Integrating disability into equity-focused general education teacher preparation

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Most students with disabilities spend the majority of their school day in general education classrooms, yet most general education teachers do not feel prepared to meet the diverse learning and social and emotional needs of these students. A key to the enactment of evidence-informed practice for creating and supporting meaningful learning experiences for students with disabilities is the preparation of general education teachers. In this article, we conceptualize the key features of high-quality teacher preparation that support general education teachers to teach students with disabilities. We illustrate how these features have been addressed in one equity-focused elementary teacher education program and provide recommendations and questions to consider for teacher preparation programs and future research. Recommendations for teacher preparation include (1) naming disability in guiding principles and program documents, (2) examining ableism, (3) integrating universal design for learning, and (4) navigating policies and practices together within higher education.

KEYWORDS

inclusive education, equity-focused teacher preparation, disabilities, general education, universal design for learning

Introduction

Most students with disabilities (SWD) spend the majority of their school day in general education classrooms. Of these students, approximately 75% are identified with learning disabilities. Furthermore, almost 90% of students identified with speech and language impairments spend 80% or more in general education classrooms (National Center for Education Statistics, 2022). Mandated as the least restrictive environment (LRE) under the Individuals with Disabilities Education Improvement Act, the law states that SWDs should receive instruction in general education settings with "supplementary aids and services" unless their individual needs cannot be met there. Others have maintained that general education is always the LRE because SWDs have a right to learn alongside students without disabilities (see for example, Valle and Connor, 2019). As Slee shared in Defining the Scope of Inclusive Education, "We want an inclusive world, so we must teach inclusively" (Slee, 2018, p. 9). Schools should work toward increasing access, participation, positive experiences, and outcomes for all students, including SWDs.

Preferred placement in general education as mandated in IDEA, is also part of general education legislation that stipulates that SWDs must have access to the same academic content and standards as their non disabled peers (e.g., Every Student Succeeds Act, 2015). Together, these special and general education provisions have resulted in an increasing number of SWDs being educated in general education (Williamson et al., 2020). However, some have argued

that a move toward the LRE, as mandated by legislation, prioritizes compliance and accountability, losing focus on the quality of the experiences and instruction within the general education learning environment (Harry and Ocasio-Stoutenburg, 2020; Voulgarides, 2022). At the same time, there are multiple limiting factors, including racial injustices and ableism that impact both who has access to inclusive learning environments and the extent to which these environments benefit SWDs (e.g., Artiles, 2011; McLeskey et al., 2018; Voulgarides, 2022). Participation in general education is both a human and legal right; SWDs are general education students first, and thus general education teachers, in collaboration with special educators and other specialists, are responsible for educating and facilitating their school experiences.

Unfortunately, many general education teachers ranging in experience, from different backgrounds, and working across student populations feel inadequately prepared to work with SWDs (de Boer et al., 2011; Galiatsos et al., 2019; Johnston and Young, 2019) and lack the knowledge and skills needed to successfully educate these students in their classrooms (e.g., Leko et al., 2015; Bruggink et al., 2016). If general education teachers are to be equipped to teach all students, then their preparation must integrate theory and methods for educating students with a range of learning, social and emotional needs and abilities, regardless of their disability identification. The goal of this paper is to connect existing literature and theory in teacher preparation to a case study analysis of one equity-focused undergraduate general education teacher preparation program to generate recommendations and questions for teacher educators and researchers.

What we know about general education teacher preparation

While most general education teachers take at least one class focused on disability during their teacher preparation programs, few report that the learning experiences associated with those courses were useful to their current practice (Galiatsos et al., 2019). Additionally, general education teachers share that they are the least prepared to teach students who require extensive support to be successful (Galiatsos et al., 2019). Couched in terms such as teaching "all" learners, these courses may not provide content that is specific enough or applicable to the diversity of students teachers will encounter in their classrooms. Thus, many general educators enter the profession not knowing how to adapt the learning environment or their curriculum to support their students' individual needs (e.g., Bemiller, 2019).

