Critiquing Teacher Preparation Research: An Overview of the Field, Part II

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Abstract

This is the second of a two-part article intended to offer teacher educators a cohesive overview of the sprawling and uneven field of research on teacher preparation by identifying, analyzing, and critiquing its major programs. The article discusses research on teacher preparation for the knowledge society and research on teacher preparation for diversity and equity, the second and third programs of research the authors identified through their massive review of research on initial teacher education, 2000-2012. Guided by their "Research on Teacher Preparation as Historically Situated Social Practice" theoretical/analytic framework, the authors describe the multiple clusters of studies comprising each of these programs of research and examine the social practices in which researchers engaged within one cluster selected from each. This article also suggests new directions for research on teacher education based on lacunae in the literature and on our analysis of the strengths and weaknesses of the existing field.

Researchers in many fields and in many parts of the world are now interested in studying the ways teachers are recruited, prepared and certified. They work from different, sometimes competing, perspectives regarding the goals of research and the purposes of education. This is the second of a two-part article intended to offer teacher educators a cohesive overview of the sprawling and uneven field of research on teacher preparation by identifying, analyzing, and critiquing its major programs. It is based on our massive review of research on teacher education and certification (Cochran-Smith et al., in press). Part 1, which appeared in the previous issue of *Journal of Teacher Education* (JTE), provided information about how the review was conducted, described the theoretical/analytic framework we developed to guide the review, and analyzed the research on teacher preparation accountability, effectiveness and policies—the first of three broadly construed programs of research we identified. This second part of the article discusses the second and third programs of research: research on teacher preparation for the knowledge society and research on teacher preparation for diversity and equity. Guided by our "Research on Teacher Preparation as Historically Situated Social Practice" theoretical/analytic framework, we identified the multiple subcategories or clusters of studies comprising each of these programs of research and examined the social practices in which researchers engaged within a selected cluster for each program. This article also suggests new directions for research on teacher education based on lacunae in the literature and on our analysis of the strengths and weaknesses of the existing field.

Research Program B: Teacher Preparation for the Knowledge Society

It is generally agreed that knowledge societies demand workers who can think critically, pose and solve problems, and work collaboratively—abilities not readily developed in classrooms where teaching entails transmitting factual information to learners. According to reformers, preparing students for future knowledge work requires new ways of teaching that are grounded in constructivist views of learning. The studies in Research Program B focus on preparing teacher candidates to teach in ways that are consistent with new understandings of how people learn, a trend we discussed in more detail in Part 1 of this two-part article. We identified six clusters of studies within this program of research: preparing teachers to teach subject matter, particularly science (Cluster B-1); the influence of coursework on learning to teach (Cluster B-2); the influence of fieldwork on learning to teach (Cluster B-3); teacher education program content, structures, and pedagogies (Cluster B-4); teacher educators as learners (Cluster B-5); and learning to teach

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Research Program B: Teacher Preparation for the Knowledge Society	
Cluster B-1 **Subject Matter:** **(Science)**	Studies examined teacher preparation in the subject matter area of science, particularly in terms of preparing elementary and secondary science teachers in ways consistent with contemporary science reform agendas with the broader goal of universal access to scientific literacy. • *Science for all* • *Developing multicultural science education*
Cluster B-2 **Coursework**	Studies examined the impact of opportunities provided to teacher candidates through courses, with or without field assignments, on learning to teach in ways that are consistent with the demands of knowledge societies. • *Aligning teacher candidates' beliefs and understandings with contemporary views of teaching and learning* • *Preparing teacher candidates for/with technology* • *Developing professional practice*
Cluster B-3 **Fieldwork**	Studies examined the influence of extended school-based fieldwork opportunities provided to teacher candidates for learning to teach, particularly in the context of the final practicum or student teaching. Alternatives to the traditional student teaching triad were explored. • *How tensions in the interactions between/among members of the student teaching triad shape opportunities for learning to teach* • *How alternative student teaching structures influence the learning experiences and outcomes of teacher candidates* • *How teacher candidate characteristics, school-related factors, and fieldwork features shape teacher learning and experiences during the practicum/student teaching*
Cluster B-4 **Content, Structures, and Pedagogies**	Studies offered descriptive analyses of the content, structure, and pedagogies of programs intended to prepare pre-professional teachers to teach for the knowledge society. • *Curricular and pedagogical innovations* • *School-university partnerships*
Cluster B-5 **Teacher Educators**	Studies examined the characteristics and work of teacher educators, including teacher education program-based faculty and supervisors as well as school-based teachers and mentors, with the purpose of understanding and improving practice and policy at multiple levels. • *Self studies by teacher educators about their own practice, learning, roles, and identity* • *Studies by others about the development, roles, and practices of teacher educator*
Cluster B-6 **Learning to Teach Over Time**	Studies examined the role of teacher preparation in teacher candidates' learning to teach or in their development as teachers over time, in keeping with the assumption that learning to teach is a process that begins before formal teacher preparation and continues beyond it. • *Studies about how teachers' beliefs and understandings developed over time and what supported/constrained their development* • *Studies about how teachers constructed practice over time and what supported/constrained this*

Figure 1. Research Program B.

over time (Cluster B-6). An overview of the clusters in this program of research appears in Figure 1. Given recent calls to expand the clinical practice component of teacher education programs and the large number of studies in this area, we concentrate in this article on Cluster B-3, which includes studies that examined the influence of fieldwork,

primarily student teaching, on learning to teach. Because Cluster B-3 included numerous studies, we cite selectively given space limitations.

