

Harmonizing Practice-Based and Social Justice Approaches to Teacher Education

Toward a Framework of SJ-PBTE

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Abstract

The relationship between practice-based teacher education (PBTE) and teacher education oriented toward social justice (SJTE) has been debated by teacher educators and researchers for some time, and still today the contention persists. Many teacher educators have a goal of supporting preservice teachers (PSTs) enact instructional practices that are high-leverage and equity-oriented; however, as practice-based approaches have been adopted, some have questioned the compatibility between PBTE and SJTE. While some scholars believe PBTE and SJTE are inherently dichotomous, others have used them in tandem. This paper argues tensions between PBTE and SJTE have roots in reductive dichotomies of theory and practice and in differing conceptualizations. The paper presents a conceptual framework that builds on social foundations for supporting PSTs in developing a critical lens to apply in their enactment of justice-oriented, practice-based approaches, bridging the gap between equity in theory and practice.

Key words: teacher education, instructional practices, equity, social justice, practice-based teacher education, social justice teacher education

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Introduction

Teaching oriented toward social justice can create more humanizing experiences and increased opportunities to learn for students in school. Understanding how to prepare preservice teachers (PSTs) for this in the short duration of teacher preparation is work that is still ongoing. As teacher educators adopted practice-based approaches, some have questioned whether a practice-based teacher education (PBTE) and teacher education oriented toward social justice (SJTE) are compatible (Anderson, 2019; Philip et al., 2019). Some assert PBTE and SJTE are inherently dichotomous (Philip et al., 2018), while others have conceptualized them in tandem (Calabrese Barton, 2020; Schiera, 2020; Shah, 2021). This paper examines articles written about PBTE and SJTE, as guided by the following research questions: (1) In what ways has PBTE been taken up in the field?; (2) How, if at all, might PBTE and SJTE inform one another?; and (3) How, if at all, can PBTE and SJTE be reconciled to offer a teacher preparation that harmonizes both? After a review of the literature, a framework is offered that harmonizes PBTE and SJTE. It is argued that drawing from social foundations can help preservice teachers develop a critical lens to apply in their enactment of justice-oriented practices through practice-based approaches, to help PSTs bridge the gap between equity in theory and equity in practice.

Motivations for a More Practice-Based Teacher Education

This section addresses reasons that have motivated practice-based approaches in teacher education and concludes with tensions related to social justice that serve as the impetus for the literature review. Due to the complex work of teaching, many new teachers report being underprepared to teach when they enter the classroom (Ball in Arbaugh et al., 2015; Chesley & Jordan, 2012) and even more report being underprepared to teach students of diverse backgrounds (Howard & Milner, 2021; Magogwe & Ketsitlile, 2015). Traditionally, many teacher education programs have taught PSTs *about* teaching in coursework and then expected them to enact what they learned with limited guidance and practice (Korthagen & Kessels, 1999). This renders a troublesome gap between theory and the job itself, or what is known as the gap between theory and practice. Kennedy (1999) describes this as the “problem of enactment” (i.e., the struggle amongst novices to translate theory into practice). To address this problem, scholars have advocated for a teacher preparation that is more focused

on the practices of teaching (Ball & Cohen, 1999; Ball & Forzani, 2009; Grossman et al., 2009a & 2009b; Holmes Group, Inc, 1986). Such proponents of PBTE ground their call in evidentiary warrants from research on expertise development, which has shown expertise is developed through regular opportunities to enact practice in ways that are deliberate and mediated (Ericsson, 2006). Ball and Forzani (2009) argue there are identifiable practices that good teachers do that can be made learnable to others. Rather than having new teachers “reinvent the wheel” or figure the work out when they get to the classroom, teachers can be offered examples of good teaching to examine and opportunities to practice activities involved in that work. The argument is that exposing teacher candidates to the *practices of teaching* and engaging them in more *practice* will result in increased preparedness of new teachers. In order to do this, it requires the field to establish a common language and understanding of what those practices are. Efforts to professionalize teaching can be traced to the Holmes Group report (Holmes Group, Inc, 1986). The Holmes Group advocated for a shared language or common understanding of the professional knowledge and practices that define the teaching profession, with the aim to make the complex work of teaching more learnable to others. Much of the practice-based initiatives that characterize PBTE developed from the Holmes Group.

As the field began to establish a professional knowledge base for teaching, this generated criticism, particularly with regard to issues of social justice. For instance, a common criticism is that practice-based approaches, such as identifying and rehearsing teaching practices, can be reductive and a reinforcer of the status quo of whiteness (Philip et al., 2018). Scholars with this perspective worry PBTE will not prepare PSTs to teach responsively in diverse contexts, especially when considering that the majority of PSTs enrolled in teacher preparation programs are white (Will, 2020). This tension (between particular lenses of PBTE and critiques made by justice-oriented scholars) motivates this paper’s review of the literature on PBTE and SJTE.

Literature Review

What is Meant by ‘Practice’

To understand the meaning of *practice-based teacher education*, it might first be helpful to think about the meanings of *practice*. Lampert (2010) describes four definitions of practice: (1) something we do (in contrast to know, think, or theorize), (2) a routine, (3) something to be rehearsed, and (4) a shared cultural activity. Dewey (1938) explains that people do not just learn from practice, doing, or experience, but

from critically reflecting on it. Shah (2021) identified various definitions of practice in the literature and explains, “the field has also not settled on a definition of ‘practice’ — whereas some consider critical reflection to be practice... others consider practices to be what teachers do as they engage with students in the flow of instruction” (Shah, 2021, p. 13). Essentially, the literature does not offer a shared understanding of practice.