A promising practice for designing inclusive learning environments is Universal Design for Learning (UDL; Rose and Meyer, 2002). UDL is a framework that aims to make education accessible to all students, regardless of their diverse abilities and backgrounds, by designing curriculum materials and teaching strategies that are flexible and adaptable. The three main components of UDL are: (1) Multiple Means of Representation, which involves presenting information in various formats; (2) Multiple Means of Action and Expression, which allows students to demonstrate their understanding through various means such as writing, speaking, or creating multimodal projects; and (3) Multiple Means of Engagement, which aims to foster intrinsic motivation and sustained interest in

learning by providing choices, incorporating students' interests, and offering varied opportunities for interaction and collaboration (CAST, 2024). While UDL was primarily designed to support students with disabilities, more recently, proponents of UDL stress the benefit for all students. Current iterations of UDL have also increased the focus on promoting equitable learning spaces for students from diverse language and cultural backgrounds (Chardin and Novak, 2020). Studies of UDL have demonstrated improvements in both the learning process and learning outcomes for students with and without disabilities (Rao et al., 2020), with the strongest results reported when studies are designed at the onset using a UDL framework to address students' needs (King-Sears and Johnson, 2020; Root et al., 2020). UDL may be a particularly powerful tool for general educators because of its emphasis on addressing student variation.

Another challenge for teacher preparation is to facilitate teacher candidates' positive beliefs about teaching SWDs. Lalvani (2013) interviewed 30 elementary general and special education teachers and found great variation in the extent to which teachers value the effectiveness of inclusive education, or the education of SWDs with peers without disabilities. For instance, some educators affirmed inclusion as a social justice issue or a way to break down institutional barriers to equitable education, while others seemed to consider inclusion as potentially beneficial – but only for some SWDs. Most of the interviewed educators endorsed a surface level support for inclusion, limited perhaps by confidence and skills to enact inclusive practices. Similarly, a review of research on teacher beliefs about inclusion confirmed that teachers' beliefs are influenced by their knowledge of disabilities, their experiences in inclusive classrooms, and their perceived confidence teaching SWDs (Mieghem et al., 2018). The authors call for greater attention to both beliefs and evidence-informed practices in teacher preparation and professional development.

Challenges related to comfort and willingness to teach students with disabilities in general education classrooms can often be attributed to notions of ableism, or discrimination against individuals with disabilities (e.g., Bogart and Dunn, 2019). This discrimination can manifest in various forms, including social, institutional, and cultural. In schools, ableism is often enacted as a preference to teach and create learning environments for "typical" learners at the exclusion of those who do not fit the assumed norm. Ableism can manifest in covert ways that are often subtle and ingrained within the educational system. One common example is through the hidden expectations and biases of teachers and administrators regarding students' abilities. There is consensus that teacher preparation programs must support teacher candidates to work against ableism, "interrogating the discourses they encounter, particularly discourses that cause teachers to view students through a deficit lens" (Browning, 2018, p. 87).

Inclusion of SWDs in general education classrooms, as a human right and a social justice issue, should be considered as part of social justice education that has become a focus in many teacher preparation programs "reflecting a commitment to educating students from multiple social identity groups who are marginalized and oppressed in schools" (Pugach et al., 2021, p. 237). Yet, despite the increased attention to social justice education, and specifically to language and culture in teacher preparation, these programs do not always incorporate content and teaching practices related to supporting SWDs (Ortiz and Robertson, 2018). Thus, not only are general

educators frequently underprepared to teach SWDs, they do not typically learn about the intersectionality of injustices experienced by marginalized SWDs. As one important example, general education teacher candidates rarely receive preparation on how to support dually identified students, those who are multilingual learners and who have been identified with a disability (Ortiz and Robertson, 2018; Martínez-Álvarez, 2020).