Research Problem and Underlying Assumptions: Research Program B, Cluster 3

For some time, teacher educators have grappled with the troubling implications of the differential influence on teacher candidates of their field experiences (particularly student teaching) and their university-based preparation. Most of the studies in this cluster shared a sobering understanding of the many challenges teacher candidates experience when they try to transfer ideas learned in campus classes to their work with students in schools, particularly when those ideas run counter to standard school practices.

Broadly speaking, then, the studies in this cluster constructed the research problem as one of dissonance between universities and schools regarding educational goals, with universities generally promoting contemporary views of teaching that support constructivist views of learning while schools are typically organized in ways that promote traditional transmission teaching. For the most part, the studies in Cluster B-3 were concerned with building bridges between the "two worlds" (Feiman-Nemser & Buchmann, 1985) in which teacher candidates learn to teach. To help build such bridges, policy makers in many countries have called for increasing the amount of time teacher candidates spend in schools and beginning school-based experiences earlier (Rajuan, Beijaard, & Verloop, 2008). Although acknowledging the importance of fieldwork/clinical practice, many researchers are skeptical that spending more time in schools necessarily results in improved teacher learning (e.g., Bullough et al., 2003; Capraro, Capraro, & Helfeldt, 2010; Ronfeldt & Reininger, 2012; Tang, 2003).

For the most part, the studies in this cluster were concerned with the quality rather than the quantity of field experiences, particularly the practicum/student teaching. Many were critical of traditional student teaching arrangements. With rare exceptions, the educative field experiences depicted in these studies reflected social constructivist theories of learning to teach. That is, learning to teach was seen as a social and collaborative endeavor that occurs in a community of peers, which involves learning from and with others by exchanging ideas, articulating the reasoning behind instructional decisions, engaging in inquiry aimed at solving specific problems of practice, and reflecting on one's teaching to improve student learning.

Research Questions, Designs, and Researcher Positionality: Research Program B, Cluster 3

We found three lines of research within this cluster of studies, differentiated by their questions. The first question was as follows: "In what ways do the interactions between/among members of the student teaching triad (i.e., student teacher, school-based mentor teacher, university-based supervisor) influence teacher candidates' opportunities to learn to teach?" Largely, these studies examined how interactions within the student teaching triad shaped student teachers' learning opportunities. Across this set of studies, learning to teach in the context of the practicum was portrayed as a challenging activity, one filled with apprehension, uncertainty, and loneliness for teacher candidates (e.g., Bertone, Chaliès, Clarke, & Méard, 2006; Bullough, 2005; Bullough & Draper, 2004; Jackson, 2001; Phelan et al., 2006; Smagorinsky, Jakubiak, & Moore, 2008; Tillema, 2009; Valencia, Martin, Place, & Grossman, 2009). In general, these studies showed that persistent tensions between teacher education programs and K-12 schools spilled over into teacher candidates' experiences during fieldwork. While conflict could be overwhelming for student teachers and disruptive of their learning, a few studies emphasized that dealing with tension and negotiating differences offered student teachers opportunities for professional growth (e.g., Bertone, Méard, Euzet, Ria, & Durand, 2003; Bullough, 2005; Moussay, Flavier, Zimmermann, & Méard, 2011).

Studies in the second line of research, which was the largest and most varied of the three, asked, "What is the influence of alternative structures/approaches to the traditional student teaching model on teacher candidates' learning experiences and outcomes?" These studies explored ways of restructuring the relationships of the central parties involved in the practicum/student teaching both to improve the experience and promote teacher learning. One group of studies examined different collegial formats of learning to teach, intended to restructure the roles of student teachers and mentors and flatten the traditional hierarchy of power, making relationships between them more democratic (e.g., Bullough et al., 2002; Margerum-Leys & Marx, 2004; Nokes, Bullough, Egan, Birrell, & Hansen, 2008; Tsui & Law, 2007). A second smaller group experimented with strategies for restructuring the supervision of student teachers to create more harmonious relationships among members of the triad and more powerful opportunities for teacher learning (e.g., Alger & Kopcha, 2011; Ballantyne & Mylonas, 2001; Cartaut & Bertone, 2009; Le Cornu, 2009; Ottessen, 2007; Rodgers & Keil, 2007; Smith & Avetisian, 2011; Wilson, 2006). The third group of studies explored the influence of alternative student teaching structures by focusing on the role of information technology to help connect student teachers placed in different schools, thereby broadening their support system beyond the triad (e.g., Assaf, 2005; Hsu, 2004; Pratt, 2008).

