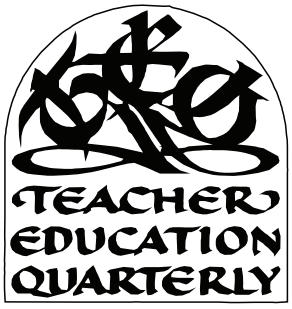

Learning to Teach in Complex Systems

The Amplification and Diminishment of Programmatic Visions for Teaching

Hilary G. Conklin, Lauren Gatti, & Kavita Kapadia Matsko

Abstract

This longitudinal comparative analysis examines the experiences of two candidates—one enrolled in an urban residency program and one enrolled in the residency's partner, university-based program—to consider the role that context plays in teacher preparation. Drawing from complexity theory and critical realism, we consider how the interplay of teacher preparation contexts amplifies or diminishes novice teachers' capacity to enact programmatic visions for teaching. Our data have implications for how we conceptualize what a teacher education program is, which programmatic visions are amplified and with what consequences, and the ways in which funding for teacher education can influence which visions are amplified.

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Introduction

In teacher preparation, there continue to be heated debates over the most important contexts in which to prepare teachers, particularly for underresourced and historically marginalized communities. Many stakeholders have argued for centering PK–12 schools as the primary site for teachers to learn, to allow for a greater focus on clinical practice in the classroom (i.e., Howey & Zimpher, 2010). Others have emphasized the importance of drawing more heavily on the knowledge of communities to support teachers' preparation (cf. Guillen & Zeichner, 2018). As these debates have persisted, many university-based teacher preparation programs have experienced enrollment declines (cf. Sawchuk, 2014), and as a result, some programs—especially those preparing teachers for high-poverty, urban contexts—have secured partnerships with alternative pathways to bolster their enrollments and sustain themselves financially (Zeichner & Pena-Sandoval, 2015). Such arrangements have been taken up in a variety of complex ways: In some cases, distinctive teacher education pathways exist side by side in the same university. While such arrangements result in a myriad of preparation configurations, we know little about how these overlapping contexts influence how novice teachers can advance—or not—the visions of teaching prioritized by their programs.

In this article, we draw on complexity theory and critical realism (Cochran-Smith et al., 2014) to explore the cases of two teachers who earned their degrees from the same institution, one enrolled in an urban residency program and one enrolled in the partner university-based program. The teachers completed a common set of university coursework and ultimately taught in similar demographic contexts in the same city, but their embeddedness in distinctive contextual systems resulted in different learning trajectories. This research contributes to existing scholarship in teacher education by making visible how the interplay of teacher preparation contexts amplifies or diminishes novices' capacity to enact programmatic visions of teaching.

Literature Review

We begin with the premise that teaching is a demanding, uncertain, and complex activity engaging multiple actors, knowledges, and decisions (Cochran-Smith, 2020; Shulman, 2004). Scholarship increasingly suggests that helping aspiring teachers learn about particular people, places, politics, systems, cultures, and diverse settings during preparation can shape their emerging practice and help them to thrive in complex settings.

Novice teachers, and what they bring to their learning-to-teach experiences, are central to any discussion of teacher education. Scholarship has illustrated that providing novice teachers with guided opportunities to consider and notice their multiple intersecting identities in relationship to power and privilege, as well as their own implicit assumptions and biases, fosters awareness about their own posi-

tionality in relationship to schooling (Glock & Kovacs, 2013; Milner, 2020; Shah & Coles, 2020). Furthermore, in addition to leveraging programmatic resources, candidates inevitably leverage their own resources—dispositional, experiential, disciplinary, and relational—in their learning-to-teach process (Gatti, 2016).

Research on teacher education has also considered various dimensions of teacher preparation programs as context that shapes the teaching and learning experiences of novice teachers. For example, some scholarship has explored program features such as duration of clinical experiences, number and types of courses taken, and preservice mentoring (Matsko et al., 2020; Ronfeldt & Reininger, 2012). Scholars have also noted the importance of coherence among the features of preparation (Darling-Hammond, 2006; Hammerness, 2006; Levine et al., 2023). More recently, research has examined the relationship between varying features of different pathways—university based, alternative, or residency—and candidates' preparation experiences and perceived preparedness, yielding mixed results about the efficacy of one pathway over another (Boyd et al., 2012; Conklin et al., 2019; Gatti, 2016; Guha et al., 2016; Matsko et al., 2022).

Clinical experiences serve as another aspect of context. Central to a novice teacher's development within the classroom context is the guidance provided by the mentor teacher (Clarke et al., 2014; Hoffman et al., 2015). Outside the classroom, schools and districts influence the structures, relationships, and work within them, as well as teachers' decisions to stay in the field (Johnson, 2007; Santoro, 2018). Understanding how systemic racism plays out in schools is critical for candidates in urban teacher education programs to make connections between broader public policies and their own local context and to understand how historicized injustices have narrowed learning opportunities (Gadsden & Dixon-Román, 2017; Milner, 2015).

Recent research has focused on the importance of the community context in preparing teachers. Scholarship in this area has emphasized the importance of centralizing community perspectives in the education of preservice teachers (Zeichner et al., 2016). Beyond the influences of community, various policy contexts and decisions influence the experiences of novice teachers and the nature of teacher preparation. For example, the state policy contexts in which teacher education programs are situated matter, including the budgetary support that is available and the type and mission of the institution (Zeichner & Conklin, 2008). Research has also highlighted the central role of these broader contexts in relation to teacher education, including orienting to the sociopolitical contexts of teaching and learning (e.g., Nasir et al., 2016) and helping novice teachers understand how macro-level politics can influence their development as teachers (e.g., Carter Andrews et al., 2019; Philip et al., 2019).

This research highlights the importance of attending to various contexts in teacher education, both in research and in practice, to prepare candidates for the complex work of teaching. Although existing research has made vital contributions to understanding different dimensions of context at play in teacher education, little

research has explored how contexts coexist and overlap and, moreover, how these interactions shape novice teachers' capacity to enact their programmatic visions. Our work aims to highlight the intersecting influences of contexts.

Theoretical Framework: Complexity Theory

Cochran-Smith et al.'s (2014) framework of complexity theory combined with critical realism (CT-CR) offers a helpful tool for conceptualizing the interaction among various facets of context. In contrast to research that tries to make sense of distinct elements of teacher education in isolation, complexity theory focuses on the contingent and dynamic interactions and relationships within a web of coexisting systems (Cochran-Smith et al., 2014; Opfer & Pedder, 2011). The lens of critical realism considers these relationships with special attention to intersections with systems of social inequality (Cochran-Smith et al., 2014).