One probable reason for the lack of preparedness of general educators is the separation between general and special education that occurs in K-12 schools and that is perpetuated in higher education. Typically, teacher preparation programs in general and special education operate separately with limited or no collaboration among teacher education faculty or cohesion within and across programs (Blanton et al., 2018). Thus, there is a missed opportunity for teacher educators to work together and also for special education and general education teacher candidates to learn from and to support one another. In their review of educational reforms over time, Blanton et al. (2018) note the multiple influences of policy, funding, timing, and norms of separation that have resulted in teacher educators engaged in equity-focused teacher preparation rarely collaborating to develop and enact a shared vision. They recommend building and fostering Communities for Pre-service Learning that include general and special education faculty along with school partners. These professional learning communities can address the learning needs of teacher educators, who might benefit from increasing their knowledge and skills in inclusive education (e.g., Bauer et al., 2014; Azam et al., 2021). These are also spaces where faculty can take up the big issues confronting teaching and learning for students with diverse and intersecting identities and abilities to examine, consider, and create what might be possible (Blanton and Pugach, 2017).

The authentic connection between special and general education in K-12 schools as well as in teacher preparation will not occur simply as a result of any number of reforms or a desire to educate "all" learners in equity-focused programs. Rather, efforts will need to be intentional, collaborative, and supported to result in meaningful change for SWDs.

Case study: a year in one elementary teacher education program focused on social justice and cultural and linguistic diversity

To examine the possibilities in teacher preparation we will next explore a case study of the ways that ability and disability have been integrated into one equity-focused elementary education teacher preparation program, including the successes and shortcomings. Drawing from Stake's definition of a case as a specific, complex and bounded entity (Stake, 1995), we have interpreted our findings in light of theory and existing literature. We conclude with recommendations and questions for future work in teacher preparation.

The case study analysis was conducted by the authors and explored the inclusion of disability in program documents and course syllabi. The team began by working through one of each document type together (e.g., program document, syllabus) to determine mentions of disability and the use of inclusive language with or without the mention of disability. Discrepancies were discussed until agreement was

reached. The first author reviewed all program documents. Additional materials were divided among the authors for coding. All disability codes were discussed by the team with a processes of joint review occurring when questions arose. It should be noted that this high-level analysis did not examine course materials (e.g., detailed assignment explanations; weekly class slides) nor did it include observations of classes and meetings or interviews with instructors. We begin with the context of the program and then report on our analysis.

Context

The Equity in Elementary Education Program[1] (EEP) is an accredited four-year teacher preparation program within a large public university in which undergraduate students major in elementary education and, upon successful completion of the program, receive a bachelor's degree in elementary education, an elementary K-6 teaching license, and an endorsement in culturally and linguistically diverse education (CLD). There is no undergraduate special education endorsement program at the focal university so a dual degree in special education is not possible. Teacher preparation course work is grounded in six guiding principles and aligned with state standards for elementary educator licensure and the CLD endorsement. Guiding Principles[2] (EEP Elementary Guiding Principles, 2020) are embedded in syllabi and field experiences, encouraging and supporting teacher candidates that:

- Engage in humanizing, anti-racist pedagogies
- Are critically conscious
- Embrace a holistic view of bilingualism
- Hold a dynamic view of culture
- Design curriculum and instruction and enact teaching practices grounded in deep knowledge of learners and in research about anti-racist, justice-centered learning
- View themselves as agents of change, who advocate on behalf of and in solidarity with minoritized students, including bilingual learners, and their families

During the first 2 years of the program, elementary education majors engage in coursework focused on educational systems and the nature of learning in the United States, as well as children's literature, the foundations of bilingual and multicultural education, and language acquisition. In their third year, they participate in a year-long practicum experience alongside theory and methods courses and take their one dedicated disabilities course. In their fourth year, teacher candidates participate in a year-long student teaching placement along with methods courses and a student teaching seminar. Practicum and student teaching placements are in local elementary schools serving culturally and linguistically diverse populations. The faculty and instructors meet regularly to work on coherence across courses and experiences and collaborate with the Office of Teacher Education to provide connected field experiences in partner schools.

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1 Pseudonym.
2 See Stillman (2023) for more information on equity-focused teacher preparation.

