or explanations until they could grasp the concept independently. I also involved the entire community in the educational journey of learners with disabilities. I aimed to break down the social barriers that isolated these learners. This undertaking allowed the community to witness their potential, challenging existing societal perceptions. Furthermore, I conducted awareness programs and workshops for parents and the local community to address misconceptions and promote acceptance and support for learners with disabilities.

Discussion

From Special School to Inclusive Education: A Sociocultural Pathway

In the foregoing section, I have reflected on my practices as a teacher and educator at all levels of education in Malawi. Five things have come out strongly in these reflections. First, inclusive education can be actualized through teaching and learning approaches that embrace social interaction and encourage collaborative learning. Second, developing learning independence should be the goal of inclusive education through a process in which a teacher or educator becomes a facilitator. Third, mediation and cultural tools such as technological devices and approaches are crucial to implementing inclusive education.

Furthermore, inclusive education is not some education; instead this is a whole-school shift in which all elements of schooling should transform towards inclusivity. Last, no educational system can truly transform into inclusivity without a shift in societal perceptions, remembering that the learners, teachers, and educators are part of society. All these reflections have been theoretically understood through Vygotsky's sociocultural theory.

Central to Vygotsky's theory is the principle that learning is fundamentally a social process (Vygotsky, 1978). In an inclusive educational context, learners are provided with active social interaction and collaborative learning opportunities. Vygotsky's emphasis on peer interaction within the ZPD is particularly relevant. The ZPD represents the space between what a learner can achieve independently and what they can accomplish with the guidance of a more knowledgeable peer or teacher. Inclusive education seeks to optimize this concept by facilitating peer learning and peer support, creating an environment where learners of diverse abilities can learn from one another (Loreman, 2017). Vygotsky's emphasis on social interaction and the ZPD brings out the importance of creating collaborative learning environments (Vygotsky, 1978). Teachers can promote peer learning by structuring activities to encourage collaboration among learners of varying abilities. Group projects, peer tutoring, and cooperative learning are effective methods that create opportunities for learners to support each other within their ZPD. Social interaction and collaborative learning can be less effective in special schools because all learners are placed on the basis of their disabilities (e.g., schools for the blind, schools for the deaf).

Scaffolding is not originally a concept in the Vygotskian theory, but it has found much resonance with its tenets. It emphasizes the crucial role of teachers in providing structured support to learners as they engage in learning tasks within their ZPD (Puntambekar, 2022). In inclusive education, teachers should adapt their instruction to meet the unique needs of learners with disabilities or special needs. Scaffolding strategies empower these learners to participate in the same curriculum as their typically developing peers, ensuring that learning objectives are both challenging and attainable. Thus, scaffolding entails that teachers offer universalized support to meet the unique needs of learners (Anggadewi, 2017). Inclusive schools employ differentiated instruction, adapting teaching methods and materials to accommodate diverse learners. Special schools have no ZPD. The curriculum is strictly structured and limited, making scaffolding difficult because of the lack of diversity and differences.

Vygotsky's theory recognizes the influence of cultural tools, such as language and symbolic systems, in mediating cognitive development (Vygotsky, 1978). In inclusive education, these cultural tools extend to adaptive technologies, alternative communication systems, and various forms of educational support. These tools mediate the learning process for learners with diverse needs, allowing them to engage with the curriculum and interact with their peers effectively. Integrating these tools in the inclusive classroom alludes to the core principles of Vygotskian theory. In the special school, principles of the Universal Design for Learning (UDL), such as multiple means of engagement and representation, are meaningless, not because of the homogeneity of the learners but because of a lack of epistemological diversity. Therefore, integrating assistive technologies to help learners with disabilities access the curriculum and interact with their peers effectively is only feasible in inclusive schools.

Vygotsky's emphasis on the social and cultural context of learning highlights the significance of a whole-school approach to inclusive education. Inclusive education should not be confined to a few teachers or educators; rather, it should be a collective endeavor involving administrators, teachers, support staff, and parents (Mariga & McConkey, 2014). A holistic approach creates a supportive environment where all school community members are engaged in creating inclusive communities. This holistic approach can create a supportive environment for learners with diverse needs. My experience is that educational institutions do not invest much in ongoing professional development programs for teachers and educators. I believe there is an expressed need for training programs in special education practices, UDL, and behavior management techniques to create an inclusive classroom environment. The experiences to fulfill this need can be borrowed from the special education contexts and mainstreamed into inclusivity.