The third question was as follows: "How do teacher candidate characteristics, school-related factors, and/or fieldwork features influence teacher candidates' outcomes in the context of the practicum/student teaching?" Most of these studies aimed to sort out the influence of teacher candidates' characteristics, background experiences, and/or professional knowledge/skills

Research Program C: Teacher Preparation for Diversity and Equity	
Cluster C-1 **Coursework and Fieldwork**	Studies examined the influence of opportunities for learning to teach diverse student populations provided to preservice teachers through individual courses and fieldwork; a few studies in this cluster tracked teacher candidates' learning over time. • *Altering beliefs* • *Developing practices*
Cluster C-2 **Teacher Diversity**	Studies examined the recruitment and preparation of a diverse teaching force, with most studies targeting people of color. These works also attended to the experiences of teacher candidates of color in predominantly White institutions. • *Recruiting candidates of color into teacher preparation* • *Experiences of candidates of color at predominantly White institutions*
Cluster C-3 **Content, Structures, and Pedagogies**	Studies offered descriptive analyses of the content, structure, and pedagogies of programs intended to prepare pre-professional teachers to teach diverse student populations.
Cluster C-4 **Teacher Educators**	Studies examined the experiences and work of university-based teacher educators for the purpose of understanding and improving the preparation of preservice teachers for diversity. • *Teacher educators inspecting their own practices to improve the preparation of teachers for diversity* • *Teacher educators examining their own experiences with/perspectives of diversity* • *Teacher educators examining other teacher educators' experiences, perceptions, and practices*

Figure 2. Research Program C.

(e.g., gender, prior experience in urban/suburban/rural settings, communication skills, interpersonal skills, subject matter knowledge, conceptions of teaching, pedagogical skills) and/or school-related factors (e.g., resources, climate, departmental culture, policies) on the outcomes of fieldwork (e.g., sense of agency, understanding of the teacher/student roles, dispositions toward collaboration, sense of self as a teacher, ability to implement collaborative learning, teaching practice; for example, Caires, Almeida, & Vieira, 2012; Graham & Roberts, 2007; Mahlios, Engstrom, Soroka, & Shaw, 2008; Ruys, Van Keer, & Aelterman, 2011; Tang, 2002; Turnbull, 2005).

While the majority of studies in Cluster B-3 were conducted within the United States, nearly 40% were from elsewhere—mostly the United Kingdom, Australia, Canada, the Netherlands, France, and Israel. Most were carried out by teacher educators in search of solutions to fieldwork problems they were grappling with at their own institutions. Most of the studies employed qualitative methodologies to explore how various interventions were carried out and how they influenced teacher candidate learning, with interviews and observations serving as primary data sources. However, studies within the third line of research also often used quantitative methods and relied on questionnaire or survey data.

Two Examples: Research Program B, Cluster 3

To illustrate the individual studies in this research cluster and the social practices in which researchers engaged, we offer two examples. The first example is a study that speaks to the potential of technology to improve teacher learning, a topic of considerable interest to teacher educators these days. The study, conducted by Sharpe et al. (2003)—teacher educators at the National Institute of Education in Singapore—is grounded in research suggesting that limitations of time and distance between university and school placement negatively influence the quality of supervisory conferences and constrain opportunities for collaborative learning. To address these problems, the research team launched a project designed to create new collaborative opportunities for student teachers within a broader community of practice. Groups of four or five student teachers from different schools along with a university supervisor (who in each case was a member of the research team) held weekly meetings facilitated by synchronous videoconferencing technology. The researchers studied the technical feasibility and pedagogical value of the technology used to achieve the project's goals. They hypothesized that the ability to "meet" virtually and synchronously would mitigate the limitations of time and distance and create opportunities for communication and collaborative learning. Data sources were student teachers' postdiscussion questionnaires and focus group discussions. Sharpe and colleagues found that, despite some technical challenges, the use of multipoint desktop videoconferencing and streaming video of student teachers' own practice during scheduled meetings gave them opportunities to engage in reflective conversations, examine their experiences,

verbalize their thinking, and clarify their points of view. We include this study as an example because it shows the power of technology to transform teacher learning by reducing student teachers' isolation in the field, expanding their access to peers and university supervisors, and providing more opportunities to engage in critical reflection and discussions about teaching.