In relation to teacher learning, complexity theory and critical realism provide a way to examine the conditions and processes that allow for teacher learning by taking into account "micro-contexts," such as individual teachers and specific learning activities, along with and in relation to meso- and macro-contexts, such as institutional systems, school systems, and wider social system contexts, along with each of their histories (Cochran-Smith et al., 2014; Opfer & Pedder, 2011). Thus, following complexity theory, individuals are considered complex systems encompassing prior beliefs, experiences, knowledge, and orientations. Likewise, specific preparation pathways, K–12 schools, and regulatory processes are each a complex system that, in turn, interacts with multiple systems of inequality. In the findings that we share herein, we explore the individual teacher and classroom contexts (e.g., micro-), school and program contexts (e.g., meso-), and community, district, and state and national policy contexts (e.g., macro-).

Central to complexity theory is the idea that we cannot understand any specific part of teacher education and teacher learning in isolation. The systems are "interdependent and reciprocally influential" (Opfer & Pedder, 2011, p. 379). The interactions among systems, such as instructional practices, past experiences, pedagogical beliefs, and school decisions about professional learning (Opfer & Pedder, 2011), lead to wholes that are more than the sum of their parts (Cochran-Smith et al., 2014). Thus each of these systems interacts with each of the others, leading to unpredictable (although not random or unexplainable) outcomes (Cochran-Smith et al., 2014). Such a notion of interconnected systems enables us to think about the influences of context in teacher learning in more sophisticated and nuanced ways.

By exploring the interactions of micro-, meso-, and macro-contexts within a teacher education program system, the CT-CR lens allows for consideration of how particular elements of systems become amplified or diminished, depending on whether the elements within the system support each other (Cochran-Smith et al., 2014; Opfer & Pedder, 2011). Complexity theory provides a way to identify patterns of interaction within and between levels of activity that offer explanatory

theories of teacher learning (Opfer & Pedder, 2011). Thus complexity theory can provide insight into how teacher education programs function as systems, how system elements interact, and what it is that allows particular practices to be amplified or diminished through system interactions (Cochran-Smith et al., 2014). This theoretical perspective undergirds our guiding research question: How does the interplay of teacher preparation contexts amplify or diminish novice teachers' capacity to enact programmatic visions for teaching?

Methods

Researcher Positionality

We understand that it is important to be transparent about researcher positionality. Each of us is a practicing teacher educator, and we each have extensive research and practical experiences directing, teaching within, and studying teacher preparation both in our own institutional contexts and in those that are not our own. One of us, Hilary, is a faculty member specializing in secondary social studies education at DePaul University, the site of our study. She served as the secondary program director at the time of this study but did not teach either of our focal participants, both of whom were in secondary English education. Kavita serves as associate professor and associate dean for teacher education at a prestigious, private university in the city's metropolitan area and has worked in a variety of roles in teacher education, including directing and studying teacher residencies. Lauren is an associate professor of teacher education and coordinates the secondary English education program at a large, public university in the Midwest. She has researched teacher residency programs and was a former high school English teacher in the city.

Study Context

Our data come from a larger, longitudinal comparative case study that investigated learning from two graduate programs that prepare novice teachers to teach in historically underresourced communities: a 1-year pathway sponsored by the Chicago-based Urban Teacher Residency program, AUSL, and DePaul University's 2-year, university-based pathway. AUSL's initial aim was to prepare teachers through a residency model—based on the medical model of apprenticeship—to teach in the city's underresourced and underperforming schools. In 2006, AUSL expanded its reach in Chicago Public Schools (CPS) to include school management, creating an independent district-within-a-district. Although recent city and school district policies have shifted, in 2016–2017, AUSL managed a network of 31 turnaround schools and training academies (schools that were designated as resident preparation sites).

AUSL's residency aims to attract and retain teachers, especially teachers of color and career changers, who are committed to learning to teach in and to staying within AUSL's network of schools. To that end, residents are paid a living stipend for their residency year and are eligible for discounted tuition at one of AUSL's

partner universities. Residents take intensive summer coursework and are placed in pairs in one of AUSL's training academies, where they are mentored by selected teachers who are paid a substantial stipend for their daily support and mentorship of residents. Additionally, AUSL residents benefit from the support of mentor resident coaches (MRCs), who are also paid a generous stipend for mentoring AUSL residents. Residents attend university courses at DePaul on weekday evenings and on Fridays, leading to a master's degree and teaching certification. After their residency year, residents commit to teaching in CPS for 4 years.

DePaul became AUSL's university partner for secondary teacher preparation in 2015. DePaul is a large Vincentian, Catholic university located in the heart of Chicago. The DePaul College of Education (n.d.) mission is to prepare teachers, counselors, and leaders who "are committed to creating equitable, compassionate, intellectually rich, and socially just environments." DePaul offers a master's degree with a teaching license that involves a sequence of 12 courses, followed by a culminating, unpaid student teaching experience under the mentorship of a cooperating teacher, who is compensated with a voucher for a graduate course at DePaul. DePaul coursework requires novice teachers to engage in field experiences at varied school sites, beginning with classroom observations and gradually increasing in teaching opportunities and responsibility as novices progress through the program. Novices are placed in a wide range of schools across Chicagoland, including in CPS, nearby Catholic schools, and suburban public and private schools.

Candidates in both programs take a common set of coursework at DePaul, but AUSL candidates take all of the master's degree coursework in 1 year, whereas candidates in DePaul's regular master's program typically take coursework over 2 years. In addition, AUSL candidates take most of their coursework as a cohort, separately from the DePaul candidates. Two notable exceptions are the two content-area methods courses (e.g., Methods of Teaching Secondary English), when the AUSL and DePaul candidates take classes together.

Study Design and Participants

In this article, we analyze the influence of intersecting systems of context on teachers' learning through an instrumental case study approach (Yin, 2009). Specifically, we focus on 2 novice teachers, from a larger pool of 11, whose unique similarities provide the opportunity to explore the interplay among the contextual systems through which they learned to teach. These similarities prompted us to select them as focal cases because they allowed us to hold steady some of the complex factors at play in the learning-to-teach process. Lori (all names are pseudonyms), an AUSL candidate, and Clark, a DePaul candidate, both in their early 20s, were each learning to teach secondary English. During their graduate program, they both spent 1 full year in demographically similar and geographically proximate CPS high schools and were then hired as first-year English teachers into the same schools where they had completed their clinical placements. Our analysis of these

cases allows us to better understand the complex role of context in shaping these teachers' very different learning trajectories.

Data Sources

Our data included interviews, observations, and select program documents, including syllabi and curricular descriptions. With each novice teacher, we conducted a total of four interviews and six classroom observations across 1.5 years. In spring 2016, as participants were completing their programs, we conducted two classroom observations and two interviews: one prior to and one following the classroom observations. In the initial interviews, we asked the candidates about their perspectives on the philosophies and priorities of their programs, experiences in their school placement, and reflections on the learning-to-teach process. In the second interviews, participants shared reflections on their instructional choices and ranked various influences on their practice, such as mentor teachers, methods classes, and school placements. Once they had been hired as beginning teachers of record (2016–2017), we conducted two additional rounds of classroom observation in fall and spring, followed by an interview after each round of observation. We audio-recorded and transcribed all interviews.