One of the enduring challenges in the transition from special schools to inclusive education is the need to shift societal perceptions and overcome negative stereotypes and biases regarding individuals with disabilities (Slee, 2011). The sociocultural theory stresses the significance of cultural and social factors in shaping individuals' development and learning experiences. Therefore, it is crucial to promote a cultural shift that recognizes the value and potential of every learner, regardless of their abilities. Inclusive education implementation efforts should include awareness campaigns, disability awareness workshops, and community events that promote a more inclusive culture. These efforts will challenge the special education philosophy and create a more welcoming environment for learners with disabilities.

Conclusion

This study has demonstrated that what remains problematic is not special education but the existence of special schools. The special school does not offer the epistemological diversity necessary for human development and learning.

At the same time, some special education tenets are crucial in realizing inclusive education. Therefore, the call is for abolishing the special schools and carrying over beneficial tenets of special education to merge with those of mainstream education into inclusivity. The transition from special schools to inclusive education marks a profound educational shift. Vygotsky's sociocultural theory, emphasizing social interaction, collaborative learning, and the transition into cognitive independence, underpins inclusive education principles, promoting mutual learning and empowerment among learners of diverse abilities and needs. Scaffolding and mediation highlight the importance of individualized support for learners with special needs, while adaptive technologies serve as crucial tools for accessibility in modern classrooms. Achieving inclusive education requires a whole-school approach involving all stakeholders and addressing societal biases to celebrate diversity. This transformation envisions an education system where all learners can thrive through shared, culturally mediated learning experiences.

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Training Diverse Special Education Interns in The United States

John Mouanoutoua
California State University,
Bakersfield

Abstract

The rate of special educators leaving the workforce in the United States remains a concern. With the increasing number of students from diverse backgrounds, the need to diversify the workforce creates another challenge to minimizing the attrition rate of special educators. Scholars suggest that matching the cultural perspective of teachers to students can result in a more promising learning and teaching experience as opposed to a mismatch of culture. However, training and supporting diverse special educators may result in different consequences when compared to training non-diverse special educators. This study investigates the learning experiences of diverse and non-diverse special educators when given the same professional development opportunity. Results are discussed with implications for continuously providing professional development opportunities that could enhance learning experiences of both diverse and non-diverse educators.

Keywords: Special education, interns, professional development, co-teaching, assessment, individualize education program.

Introduction

While students of color represent half of the enrolled student population from 6 to 21 year-olds, teachers from diverse backgrounds only represent 17% of the total workforce (Snyder & Dillow, 2015; Schools and Staffing Survey, 2011). The state of California is home to more than 6.3 million students from diverse backgrounds, and it also serves one of the largest and most racially diverse population of students with special needs (Cooc and Yang, 2016). According to California's Department of Education dashboard, the majority of students are Hispanic (56%), White (20%), Asian (10%), and African American (5%) (California Department of Education, 2025). While the majority of students in California are Hispanic, the majority of teachers in California are Whites (54%), Hispanic (27%), Asians (6%), and African Americans (4%). The unbalance of diverse teachers in California is just one factor attributing to cultural mismatch between teachers and students resulting in less than positive impacts. As the mismatch of cultures between teachers and students continue to widen, there has been momentum to increase the number of teachers of color (U.S. Department of Education, 2016b).

Although the recruitment, training, and sustaining diverse special education teachers has maintained some consistency, the attrition of special education teachers (SET) continues to be an issue. Scholars have often attributed this attrition of SET to a lack of professional development (Billingsley, 2004, 2019). To help address this issue, many education preparation programs have developed internship pathways allowing candidates can teach special education while taking credential classes at the same time. Despite this pathway, special education interns continue to struggle and face difficulties as they navigate the expectations of being a teacher of record while learning instructional practices from their preparation program. Some of these difficulties include knowing how to teach subject matter (Boe et al., 2007), administering assessments (Billingsley et al., 2011), co-teaching (Grant, 2017), and conducting individual educational program (IEP) meetings (Jones & Peterson-Ahmad, 2017).