In the second study, Smith and Avetisian (2011) set out to contrast the apprenticeship model of student teaching, in which the novice observes and imitates the expert, with the coaching model, in which the expert provides guidance designed for the individual's needs. This qualitative case study focused on one student teacher working with two cooperating teachers who used these contrasting approaches to mentoring. Data consisted of artifacts from student teaching (e.g., a teaching video, observations, and emails), semistructured interviews with the teacher candidate after the semester, and program documents. Data were analyzed to generate mentoring themes, which were then categorized as examples of "reflective coaching" or "apprenticeship" models of student teaching. One of the cooperating teachers used teaching practices supportive of constructivist views of learning with her pupils and an apprentice model of mentoring, while the other mentor was more traditional in his teaching style but supportive of the teacher candidate's attempts to experiment with constructivist practices and reflect on her experiences, positioning himself as a colearner. Although challenged by these different approaches to mentoring and teaching, the teacher candidate was able to maintain her constructivist stance in spite of push-back from the first cooperating teacher and because of the support she received from the second. This study suggests that a cooperating teacher's approach to mentoring has a greater influence than his or her teaching style on a teacher candidate's pedagogy. We chose this study as an example because the findings challenge the widely held assumption that to support the development of constructivist practices, student teachers should be paired only with cooperating teachers who use those practices. As Smith and Avetisian conclude, the focus in student teacher placements should shift from the search for expert instructional models to the development of reflective coaches.

Issues, Tensions, and Trends in Findings: Research Program B, Cluster 3

We conclude this discussion of Research Program B, Cluster 3, which focuses on the influence of fieldwork on teacher candidates' learning, with insights from our larger analysis. Since 2000, teacher education researchers have sought solutions to the persistent disconnect between the coursework and fieldwork components of university-based programs. This research has focused on school conditions known to impede student teacher learning (e.g., teacher isolation, inadequate mentoring support, disruptive triadic relationships). To remedy these problems, teacher educators/researchers

have experimented with clinical innovations that encourage student teachers to collaborate with peers and cooperating teachers, restructured supervision to make it less hierarchical and more supportive of candidate learning, and explored technology to connect student teachers from different schools and broaden their network of support beyond school- and university-based supervisors. Although more research is needed, the findings are promising. One important insight from this work involves the intricate ways different school contexts shape the learning opportunities available to teacher candidates.

As these studies and others reveal, since the early 1990s, university-based teacher education programs have promoted constructivist views of learning in their work with teacher candidates. Yet relatively little is known about how, and to what extent, teacher educators themselves actually use the constructivist views of learning they promote. The practices documented in Cluster B-3 suggest that sociocultural perspectives on teacher learning have been widely taken up by teacher education researchers. The fieldwork practices studied involved teacher candidates learning from and through their interactions, negotiations, and collaborations with peers, cooperating teachers, and university supervisors. Rejecting individualistic notions of teacher learning that place the locus of teacher knowledge within individual teacher candidates, this body of research portrays learning to teach as an inherently social activity that occurs within a community of practice (Lave & Wenger, 1991) through which candidates learn the norms of teaching. This type of preparation is consistent with the vision of schools promoted by many school reformers—learning organizations wherein teachers work together to solve problems of practice and improve student learning by engaging in ongoing inquiry and reflection.

However, for many preservice teachers, the transition from coursework to fieldwork is disheartening, as our review suggests, and the transition from student teaching to first-year teaching is equally problematic (Allen, 2009; Huberman, 1989; Veenman, 1984). The studies in this cluster reveal that novice teachers struggle with the reality of schools where policies emphasize student test scores, scripted teaching, and prescribed course content and instructional pacing and where teachers are given little support for collaboration and inquiry. Not finding the schools amenable to the views of teaching and learning they were taught and feeling pressured by school policies that contradict those views, some new teachers succumb to the traditional school culture, even if they demonstrated a constructivist stance throughout student teaching (e.g., Smith & Avetisian, 2011). To a large extent, this is the result of the divergent views of teaching and learning promoted in universities, on one hand, and those enacted in schools (and increasingly mandated by education policies), on the other hand. Research on successful efforts to disrupt this common outcome is sorely needed.

Our review also revealed the relative absence of research about the fieldwork experiences of alternatively certified

teachers in the United States. Teachers who enter the profession through alternative routes in the U.S. are placed in classrooms based largely on the assumption that their knowledge of subject matter, prior professional and life experiences, and tightly compressed preparation equips them to teach students. However, our review found very little examination of the nature or quality of their clinical preparation as teachers. Clearly, more research is needed on the nature and impact of alternatively certified teachers' preprofessional preparation for teaching and on the in-class mentoring support most states require them to receive upon assuming responsibility as teachers of record.

Research Program C: Teacher Preparation for Diversity and Equity

The third program of research in our review is rooted historically in demographic changes worldwide resulting from the mass movement of people across the world and higher birthrates for racial/ethnic minority groups, factors that have dramatically increased the enrollment of students from diverse backgrounds in elementary and secondary schools in many countries around the world. In the United States, coupled with these historical changes, recent policies related to the education of students with disabilities and English language learners (ELLs) have resulted in further diversity in enrollments in general education classes. Collectively, the studies in Research Program C illuminate how teacher preparation has responded to the changing demographics of the precollege student population since 2000. More specifically, this research is concerned with how to prepare a teaching force capable of producing equitable learning opportunities and outcomes for diverse students in the context of enduring inequalities.