Through efforts to establish a professional knowledge base of practice in teaching, teacher educators have identified key activities involved in the work of teaching, naming them *high-leverage practices* or *core practices*. While many scholars in the literature use these terms interchangeably, the literature does not offer a clear distinction between them. An exception is Stroupe, who explains *high-leverage practices* are practices researchers have found that helps students in a particular community learn, and *core practices* are the practices of teachers that teacher educators choose to work on with PSTs during the short duration of teacher preparation (David Stroupe, personal communication, May 17, 2021).

In order to make these practices learnable to PSTs, teacher educators can offer scaffolded support in the form of *pedagogies of enactment* and *pedagogies of investigation*. Pedagogies of enactment include decomposing complex practices into more learnable parts (i.e., *decompositions of practice*), observing specific teaching practices in various contexts (i.e., *representations of practice*), and practicing those elements in mediated settings where coaching and feedback can be given (i.e. *approximations of practice*) (Grossman et al., 2009a). Grossman and McDonald (2008) differentiate between *pedagogies of enactment* and *pedagogies of investigation*. Pedagogies of enactment focus on developing practice (i.e., developing one’s professional skill/craft) and include representations, decompositions, and approximations of practice, as described above. In contrast, pedagogies of investigation focus on developing content knowledge and engaging in discussion about teaching and learning.

Trajectory of PBTE

As practice-based initiatives spread, their uses and conceptualizations across time and across scholars varied, as tracked in Forzani (2014). Forzani explains initial efforts of practice-based approaches taken up in the field centered around the identification of key practices and knowledge base characterizing the teaching profession. Pedagogies of enactment, pedagogies of investigation, and increased opportunities in the field all supported the learning of these practices. However, because

PBTE has been taken up in different ways, Forzani asserts, “there seems to be little consensus about what it means or should mean” (Forzani, 2014, p.358). Some of these different conceptualizations will be elaborated in the section addressing criticisms of PBTE.

The ways PBTE are discussed by Webel and Yeo (2021) and TeachingWorks (2022b) come close to how this paper conceptualizes PBTE. Webel and Yeo (2021) describe PBTE as “grounded in the idea that teaching can be decomposed into practicable skills (Grossman et al., 2009), and that cycles of enactment and reflection not only develop these skills but can also provide opportunities for developing knowledge and vision for instruction (Shulman & Shulman, 2009).” This notion of “vision for instruction” is particularly important because it is through implementation and reflection of teaching practices that PSTs learn how to teach and develop their vision for becoming better at enacting equitable practices. TeachingWorks’ definition of PBTE is aligned with that of Webel and Yeo (2021) and builds on it by describing PBTE as working with PSTs to learn and enact high-leverage practices that are responsive to students’ contexts and experiences, with the goal to provide equitable learning opportunities to children and disrupt racism and other inequities in marginalized communities (TeachingWorks, 2022a & 2022b). While these definitions describe the ideal, they are not reflective of all the ways PBTE has been taken up and described in the literature (e.g., Philip et al., 2018). This seems why Forzani (2014) refers to it as an “amorphous term”, and still today the term lacks clarity.

Addressing Criticisms of PBTE

As more teacher educators have begun to adopt practice-based approaches, some have questioned the initiative’s commitment to justice and impact on equity. One criticism is PBTE peripheralizes justice by making skilled practice the core of teacher preparation (Philip et al., 2018). Another is that PBTE is prescriptive, reductive, and reinforces whiteness and structural inequities (Daniels & Varghese, 2019; Philip et al., 2018). Often, PBTE is critiqued for being decontextualized from authentic classroom contexts. Some scholars have worked to address these concerns and more explicitly explain the ways in which practice-based approaches can attend to equity. For example, Schiera (2019 & 2020) found that PSTs struggled to enact justice-oriented pedagogy in the absence of practice-based approaches. Kavanagh and colleagues (2020) found approximations of practices helped teachers become more responsive to students in the moment. Researchers at the University of Michigan provide a set of 19 high-leverage

practices and offer statements describing how each advances equity and justice (see TeachingWorks, 2022a). A reason for naming these practices is to make the work of teaching (including justice-oriented teaching) more known and learnable to others. In describing the high-leverage practice, *implementing norms and routines for discourse*, TeachingWorks explains, “teachers must recognize when and how norms and routines for discourse and work may marginalize children. Because content area norms and routines often reflect dominant power and privilege, they can marginalize the skills and perspectives some students bring to classrooms. When choosing and implementing norms and routines for discourse and work, teachers should consider carefully which norms and routines to introduce, whom they privilege, and how to teach them” (TeachingWorks, 2022a). The lenses of PBTE taken by Schiera (2019 & 2020), Kavanagh et al. (2020), and TeachingWorks (2022a) seem to be responsive and justice-oriented, not reductive and decontextualized.

Leveraging Humanizing Pedagogies for Supporting SJTE

In order to prepare PSTs to be more responsive to diverse contexts and *bridge the opportunity gap* (Carter & Welner, 2013) between students of disparate backgrounds, increasingly more teacher preparation programs are emphasizing a more explicit focus on social justice. This is especially challenging within a system made by and for whiteness (Souto-Manning, 2019) and predominately white cohorts of PSTs comprising teacher preparation programs (Will, 2020). To support PSTs in interrogating whiteness and the status quo through teaching, SJTE programs can center critical theories (e.g., of race) (Sleeter, 2017).