Administering student assessments remains a struggle for special educators. According to Billingsly et al., (2011), special educators are expected to use a range of assessments to provide data on students' academic and behavioral performances. These range of assessments may include data from a response to intervention (RTI) or multitier systems of support (MTSS) framework. Within the RTI or MTSS framework, special educators often administer both formal and informal assessment, progress monitor student performances, and discuss student data with stakeholders to help drive instruction and make informed educational decisions regarding their students. Often times, new special education teachers may not have adequate experiences to conduct these types of student assessments.

According to Massey and Muhammad (2024), special educators often face difficulties when teaching specific content area materials such as mathematics. These difficulties can be attributed to their efficacy, attitude, and beliefs about how mathematics should be taught (Gresham & Burleigh, 2019). It has been suggested that teacher preparation programs may have a direct impact on these factors resulting in special educators' difficulty with teaching content area subjects like mathematics to their students. Special education teachers who experience difficulty teaching content area subjects can also have a difficult time co-teaching and co-planning with their general education peers.

Co-teaching is another area where special education teachers have experienced some difficulty. Billingsly et al., (2011) stated that paraprofessionals, special and general education teachers continue to struggle with collaboration efforts. It is important that special educators collaborate and coteach effectively with others as many school districts are moving towards an inclusive learning environment. However, scholars have reported that special educators and general education teachers continue to struggle coteaching together because of time constraints needed for co-planning and a difference of vision for inclusive teaching (Mihajlovic, 2024).

Although special education teachers have been taught how to plan and conduct IEP meetings through their teacher preparation programs, on-going professional development is still needed to support their confidence and competence in completing IEPs (Jones & Peterson-Ahmad, 2017). Providing continuous support to special education teachers regarding the IEP process is pivotal as we continue to work with students from diverse backgrounds such as those who are English learners with special needs.

Special education interns must be competent in teaching subject matter standards. In California, public education teachers use the Common Core State Standards as the basis of teaching mathematics and language arts (Council of Chief State School Officers & National Governors' Association [2009]). It is expected that both general and special education students are taught using these standards. Administering assessments is an important and required element of being a special educator. Students with special

needs must be assessed annually and a formal triennial assessment must take place every three years to determine if the student will continue to qualify for special education services. Co-teaching is necessary as schools continue to practice inclusion, and both the general and special education teachers must co-plan and co-teach to address every students' needs in the classroom. Special education teachers must hold an IEP meeting with parents every year to report annual learning objective performances and plan for future learning expectations. Mastering all of these special education teaching traits through on-going professional development is important to being a long-term special education teacher.

This study evaluates the impact of professional development (PD) for diverse (Hispanic and Native American) and non-diverse (White) special education interns. As a result, this investigation aims to answer the following question: Do diverse and non-diverse special education interns learn differently from the same professional development training?

Methods

Eight diverse and eight non-diverse special education interns from a California teacher preparation program volunteered as participants for this study. Participants' enrollment status ranged from first semester interns to third semester interns. Participants' range of age are from 24 years old to 53 years old across 9 females and 7 males.

The independent variable in this study was a three-hour professional development in a classroom on campus. The first hour focused on co-teaching. A former special education administrator taught this one-hour session using audio and visual presentation resources along with small group engagement strategies. The second hour focused on assessment and was facilitated by a retired district administrator with a doctoral degree. This facilitator conducted this training via zoom. The third session focused on IEP planning and implementation. This PD was facilitated by a current special education district personnel and was taught in person, similar to the first session. All PD sessions were provided in a consecutively manner.

The dependent variable for this study was a simple mean difference between pre and posttests of each PD topic amongst diverse and non-diverse special education interns. The pre and posttest for each topic consisted of five questions. Participants had to rate themselves on each question ranging from strongly disagree to strongly agree. These non-research-based questions were developed by the author using materials from a teacher preparation course that participants were required to complete. These questions sought to measure participants' general understanding of each PD topic and included examples like (a) I can provide a 3-minute presentation on special education assessment, (b) I can cite a journal article related to co-teaching, and (c) I know how to plan and conduct IEP adequately. Prior to the start of teach PD topic, the author passed out a pretest to each participant and instructed them to complete the assessment within two minutes. The author collected each pretest before starting the one-hour PD session. The same process was repeated for the posttest assessment after facilitators completed their one-hour sessions.