We identified four major clusters of studies within this program of research. As Figure 2 shows, the clusters of research focused on (a) the influence of courses and field-based opportunities on learning to teach diverse student populations, (b) strategies for recruiting and preparing a diverse teaching force, (c) analyses of the content, structures, and pedagogies for preparing teacher candidates for diversity, and (d) analyses of teacher educator learning for/experiences with diversity. Given that most of the research in this program fell into the first category and that the studies are by far the most varied among the clusters in this program, we concentrate in this article on the first cluster, which examined the impact of opportunities for learning to teach diverse student populations offered to teacher candidates through courses and fieldwork. Because of space constrains, we cite the studies selectively.

Research Problem and Underlying Assumptions: Research Program C, Cluster 1

The studies in this cluster examined the influence of opportunities provided to teacher candidates to learn to teach

students of diverse backgrounds (e.g., students of color, urban school students, ELLs, students with disabilities, gay and lesbian students) through course and fieldwork experiences. Nearly all these studies focused on university-based programs.

Reflecting social constructivist perspectives on learning, most of these studies were based on the premise that aspiring teachers entered teacher education with firmly held beliefs about diversity and diverse learners that affected how they made sense of their preparation experiences, ultimately shaping the type of teachers they became (Cochran-Smith, Davis, & Fries, 2003; Sleeter, 2001a; Wideen, Mayer-Smith, & Moon, 1998). For the most part, these studies assumed that teacher candidates from dominant groups (i.e., White, middle class, native speakers of Standard English in the United States) held deficit views of students who differed from the mainstream, an assumption supported by numerous studies (e.g., Hollins & Guzman, 2005; Sleeter, 2001a, 2008). Thus, these studies framed helping future teachers examine and alter their views about diversity as a fundamental problem of teacher preparation.

Some studies framed the problem of learning to teach for diversity as further complicated by candidates' beliefs about the nature of society and the purposes of schools (e.g., Hyland & Heuschkel, 2010; Martin, 2005; Picower, 2009). Working from critical or conflict theory perspectives, these studies presumed that most aspiring teachers entered preparation programs believing that society was just; that schools were fair and offered all children equitable opportunities to learn; and that school students, with support from parents, were responsible for their own academic success or failure. From a critical standpoint, these beliefs about society, schools, and individual responsibility were regarded as long-standing myths that prospective teachers needed to acknowledge if they were to learn to value diversity. Many of the studies in this cluster assumed that replacing teacher candidates' deficit views about diversity with affirming or asset-oriented views was an essential step in the process of learning to teach.

Research Questions, Designs, and Researcher Positionality: Research Program C, Cluster 1

We identified two lines of research within this cluster, distinguished by their questions. The first, much more prominent than the second, which focused on altering candidates' beliefs about diversity, asked, "What coursework and fieldwork opportunities move teacher candidates away from deficit views about diversity toward affirming views?" The studies framed the development of asset-oriented beliefs in different ways—learning about others, learning about society, and learning about self. Two types of learning opportunities were studied. The first, intended to help candidates' explore their own sociocultural identities or learn about

social inequalities, included many tasks and assignments, such as writing school memoirs (Mueller & O'Connor, 2007), cultural autobiographies (Haddix, 2008), and family histories (Leonard & Leonard, 2006); analyzing critical incidents in literary works (Brindley & Laframboise, 2002); participating in games that revealed the dynamics of privilege and oppression (Souto-Manning, 2011); and discussing difficult diversity topics online (Merryfield, 2001). In the main, these studies reported positive outcomes for the learning opportunities tested. The second type of learning opportunity was experiences for candidates to explore institutional inequalities and learn about diversity by interacting directly with people of diverse backgrounds in a variety of settings. Activities included observing and assisting students in urban schools, tutoring in afterschool programs, preparing case studies, and acting as researchers within schools (e.g., Almarza, 2005; Andrews, 2009; Conner, 2010; Gazeley & Dunne, 2007; Stella, Forlin, & Lan, 2007). Other studies in this group focused on field experiences in community organizations or agencies (Adams, Bondy, & Kuhel, 2005; Cooper, 2007; Lenski, Crumpler, Stallworth, & Crawford, 2005; Moss, 2008), settings that revealed the talents of students from nonmainstream groups in ways schools customarily do not (McDonald et al., 2011; Rogers, Marshal, & Tyson, 2006). Generally, these studies indicated that candidates' developed more affirming views of diversity.