Justice-oriented pedagogy, grounded in critical theories, can support PSTs in being attuned to and responsive to students through more humanizing pedagogies than direct instruction. Freire describes *humanizing pedagogy* as an approach to teaching that “ceases to be an instrument by which teachers can manipulate students, but rather expresses the consciousness of the students themselves” (Freire, 1970, p. 51). Freire explains this involves leveraging pedagogies of a *problem-posing education* (where students learn to develop a critical consciousness) and *co-intentional education* (where the teacher and students share in co-construction of knowledge). This contrasts with the traditional and Eurocentric *banking approach* to schooling, where teachers “deposit” knowledge into passive bodies ready to receive and regurgitate that knowledge, which serves to maintain the status quo

and oppress children of marginalized backgrounds (Freire, 1970). Similarly, Dewey (1916) also advocates for a schooling in which the teacher takes on a facilitator role that centers students' experiences and ideas into a classroom community that co-constructs knowledge together. In order to support the learning and implementation of such schooling experiences, scholars have leveraged critical pedagogies which are based in social foundations. These include culturally relevant pedagogy (Ladson-Billings, 1995), culturally responsive teaching (Gay, 2010), culturally sustaining pedagogy (Paris & Alim, 2014), and culturally responsive pedagogy (Warren, 2018). Other pedagogies include Freirian culture circles and Boalian teatro (de los Rios & Souto-Manning, 2017; Souto-Manning, 2010; Stillman & Beltramo, 2019), archeology of self (Sealy-Ruiz, 2018), critical inquiry projects (Picower, 2007), principled improvisation (Philip, 2019), and race-based caucuses (Varghese et al., 2019), to name a few. Such pedagogies aim to help PSTs notice and act on injustices in the classroom and the world, towards the goal of socially-just societal transformation.

Addressing Criticisms of SJTE

As more institutions have adopted pedagogies of SJTE, some have questioned whether a focus on social justice in teacher education programs will lead to "less prepared teachers" due to a focus on social foundations over discipline-based subject matter (see Shah, 2021). The concern is that time is diverted from subject matter knowledge and practice in lieu of political ideology. Even many policy makers have expressed concern about the necessity and effectiveness of SJTE, as a result of the lack of longitudinal studies in the literature that illustrate positive achievement outcomes by PSTs in programs with SJTE (Shah, 2021). Taking a postmodern worldview that subject matter is inherently based in relativism (i.e., knowledge is not objective), the substance of these criticisms can fall short (Hoy, 1993). Also pushing back against criticisms, are Cochran-Smith et al. (2009a & 2009b) who argue teaching for social justice does not shortchange the learning of discipline-based subject matter, but deepens it. They assert, "[I]nstead, we point out that teacher education for social justice is an agenda that not only does not shortchange attention to students' learning but in fact makes enhancing students' learning and their life chances its core commitment" (Cochran-Smith et al., 2009b). For example, SJTE can enhance student learning by situating school material relevant to their cultural backgrounds and within their own communities, thus fostering more meaningful engagement and deeper comprehension of school material.

***PSTs Struggle to Enact Justice-oriented Pedagogy
in the Absence of Practice-based Approaches***

Researchers who have followed PSTs from preparation programs through their beginning years of teaching found that while many PSTs claimed to embrace tenets of justice-oriented pedagogy, many struggled to enact it in the field (Artiles et al., 1988; Ensor, 2001; Kavanagh & Danielson, 2019). For example, Schiera (2020) shares direct quotes from PSTs that illustrate their struggle to enact justice-oriented pedagogy. One PST shared, “I wouldn’t be a teacher if I didn’t think that it had a tangible way of moving us towards a more just, more equitable world. But it’s a little bit tougher in practice when you’re still gaining experience” (Schiera, 2020, p. 1). Essentially, in a system dominated by white supremacy and oppression, preparing PSTs to teach for social justice is challenging work (Souto-Manning, 2019).

Also experiencing this challenge, were Kavanagh and Danielson (2019) who analyzed coursework and instruction of PSTs and found that while their teacher educators frequently represented, decomposed, and approximated teaching practice with academic subject matter, they rarely did so when addressing justice topics. Consequently, the PSTs struggled to identify instructional decisions during which they attended to justice. The only time PSTs mentioned justice issues as informing their instructional decisions was with lesson planning, the only area justice-oriented instruction had been taught to them in a practice-based way. Kang and Zinger (2019) found “merely learning core practices [was] insufficient to prepare teachers for equity” (Kang & Zinger, 2019, p. 24) because it was engaging PSTs in critical pedagogies of enactment that translated to realization. Inversely, Kang and Zinger (2019) found that when not paired with methods courses that support critical consciousness of race, racism, and power, approximations of core practices are limited in their ability to advance PSTs’ cultural competencies in the classroom. In other words, a reciprocal relationship between PBTE and SJTE is required.

Theoretical Framework

This section presents a framework for harmonizing PBTE with SJTE, informed by social foundations and practice-based approaches, situated within three theories (sociocultural theory, critical theory, and complexity theory). This section elaborates on how the gap between theory and practice has connections to the dichotomization of PBTE and SJTE.