Results

Data for the session on assessment (table 1) indicates that diverse interns' knowledge of assessment was generally lower during preassessment when compared to non-diverse interns. During preassessment, diverse interns rated themselves lower than non-diverse interns for questions one through 3. However, after the PD for assessment was provided, diverse interns rated their knowledge of assessment higher than non-diverse interns for the same questions (i.e., 1-3). The greatest difference (1.14 average percentage change) between pre and posttests for diverse interns was question three (i.e., I know how to conduct assessment relative to the Ed Sped CalTPA). The greatest difference (.75 average percentage change) between pre and posttests for nondiverse interns was question five (i.e., I can give a 3-minute presentation on assessment). Figure 1 illustrates the average change of percentage between pre and posttests for each question from all participants. Overall, all participants' level of knowledge increased between pre and posttests with the greatest gain from question number three.

Table 1

Pre and post survey on Assessment between diverse (Hispanic and Native American) and non-diverse (White) interns

	Race	preQ1	postQ1	preQ2	postQ2	preQ3	postQ3	preQ4	postQ4	preQ5	postQ5
1	Hispanic	3.57	4.42	2.57	3.42	3.28	4.42	2.57	2.71	3	3.57
2	White	3.75	4.125	2.625	3.125	3.375	3.875	2.375	2.125	2.75	3.5

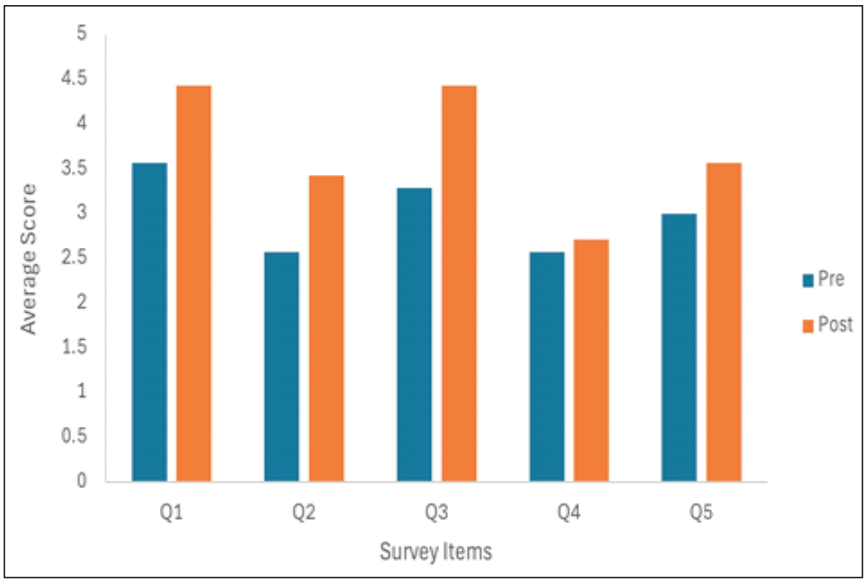


Figure 1
Pre and post survey on Assessment for all participants

Data for the session on co-teaching (table 2) also indicates that diverse interns' knowledge of co-teaching was generally lower during preassessment when compared to non-diverse interns. During preassessment, diverse interns rated themselves lower than non-diverse interns for questions two, three, and five. However, after the PD for co-teaching was provided, diverse interns rated their knowledge of co-teaching higher than non-diverse interns for questions one, three, and four. The greatest difference (1.43 average percentage change) between pre and posttests for diverse interns were questions two (I can cite one research article about co-teaching) and three (I know how to co-teach in an inclusive classroom). In comparison, the greatest difference (1.38 average percentage change) between pre and posttests for nondiverse interns was question two. Figure 2 illustrates the average change of percentage between pre and posttests for each question across all participants. Overall, participants' level of knowledge for co-teaching increased from pre to posttests. Question four was phrased as a reverse positive (I believe co-teaching is hard for me). The greatest gain (1.45 average percentage change) from pre to post across all participants was question 3 (I know how to co-teach in an inclusive classroom).