To better understand the distinctive features and emphases of each preparation pathway, we also conducted one interview each with four program leaders (two at DePaul and two at AUSL) and collected syllabi and other program documents to gain insight into each pathway's programmatic visions for teaching. At DePaul, we interviewed two secondary education faculty members, one of whom is a coauthor. (Interviews were conducted by the other two authors.) From AUSL, we interviewed the two MRCs who supervised the AUSL residents in their residency placements. In these interviews, we asked questions about programmatic priorities of AUSL and DePaul and how those priorities translate into practice.

Data Analysis

We compiled all transcripts, observation notes, and documents for our qualitative analysis. We developed an initial set of codes based on our knowledge of factors related to teacher learning, such as program features, teaching aims, candidate background, and candidate practices. Using this initial set of codes, the three authors independently coded several interview transcripts from one participant to establish a common understanding of our application of the codes and to begin refining and revising our codes. As we collectively analyzed our data and discussed what our codes were revealing, we realized that *context* was emerging as a salient theme. We developed a mutual definition of this code as referring to school, neighborhood/local, city, or state conditions or influences that shaped teachers' learning-to-teach processes. We collectively coded several additional transcripts with the full set of codes in mind before individually analyzing the remaining transcripts. This col-

laborative and individual data analysis, captured through analytical memos, helped us further refine our thinking around the role of context in learning to teach. It was through this analytic process that we identified the unique similarities of Lori's and Clark's learning-to-teach processes.

Focal Cases

Lori, a woman of Cuban American descent, grew up in the north suburbs of Chicago. Passionate about English as a subject matter throughout her schooling, her love for her subject compelled her to pursue a high school teaching license immediately after completing her undergraduate studies. Lori was drawn to teach in Chicago, rather than its surrounding suburbs, because she welcomed the idea of having a cultural connection with the Latinx students with whom she might work. The combination of AUSL's location in Chicago and a fast track into the classroom while earning her master's degree sealed her decision to enter the program.

Clark, a White-identifying male, earned his undergraduate degree in English literary studies at DePaul University. After he graduated, he returned to the mid-western metropolitan area where he had grown up to work in his former high school. In 2013, he returned to Chicago to work at a restaurant to earn money so that he could return to school. Clark briefly entertained applying to alternative or "fast-track" programs but was dissuaded by a family member's concerns about quality. He ultimately returned to his undergraduate home, DePaul University, where he was eligible for a 25% discounted tuition. He began his master's program in 2014.

Thus both Lori and Clark began teacher education soon after their undergraduate studies. Clark entered his program with more experience in a school setting with high school students than Lori, who seemed in part driven to teach because of her positive experiences with English as a subject matter and her desire to work with students who shared a similar cultural identity.

Findings

The findings show how the interplay of teacher preparation contexts amplified or diminished the distinctive programmatic visions of practice in these two novice teachers' learning.

Learning to Teach Through Well-Aligned Systems: Lori's Program, Classroom, and School

For Lori, the tightly organized AUSL school and classroom systems and her AUSL-sponsored mentor teacher loomed large in how she came to understand classroom life, resulting in the classroom- and school-level systems—the meso- and macro-systems—being amplified in her learning-to-teach experience. Although these well-aligned systems featured prominently for her, the DePaul program, community

context, and policy context were less salient for her learning. Furthermore, Lori's Cuban American heritage deepened her connection to the school and classroom contexts, given the predominantly Latinx student population with whom she worked.

Despite taking DePaul coursework throughout her residency year, Lori's learning-to-teach experience was dominated by AUSL's unique set of programmatic visions that permeated the school and classroom in which she taught. In AUSL's daily work with residents, this overarching mission translated into a clearly structured framework (called the "matrix") that identified a set of skills that residents were expected to practice for classroom management. The matrix outlined the scope and sequence of AUSL's monthly instructional cycles, each of which was focused on a different domain from Charlotte Danielson's (2007) framework and on a particular set of techniques from Doug Lemov's (2010/2021) book *Teach Like a Champion*. For example, during a particular 5-week block, the matrix required that all residents practice Lemov's technique of "100%," the idea that classrooms must always have 100% student compliance. Residents were assessed on these techniques.

AUSL's aim to help candidates learn and practice these specific strategies through repetition in the classroom was reinforced by site-based teacher educators, MRCs. MRCs were former teachers and mentors from AUSL's network of schools situated within AUSL's training sites who were hired and paid to support 8–10 residents (from across disciplines) placed in that school, especially around the techniques outlined in the matrix. Thus, as one MRC explained, residents might spend 5 weeks focused on "habits of discussion by using sentence stems for kids" so that "teachers figure out a way so that there's more ratio on students than there are on teachers." The MRCs coached the residents on these techniques, helping them hone their skills and emphasizing the importance of classroom management.

While coaching residents to learn classroom management strategies was one of AUSL's primary aims, the AUSL network also emphasized helping residents learn common sets of standards and a common curriculum. One MRC noted that, in addition to coaching residents on the strategies specified in the matrix, AUSL used "Engage New York" as a common curriculum across AUSL schools and sought to help residents "internalize what it looks like to do Common Core–aligned work with their students so that they can push their kids' thinking." Thus practicing Lemov techniques from the matrix, working with the AUSL Engage New York curriculum, and managing the classroom were the ways that the larger programmatic vision became actualized, embodied, and practiced by residents.

In this way, AUSL centered its preparation on the classroom- and school-level contexts, focusing on school- and classroom-level systems and on the classroom management techniques that permeated the schools AUSL operated. In essence, then, AUSL prepared teacher candidates for their own systems and schools. AUSL's ability to hire MRCs to coach residents on their enactment of Lemov's *Teach Like a Champion* techniques meant that the programmatic aims and emphases were attended to regularly. While Lori and her fellow AUSL residents engaged with

both DePaul's and AUSL's programmatic aims and emphases, the AUSL aims and emphases permeated their daily experiences in their residency schools and classrooms.

As part of the AUSL program, Lori completed her residency year at one of the network schools that AUSL operated: Caraballo High School (all school names are pseudonyms), a neighborhood high school in CPS and one of the top 20 high schools in Chicago. In 2017, Caraballo had 1,142 students, 94.1% of whom were designated as low income. The school population was 93.3% Hispanic, 5.3% Black, 0.8% White, and 0.7% multiracial/other. In 2017, the school's attendance rate was 94.1%. Student growth at Caraballo was far above average, with 60.5% of students meeting college readiness benchmarks on the PSAT9, 52.7% on the PSAT10, and 48.3% on the SAT.

Caraballo was the newest and one of the most-resourced buildings in AUSL's network of schools. It was a cheerful, sunlight- and plant-filled space constructed in 2010 that had earned notice for its energy and environmental qualities. Lori described it as a "good school" but one that was highly regulated, both for teachers and for students: "Students have to fit like this mold of obedience that you don't see anywhere else." She further explained,

> They have to have full uniform, their shirts tucked in, can't wear like anything that's not the same color of their shirt. . . . It has to have [Caraballo] on it. . . . Teachers are . . . told to tell students to "tuck in your shirt."

