



Review

Initial teacher education: What does it take to put equity at the center?



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HIGHLIGHTS

- Four tasks involved in making equity the centerpiece of initial teacher education.
- Task 1: Conceptualizing inequality/inequity and teacher education's role.
- Task 2: Defining practice for equity.
- Task 3: Creating equity-centered programs tailored to local history of inequality.
- Task 4: Researching equity-centered teacher education.

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ABSTRACT

This article addresses the question: What would it take to put equity front and center in initial teacher education? Drawing on research and innovative programming, the authors argue there are four essential tasks: conceptualizing educational inequality and the role of teacher education in challenging inequality; defining practice for equity; creating curricula and structures that are equity-centered and tailored to local patterns of inequality; and, engaging in research for local improvement and theory building about the conditions that support candidates' equity practice. The article conceptualizes each of these tasks and illustrates how they have been addressed in one context.

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1. Introduction

Scholars and practitioners in many nations agree that teacher preparation programs need to change dramatically if they are to succeed at preparing 21st century teachers who can work effectively with all students, particularly those traditionally marginalized by the education system. Sonia Nieto (2000) once argued that “placing equity front and center” (p. 180) in teacher education would require a radical transformation of goals, commitments, and arrangements. More than a decade and a half have passed since Nieto’s passionate call to action. Although there have been many important initiatives related to equity in teacher education in countries throughout the developed world, educational inequality and inequity continue to be major problems.

This article addresses the question posed in its title: What would it take to put equity front and center in initial teacher education? Our main argument, as illustrated in Fig. 1, is that in order to do this, four essential tasks must be completed: (1) conceptualizing the broad problems of educational inequality and inequity as well as conceptualizing the role of initial teacher education in challenging these problems; (2) defining the nature of “practice for equity,” based on the assumption that initial teacher education should produce teachers who enact practice that enhances equity for students traditionally not well-served by the system; (3) designing and implementing initial teacher education curricula and program structures that are equity-centered, complex, and finely-tuned to

the patterns of inequality and inequity that characterize particular local histories and contexts; and, (4) developing and executing programs of research for studying equity-centered initial teacher education with the dual purposes of continuously improving local programs, on one hand, and building theory about how, why, to what extent, and under what conditions teacher candidates learn to enact practice for equity, on the other.

This article takes up each of the four tasks in turn, conceptualizing and elaborating each in relation to the theoretical and empirical literature and offering an illustration of what it means to complete these tasks within a particular context. The relatively simple architecture of the article—four essential tasks, four major sections plus an introduction and conclusion—belies its complexity. The article is intentionally ambitious in that it aims not only to theorize teacher education and teaching practice for equity (tasks 1 and 2), but also to describe a teacher education program and a program of research concerning learning to teach for equity that are tailored to the history of inequality in one particular context (tasks 3 and 4). A central part of our argument is that despite the formidable challenges involved in writing about even one of these tasks, considering all four of them together in one document has the capacity to prompt new insights into how they are related and what it takes to put equity front and center.

The co-authors of this article are members of Project RITE (Rethinking Initial Teacher Education for Equity), a six-member, two-country research team, led by researchers at the University

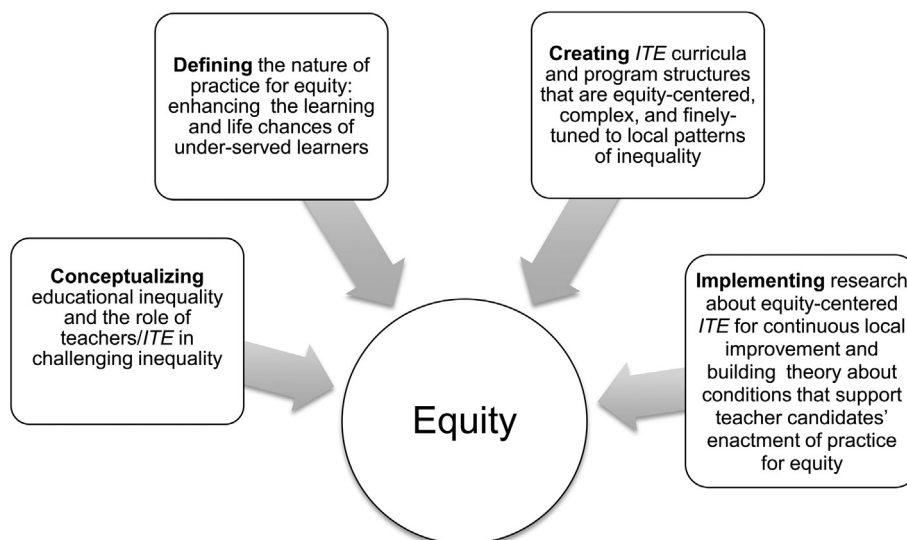


Fig. 1. Putting equity at the center of Initial Teacher Education: Four essential tasks.