Theories for Learning to Teach Equitably

Hammerness et al. (2022) describe three theoretical frameworks for “learning to teach equitably”: sociocultural theory, critical theory, and complexity theory. *Sociocultural theory* explains that the cultural contexts one has been a part of influence one’s learning, identity, beliefs, and practices. Likewise, sociocultural theory understands *practice* to be a socially and culturally mediated way of knowing, doing, and being (Kelly, 2006; Peressini et al., 2004; Scribner & Cole, 1981). This means the places and spaces one has been a part of over time, and the norms and ideas within those spaces, influence ideas and practices one takes up (which are often Eurocentric). *Critical theory* supports this by explaining that U.S. schooling and society comprise and further reproduce Eurocentric practices that position other ways of being as deficit. Critical theory calls upon teacher educators to support PSTs in interrogating and disrupting the status quo of dominant Eurocentrism and white supremacy (Delgado & Stefancic, 2001; Hammerness et al., 2022). *Complexity theory* helps understand that the challenge in preparing PSTs to teach for social justice is at the system level; there are many interacting elements (e.g., interdependence between subsystems, such as between teacher preparation sites and school sites; teacher preparation programs as situated within a world composed by whiteness and policy that reinforces this) that contribute to inequities in the educational system that shape teacher education and teacher learning (Cochran-Smith et al., 2014; Hammerness et al., 2022). Complexity theory brings attention to the *whole* rather than the *parts*. Hammerness et al. (2022) explain that all three theories can help understand how PSTs learn and provide lenses for understanding how to support PSTs in teaching for social justice.

From Noticing Injustices to Sustaining Justice-oriented Pedagogy

Learning about justice in theory does not readily translate into practicing justice-oriented pedagogy (Schiera 2019 & 2020). Valerio’s (2021) framework of learning and “take up” can help explain that in order for justice-oriented teaching to occur, this requires moving beyond noticing injustices to acting on those injustices and sustaining justice-oriented teaching practices over time. Valerio (2021) defines *take up* as, “teachers’ acceptance, adoption, and incorporation of ideas into practice.” Teacher learning (e.g., learning of justice-oriented pedagogy) can be described through nine “manifestations of take up”: *noticing, agreeing, asking, suggesting, prioritizing, raising a concern, enacting, critiquing, sustaining*. Valerio’s (2021) manifestations of take up start

with *noticing*, *agreeing*, and *asking* which, for example, might begin with PSTs discussing justice-oriented pedagogy in their university courses. The manifestations of take up progress to *enacting* in order to finally lead to *sustaining*, suggesting that true learning (e.g., of justice-oriented pedagogy) requires enacting the pedagogy before sustaining it. True take up (i.e., true learning) means sustaining the pedagogy. In order to support PSTs toward sustaining justice-oriented pedagogy long into their teaching career, it is important to support them in enacting it during teacher preparation rather than hoping that they will enact it after graduating. Valerio's manifestations of take up and sociocultural theory help explain that practices are learned and taken up through enactments of teaching, not in theory isolated from practice.

Reconciling Practices with Equity and Justice

A framework harmonizing PBTE and SJTE builds from previous literature that has sought to reconcile practice and justice, including Dutro and Cartun (2016), Calabrese Barton et al. (2020), Schiera (2020) and Schiera et al. (2022). Dutro and Cartun (2016) argue for the disruption of binaries in PBTE, illustrated by their work of “un-naming” to disrupt pre-established labels about children by noticing and acting on moments of racialized, classed, and gendered positioning. Calabrese Barton et al. (2020) extends this work by observing and naming specific *justice-oriented high-leverage practices* used by teachers. They describe these practices, not as reductive moves, but as part of the larger ecosystem of teaching, particularly as they are embedded within particular contexts and cultures. Schiera (2020) suggests the field identifies a set of “social justice core practices.” Building from this, Schiera et al. (2022) offers examples from their development of a “core set of social justice practices,” including *critical self-reflection*, *interrupt school practices which perpetuate oppression*, *lessons/units interrogate oppression and explore liberation*, *center student voice*, and *position students as agents*. The purpose of identifying and naming these practices is not to reduce complexity but to emphasize that teaching for social justice is so complex that naming these practices can help make the work more learnable to others.

Toward a Framework of SJ-PBTE

Different conceptualizations of PBTE and SJTE combined with reductive dichotomies of theory and practice contribute to reductive dichotomies of PBTE and SJTE. In order to address this and work toward better preparation of PSTs to enact socially just practices, the metaphor

of harmony may be useful for illustrating their integration. In music, harmony occurs when multiple notes come together simultaneously to produce a sound arguably more beautiful and powerful than the sound each stand-alone note could make. The stand-alone notes represent PBTE and SJTE, which some have conceptualized as a binary. The more powerful sound or harmony that results when both are used together represents the more powerful impact they can produce, which can be the increased preparedness of teachers to implement and sustain justice-oriented pedagogy.

Schiera (2019) explains integrating PBTE and SJTE entails learning to develop a critical consciousness, rooted in critical theories, that one uses to act on injustices in practice. Schiera suggests teacher educators can help PSTs apply this critical consciousness in representations, decompositions, and approximations of practice to investigate how practices may reinforce or disrupt inequities. Schiera adds that Ball's (2018) model of *discretionary spaces* (i.e., discretionary moments where teachers have the opportunity to either reinforce or disrupt the status quo) highlight that teaching is never neutral, and through their practice, teachers can reinforce or disrupt patterns of inequity and oppression. The SJ-PBTE Framework (socially just practice-based teacher education) builds on Schiera's (2019) concepts, and it is further supported by Bowman and Gottesman (2013), who argue for grounding PBTE in social foundations and sociocultural theories of learning (see Figure 1). The framework highlights foundations from SJTE that can help preservice teachers develop and apply a critical lens as they learn to enact justice-oriented pedagogy through practice-based approaches. The framework may help envision the potential for a justice-oriented, practice-based teacher education. Importantly, it shows the potential for moving beyond reductive dichotomies of theory and practice and of PBTE and SJTE. The arrow between PBTE and SJTE is bidirectional, illustrating that the approaches inform one another to achieve SJ-PBTE.