Studies in the second line of research shifted the emphasis from teacher candidates' beliefs to their practices by asking, "What coursework and fieldwork opportunities help teacher candidates develop their ability to teach diverse student populations?" There were four groups of studies here. The first examined the influence of campus-based courses on teacher candidates' skill at creating multicultural curriculum, planning instruction, reasoning pedagogically, engaging with students in difficult discussions about diversity (e.g., racism), and interacting with diverse parents (Darvin, 2011; Dotger, 2010; Kaste, 2004; Skerrett, 2010). The second studied whether teacher candidates used ideas they had explored in courses in their work with students in schools (e.g., Brock, Moore, & Parks, 2007; Mosley, 2010). The third explored the impact of doing student teaching in urban schools. Although these studies differed in scale and approach, they focused primarily on the nature of candidates' experiences, their support needs, and their levels of success (e.g., Anderson & Stillman, 2010, 2013; Buendia, 2000; Ronfeldt, 2012). The final group in this line went beyond the single course or field experience to illuminate how teacher candidates learned to teach diverse students over time (e.g., Cochran-Smith et al., 2009; Enterline, Cochran-Smith, Ludlow, & Mitescu, 2008; Jones & Enriquez, 2009; Watson, Charner-Laird, Kirkpatrick, Szczesiul, & Gordon, 2006).

Nearly all the studies in this cluster were conducted by university-based teacher educators and were published in journals specifically related to teacher education or education generally. Most researchers studied their own teaching,

although some investigated the practices of colleagues. Researchers had two main purposes—to improve their own practices (or program practices) and to advance the field's understanding of promising pedagogies for preparing teachers for diversity. Whether focused on beliefs or practice, most studies employed qualitative methodologies, with student work products (usually reflective writing) and semistructured interviews used as the main sources of data. Pretest–posttest designs and other quantitative approaches were also sometimes used to measure changes in candidates' beliefs from the beginning to the completion of a course.

Two Examples: Research Program C, Cluster 1

We selected two studies from this research cluster to illustrate the social practices in which researchers engaged. In the first study, Haddix (2008)—a teacher educator—examined the influence of learning opportunities built into a sociolinguistics course taught by a colleague at her own institution on the development of two White, Standard-English-speaking teacher candidates' understandings of themselves as linguistic and cultural beings and the implications of their linguistic and cultural identities for teaching. This study, which was conducted in the United States, assumes that to develop affirming views of diversity, preservice teachers need to understand how factors such as race, ethnicity, language, and class have influenced their own lives and have shaped their views of students who differ from themselves. Course participants unpacked dominant ideologies about language and colorblindness, learned about language variation, and read language and cultural autobiographies by contemporary authors from various backgrounds. A key course assignment asked participants to write their own language and cultural autobiographies. Based on her discourse analysis of the two primary data sources in this study—interviews with the two teacher candidates and their autobiographical narratives—Haddix concluded that from their participation in the course both had learned that the lesser-valued varieties of language in a society (e.g., African American English in the United States) are rule-governed and complex language systems and the perceived superiority of the standard variety (e.g., Standard English) is arbitrarily determined and socially constructed; however, neither teacher candidate developed an understanding about the interplay of language, identity, and power.

This study makes a strong theoretical case that to transform teaching and learning in today's culturally and linguistically diverse classrooms, White, monolingual teacher candidates—the majority of the U.S. preservice teacher population—must develop critical awareness of the privilege they derive from their membership in racially, ethnically, and linguistically dominant groups. The study also provides clear evidence that one course, even when strategically designed to affirm diverse ways of speaking and being, is insufficient to fully attain the desired goal.

In the second study, Lambe and Bones (2007) set out to determine the extent to which the attitudes toward inclusion of newly admitted candidates into a 1-year program leading to a postgraduate certificate in education in Northern Ireland changed after an early teaching practicum in a nonselective school site. The researchers, both members of the faculty at the University of Ulster (one in teacher education and the other in psychology), situated the study within the context of changing policies in the United Kingdom that call for the inclusion of students with special education needs (SEN) in mainstream classes. Two related assumptions informed this study: First, that developing favorable attitudes toward inclusive education is a necessary condition for teachers to successfully accommodate the needs of students with learning difficulties placed in mainstream classes; and, second, that quality opportunities for learning to teach students with SEN positively influence future teachers' views of inclusion. Using a pretest–posttest design, Lambe and Bones surveyed 125 candidates during the initial week in the program to determine their entering beliefs about inclusive education. Using the same instrument, the researchers surveyed 108 candidates from the initial group who had completed an 8-week practicum in a nonselective school site during which they had opportunities to observe and use inclusive teaching practices. They found that study participants had significantly more favorable beliefs about inclusive education upon completion of the practicum than at the start of the program.

We included this study here because it is one of a relatively small number of studies we located for our review that focused on the preparation of teachers for students with SEN. Interestingly, the majority of these studies were conducted outside the United States. Perhaps reflecting the influence of psychology in the field of special education, nearly all of them used a quantitative research design.