of Auckland in New Zealand and Boston College in the United States. One fundamental premise underlying this project is that the ultimate goal of initial teacher education, as a values-oriented professional enterprise, is to prepare teachers who challenge inequities by enacting practice that promotes marginalized students' learning and by working with others as advocates for enhancing students' life chances. A second premise is that initial teacher education involves working across intersecting complex systems, including individuals, schools, preparation programs, and broader social systems of inequality. Based on these premises, which we elaborate below, the major object of interest of the research group is the phenomenon of teacher candidates learning to enact practice that promotes the learning of marginalized students. Ultimately our goal is to develop an explanatory theory of teachers' learning during the critical period of initial teacher education that helps us understand the complex conditions and factors that influence whether, how, and to what extent teacher candidates teach for equity.

2. Educational inequality and equity-centered initial teacher education

This section takes up task number one above. First, we frame the problem of educational inequality as a persistent and complex international issue. Then we conceptualize equity-centered initial teacher education and consider this in terms of related frameworks and research on teacher preparation.

2.1. Educational inequality as an international problem

Throughout the developed world, although some countries have much wider disparities than others (Levin, 2007), there are serious discrepancies and “gaps” between historically privileged and disadvantaged groups (Carnoy & Rothstein, 2013) in terms of educational opportunities and outcomes. These include students' academic achievement and other desired aspects of learning and schooling as well as students' life chances and their well being more generally (UNICEF Innocenti Research Centre, 2012). In particular, within the larger context of dramatically increasing income inequalities in many parts of the world, there are severe and systemic disparities in educational opportunities and outcomes for students from high and low income families (Duncan & Murnane, 2012; OECD, 2007). Although countries vary considerably in income distribution and in their proportions of children living in poverty (UNICEF Innocenti Research Centre, 2012), no country does well educationally for its children who live in poverty (Berliner, 2006; OECD, 2005; Snook & O'Neill, 2014).

In many countries there are also systemic discrepancies in educational opportunities and outcomes for: boys and girls (Hausmann, Zahidi, & Tyson, 2009); students from majority and/or dominant racial/ethnic, language, and religious groups compared with students from minority or non-dominant groups (Carter & Welner, 2013); students perceived as “able” and those with special learning needs or disabilities (Special Education Policy and Programs Branch Ministry of Education Ontario, 2009); students whose families are settled immigrants in comparison to newly-immigrated students (Arzubiaga, Noguérón, & Sullivan, 2009); and, students whose families descended from former colonizing groups, such as Western Europeans, in comparison to students from indigenous and native populations (Canadian Council on Child and Youth Advocates, 2011; McKinley, Gan, Buntting, & Jones, 2015; Nelson, Greenough, & Sage, 2009). In short and not surprisingly, the international problem of educational inequality is multi-faceted and complex, produced and reproduced within and across geopolitical spaces and reinforced by educational systems characterized by “intersecting systems” of

inequality (Crenshaw, 1989; Walby, 2007).

2.2. Equity and initial teacher education

The terms equality/inequality and equity/inequity are often used interchangeably in the teacher education literature, although as Brighouse (2014) points out, these are not straight-forward concepts philosophically or in practice, and the educational landscape in which they are embedded is constantly changing. Some discussions rely on the helpful, albeit sometimes murky, distinction that educational equality/inequality refers to differences among population groups in educational outcomes, often measured quantitatively (e.g., students achievement levels, school graduation rates, college attendance rates) while the terms equity/inequity are related not only to equality/inequality, but also to value judgments about the presence (or absence) of systematic, but remediable, differences among population groups in terms of distribution of opportunities and resource as well as experiences and outcomes. With the former, the valence of the terms is primarily about sameness (equality) or difference (inequality), while with the latter, the valence of the terms has primarily to do with fairness and justice (equity) or unfairness and injustice (inequity).

In our clarification of initial teacher education for equity, we mean to convey primarily a commitment to justice and fairness based on the assumption that in many countries, including the U.S., New Zealand, and others, educational opportunities, resources, and outcomes are unequally and unfairly distributed among groups differentiated by race/ethnicity/language, socioeconomic status, gender, and disability. Although there are teacher education initiatives in many countries that are intended to mitigate inequality and/or inequity, across these initiatives there are dramatically different assumptions about the sources of inequality and inequity and thus dramatically different ideas about where the solutions to the problem are located. Kaur (2012) made a similar point in a review of selected articles published in this journal about teaching and teacher education for equity and social justice, suggesting that ideas about equity and justice were inconsistent and shifted over time.