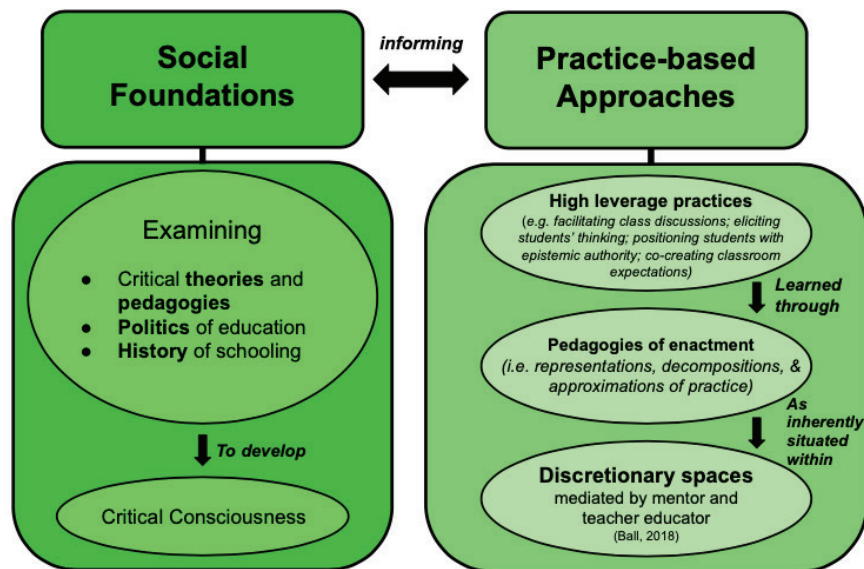
Example of SJ-PBTE with Critical Mathematics and Facilitating Mathematics Discussions

Since mathematics has historically been a particularly oppressive and marginalizing subject for students of color and low-income backgrounds (Martin, 2009), I will use mathematics as an example context for thinking about SJ-PBTE. Traditionally, being "good" at mathematics meant being able to memorize and regurgitate procedures and quickly calculate problems with the right answer (NCTM, 1989). In other words, a good mathematics student can obey directions and

regurgitate instructions through passive learning from an authoritative figure, representing Freire’s (1970) description of the *banking approach* to education. Supporting a more justice-oriented mathematics pedagogy requires interrogating the onto-epistemology of mathematics education. A more liberating and justice-oriented approach might include a collaborative or *co-intentional* and *problem-posing education* (Freire, 1970). This would entail valuing critical thinking (e.g., mathematical reasoning and argumentation) over procedural knowledge. It would also entail positioning students with epistemic authority, providing them the status and opportunity to decide what counts as true/untrue through use of mathematics to justify their ideas.

To support PSTs to teach mathematics in justice-oriented ways, justice-oriented pedagogies of enactment and investigation can support this work (Grossman et al., 2009a; Grossman & McDonald, 2008). To illustrate this, an example will be discussed with the high-leverage practice of *facilitating mathematics discussions* (in which students are positioned with epistemic authority to engage in discourse about their mathematical thinking). For instance, many PSTs grew up learning mathematics didactically and are less familiar with mathematics discussions (Cormas, 2022). Pedagogies of investigation can support PSTs in interrogating the sociopolitical history of mathematics

Figure 1
Framework of SJ-PBTE



education (including who benefits from direct instruction and who does not) and examine ways mathematics discussions might increase comprehension and advance equitable outcomes for students of marginalized backgrounds. Pedagogies of investigation can be interwoven with pedagogies of enactment, in which PSTs are shown representations and decompositions of mathematics discussions and engage in approximations of practice to enact mathematics discussions (in methods classes and field placements), with debrief. Representations of practice can include video examples from various contexts (i.e., teachers of various backgrounds with students from various cultures and communities) that exemplify the practice of facilitating mathematics discussions similarly and differently. To disrupt potentially deficit views held by PSTs from non-marginalized backgrounds, it is particularly important to center the brilliance of students of color within these representations. Because facilitating justice-oriented mathematics discussions is complex, this high-leverage practice can be decomposed into sub-practices (e.g., planning questions that stimulate discussion or debate; connecting content to students' cultures and communities; connecting across multiple students' contributions). Teacher educators can offer PSTs opportunities to approximate these sub-practices, with increasing responsibility up through the full practice of facilitating the entire discussion, with explicit attention to disrupting patterns of inequity. While of course not every scenario can be approximated, I argue that at least approximating within various contexts and exposing PSTs to cultures different from their own can help PSTs learn to be more responsive when they are placed in newer contexts later on. This is supported by Kavanagh and colleagues (2020) who found approximations of practice can improve teacher responsiveness to student ideas. Approximations of practice can be followed by enactment in the field, under mediated guidance by instructors and mentor teachers. In particular, teacher educators and mentor teachers can play a crucial role in mediating discretionary spaces to support PSTs in disrupting inequities that might arise during the mathematics discussion.

Discussion and Implications

For the field to better prepare beginning teachers to enact and sustain justice-oriented pedagogy, I argue it is important to move beyond reductive dichotomies of PBTE and SJTE toward a shared definition with harmonization. Future research might benefit from examining the impact of teacher education programs that take up

SJ-PBTE, particularly on students' opportunities to learn and PSTs' competence to enact equitable practices during teacher preparation (i.e., short term studies), followed by their long-term sustainment after years of teaching (i.e., longitudinal studies). For the SJ-PBTE Framework to be realized, I believe this entails greater collaboration between social foundations instructors, methods instructors, field placement mentor teachers, and school communities.