Issues, Tensions, and Trends in Findings: Research Program C, Cluster 1

We conclude this discussion of Research Program C, Cluster 1, which focuses on teacher preparation for diversity, with insights from our larger analysis. The search for powerful strategies to use in courses (with or without field experiences) for the purpose of altering teacher candidates' beliefs about diverse learners was the focus of the overwhelming majority of studies in this cluster. Overall, this research attests to the challenges of preparing White, middle-class teacher candidates to teach students whose cultural and social biographies differ markedly from their own. While many studies found that candidates came to think more complexly about diversity, there was little evidence of the profound shift in perspective that many researchers consider fundamental to becoming equity-minded/socially just teachers. In addition, few of these studies were particularly innovative. Autobiographical writing and simulations, for example, are already well established as tools for promoting teachers' understanding of diversity

(Cochran-Smith et al., 2003; Sleeter, 2001a; Villegas & Lucas, 2002). Studies that confirm the known value of particular practices add relatively little to the field's understanding of pedagogies that promote affirming views of diversity. They do, however, provide a window into teacher candidates' sense making about diversity. Although studies of school-based experiences were similarly limited, they did reveal the potential of these experiences to merge the theoretical and practical aspects of teaching when purposefully interwoven with courses (e.g., Almarza, 2005).

Of the learning options examined in this body of research, community-based experiences embedded within courses were perhaps the most innovative. Cultural immersion experiences designed to expand teacher candidates' understandings of diversity have been used in some multicultural teacher education programs since the 1970s (Sleeter, 2001a; Zeichner, 1996). Their success has been attributed to the opportunities they provide for spending extended time in settings where teacher candidates are the minority. The research in Cluster C-1 reveals that the earlier concept of cross-cultural immersion has been reconfigured as shorter, less intensive community experiences strategically connected to coupled courses (e.g., McDonald et al., 2011). Because community experiences allow teacher candidates to interact with children outside of the tightly structured academic tasks that prevail in schools, they give candidates more access to children's strengths and potential than school fieldwork does. Collectively, these studies offer evidence of the value of community-based learning, provided these experiences are conceptually linked to courses and are appropriately debriefed.

The studies in our review paid relatively more attention to developing teacher candidates' practices for teaching diverse student populations than did earlier studies (Sleeter, 2001a). The practice-oriented studies in our review contribute to the field by describing a variety of context-rich opportunities for learning to teach diverse learners. However, three quarters of the studies in our review focused on beliefs. Of course, teacher candidates' beliefs play an important role, but they must also develop a repertoire of culturally responsive/socially just teaching practices if they are going to teach diverse student populations effectively. Clearly, much more research is needed in this area.

Finally, as we noted above, most of the studies in this cluster explored course-based instructional tasks and/or course-linked field experiences. Whatever the approach, the overwhelming majority of studies was conducted in the context of a single course. Although most of these studies provided sufficient information about the course to convey the interplay of the instructional intervention examined and other learning experiences in that course, very few situated the course within the context of larger programs. As a result, the literature gives an incomplete and fragmented picture, at best, of how teacher candidates learn to teach diverse learners.

Conclusion: Charting the Field of Research on Teacher Preparation

We conclude with six points about the state of the field of research on teacher preparation. First, it is clear that many researchers around the world are now intensely interested in the systems and processes through which teachers are prepared and certified to teach. They work from multiple disciplines and have different notions about the goals of research and the purposes of education. We found that the framework of "Research on Teacher Preparation as Historically Situated Social Practice" (described in Part 1) provided a compelling way to tame and map the field in relation to the social forces that have shaped the research and the social practices in which researchers engage.

Second, we found that two relatively segregated research spaces have developed within the landscape of the research in this field, which are the result of profound differences in researchers' purposes and disciplines, the ways they position themselves as insiders or outsiders to the professional teacher education community, the larger agendas to which they align their work, and the extent of available resources and infrastructure that support their research (also see Cochran-Smith & Fries, 2005; Kennedy, 1996). One large research space is occupied primarily by researchers who are also teacher education practitioners. Their purpose is generating knowledge about how to enhance and/or critique the contexts in which candidates learn to teach. A second space, smaller but more powerful in terms of influence on policy, is occupied primarily by social scientists who study the effects of human capital policies and the personnel practices of states, school districts, and teacher preparation providers.

Third, the studies in the first large research space were overwhelmingly conducted by university teacher educators using their own courses and programs as strategic research sites. These small-scale, mostly single-site studies contribute important insights to the field by theorizing complex aspects of teacher preparation practice. However, as reviews have pointed out many times (Cochran-Smith & Zeichner, 2005; Sleeter, 2001b; Wilson, Floden, & Ferrini-Mundy, 2001), the field also needs large-scale research studies, studies that use national and other data bases, genuinely longitudinal studies, studies that use established instruments, and multi-site studies. Of course, this requires resources and infrastructure, which, with some exceptions, have not been available for research related to the practice of teacher preparation and to teacher candidate learning, unless defined in terms of labor market policy and linked directly to students' achievement. Indeed, even though 88% of those enrolled in teacher preparation programs are in college and university programs (U.S. Department of Education, 2013) and two thirds of first-time teachers enter through a college or university program (National Center for Education Information, 2011), the lion's share of federal funds for improving entry-level preparation is reserved for alternative certification programs (Zeichner & Sandoval, 2013) and urban teacher residencies (Sawchuk, 2011). These are part of a larger program of education reform based on the market principles of neoliberal economics, with which most studies about teacher preparation practice are out of sync, and thus are, to a great extent, marginalized and unfunded.