2.2.1. A critical sociohistorical view of equity

In their discussion of equity issues in science education, Tan and Barton (2012) offer a useful distinction between an “equity-as-equality” stance and a “sociohistorical” perspective on the equity agenda (p. 35). The equity-as-equality approach suggests that providing equal (i.e., same) access to good teachers, knowledge, curriculum, and other resources to children from poor and non-dominant groups will produce equity (i.e., justice), a perspective that is consistent with the notion of distributive justice (Cochran-Smith, 2010; Fraser & Honneth, 2003). However, it is important to note that this stance does not recognize the hegemony of Eurocentric perspectives implicit in existing curricula and school practices, nor does it acknowledge the lack of inclusion of the voices and knowledge traditions of non-dominant groups—in the first place—in the construction of “shared” school goals or in the identification of “commonly-valued” content (King, 2006; Milner, 2008). In short, the equity-as-equality stance assumes that school factors, especially teachers, are the major sources of educational inequality—and thus the solution to the problem—without acknowledging that inequality is rooted in and sustained by much larger, long-standing, and systemic societal inequities in the first place (Anyon, 2005; Gadsden, Davis, & Artiles, 2009; Young, 2011). In contrast, a sociohistorical perspective on inequity “takes on the complex system that mediates why, how, and for whom access makes a difference, and the nature of that difference” (Tan & Barton, p. 35), which is consistent with the notion of justice as

recognition (Honnet, 2003) and is related to other critical perspectives on inequity in relation to teacher education (Sleeter, 2001; Snook & O'Neill, 2014).

Our approach to conceptualizing equity-centered teacher education is in keeping with Tan and Barton's sociohistorical perspective on equity and is consistent with many other critically-oriented teacher education efforts internationally. For example, in the U.S., Australia, and some other nations, some of this work has been described in the language of teacher education for "social justice" or "equity" (e.g., Arnold, Edwards, Hooley, & Williams, 2012a, b; Athanases & Martin, 2006; Cochran-Smith, 1998, 1999; McDonald & Zeichner, 2009; Sleeter, 2001, 2008a, 2008b, 2009; Villegas & Lucas, 2002; Zeichner, 2003) or in terms specifically of issues related to race and racism (Milner, 2009; Milner & Self, 2014; Picower, 2012; Sleeter, 2004) or urban education (Anderson & Stillman, 2013). In the U.K. and Australia, there have been multiple efforts to concentrate specifically on the preparation of teachers to work with "children and youth living in poverty" (Burn, Firth, Ingram & McNicholl, 2015; Comber & Woods, 2015; Lampert & Burnett, 2015; McIntyre & Thomson, 2015; White & Murray, 2015) or to work with indigenous populations. In Scotland, Ireland, and Northern Ireland, there has been attention to the preparation of teachers to work with students with special learning needs (Florian & Rouse, 2009; Lambe & Bones, 2007). In other national and cross-national initiatives, some of the work focuses on the preparation of teachers with a "critical stance" about class and other inequities (Gore, 2001; Kosnik, Cleovoulou, Dharamshi, Menna, & Miyata, 2015; Sleeter, Montecinos, & Jimenez, 2015).¹

2.2.2. *Twin goals of teacher education for equity*

As the examples noted in Section 2.2.1 suggest, across nations there are multiple efforts to construct initial teacher education for equity aimed at the twin goals of preparing teacher candidates who have the knowledge, skill, and dispositions to enhance the learning of students historically not well served by the system and, at the same time, to recognize and challenge the intersecting systems of inequality in schools and society that reproduce inequity. Working simultaneously toward these twin goals sets equity-centered initial teacher education, in the way we are conceptualizing it here, apart from other programs or pathways that use the language of "equity" but assume that teachers and school factors are the primary source of educational inequality, and thus, the primary solution. One example along these lines is the "Teach for America" alternative route into teaching along with many of its world-wide "Teach First" and "Teach for All" spin-offs. Although there are variations by program and country, at the general policy level, these initiatives tend to identify teachers as both the primary cause and the primary solution for school inequity and often characterize poverty and other social factors as "excuses" used by teacher educators to explain away their own ineffectiveness at producing teachers who can boost student achievement despite persistent inequities. Because programs that work from these assumptions see teachers and schools as both the cause and the solution to the problem of inequity, they focus on recruiting bright young people into the schools where they are expected to learn key teaching skills, but not helped to deconstruct (and wrestle with how to challenge) the institutional arrangements and systems that reproduce inequalities

in the first place.