Lori also described her school and department as sources of support with weekly department meetings and regular communication to ensure "that each grade level knows who is teaching what so there's no overlap [and so colleagues know what they] can expect students to know as they get to tenth grade." These grade-level discussions to coordinate curriculum provided helpful guidance to Lori and the other new teacher in the department, serving as another influential layer of support for her continued development.

While Lori acknowledged that courses at DePaul provided important opportunities for learning about identity and privilege, the consequences of poverty for education, and planning for instruction, she identified her daily classroom residency experiences as the most influential aspects of her teacher preparation. The salience she attributed to her residency classroom is not surprising, given that Lori spent many teaching hours with students during her preparation year. Her required teaching experiences became lengthier throughout her residency year, working up to "lead teaching," which required her to assume full-time teaching responsibilities in the classroom, often for 4 consecutive days at a time. After successfully completing substitute teaching for a teacher on maternity leave at Caraballo at the end of her residency, Lori was one of two AUSL residents to secure a full-time position at Caraballo.

Although not a native speaker herself, because Lori grew up in a Cuban, Spanish-speaking household, she felt like she could relate to Caraballo's students,

most of whom were Mexican American. Lori frequently expressed fondness for the students in her classroom, explaining,

> They are amazing. They are hilarious. . . . And they're so smart, and that's another reason why I love teaching reading with them. . . . We can have these discussions and they come up with these amazing ideas and it's just, it's a lot of fun.

The most important contributor to Lori's learning-to-teach process was Lori's mentor teacher, Ann, a veteran, award-winning teacher at Caraballo known for her no-nonsense, demanding mentoring style. Ann was described as the "hardest mentor" among AUSL residents. Lori was excited by this, thinking, "I'm gonna learn so much and I'm gonna be the best, I can't wait. And [my MRC said], she's super hard, but she's notorious for spitting out great residents. All of her residents get jobs." Lori's experience with Ann during residency pushed her to learn, but fear was a primary motivator. Lori did not always agree with everything Ann proposed but feared the consequences of not living up to her stated standards. For example, she struggled with Ann's repeated requests to "speak louder" because she worried about sounding too harsh to her students. However, she followed through on Ann's feedback because she thought it necessary to set the tone for obedience—something about which AUSL was emphatic. Lori recalled,

> In the first couple weeks you're supposed to imitate your mentor. . . . I was having trouble with the behavioral management cycle because I was like "I can't be you. . . . I'm so scared to even be here. I can't yell at them." . . . And Ann and [the MRC] were like OK . . . have you ever had a dog or cat you've yelled at before? . . . Just think about it like that.

Despite the great deal of stress and sometimes even dissonance that she felt with Ann and AUSL around behavior management, Lori was unequivocal about their impact on her development as a teacher, especially Ann: "I probably wouldn't have learned half the things that I know now if she didn't push me so much."

Ann's influence on Lori's practice showed up consistently throughout the year and a half we observed her in her classroom at Caraballo. Lori consistently used techniques that she had been taught and on which she had been evaluated in her residency year via the "matrix," such as counting down from 10 when she wanted students to get quiet and focused and utilizing the "cold call" strategy through picking popsicle sticks with students' names. Learning to teach with Ann also gave Lori repeated exposure to expert enactment of rigorous literary and grammar instruction.

As our data reveal, Ann's influence on Lori's learning-to-teach process was not isolated; rather, it was the result of the confluence of systems in which Ann was also embedded: the AUSL matrix, the coordinated curriculum, and the school's presence within a network that operated with the same structures. Lori's enactment of the AUSL program vision emerged from these well-aligned systems.

Learning to Teach Through Isolated Systems: Clark's Program, School, and Classroom

Whereas Lori's preparation experience featured strong alignment across multiple contextual systems, for Clark, chaotic school, community, and policy contexts diminished his capacity to enact the DePaul program vision. Like Lori, he, too, was mediating these other layers of context through his own personal background, including his cultural knowledge, prior experiences, being White in a school comprising predominantly students of color, orientations toward student learning, and relational knowledge.

At DePaul—where both Lori and Clark took coursework—individual faculty had autonomy and flexibility to address the college mission in varying ways, resulting in a more diffuse program vision. For instance, some faculty highlighted Danielson's (2007) framework, whereas others centralized Fred Newmann's authentic intellectual work framework (cf. Newmann et al., 2007). Similarly, some coursework emphasized the role of structural inequalities, race, and culture in education. Although this emphasis was embedded within many courses throughout the program, it was featured especially prominently in early coursework focused on the foundations of education and schooling in society. DePaul's programmatic priorities were also intertwined with institutional obligations to meet various state-level requirements, such as the state-required Education Teacher Performance Assessment (edTPA) and the Illinois Professional Teaching Standards—obligations that AUSL was not required to meet given that its purview was limited to residents' clinical experiences.

DePaul's secondary program sequence included a two-course series of content-specific (e.g., English, social studies) methods courses that focused on instructional planning as well as broader philosophies for why and how to teach a particular content area. Within the English methods course sequence, the instructor modeled the practices he wanted his novice English teachers to enact—intellectual and pedagogical goals that included, as he put it, "engaging different perspectives" and the ability to "recognize other people's experiences." Furthermore, according to the instructor, the English methods sequence aimed for secondary English candidates to understand that "the meaning that's created within the English language arts classroom needs to . . . percolate from student experience, from what's going on in students' lives." DePaul faculty members' approach to preparation focused on both conceptual and practical ideas related to teaching and learning designed to prioritize student engagement. Although DePaul prioritized learning to teach for complex urban systems like Chicago, it elevated conceptual ideas that would equip candidates with broad understandings of the landscape of schooling in society so that they might be successful teaching in any future school.

Approximately 1.4 miles away from Caraballo was Clark's school, Vermillion. Located in the same part of Chicago as Caraballo, Vermillion is another large, neighborhood high school in CPS with demographic characteristics very similar to

Caraballo's. In 2017, Vermillion's population of 1,755 students was substantially larger than Caraballo's. The school was 89.6% Hispanic, 7.3% Black, and 2.3% White; 96.9% of students were low income. Although the 2017 attendance rate was 89.8%, the chronic truancy rate was 47%, meaning that students were absent without a valid reason for 9 or more days over the course of the school year. Only 3.6% of students met ACT college benchmarks in the four primary subject areas. Unlike Caraballo, with its bright and clean hallways, Vermillion was more characteristic of many of the aging buildings in CPS in that it was poorly maintained and overcrowded.

One of the most important contextual factors for Clark's experience at Vermillion was the inconsistency of testing, preparation, and professional development systems in place for students and teachers. Every year he was at Vermillion, the administration implemented different foci for testing and professional development. For example, one year, CPS was using the Partnership for Assessment of Readiness for College and Careers (PARCC) for assessing students; in another year, it used GearUp; and in another year, it used SAT professional development. Clark explained that these changes "really affected my classroom. . . . I had to take up class time to get on the computers, go on these websites, perform these practice problems, and things like that." As a first-year teacher, Clark described his work as comprising mostly "chasing down students and contacting parents and trying to figure out some kind of individualized reminder system for kids that you need to get this in because your grade's not doing so well. That's been exhausting." Clark's concerns about his students not turning in work were part of a larger, school-wide concern about student performance. He and the other freshman teachers were called to the principal's office, and each was asked to go through each student to see if they had a passing grade. Thus Clark's disjointed patchwork of school-level expectations complicated his ability to focus on DePaul's programmatic aims.