The Disabilities course examines the complexities of ableism and medical and social models of disability, as well as the identification, instruction, and inclusion of students with diverse learning needs in general education classrooms. Teacher candidates explore the legal and pedagogical issues concerning the placement and instruction of students who are identified with disabilities or who are at risk for school failure and they learn about support systems, broadly and as they are structured within practicum settings. Universal design for learning (UDL; Rose and Meyer, 2002; CAST, 2024) and differentiating instruction (Tomlinson, 2017) are used as tools to apply course concepts. Using an equity lens (Chardin and Novak, 2020), students are introduced to UDL as a way to design flexible learning environments and curriculum that address student variation (e.g., learning needs, language, preferences, experiences). The stance in EEP is that UDL can be used as a framework to meet the needs of learners with different identities and capabilities, including but not limited to students with disabilities. Throughout the course, UDL and differentiation are considered alongside intersectional framings of identity.

Instructors are a mix of faculty and graduate students with expertise in the content of the course, and previous experiences as special educators and/or teachers in inclusive classrooms. The authors are instructors in EEP, designing and teaching the Disabilities course as well as other courses in the program.

Program documents

We included the following student-facing program documents in our analysis: Program Principles, Professional Code of Conduct, Elementary Education Handbook, Student Teaching Handbook, and EEP website pages housing program overview information. Overall, analysis indicated that there was consistent attention to humanizing language in relation to students and their families. For instance, the program principle document principle one, Engage in humanizing, anti-racist pedagogies" includes the following statement as part of the explanation of this principle:

> Humanizing, anti-racist teachers demonstrate their high regard for students in a range of ways. They make efforts to invest in and notice children; to build authentic relationships with them; to value their perspectives; and to attend seriously to their thinking, curiosities, lived experiences and capabilities (EEP Elementary Guiding Principles, 2020, p. 1).

The term disability appeared only occasionally in program documents, although there was attention to the kinds of dispositions and actions that would facilitate an inclusive and supportive learning environment. For instance, there were multiple mentions of teaching "all" students and a few mentions of supporting students with diverse capabilities. In some cases, references to disability were named, such as where prospective students are asked to imagine themselves in classrooms where they will, "design and deliver rigorous, responsive instruction for students from a range of communities, including students with disabilities and bilingual learners" (EEP website). In other places mentions of SWDs were absent where they might be expected as in the following statement in the Professional Code of Conduct under the heading, "Affirm diversity and demand equity:...

Becoming/being a humanizing teacher means recognizing and valuing intersecting identities across culture, language, class, race, ethnicity, religion, sexual orientation, and gender to affirm and protect the dignity of every individual" (EEP Professional Code of Conduct, 2020, p. 3).

The overarching focus in these documents was embodied by the program principles that center the most on equity, anti-racist stances, and language inclusive policy and practice and less on explicitly naming the ways that teacher candidates would engage with students identified with disabilities.

Syllabus review

For the next component of our analysis we gathered current syllabi for the 21 required elementary education courses in EEP, nine of which meet requirements for the CLD endorsement. We did not include other courses that students are required to take as part of their bachelor's degree that are not designed and taught as part of EEP. These include courses with options for students in areas of history, natural sciences, written communication, world language and the like.

For each course, we analyzed components of the syllabus for explicit mention of disability in (1) course topics, (2) assigned readings or media, and (3) assignments. A course topic was defined as an overarching or weekly topic dedicated to disability-related content. Findings indicated that 16 of the 21 courses mentioned disability in at least one way (topic, reading, or assignment).

Course topics

Ten of the syllabi indicated explicit topics related to disability including the following examples: exceptional bilingual students, exceptionality in language development, disability or language learning in assessment, dyslexia, and ableism. Additionally, courses in the CLD sequence had more attention to disability than methods courses. The only course that mentioned disability in the course overall course objectives was the Disabilities course. As would be expected, the Literacy course included dyslexia as a topic, covered reading intervention, and addressed local reading legislation that requires specialized plans for students reading below grade level. There was also significant attention to the current framing of the Science of Reading in relation to reading instruction and children who have difficulty learning to read. Still, in other courses, where disability might be taken up, it was not. For instance, in a course on Culturally Sustaining Pedagogies, linguistic diversity was addressed as a named topic, but there was no topic related to disability, ability, or learning differences.