Our fourth concluding point has to do with the relative emphasis in the research on teacher candidates' beliefs and practice. There were many studies that examined whether and how teacher preparation influenced teacher candidates' beliefs, attitudes, and understandings. There were far fewer studies that investigated how preparation influenced candidates' practice, *if* one regards practice as teacher candidates learning how to do the actual tasks of teaching. It was not so clear in this research whether and how teacher candidates' beliefs and understandings enabled them to navigate the complex tasks of teaching increasingly diverse populations in the face of strong accountability pressures. We need more research that goes beyond assuming that changing teacher candidates' beliefs necessarily leads to different behaviors and actions in their classrooms. At the same time, however, we also found that there *were* many studies that investigated how teacher preparation influenced professional practice, *if* one regards practice as teacher candidates being engaged as reflective and inquiring professionals. Many studies focused on ways to help teacher candidates learn to interpret classroom life in rich, accurate, and complex ways, often by learning to analyze the data of practice. Many studies examined how candidates deliberated about appropriate practices for various situations, but these studies generally did not focus on specific teaching tasks and techniques. We now need research that links these two viewpoints about practice in new ways that are constructive and complex.

Our fifth concluding point has to do with K-12 student learning. Across the large body of research we reviewed, except for studies that investigated the impact of labor market policies on students' test scores (discussed in Part 1), relatively few studies connected aspects of teacher preparation/certification to students' learning. With a few exceptions, the studies about teacher preparation practice simply ignored school students' learning, assuming that the goal of teacher preparation is teacher learning, which is a legitimate and worthy enterprise in and of itself and is also a necessary condition for student learning. To date, with the exception of some longitudinal studies mentioned above, little of the research has empirically examined the consequences of teacher learning for student learning. This exacerbates the long perceived disconnect between universities and schools and helps to marginalize many teacher preparation studies. We propose that studies exploring the connections between teacher and student learning through research questions developed jointly by school and university educators could provide alternative ways to think about teacher and student success.

Our final concluding point has to do with relationships between research practices, on one hand, and social, economic and institutional power, on the other. There were striking differences in the degree to which studies were aligned with the

currently dominant neoliberal program of education reform, and there were major differences in the degree to which studies challenged current structures of power and privilege. Although we are speaking in very broad strokes here and there are exceptions, in general, the greater the alignment of research to the neoliberal program of education reform, the more centralized and funded the research was, and the more likely it is to inform state and/or federal policies and practices related to teacher preparation and certification. The lesser the alignment, the more marginalized and underresourced the research was, and the less likely it is to influence policy and practice outside of university programs themselves. Although many of the studies, across programs of research, were about "equity" and "access," few raised questions about who does and does not have access in the first place, why and how systems of inequality are perpetuated, under what circumstances and for whom access makes a difference, and what the role of teachers (and teacher education) is in all of this.

Relatively speaking, only a small portion of the teacher preparation studies we reviewed were fully aligned with the neoliberal reform agenda, which ultimately conserves power relations, although, as we noted, these are arguably the studies with the most influence on policy and policy makers. At the same time and in contrast, it was also true that only a relatively small portion of the studies we reviewed fundamentally challenge the current arrangements of social, economic, and institutional power. In short, the vast majority of teacher preparation studies can be thought of as occupying points within the vast "middle" area. We would argue that we need new emphases in research on teacher preparation. Many studies about policies governing the teacher labor market rightly critique university-sponsored teacher education for its failure to meet the labor needs of difficult-to-staff schools or to support teacher candidates of color. Many studies about preparing teachers for the 21st century rightly acknowledge that this must entail preparing them to work effectively with diverse student populations. Despite these and other contributions, however, most of the existing research is not sufficiently powerful to substantially challenge the material conditions and social relations that reproduce inequalities and profoundly influence teaching/learning in K-12 schools. We need much more research about aspects of teacher preparation and certification—conducted with many different kinds of research designs—that deeply acknowledges the impact of social, cultural, and institutional factors, particularly the impact of poverty, on teaching, learning, and teacher education.

Declaration of Conflicting Interests

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Ana Maria Villegas is professor of education and director of the Doctoral Program in Teacher Education and Teacher Development at Montclair State University. She has published widely on topics related to preparing culturally and linguistically responsive teachers as well as recruiting and preparing a diverse teaching force. Over the years, she has received awards for her scholarship from the American Association of Colleges for Teacher Education, American Educational Research Association, and Educational Testing Service.

Linda Abrams is a doctoral candidate in the Teacher Education and Teacher Development Program at Montclair State University. Her research focuses on school-based teacher education. Previously, she was a public high school teacher and administrator for curriculum and innovative programs.

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Rebecca Stern is a PhD candidate in curriculum and instruction at Boston College. Previously, she taught middle and high school social studies and is a National Board Certified teacher. Her research interests include teacher education, practitioner research, and school change.