As part of Clark's DePaul coursework, he took part in a variety of clinical experiences throughout the program. Early in his coursework, he was placed in four different schools (three high schools and one middle school) to complete his clinical hours, most of which were observational. While he was completing observations at Vermillion High School, a vacancy for a teacher's assistant (TA) opened, and he was encouraged to apply. He was hired as a paid TA at Vermillion, which meant that he was not only observing at the school but *also* working as a TA during the week. When he was then placed at Vermillion for his 11-week student teaching experience, Clark had already spent over a year working there.

After graduating, Clark was hired at Vermillion and taught there for 1 year. Given Clark's unique experience of having worked as a TA at Vermillion and having completed his student teaching there, his first year as a teacher of record was actually his third year in the building. This afforded Clark a much deeper sense of school and community context than is typical, especially in a large, urban district like CPS. When it came to student teaching, however, Clark's history of being there

for so many consecutive semesters and in so many different roles led to ambiguity around his relationship to colleagues and his status as a novice. Throughout the interviews that took place in his student teaching semester, Clark never used the terms "cooperating teacher" or "mentor." Instead, he referred to working with his colleagues, "Jim, Stacey, and I." Although Jim was Clark's designated cooperating teacher, Clark did not mention him in a mentoring capacity once.

The lack of coherence among school-level systems and expectations that Clark experienced as he learned to teach, exacerbated by the lack of clear mentoring roles, shaped his capacity to teach effectively. While Clark tried to centralize the approaches for teaching that he valued at DePaul—having students engage different perspectives and recognize and consider other people's experiences—the multitude of systems he was required to use at Vermillion vitiated those attempts. For example, Clark was required to teach the parts of speech to his Freshman College Prep course, and to do this, he was required to use NoRedInk.com, a platform with which Vermillion had a contract. In one observation in the fall of his first year teaching, Clark directed his students to the platform and explained, "We're going to talk about something new today, you guys. We need to talk about pronouns and prepositions, the last thing we will do before parts of a sentence, which is my favorite."

While Clark was juggling the array of required platforms, such as NoRedInk.com, he was also working to enact justice-oriented teaching in his teaching. Clark and his colleagues decided to teach a unit aimed at helping freshmen develop an academic understanding of genocide based on the United Nations stages of genocide framework. To do this, Clark discussed the Holocaust, watched *Hotel Rwanda*, then had his students read the book *Tree Girl* by Ben Mikaelsen, a book about a Guatemalan girl whose village is destroyed and who joins a group of refugees seeking safety in Mexico. As a summative assessment, Clark had his students read a letter that a Syrian refugee, Laila, had written to the United Nations and then had his students compare the experiences of Gabriela ("tree girl") and Laila. These efforts at integrating DePaul's justice-oriented mission collided with the realities of the chaotic school environment and the lack of resources at Vermillion. In this lesson, for example, Clark passed out rare color copies of images of Syrian refugee camps but was not able to provide enough for every student. While passing out these images, a panic erupted at the front of the classroom. "Cockroach!" someone screamed. Clark's thoughtful lesson culminated with him locating the cockroach on the table and killing it.

Amplification and Diminishment of Programmatic Vision

How, then, do particular programmatic visions for teaching and learning become amplified or diminished? As our data suggest, DePaul and AUSL had differing abilities to control the various aspects of context that shape the work of teacher preparation and the experience of learning to teach. Lori's experience in

the AUSL program illustrates how AUSL's control over different parts of its program reinforced its vision across different systems of context in a way that DePaul could not.

On one hand, the macro-contexts in which Lori and Clark were teaching were very similar. Lori's school, Caraballo, is situated in the community of Greenwood, not far from the constant takeoffs and landings of the nearby airport. The neighborhood that surrounds the school features small, tidy homes and holds a population of about 39,000 within its borders, 91% of whom are Hispanic. More than one-third of the residents are foreign born, an indicator of the area's significant makeup of recent immigrants. Household incomes in Greenwood are well below the national average, and 42% of residents have as their highest education level a high school diploma or equivalent. This neighborhood has a distressingly high level of violent crime, with a murder rate more than 5 times the national average. Clark's school, Vermillion, is located in Westmoor, a neighborhood that borders Caraballo's and shares many similar demographic qualities. This southwest side community has a slightly smaller total population of 33,000, with 84% of the community Hispanic and roughly one-third foreign born. Education levels in this neighborhood are very similar to those of Caraballo's community, while the median income is slightly higher. The violent crime rate in this community is also high, with a murder rate almost 3 times the national average.

State and national policy contexts also played prominent roles in Clark's and Lori's preparation. During the time of our study (2016–2017), Donald Trump was elected president, and his anti-immigrant platforms particularly affected the predominantly Mexican immigrant communities in which Clark and Lori taught. Layered onto this divisive national political context were state and local budget crises that caused tremendous stress to the school systems and those who worked within them. Illinois was in a massive budget crisis and without a budget from July 2015 through August 2017, a period that spanned Lori's and Clark's teacher education and their first year of teaching. This state budget crisis had enormous impacts on state agencies. In February 2016 (Lori's and Clark's residency year and final year of teacher education), CPS made a massive, unprecedented mid-year budget cut of $85 million, followed by $46 million in cuts in February 2017. In April 2016, the Chicago Teachers Union staged a 1-day strike.

Learning to Teach in a Closed System

While these broader macro-contexts were beyond the control of either DePaul or AUSL, AUSL's unique positioning as an organization that operated its own network of schools with its own additional funding sources created a closed system in which Lori learned to teach. AUSL was able to exercise significant control over many aspects of context that shaped Lori's teaching. For instance, AUSL was largely able to provide a shared set of practices and social language around teaching across multiple systems and, in doing so, was able to insulate Lori from many outside forces. All of this was made possible by substantial funding. AUSL's ability

to control so many aspects of context created a set of overlapping contexts that reinforced a tightly coordinated and coherent set of messages. This closed system amplified Lori's capacity to enact AUSL's programmatic visions of teaching.

For example, this closed system created something of a buffer around the impacts of the community violence. While Lori clearly took in the broader community context, her attention typically focused on school and classroom spaces. It was these places that not only demanded her immediate attention but also seemed to offer a protective context for her students within their communities. Lori rarely brought up the broader community context, but when pressed to discuss what it means to work with students in underresourced communities, she focused on the structure that the school provided to support students' learning. Reflecting on the impact of community violence in her students' lives, she explained, "Who am I to say that like a kid who grows up in a neighborhood with gangs doesn't need that structure at school? . . . And maybe it makes them feel safer." Lori believed that the school's consistent protocols and practices provided a safe haven from the instability caused by community violence.