Conclusion

This article examined the literature to better understand the discourse surrounding PBTE and SJTE. It argues that challenges faced by the field in bridging PBTE and SJTE have strong connections to reductive dichotomies of theory and practice and in different conceptualizations. The metaphor of harmony helps illustrate that PBTE and SJTE, when used together, can be more impactful in preparing PSTs to teach for social justice. In other words, practice-based approaches can make the complex work of teaching for social justice more learnable to PSTs, bridging the gap between equity in theory with practice. Preparing PSTs to teach for social justice is especially critical work, given that the majority of beginning teachers work in schools with children of marginalized backgrounds (Ball in Arbaugh et al., 2015; Gagnon & Mattingly, 2012). Hopefully, the SJ-PBTE Framework can be built upon to continue to think of ways for leveraging practice-based approaches for supporting PSTs to teach for social justice, critical for disrupting systemic oppression and advancing marginalized children's outcomes and opportunities in school and beyond.

References

- Anderson, L. (2019). Private interests in a public profession: Teacher education and racial capitalism. *Teachers College Record*, 121(6), 1-38. <https://doi.org/10.1177/016146811912100602>
- Arbaugh, F., Ball, D. L., Grossman, P., Heller, D. E., & Monk, D. (2015). Deans' corner: Views on the state of teacher education in 2015. *Journal of Teacher Education*, 66(5), 435-445. <https://doi.org/10.1177/0022487115602314>
- Artiles, A. J., Barreto, R. M., Peña, L., & McClafferty, K. (1988). Pathways to teacher learning in multicultural contexts: A longitudinal case study of two novice bilingual teachers in urban schools. *Remedial and Special Education*, 19(2), 70-90. <https://doi.org/10.1177/074193259801900203>
- Ball, D. L. (2018). Just dreams and imperatives: The power of teaching in the struggle for public education. *American Education Research Association Annual Meeting*, New York, NY. April 15, 2018. Retrieved from <https://deborahloewenbergball.com/news-archive/2018/4/19/deborah-loewenberg->

- ball-delivers-presidential-address-at-aera-annual-meeting
- Ball, D. L., & Cohen, D. K. (1999). Developing practice, developing practitioners: Toward a practice-based theory of professional education. In L. Darling-Hammond, & G. Sykes (Eds.), *Teaching as the learning profession: Handbook of policy and practice* (pp. 3–32). Jossey-Bass.
- Ball, D. L., & Forzani, F. M. (2009). The work of teaching and the challenge for teacher education. *Journal of Teacher Education, 60*(5), 497-511. <https://doi.org/10.1177/0022487109348479>
- Calabrese Barton, A., Tan, E., & Birmingham, D. J. (2020). Rethinking high-leverage practices in justice-oriented ways. *Journal of Teacher Education, 00*(0), 1-18. <https://doi.org/10.1177/0022487119900209>
- Carter, P. L., & Welner, K. G. (2013). *Closing the Opportunity Gap: What America Must Do to Give Every Child an Even Chance*. Oxford University Press.
- Cochran-Smith, M., Ell, F., Ludlow, L., Grudnoff, L., & Aitken, G. (2014). The challenge and promise of complexity theory for teacher education research. *Teachers College Record, 116*(4), 1–38. <https://doi.org/10.1177/016146811411600407>
- Cochran-Smith, M., Barnatt, J., Lahann, R., Shakman, K., & Terrell, D. (2008). Teacher education for social justice: Critiquing the critiques. In W. Ayers, T. Quinn, & D. Stovall (Eds.), *Handbook of Social Justice in Education*. Taylor & Francis.
- Cochran-Smith, M., Shakman, K., Jong, C., Terrell, D. G., Barnatt, J., & Mcquillan, P. (2009). Good and just teaching: The case for social justice in teacher education. *American Journal of Education, 115*(3), 347–377. <https://doi.org/10.1086/597493>
- Cormas, P. (2022). Preservice teachers' beliefs in a mathematics/science course. *Research in Science & Technology Education, 40*(2), 234-250. <https://doi.org/10.1080/02635143.2020.1784126>
- Chesley, G. M., Jordan, J. (2012). What's missing from teacher prep. *Educational Leadership, 69*(8), 41-45.
- Daniels, J. R., & Varghese, M. (2019). Troubling practices: Exploring the relationship between whiteness and practice-based teacher education in considering a raciolinguicized teacher subjectivity. *Educational Researcher, 49*(1), 56-63. <https://doi.org/10.3102/0013189X19879450>
- de los Rios, C. V. & Souto-Manning, M. (2017). Freirean culture circles as a strategy for racial justice in teacher education. In *Confronting Racism in Teacher Education*. Routledge.
- Delgado, R., & Stefancic, J. (2001). *Critical race theory: An introduction*. New York University Press.
- Dewey, J. (1916). *Democracy and education: An introduction to the philosophy of education*. The Free Press.
- Dewey, J. (1938). *Education and experience*. Macmillan.
- Dutro, E. & Cartun, A. (2016). Cut to the core practices: Toward visceral disruptions of binaries in PRACTICE-based teacher education. *Teaching and Teacher Education, 58*, 119-128. <https://doi.org/10.1016/j.tate.2016.05.001>