Readings or assigned media

As assigned readings are planned around course topics, findings for readings across courses were similar to topics. We found readings related to disability in ten courses, distributed across the program (see Table 1 for examples). For instance, in the Assessment for Bilingual Learners course, teacher candidates had two assigned readings (one article and one podcast) that discussed the ways that assessments have unfairly contributed to disproportionate representation in special education and also explored variations in learning related to language development or disability. In a course about the history of education, teacher candidates read about the influences of tracking in one reading

TABLE 1 Examples of assigned readings focused on disability in two courses.

Course	Assigned reading/media
Assessment for Bilingual Learners	RadioLab Podcast. (June 7, 2019). *G: The miseducation of Larry P.* NPR. https://radiolab.org/podcast/g-miseducation-larry-p Srikrishnan, M. (February 5, 2019). Labeled disabled at an early age. *Voice of San Diego*. https://voiceofsandiego.org/2019/02/05/labeled-disabled-at-an-early-age-a-former-student-looks-back-with-regret/
School and Society	Milner IV, H. R., Cunningham, H. B., Delale-O'Connor, L., and Kestenberg, E. G. (2018). *"These kids are out of control": Why we must reimagine "classroom management" for equity.* Ch 2: Connecting classroom management and the cradle-to-prison pipeline, pp. 33–52. Sage Publications. Shephard, L. (1991). *Negative policies: When does assessment and diagnosis turn into sorting?* In E. H. Hiebert (Ed.), Literacy for a diverse society: Perspectives, practices, and policies (p. 230–241). Teachers College Press.
Foundations of Language Acquisition	Lightbown, P. M., and Spada, N. (2013). *How languages are learned* (4th edition). Excerpt from Chapter 1: Language disorders and delays. Oxford University Press. Paradis, J., Genesee, F., and Crago, M.B. (2011). *Dual language development and disorders: A handbook on bilingualism and second language learning* (2nd ed.). Chapter 9: Assessment strategies to diagnose language impairments. Paul Brookes Publishing Company.

and in another they learned about the school to prison pipeline. In different ways, these readings address the influence of racism and bias on both the representation of students of color in special education and the potential negative outcomes that disability labels can have on minoritized youth.

Assignments

The Disability course was the only course with an explicitly named disability assignment. However, many assignments across courses included an option in which students could pursue a dilemma or learn more about an area related to disability. For instance, in the Student Teaching Inquiry Project, a year-long culminating assignment in the Student Teaching Seminar, students often chose to explore topics related to differentiating instruction, adapting assessments, or exploring classroom management strategies for students with challenging behaviors. Another way in which disability commonly appeared across courses was in a program-wide course activity called Dilemmas of Practice. In courses that used this activity, there was typically one dilemma related to disability, such as the overrepresentation of students of color in special education. Additionally, in classes with lesson plan assignments, lesson plan templates included a section on modifications/accommodations for students with disabilities.

Our overview analysis of the EEP program provided information about the ways in which disability is explicitly named and addressed in program and course documents. While the majority of the content and practice was housed in the one Disabilities course, there was at least some attention to issues and pedagogy related to disability in about 75% of courses with about half including a topic, reading or assignment specifically related to disability. Nevertheless, it is evident that in a program focused on equity, social justice, and cultural and linguistic diversity, there is room to more intentionally integrate issues of disability within and across courses as well as in program-wide documents.

Discussion

Building on Waitoller and King Thorius' (2016) framing of cross-pollinating Culturally Sustaining Pedagogies and UDL the work of Blanton et al. (2011, 2018), Blanton and Pugach (2017) and our case

study, we offer the following recommendations and questions for teacher educators and future research.

Recommendation 1: name disability in guiding principles and program documents

First, programs must be guided by core principles that reflect a commitment to social justice and explicitly address disabilities in education. These principles should be explicitly stated in all program documents, such as a teacher candidate professional code of conduct, student teaching handbook, and syllabus statements.