Table 2

Pre and post survey on Co-teaching between diverse (Hispanic and Native American) and non-diverse (White) interns

	Race	preQ1	postQ1	preQ2	postQ2	preQ3	postQ3	preQ4	postQ4	preQ5	postQ5
1	Hispanic	3.57	4.57	2.42	3.85	2.85	4.28	2.85	2.57	2.85	4.14
2	White	3.5	4.5	2.62	4	3	4.25	2.75	2.5	3.375	4.25

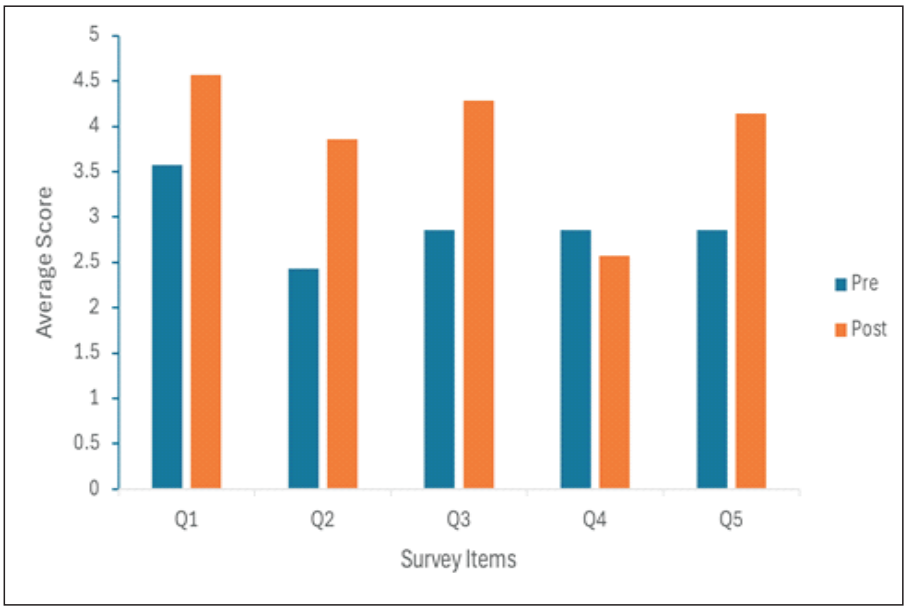


Figure 2
Pre and post survey on Co-Teaching for all participants

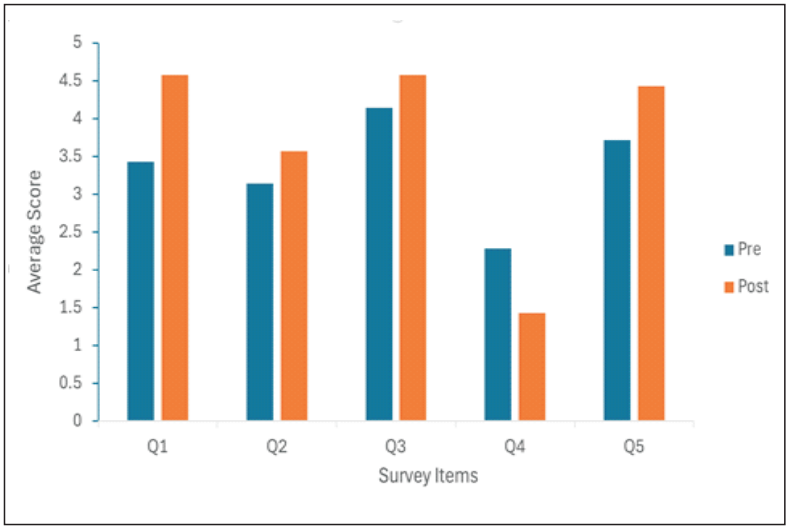
Data for the session IEP Planning (table 3) indicates that diverse interns' knowledge of IEP planning was generally lower during preassessment when compared to non-diverse interns. During preassessment, diverse interns rated themselves lower than non-diverse interns on questions one, two, and five. However, after the PD for IEP planning was provided, diverse interns rated their knowledge of IEP planning higher than non-diverse interns for questions one, three, and five. The greatest difference (1.15 average percentage change) between pre and posttests for diverse interns was question one (I can identify best practices for IEP planning). In comparison, the greatest difference (.75 average percentage change) between pre and posttests for nondiverse interns was question three (I know how to plan and implement IEP efficiently). Figure 3 illustrates the average change of percentage between pre and posttests for each question across all participants. Overall, participants' level of knowledge for IEP planning increased from pre to posttests. Question four was phrased as a reverse positive (I believe IEP planning will continue to be a challenge for me). The greatest gain (1 average percentage change) from pre to post across all participants was question one.