- Ensor, P. (2001). From preservice mathematics teacher education to beginning teaching: A study in recontextualizing. *Journal for Research in Mathematics Education*, 32(3), 296–320. <https://doi.org/10.2307/749829>
- Ericsson, K. A. (2006). The influence of experience and deliberate practice on the development of superior expert performance. In K. A. Ericsson, N. Charness, P. J. Feltovich, & R. R. Hoffman (Eds.), *The Cambridge handbook of expertise and expert performance* (Vol. 38, pp. 685–705). Cambridge University Press.
- Forzani, F. M. (2014). Understanding “core practices” and “practice-based” teacher education: Learning from the past. *Journal of Teacher Education*, 65(4), 357–368. <https://doi.org/10.1177/0022487114533800>
- Freire, P. (1970). *Pedagogy of the oppressed*. Continuum.
- Gagnon, D., & Mattingly, M. J. (2012). Beginning teachers are more common in rural, high-poverty, and racially diverse schools. *The Carsey Institute at the Scholars' Repository*. Paper 173.
- Gay, G. (2010). Cultural congruity in teaching and learning. In *Culturally responsive teaching: Theory, research, and practice* (pp. 174–213). Teachers College Press.
- Gholson, M., & Martin, D. B. (2014). Smart girls, black girls, mean girls, and bullies: At the intersection of identities and the mediating role of young girls' social network in mathematical communities of practice. *Journal of Education*, 194(1), 19–33. <https://doi.org/10.1177/002205741419400105>
- Grossman, P., & McDonald, M. (2008). Back to the future: Directions for research in teaching and teacher education. *American Educational Research Journal*, 45, 184–205. <https://doi.org/10.3102/0002831207312906>
- Grossman, P., Compton, C., Igra, D., Ronfeldt, M., Shahan, E., & Williamson, P. (2009a). Teaching practice: A cross-professional perspective. *Teachers College Record*, 111(9), 2055–2100. <https://doi.org/10.1177/016146810911100905>
- Grossman, P., Hammerness, K., & McDonald, M. (2009b). Redefining teaching, reimagining teacher education. *Teachers and Teaching*, 15, 273–289. <https://doi.org/10.1080/13540600902875340>
- Gutiérrez, R. (2002). Enabling the practice of mathematics teachers in context: Towards a new equity research agenda. *Mathematical Thinking and Learning*, 4(2–3), 145–87. https://doi.org/10.1207/S15327833MTL04023_4
- Gutiérrez, R. (2009). Framing equity: Helping students “play the game” and “change the game.” *Teaching for Excellence and Equity in Mathematics*, 1(1), 4–8.
- Hammerness, K., Stroupe, D., & Matsko, K. K. (2022). Learning to teach equitably: Theoretical frameworks and principles for international research and practice. *The Palgrave Handbook of Teacher Education Research*, 1–35. https://doi.org/10.1007/978-3-030-59533-3_64-1
- Hauser, M., & Kavanagh, S. S. (2019). Practice-based teacher education. In G. W. Noblit (Ed.), *Oxford research encyclopedia of education*. Oxford University Press. <https://doi.org/10.1093/acrefore/9780190264093.013.419>
- Holmes Group, Inc. (1986). *Tomorrow's teachers: A report of the Holmes Group*. Howard, T. C., & Milner, H. R. (2021). Teacher preparation for urban schools. In R. H. Milner, & K. Lomotey (Eds.) *Handbook of urban education* (pp.

- 199-216). Routledge.
- Hoy, T. (1993). Derrida: Postmodernism and political theory. *Philosophy & social criticism*, 19(3-4), 243-260.
- Kang, H., Zinger, D. (2019). What do core practices offer in preparing novice science teachers for equitable instruction? *Science Education*, 1-31. doi:10.1002/sce.21507
- Kavanagh, S. S., & Danielson, K. A., (2019). Practicing justice, justifying practice: Toward critical practice teacher education. *American Educational Research Journal*, 57(1). <https://doi.org/10.1002/sce.21507>
- Kavanagh, S. S., Metz, M., Hauser, M., Fogo, B., Taylor, & M. W., Carlson, J. (2020). Practicing responsiveness: Using approximations of teaching to develop teachers' responsiveness to students' ideas. *Journal of Teacher Education*, 71(1), 94-107. <https://doi.org/10.1177/002248711981884>
- Kelly, P. (2006). What is teacher learning? A socio-cultural perspective. *Oxford Review of Education*, 32(4), 505-519. <https://doi.org/10.1080/03054980600884227>
- Kennedy, M. M. (1999). The role of pre-service teacher education. In L. Darling-Hammond, & G. Sykes (Eds.), *Teaching as the learning profession: Handbook of policy and practice* (pp. 54–86). Jossey Bass.
- Korthagen, F. A., & Kessels, J. P. (1999). Linking theory and practice: Changing the pedagogy of teacher education. *Educational Researcher*, 28(4), 4–17. <https://doi.org/10.3102/0013189X028004004>
- Ladson-Billings, G. (1995). Toward a theory of culturally relevant teaching. *American Educational Research Journal*, 32(3), 465- 491. <https://doi.org/10.3102/00028312032003465>
- Lampert, M., Beasley, H., Ghousseini, H., Kazemi, E., & Franke, M. (2010). Using designed instructional activities to enable novices to manage ambitious mathematics teaching. In M. K. Stein & L. Kucan (Eds.), *Instructional explanations in the disciplines* (pp. 129-141). Springer.
- Lampert, M., Franke, M., Kazemi, E., Ghousseini, H., Turrou, A., Beasley, H., & Crowe, K. (2013). Keeping it complex: Using rehearsals to support novice teacher learning of ambitious teaching. *Journal of Teacher Education*, 64(3), 226-243. <https://doi.org/10.1177/0022487112473837>
- Magogwe, J. M., Ketsitlile, L. E. (2015). Pre-service teachers' preparedness for teaching multicultural students. *Journal for Multicultural Education*.
- Martin, D. B. (2009). Researching race in mathematics education. *Teachers College Record*, 111(2), 295–338. <https://doi.org/10.1177/016146810911100208>
- McDonald, M., Kazemi, E., & Kavanagh, S.S. (2013). Core practices and pedagogies of teacher education: A call for a common language and collective activity. *Journal of Teacher Education*, 64(5), 378-386. <https://doi.org/10.1177/0022487113493807>
- National Council of Teachers of Mathematics. (1989). *Curriculum and evaluation standards for school mathematics*.
- Paris, D., & Alim, H. S. (2014). What are we seeking to sustain through culturally sustaining pedagogy? A loving critique forward. *Harvard Educational Review*, 84(1), 85–100. <https://doi.org/10.17763/haer.84.1.9821873k2ht16m77>