For example, EEP includes a set of intertwined principles intended to serve as a foundation for syllabus development, course activities and assignments, and field experiences. We explicitly state our stance about the equity-focused ways we will equip teachers to facilitate learning among students in U.S. public schools. Topics of disability are often addressed as part of the commitment to humanizing pedagogies, developing critical consciousness, and implementing justice-centered learning. For example, humanizing pedagogies include a focus on how teachers can use asset-based language to describe students with disabilities. However, there is no explicit mention of how this relates to supporting students with disabilities. Just as bilingualism is named throughout the principles (e.g., teacher candidates are expected to embrace a holistic view of bilingualism), a clearer connection to disabilities could make the program more inclusive (e.g., teacher candidates disrupt ableist norms). Thus, as a first recommendation we propose that teacher education programs state their foundational principles and include specific reference to disrupting ableism and providing equitable learning opportunities for students with disabilities. While engagement with this principle would likely be centered in a course on disabilities in education, it should appear throughout other coursework and be named consistently across program documents.

Recommendation 2: examine ableism

We recommend that just as other forms of oppression (e.g., racism) are studied across courses, the manifestation of ableism in schools must also be addressed across courses, as a named form of

oppression, throughout the program in order for teachers to be adequately prepared (Annamma et al., 2013). Ableism, like racism, is based on social constructs that have origins in their attribution of otherness resulting from dominant beliefs about normal (Davis, 1995). By interrogating intersections in relation to topics such as disproportionate representation of students of color identified with disabilities (Harry and Klingner, 2014; National Center for Learning Disabilities, 2020), teacher candidates will be prepared to counter deficit notions of SWDs in their own classrooms and to advocate for shifting policies and practices in their schools. This intersectional lens can best be fostered by the inclusion of topics of ableism across courses as they relate to other key learnings for teacher candidates in courses such as those focused on culturally sustaining pedagogies and disabilities, but also when learning to teach social studies, literacy, science and mathematics. As mentioned earlier, most courses include an intersectional lens, but that lens does not always include disability.

Further, notions of ableism can also be countered by normalizing difference. This normalization should occur by explicitly addressing disability and difference across coursework. A course on Family and Community Engagement could include a topic on working with families to prepare for IEP meetings. Such a topic would counter ableist notions by considering the IEP process as part of other home-school connections taken up throughout the course and would extend topics introduced in the Disabilities course to increase teacher candidate learning. As described below, UDL also challenges ableism by supporting teachers to design classrooms with individual difference in mind. In sum, teacher candidates need to understand the ways that human variation has been used to "other" students through racist and inequitable practices. At the same time, normalizing learning and social and emotional differences as expected human variations can encourage teacher candidates to engage with variability, not as a student deficiency or a teaching burden, but as an expected and celebrated part of life.

Recommendation 3: integrate universal design for learning

To provide equitable learning opportunities for all students, general education teachers should learn that UDL is grounded in research on how the brain learns, and it recognizes that students have different learning needs and preferences. Through the use of multiple means of representation, expression, and engagement, students have options for accessing information, expressing their understanding, and engaging with the content. UDL also centers students as capable of making choices and advocating for themselves. An equitable UDL framework will consider not only what barriers students might face to a certain learning experience or learning environment, but also, raises questions related to whose voices are being heard or left out when decisions are made, how educators are elevating and celebrating the voices of all students, how students' individual and intersecting identity markers are taken into account, and the ways educators can leverage a UDL framework to ensure that all students can access the learning community.

In efforts to engage with UDL, Chardin and Novak (2020) call for teachers to: identify barriers to learning, embrace difference and variation, reflect on their biases, empower learners by elevating student voice and choice, and perhaps most importantly, to expect

discomfort both in discussing and addressing issues of privilege, race, class, gender identity, religion, and ability. Because UDL offers a set of guidelines and tools that provide a useful and actionable set of resources for classroom and lesson design, we recommend incorporating UDL across courses as a framework for including all learners. One way that UDL can be framed more meaningfully across courses is by requiring students to continue to use UDL practices in lesson preparation and planning in methods courses. Often offered as a section in lesson plan templates, teacher educators should discuss appropriate applications of UDL in their methods courses. Further, as part of the support for field experiences, teacher candidates can make explicit connections to the ways that meeting the needs of their students with disabilities is part of meeting the expectations for licensure. As teacher educators become more knowledgeable about UDL, they'll be better equipped to support and provide feedback to teacher candidates within their discipline.