Conceptualizing equity-centered initial teacher education toward the twin goals above creates a subtle, but significant tension. On the one hand, teacher educators involved in equity-centered teacher education work from the deeply-held assumption that teachers play an important role in influencing the knowledge, skills, and life chances of all students, especially those traditionally not well-served by the system. On the other hand, however, these teacher educators also acknowledge that equity can never be achieved solely by increasing the access of marginalized students to good teachers. The challenge of teacher education for equity, then, is to figure out how to operate productively and constructively within this tension. How should teacher educators who acknowledge that equity cannot be achieved solely by good teachers formulate the goals of teacher preparation and understand both the potential and the limitations of their programs? How can a teacher education program, which is itself intersected by multiple systems of social inequality, help teacher candidates develop an understanding of those systems? Our view here is that the point of teacher education for equity is to see these tensions as generative and as grist for ongoing inquiry by recognizing the responsibility and moral purpose of teaching and teacher education and by embracing the possibility of human agency in creating change.

3. Teaching for equity as the goal of teacher education

This section takes up the second task identified in Section 1: defining the nature of teaching practice for equity, based on the assumption that a major outcome of initial teacher education is the preparation of teachers who enact practice that improves the learning and enhances the life chances of students traditionally not well-served by the system. In this section, we first briefly introduce the idea of teaching practice for equity by relating it to previous literature. Then, to illustrate what we mean by this task, we describe the concept of "patterns of practice for equity," which the research team developed based on an analysis of selected international research syntheses and programs of research (Grudnoff, Haigh, Hill, Cochran-Smith, Ell, & Ludlow, 2015). We are not suggesting here that our project's approach to this task is the only way to conceptualize practice for equity in teacher education; rather, as we do in the other remaining sections of this article, we are suggesting that this task must be accomplished in order to put equity at the center, and we offer our approach as an illustration.

3.1. *Effective practice/pedagogy for under-served students*

During the last two decades of the 20th century, a number of researchers in teaching, teacher education, and other fields sought to conceptualize and study the characteristics and development of practice intended explicitly to improve opportunities and outcomes for marginalized learners. This work was partly in response to larger social movements of the 1960s and 1970s related to feminism, Black liberation, the rights of indigenous peoples, and gay and lesbian rights. But the emergence of this work was also a response to previous research on teaching, particularly what is commonly known as "process-product" research (Gage, 1978; Dunkin & Biddle, 1974), which assumed there were generic teaching techniques that were uniformly effective regardless of subject matter, the cultures of schools and classrooms, and the cultural, experiential, and linguistic resources students brought to school. By the 1980s, although the general approach of process-product research on teaching continued in certain formats (Floden, 2001), it had been sharply critiqued on many grounds, and multiple alternative paradigms for research on teaching had emerged, including studies of pedagogies for particular subject matters (Shulman, 1987),

¹ We have cited here only a few selected examples of international work along these lines; see Cochran-Smith, Villegas, Abrams, Chavez-Moreno, Mills, & Stern (2016) for a synthesis of teacher education research from the U.S. and many other countries, which includes a review of more than 350 studies related to "teacher preparation for diversity and equity;" also see Anderson and Stillman (2013) for a review of 54 studies related to the contribution of student teaching to preservice teachers' development as teachers in urban and/or high-needs schools.

ecological/interpretive studies of teaching and classrooms (Delamont, 1992; Erickson, 1986), and critical studies of teaching (Britzman, 1991; Lather, 1986).

Informed by and contributing to these critiques and new paradigms, researchers in a number of places conceptualized and studied teaching practice for marginalized learners. For example, in the U.S., Gloria Ladson-Billings (1995) analyzed the practices of successful teachers of African American students, which informed her notion of “culturally relevant pedagogy,” an approach that was widely disseminated in schools and teacher education programs nationally and internationally. Along somewhat related lines, in Australia, Jennifer Gore (2001) and colleagues “reassembled” ideas from Newmann’s (1996) work on authentic pedagogy with critical perspectives about equity for all students. Their notion of “productive pedagogy” was part of larger efforts to restructure schools, teacher preparation, and teaching practice in Queensland. In New Zealand, researchers, practitioners, students, and community members worked together to develop *Te Kotahitanga*, or “culturally responsive pedagogy of relations,” a research and professional development program intended to help teachers and schools support the achievement of Māori students (Bishop, Berryman, Cavanagh, & Teddy, 2007). Other related conceptions of practice include, for example: “teaching for cultural diversity” (Zeichner, 1993; King, Hollins, Hayman & 1997), “teaching for social justice” (Cochran-Smith, 1999, 2010), “culturally responsive” and “linguistically responsive” teaching (Villegas & Lucas, 2002; Lucas & Villegas, 2011), “multi-cultural teaching” (Sleeter, 2005), “culturally sensitive teaching” (Gay, 2010), and teaching as “critical praxis” (Arnold et al., 2012b) (See also Section 2.2.1, which discusses approaches to teacher education along related lines.).