The buffering effect that this closed system provided in Lori's experience in her first year of teaching was also visible when Donald Trump was elected president. Lori referenced the strong emotions that Trump's election prompted for her largely Mexican immigrant student population. Her students conveyed a real sense of fear of deportation given Trump's explicitly anti-immigrant, and specifically anti–Mexican immigrant, platform. Lori explained that many of her students "hate Donald Trump" and that, as part of writing exercises in her class, students would write sentences using Trump such as "Donald Trump is going to exterminate all the Mexicans." These data suggest that instruction itself—through the creation of sentences about Trump—became a stabilizing anchor for students as they contended with the implications of a Trump presidency. One of the MRCs explained, "We can't control what happens outside of schools. We can't control budgets, we can't control what happens in a child's home or on the way to school. But we can control as soon as a student walks into a building." In this way, some of the AUSL structures became a buffering force that blocked out some of the noise of the outside contexts.

These insulating impacts seemed to be made possible, at least in part, by AUSL's financial independence from the district, which protected AUSL from the uncertainty experienced by other CPS teachers around the state-level budget crisis. As the AUSL website explained, AUSL programming and, specifically, its teacher residency program were supported by a combination of funds including a Teacher Quality Partnership grant from the U.S. Department of Education ($16.6 million over 5 years), more than $1 million in foundation funds, and more than $10 million from the Bill and Melinda Gates Foundation. This meant that AUSL was not only able to provide what Lori described as "amazing PD" in its network schools but was also able to pay its mentor teachers as much as 20% over their

salary, a financial capacity that could not be matched by university-based programs. Furthermore, because AUSL operated as an autonomous district-within-a-district, it had greater ability to create and reinforce its own meso- and micro-contexts, shoring up its ability to propel its vision. AUSL's coordination and focus within its network resulted in very little attention to and naming of the macro-contextual factors that shape teaching and learning outside of AUSL, such as community and state/federal contexts.

Learning to Teach in a Permeable, Open System

Whereas in Lori's case, the overlapping systems reinforced a clear and consistent programmatic vision from AUSL, in Clark's case, there was minimal reinforcement of DePaul's vision, leaving Clark with little to anchor his teaching practice. For him, the contextual systems in which his learning-to-teach process was embedded had few points of intersection, leaving the chaotic classroom, school, and policy contexts to become amplified and resulting in DePaul's programmatic influences fading into the background. Clark became exhausted by Vermillion's constantly changing systems, the outside testing companies, furloughed professional development days, and his need to develop his own classroom management systems. Furthermore, Clark's reflections about his experiences at Vermillion—which rarely mentioned a mentor teacher—suggested that his mentor teacher had limited influence in his learning-to-teach process. Absent an overlapping network of systems that could have reinforced particular ways of teaching or a mentor to help him think about explicit classroom systems, Clark's strengths of working one on one with students and his relational commitments remained unleveraged and unfocused.

For Lori, Trump's election was one of the most significant policy moments in her learning-to-teach experience, yet she was largely insulated from the most damaging impacts due to the closed system within which she was teaching. Meanwhile, for Clark, deep state budget cuts shaped his learning-to-teach experience, and the permeable system in which he was embedded could not shield him from these stressors. During the spring of his student teaching, Clark was asked about other factors that had shaped his learning-to-teach process. He cited the overwhelming budget uncertainty and the degree of precarity it caused, explaining,

> [The] strike and . . . CPS versus the union and the state versus Chicago and . . . that local effect on how I've learned about teaching. . . . It's a struggle here—a war, honestly. . . . There's always this good news and bad news coming in about whether I can get a job or whether I'm going to end up working at a restaurant come fall.

Clark not only felt like DePaul had failed to address how macro-contexts like state budgets might impact the work of teaching in public schools but also felt that DePaul's approach to teaching English failed to prepare teachers for working in underresourced and budget-crunched districts.

In the same way that Clark's open teaching system provided little buffer

between his teaching and the state financial chaos, this permeable system also allowed many community stressors to play a more prominent role in his classroom than Lori experienced. Despite very similar levels of neighborhood violence in these bordering communities, the community stressors were significantly more amplified in Clark's learning-to-teach experience. As noted, Lori understood and recognized the struggles of the community in which she taught, but her day-to-day teaching experience was firmly rooted in the relatively insulated context of her school and classroom. Clark's experience offered him less insulation. For example, on the day before Memorial Day weekend, there were chalked silhouettes on sidewalks outside the school marking victims of gun violence. Clark's awareness of the larger social context of the community impacted the way he interacted with students. Clark noted,

> Everybody's got a cousin or knows somebody with a cousin that's a gangbanger or something related to that. And, you know, even some kids' dads—they've opened up—have been involved or hurt or had to leave because they were getting away from something or, who knows?

Absent broader school structures, Clark drew on the individual relationships he had cultivated with his students to develop idiosyncratic responses to support his students' needs, especially their hardships. Clark would wish his students a "safe" weekend on Fridays, grant individual extensions on classwork, and offer lenience on student behavior because of his recognition of many students' challenging circumstances. In this way, Clark did his best to support his students within this open, permeable system that did little to support his ability to enact DePaul's vision for teaching.

Whereas in Lori's experience, AUSL was able to place its secondary residents in its own five network schools, where it concentrated its resources, teaching training, and philosophy, DePaul's influence (like many teacher education programs around the country) was limited to its own university boundaries. Any learning-to-teach contexts that fell outside its institutional purview were subject to an array of other influences. DePaul placed more than 3 times the number of secondary teachers than AUSL did and, by necessity, placed them in schools throughout the broader Chicago region, where administrators and teachers were willing to host them. With such diffuse placements and limited input into mentor selection, there was little possibility for DePaul's programmatic vision to be amplified. As a result, DePaul's constrained resources, limited ability to select and support mentor teachers, and need to rely on such a broad range of schools meant that, as an institution, it had far less control over the micro- and meso-systems than did AUSL, contributing to the permeable, disjointed system that defined Clark's learning-to-teach experience.

Discussion

Looking across the findings, then, these micro-, meso-, and macro-levels of context interacted in dynamic ways to influence novice teachers' learning and experiences. For Lori and Clark, these varying experiences with amplification and

diminishment of program visions led to divergent learning-to-teach experiences. This illustrates that teacher education programs should consider which programmatic aims are intentionally or unintentionally amplified and to what effect. In the case of Lori and the AUSL program systems, the vision of practice that was amplified centered around a narrow, specific set of classroom-level techniques that prioritized classroom management. Meanwhile, Clark's DePaul learning emphasized a vision of practice focused broadly on student engagement and consideration of the broader social contexts shaping students' experiences in classrooms. Yet, because of AUSL's tightly connected and overlapping systems, the AUSL vision gained prominence, while DePaul's was more diffuse.