Recommendation 4: navigate policies and practices together within higher education

As we have established, general education teachers typically enter the profession ill-equipped to support students with disabilities, both in terms of strategies and supports but also related to understanding their roles and responsibilities related to special education (e.g., Ortiz and Robertson, 2018; Bemiller, 2019). A challenge in teacher education is that general education teachers need to develop deep curricular knowledge, culturally and linguistically sustaining practices, and they must use approaches such as UDL to facilitate learning for students with and without identified disabilities (Pugach et al., 2020). Additionally, teacher candidates must develop each of these competencies in conversation with the other. We recommend that teacher education programs become coherent and aligned across courses and fieldwork, and that they include necessary professional learning for teacher educators.

Unfortunately, the ethos in higher education perpetuates siloed expertise in which recognition of success is greatest for specialized and field-specific knowledge. The challenges within general and special education are no different. Thus, even as we consider ways to increase knowledge among faculty and programmatic coherence, this process:

> Run[s] the risk of being viewed narrowly as an opportunity to "put" special education into the curriculum, rather than the opportunity to reconceptualize teacher education in ways that widen each teacher's view of what is "normal" in the classroom and build capacity to broaden their knowledge and skills accordingly, instead of targeting individuals for "intervention" (Blanton et al., 2018, p. 361).

A goal of reconceptualization will require dedicated reflective practices among faculty and instructors, many of whom are doctoral students, working together. Activities might include engaging in a program case study similar to the one presented here or conducting other curriculum mapping activities that can help open conversations about how disability is theorized, named, and enacted. Pre-service learning communities consisting of general and special educators grappling together with problems of practice can also foster collaboration (Blanton et al., 2018). Further, we recommend involving

teacher candidates in conversations about their emerging understanding of teaching students with disabilities, both during their time learning to teach and after they become licensed to connect more broadly with what is useful in their learning and how programs can be improved.

Conclusion

We conclude with lingering questions that arose through this exploration of disability in equity and social justice focused teacher education. We encourage teacher educators to consider the recommendations alongside these questions and others that arise with colleagues, teacher candidates and mentor teachers.

- Given time constraints on university faculty as well as norms around siloed expertise, how can we think creatively about opportunities to increase university faculty knowledge of disability?
- What actions will facilitate coherence across courses in teacher preparation to build on disability-related topics over time without adding more to already packed teacher preparation coursework and field experiences?
- What field experiences would be most supportive for general education teachers to increase their efficacy, knowledge, and practice around supporting students with disabilities?
- What would the ideal program look like? What are we actually aiming for as we reconceptualize general education teacher preparation programs and how will we know when we have arrived?

Future research should continue to develop and study models of inclusive teacher education, bringing to bear both successes and challenges of preparing inclusive, equity-focused teachers who are knowledgeable and confident in their abilities to support all learners in general education classrooms. In addition, teacher education programs should follow teacher candidates into their first years of teaching, continuing to work with district partners to provide meaningful induction and mentoring experiences. Alongside these extended support models, researchers can then conduct longitudinal studies, with results that cycle back to collaborations with teacher

education programs. These cycles of programming, research, and revision will more effectively prepare both teachers and teacher educators to shape the learning experiences in today's classrooms and schools.

Data availability statement

The raw data supporting the conclusions of this article will be made available by the authors, without undue reservation.

Author contributions

AB: Conceptualization, Methodology, Project administration, Supervision, Writing – original draft, Writing – review & editing. VS: Conceptualization, Formal analysis, Writing – original draft, Writing – review & editing. LS: Formal analysis, Writing – original draft, Writing – review & editing.

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