- Peressini, D., Borko, H., Romagnano, L., Knuth, E., & Willis, C. (2004). A conceptual framework for learning to teach secondary mathematics: A situative perspective. *Educational Studies in Mathematics*, 56(1), 67–96. <https://doi.org/10.1023/B:EDUC.0000028398.80108.87>
- Picower, B. (2007). Supporting new educators to teach for social justice: The critical inquiry project model. *Penn GSE Perspectives on Urban Education*, 5(1).
- Philip, T. M. (2019). Principled improvisation to support novice teacher learning. *Teachers College Record*, 121(6), 1–32. <https://doi.org/10.1177/016146811912100607>
- Philip, T. M., Souto-Manning, M., Anderson, L., Horn, I. S., Andrews, D. C., Stillman, J., & Varghese, M. (2018). Making justice peripheral by constructing practice as “core”: How the increasing prominence of core practices challenges teacher education. *Journal of Teacher Education*, 70, 251–264. <https://doi.org/10.1177/0022487118798324>
- Remillard, J. T. & Heck, D. J. (2014). Conceptualizing the curriculum enactment process in mathematics education. *ZDM: Mathematics Education*, 46, 705-718. <https://doi-org.proxy2.cl.msu.edu/10.1007/s11858-014-0600-4>
- Sealy-Ruiz, Y. (2018). *Archeology of self, LLC. Yolanda Sealey-Ruiz*. <https://www.yolandasealeyruiz.com/archaeology-of-self>
- Schiera, A. J. (2019). Justice, practice and the ‘Real World’: Pre-service teachers’ critically conscious visions for teaching amid the complexities and challenges of learning to teach. *International Journal of Qualitative Studies in Education*, 32(7), 929-946, <https://doi.org/10.1080/09518398.2019.1609125>
- Schiera, A. J. (2020). Seeking convergence and surfacing tensions between social justice and core practices: Re-presenting teacher education as a community of praxis. *Journal of Teacher Education*, 72(4), 462-476. <https://doi.org/10.1177/0022487120964959>
- Schiera, A. J., Marshall-Butler, J., & Carl, N. M. (2022). Identifying a core set of social justice practices: A delphi expert panel approach. Presented at the annual meeting of the *American Educational Research Association*, San Diego, CA.
- Scribner, S., & Cole, M. (1981). *The psychology of literacy*. Harvard University Press
- Shah, N. (2021). Racial equity and justice in teaching and teacher education: Progress, tensions, and open questions. [White paper]. Spencer Foundation.
- Sleeter, C. E. (2017). Critical race theory and the whiteness of teacher education. *Urban Education*, 52(2), 155-169. <https://doi.org/10.1177/0042085916668957>
- Souto-Manning, M. (2019). Transforming university-based teacher education: Preparing asset-, equity-, and justice-oriented teachers within the contemporary political context. *Teachers College Record*, 121(6), 1–26. <https://doi.org/10.1177/016146811912100601>
- Souto-Manning, M. (2010). Culture circles in pre-service teacher education. In *Freire, teaching, and learning: Culture circles across contexts* (pp. 93-113).
- Stillman, J. & Beltramo, J. L. (2019). Exploring Freirean culture circles

- and Boalian theatre as pedagogies for preparing asset-oriented teacher educators. *Teachers College Record*, 121(6), 1-38. <https://doi.org/10.1177/016146811912100608>
- TeachingWorks. (2022a). *High-leverage practices*. Retrieved from <https://library.teachingworks.org/curriculum-resources/high-leverage-practices/>
- TeachingWorks. (2022b). Practice-based teacher education. Retrieved from <https://www.teachingworks.org/work-of-teaching/practice-based-teacher-education>
- Thompson, J., Windschitl, M., & Braaten, M. (2013). Developing a theory of ambitious early-career teacher practice. *American Educational Research Journal*, 50(3), 574-615. <https://doi.org/10.3102/0002831213476334>
- Valerio, J. (2021). Tracing take-up across practice-based professional development and collaborative lesson design. In *Proceedings of the forty-third annual meeting of the psychology of mathematics education, North America*, Philadelphia, PA, 633-641.
- Varghese, M. Daniels, J. R., Park, C. C. (2019). Structuring disruption within university-based teacher education programs1: Possibilities and challenges of race-based caucuses. *Teachers College Record*, 121(6), 1-34. <https://doi.org/10.1177/016146811912100606>
- Warren, C. A. (2018). Empathy, teacher dispositions, and preparation for culturally responsive pedagogy. *Journal of Teacher Education*, 69(2), 169-183. <https://doi.org/10.1177/0022487117712487>
- Webel, C., & Yeo, S. (2021). Developing skills for exploring children's thinking from extensive one-on-one work with students. *Mathematics Teacher Educator*, 10(1), 84-102. <https://doi.org/10.5951/MTE.2020-0003>
- Wenger, E. (1998). *Communities of practice: Learning, meaning, and identity*. Cambridge University Press.
- Will, M. (2020). Still mostly white and female: New federal data on the teaching profession. *Education Week*.