Furthermore, our case points to the ways that programs might work to intentionally amplify the commitments that are most prized. In our view, this would ideally be in the service of fostering teacher learning that leads to equitable, humanizing, and more just learning opportunities for students who have been historically marginalized.

Centering Contexts in Our Programs

One implication for this research relates to rethinking how we might conceptualize, understand, and define the role of contexts in teacher education programs. Discussions of teacher education programs often do not encompass the full range of influences on teachers' learning and practice. Our findings show that learning to teach happens in multiple and intersecting contexts rather than within a linear and stable set of programmatic elements. Expanding how we think about a program to include not just coursework and field placements would help us think differently about novice teacher learning and, relatedly, the responsibility teacher education programs have to prepare novice teachers for the multiple intersecting and complex systems in which they learn to enact programmatic visions for teaching. This expansion of how we define and understand teacher education programs would also enable us to help preservice teachers identify, leverage, and make sense of the multiple intersecting contexts of their teaching.

As our findings show, context plays a powerful role in novice teachers' learning-to-teach processes; however, helping novice teachers identify, consider, and analyze the intersecting systems of context that inevitably shape their learning is neither a central nor an explicit component of teacher education programs' work. In this sense, context constitutes a sort of null curriculum (Eisner, 2001) in teacher education, shaping novice teachers' learning experiences but going largely unacknowledged as a resource for teacher learning. Teacher education programs should make analysis of the many layers of context an explicit part of curriculum so that novice teachers have deliberate and supported opportunities to consider how their work is situated in multiple intersecting and dynamic dimensions of context and to think about how those systems might shape decision-making, relationships with students, and the larger purpose of their students' learning.

The Role of Funding in the Amplification of Programmatic Visions

Although teacher education programs need to be thoughtful and intentional about their aims and underlying values and how they structure their programs around these aims, our data also highlight the central role that funding plays in enabling amplification of particular programmatic visions. As the case of AUSL's overlapping systems and amplification of practices illustrates, well-funded systems are able to amplify particular visions of teaching in ways that less-well-funded systems—like those of DePaul and most other university-based teacher education programs—simply cannot. As we discussed earlier, AUSL's ability to pay generous stipends to mentor teachers, MRCs, and residents, along with paying for tailored, school-based professional development, enabled AUSL as a program to consistently reinforce a common set of practices bolstered by shared social language and expectations around teaching and learning. Additionally, when policies allow for greater funding into particular teacher education pathways, those greater resources allow for amplification of particular program features and visions (cf. Zeichner & Pena-Sandoval, 2015).

Our findings, then, also suggest the need for teacher educators, policymakers, and funders to be critical of the landscape that enables particular teacher education pathways to become hyperresourced, while others remain underfunded. Differential funding of teacher education pathways has real consequences, enabling some programs to reinforce and support particular programmatic ideals, while others suffer from an increasing lack of investment.

Implications

The cases of Lori and Clark demonstrate how novice teachers teaching within very similar contexts—yet learning amid systems that differ in vital ways—end up with radically different outcomes. Our research on AUSL and DePaul suggests that well-aligned systems have the potential to focus teacher learning around specific visions of instruction, but it is vital to interrogate what those visions are. At the same time, as residencies continue to be held up as a promising innovation in teacher preparation (cf. Berry et al., 2008; Guha et al., 2016), we must acknowledge the variety that exists among them. By making visible the overlapping and reinforcing interplay of the contextual systems—or lack thereof—we can begin to understand how particular visions of teaching and learning become amplified and diminished and shape novice teachers' ability to enact particular practices.

Our study has several implications for practice, policy, and research. To begin, our findings about the impact of multiple intersecting sites of learning raise questions for teacher educators and their programs: What sites of learning, or features of context, are being amplified and/or diminished? Is what is being amplified intentional? What features of context are within teacher educators' locus of control? If programs make decisions to amplify certain contexts or sites of learning, how are

learning priorities set? What steps are taken to amplify particular types of learning contexts, and with what resources?

Our research also reinforces a long-standing argument about the vital role of funding in teacher education. Although some decisions about alignment and amplification do not require funding, there is an inextricable connection between certain aspects of teacher learning and the resources available to support them. As we discussed earlier, one example of this is the value of paid mentorship. Our work raises questions about how funneling money into residencies and other pathway innovations may result in powerful but short-lived, unsustainable models, while universities, which continue to prepare the majority of teachers, are increasingly starved for resources (Ellis et al., 2024). Thus policymakers need to explore how to invest more deeply and broadly in systems that can intentionally support teachers' learning toward equitable student outcomes, just as countries like Finland and Singapore have developed infrastructures that support powerful teacher learning, following models like a teaching hospital (Darling-Hammond & Darling-Hammond, 2022).

Finally, our research highlights the complicated, intersecting systems that affect teacher education. Though the use of complexity theory in teacher education is not new (Cochran-Smith et al., 2014), this study offers nuanced insights into the impact of multiple intersecting systems on novice teacher learning. This work serves as a crucial reminder for teacher education researchers as well as those who lead teacher education programs to study, design, and account for clinical placements with complexity in mind.

Acknowledgments

The authors gratefully acknowledge funding received by the Spencer Foundation, DePaul University, and the University of Nebraska–Lincoln. We are also appreciative of the study participants' time and willingness to engage with the project.

References

Berry, B., Montgomery, D., Rachel, C., Hernandez, M., Wurtzel, J., & Snyder, J. (2008). *Creating and sustaining urban teacher residencies: A new way to recruit, prepare, develop, and retain effective teachers in high-needs districts* (ED512419). ERIC. https://files.eric.ed.gov/fulltext/ED512419

Boyd, H., Grossman, P., Hammerness, K., Lankford, H., Loeb, S., Ronfeldt, M., & Wyckoff, J. (2012). Recruiting effective math teachers: Evidence from New York City. *American Educational Research Journal*, *49*(6), 1008–1047. https://doi.org/10.3102/0002831211434579

Carter Andrews, D., Brown, T., Castillo, B., Jackson, D., & Vellanki, V. (2019). Beyond damage-centered teacher education: Humanizing pedagogy for teacher educators and preservice teachers. *Teachers College Record*, *121*(6), 1–28. https://doi.org/10.1177/016146811912100605

Clarke, A., Triggs, V., & Nielson, W. (2014). Cooperating teacher participation in teacher education: A review of the literature. *Review of Educational Research*, *84*(2), 163–202. https://doi.org/10.3102/0034654313499618

Cochran-Smith, M. (2020). Teacher education for justice and equity: 40 years of advocacy. *Action in Teacher Education*, *42*(1), 49–59. https://doi.org/10.1080/01626620.2019.1702120

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*(5), 1–38. https://doi.org/10.1177/016146811411600407

Conklin, H., Gatti, L., & Matsko, K. K. (2019). Teaching toward which ends? Residency candidates navigating competing programmatic aims. In J. Brewer & C. Lubienski (Eds.), *Learning to teach in an era of privatization: Global trends in teacher preparation* (pp. 149–170). Teachers College Press.