Table 3

Pre and post survey on IEP Planning between diverse (Hispanic and Native American) and non-diverse (White) interns

	Race	preQ1	postQ1	preQ2	postQ2	preQ3	postQ3	preQ4	postQ4	preQ5	postQ5
1	Hispanic	3.42	4.57	3.14	3.57	4.14	4.57	2.28	1.42	3.71	4.42
2	White	3.62	4.25	3.25	3.62	3.62	4.37	1.62	1.62	3.87	4.12

Figure 3
Pre and post survey on IEP Planning for all participants



This study investigated the learning differences of diverse and non-diverse special education interns when given the same professional development opportunity. Based on the results of this study, our data suggest that providing this PD opportunity improved participants level of knowledge across all three PD topics for both diverse and non-diverse interns. However, there were more learning differences, in terms of percent changes based on survey results, between diverse and non-diverse interns for each PD topic.

This study supports the notion that continuous PD should be provided to special education teachers as PD plays an important role impacting the attrition and effectiveness of special educators. According to Stelitano et al., (2019), only 66% of special educators nationwide reported their level of PD was somewhat adequate. This is concerning as some may speculate that the remaining 34% of special educators are without access to or receiving less than average PD opportunities. Providing continuous PD opportunities to both diverse and non-diverse special education teachers can help and support their level of teaching effectiveness.

This study is not without a few limitations. First, the participants who volunteered for this study were selected from a cohort of special education interns in California. It was not pooled from many interns across teacher preparation programs in California. Different special education interns from different teaching credential program within California may experience varying degrees of learning if provided with the same PD as participants from this current study. Second, the PD for this study was limited to three topics. Other topics such as culturally relevant pedagogy could potentially yield similar results if it were included as a fourth PD topic. Lastly, the pre and post survey questions are exploratory in nature and not researched-based. By adopting a sounder and more scholarly questionnaire, results of this study could be more reputable.

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JIASE SUBMISSION GUIDELINES

The *Journal of the International Association of Special Education* (JIASE)

Articles that have not been previously published and are not under review by any other publication and meet the IASE mission statement aims are invited for review. Research articles, articles discussing special education and inclusion policies,and articles for practitioners (PRAXIS) will be given equal consideration.

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Manuscripts with research, policy, and practice content must be relevant to international audiences of researchers, teachers, lecturers, paraprofessionals, parents, and others. Manuscripts that have no clear message for readers in other countries will be returned to the author.

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Using American English, manuscripts are submitted in Microsoft Word format using 12 point Times Roman typeface (no bold or italics). The entire document should be double-spaced with .75 inch margins all around (top, bottom, left, and right), with the exception of long quotations (single-spaced). Tables, charts, figures, and/or illustrations should fit in a 3.25 inch-width column and are to be on separate pages at the end of the manuscript. Please attach original tables and figures, not pictures. Additionally, a copy of any photos or illustrations must be attached electronically in a JPEG or similar format. References are to be in APA style with hanging indents.

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The PRAXIS section of this journal is intended for readers to be able to apply the methods/strategies described in the articles in their classrooms, transition programs or employment settings. These methods/strategies may be new and unique ideas or they can be effective methods/strategies that some teachers have been using, and believe that by sharing them, other teachers can implement them in their practice. The articles should be approximately 7–12 pages, double-spaced, and describe in detail a specific teaching strategy, curriculum or assessment method. The articles should include specific information on how to adopt, adapt, and implement these methods and/or strategies. These articles are to be submitted following the same submission guidelines and will go through the same review process as all JIASE articles. The format for these articles should include an introduction, step-by-step directions, materials/examples of charts or graphs if needed, recommendations, and references.

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General Mailing Address

Inquiries and other editorial correspondence may be sent to:

Girma Berhanu
Professor
Gothenburg University
Department of Education and Special Education
Västra Hamngatan 25, A-hus, Room 168
Mailing Address: Box 300
SE-405 30 Gothenburg, Sweden
Office: **+46 (0)31 786** 2325
Mobile: **+46 70 473 18** 18
Email: girma.berhanu@ped.gu.se
Website: www.ips.gu.se

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