Danielson, C. (2007). *Enhancing professional practice: A framework for teaching* (2nd ed.). Association for Supervision and Curriculum Development.

Darling-Hammond, L. (2006). *Powerful teacher education: Lessons from exemplary programs.* Jossey Bass.

Darling-Hammond, K., & Darling-Hammond, L. (with Byard, E.). (2022). *The civil rights road to deeper learning*. Learning Policy Institute. https://doi.org/10.54300/462.143

DePaul College of Education. (n.d.). *Our mission and history*. https://education.depaul.edu/about/mission-history/Pages/default.aspx

Eisner, E. (2001). *The educational imagination: On the design and evaluation of school programs.* Prentice Hall.

Ellis, V., Gatti, L., & Mansell, W. (2024). *The new political economy of teacher education: The enterprise narrative and the shadow state*. Policy Press. https://doi.org/10.1332/policypress/9781447359081.001.0001

Gadsden, V. L., & Dixon-Román, E. J. (2017). "Urban" schooling and "urban" families: The role of context and place. *Urban Education*, *52*(4), 431–459. https://doi.org/10.1177/0042085916652189

Gatti, L. (2016). *Toward a framework of resources for learning to teach: Rethinking U.S. teacher preparation*. Palgrave Macmillan. https://doi.org/10.1057/978-1-137-50145-5

Glock, S., & Kovacs, C. (2013). Educational psychology: Using insights from implicit attitude measures. *Educational Psychology Review*, *25*, 503–522. https://doi.org/10.1007/s10648-013-9241-3

Guha, R., Hyler, M. E., & Darling-Hammond, L. (2016). *The teacher residency*. Learning Policy Institute.

Guillen, L., & Zeichner, K. (2018). A university–community partnership in teacher education from the perspectives of community-based teacher educators. *Journal of Teacher Education*, *69*(2), 140–153. https://doi.org/10.1177/0022487117751133

Hammerness, K. (2006). From coherence in theory to coherence in practice. *Teachers College Record*, *108*(7), 1241–1265. https://doi.org/10.1111/j.1467-9620.2006.00692.x

Hoffman, J. V., Wetzel, M. M., Maloch, B., Greeter, E., Taylor, L., DeJulio, S., & Vlach, S. K. (2015). What can we learn from studying the coaching interactions between cooperating teachers and preservice teachers? A literature review. *Teaching and Teacher Education*, *52*, 99–112. https://doi.org/10.1016/j.tate.2015.09.004

Howey, K. R., & Zimpher, N. L. (2010). *Educational partnerships to advance clinically rich teacher preparation* (Blue Ribbon Panel Report). National Council for the Ac-

creditation of Teacher Education.

Johnson, S. M. (2007). *Finders and keepers: Helping new teachers survive and thrive in our schools*. Jossey-Bass.

Lemov, D. (2021). *Teach Like a Champion 3.0*. Jossey-Bass. (Original work published 2010)

Levine, T. H., Mitoma, G. T., Anagnostopoulos, D. M., & Roselle, R. (2023). Exploring the nature, facilitators, and challenges of program coherence in a case of teacher education program redesign using core practices. *Journal of Teacher Education*, *74*(1), 69–84. https://doi.org/10.1177/00224871221108645

Matsko, K. K., Ronfeldt, M., & Greene, H. (2022). How different are they? Comparing preparation offered by traditional, alternative, and residency pathways. *Journal of Teacher Education*, *73*(3), 225–293. https://doi.org/10.1177/00224871211015976

Matsko, K. K., Ronfeldt, M., Greene, H., Klugman, J., Reininger, M., & Brockman, S. (2020). Cooperating teacher as model and coach: What leads to student teachers' perceptions of preparedness? *Journal of Teacher Education*, *71*(1), 41–62. https://doi.org/10.1177/0022487118791992

Milner, H. R. (2015). *Rac(e)ing to class: Confronting poverty and race in schools and classrooms*. Harvard Education Press.

Milner, H. R. (2020). *Start where you are, but don't stay there: Understanding diversity, opportunity gaps, and teaching in today's classrooms* (2nd ed.). Harvard Education Press.

Nasir, N. S., Scott, J., Trujillo, T., & Hernández, L. (2016). The sociopolitical context of teaching. In D. Gitomer & C. Bell (Eds.), *Handbook of research on teaching* (5th ed., pp. 349–390). American Educational Research Association. https://doi.org/10.3102/978-0-935302-48-6_5

Newmann, F. M., King, M. B., & Carmichael, D. L. (2007). *Authentic instruction and assessment: Common standards for rigor and relevance in teaching academic subjects.* Iowa Department of Education.

Opfer, V. D., & Pedder, D. (2011). Conceptualizing teacher professional learning. *Review of Educational Research*, *81*(3), 376–407. https://doi.org/10.3102/0034654311413609

Philip, T. M., Souto-Manning, M., Anderson, L., Horn, I., Carter Andrews, D., Stillman, J., & Varghese, M. (2019). Making justice peripheral by constructing practice as "core": How the increasing prominence of core practices challenges teacher education. *Journal of Teacher Education*, *70*(3), 251–264. https://doi.org/10.1177/0022487118798324

Ronfeldt, M., & Reininger, M. (2012). More or better student teaching? *Teaching and Teacher Education*, *28*(8), 1091–1106. https://doi.org/10.1016/j.tate.2012.06.003

Santoro, D. (2018). *Demoralized: Why teachers leave the profession they love and how they can stay*. Harvard Education Press.

Sawchuk, S. (2014, October 21). Steep drops seen in teacher-prep enrollment numbers. *Education Week*. http://www.edweek.org/ew/articles/2014/10/22/09enroll.h34.html

Shah, N., & Coles, J. A. (2020). Preparing teachers to notice race in classrooms: Contextualizing the competencies of preservice teachers with antiracist inclinations. *Journal of Teacher Education*, *71*(5), 584–599. https://doi.org/10.1177/0022487119900204

Shulman, L. S. (2004). Professional development: Learning from experience. In S. Wilson (Ed.), *The wisdom of practice: Essays on teaching, learning, and learning to teach* (pp. 503–522). Jossey-Bass.

Yin, R. (2009). *Case study research: Design and methods*. SAGE.

Zeichner, K., Bowman, M., Guillen, L., & Napolitan, K. (2016). Engaging and working in solidarity with local communities in preparing the teachers of their children. *Journal*

of Teacher Education, *67*(4), 277–290. https://doi.org/10.1177/0022487116660623

Zeichner, K., & Conklin, H. G. (2008). Teacher education programs as sites for teacher preparation. In M. Cochran-Smith, S. Feiman-Nemser, & J. McIntyre (Eds.), *Handbook of research on teacher education: Enduring issues in changing contexts* (3rd ed.). Routledge.

Zeichner, K., & Pena-Sandoval, C. (2015). Venture philanthropy and teacher education policy in the U.S.: The role of the New Schools Venture Fund. *Teachers College Record*, *117*(5), 1–44. https://doi.org/10.1177/016146811511700508