3.2. Practice for equity in teacher education

Guided by much of the work cited above, our group developed the concept of *patterns of practice for equity* grounded in a synthesis of current international empirical research about teaching practices and pedagogies that improve outcomes for marginalized learners, which we have described in detail elsewhere (Grudnoff et al., 2015). This concept then became the centerpiece of an innovative initial teacher education program at the University of Auckland. We provide a brief overview of the idea of *patterns of practice for equity* here in Section 3.2, and then in Section 4 we discuss key features of the innovative program by way of illustration.

3.2.1. Practice for equity: six facets

To identify practices and pedagogies that have a positive impact on marginalized and other learners, the Project group sought out syntheses and/or major programs of research that conceptualized teaching and learning as non-linear and drew on specified and traceable empirical evidence. We identified five key sources of research evidence from different international jurisdictions, each of which had been originally compiled for a different purpose: the “Measures of Effective Teaching” project in the U.S. (MET, 2013); three “Best Evidence Syntheses” (BES) conducted by New Zealand researchers using international research (Alton-Lee, 2003; Anthony & Walshaw, 2007; Aitken & Sinnema, 2008); the “Teaching and Learning Research Program” (TLRP) carried out over more than a decade in the U.K. (James & Pollard, 2011); the “Te Kotahitanga Effective Teaching Profile,” intended to improve outcomes for Māori students in New Zealand (Bishop et al., 2007; Bishop, Berryman, & Wearmouth, 2014); and, the work of the Center for Research on Education, Diversity, and Excellence (CREDE) in the U.S., which originally focused on effective pedagogy for Native Hawaiian and other minority students (Dalton, 2007).

Our decision to look across these research syntheses and programs, even though they are strikingly different from one another and were constructed for very different reasons, was deliberate. We reasoned that if there were similar findings about successful practice for non-dominant and other students across these diverse sources that reflected different research paradigms, countries, and levels of schooling, then the principles underlying these practices might justifiably form the foundation of an initial teacher education program with equity at the center. Using directed qualitative content analysis (Hsieh & Shannon, 2005) and an iterative process of analysis, we identified six key facets or general principles of practice that enhance learning and other outcomes for all students, particularly those traditionally not well-served by education systems. The six facets, described in detail elsewhere (Grudnoff et al., 2015), are: (1) selecting worthwhile content and designing and implementing learning opportunities aligned to valued learning outcomes; (2) connecting to students’ lives and experiences; (3) creating learning-focused, respectful, and supportive learning environments; (4) using evidence to scaffold learning and improve teaching; (5) adopting an inquiry stance and taking responsibility for professional engagement and learning; and, (6) recognizing and challenging classroom, school, and societal practices that reproduce inequity. Our effort to identify general facets of practice for equity is grounded in the overarching assumption that schools and society are structured by pervasive systems of inequality. At the same time, however, we also assume that teachers, as human agents, have the opportunity and responsibility to enact practice that generates positive outcomes for marginalized learners and to work with others on multiple levels to challenge inequities.

As noted, the six facets are general principles of practice, *not* specific strategies, actions, or behaviors. Building on these six facets, we developed the notion of “*patterns of practice for equity*,” which are consistent with the facets, but which represent particular clusters of attitudes, knowledge, and actions that are appropriate to specific contexts, content, and points in time. The concept of *patterns of practice for equity* is intended to capture three key ideas. First is the idea that “practice” is not simply what teachers do at particular points in time. Rather it also involves how they think about what they do and the values, attitudes, and interpretive perspectives they use to make sense of what happens in the classroom and the community. Second is the assumption that teaching for equity is “unforgivingly complex” (Cochran-Smith, 2003; Lamott, 1994), which means that specific teaching actions cannot be fully determined and prescribed in advance of, or outside of, particular teaching contexts. Third is the idea that despite differences in specific actions due to variations in contexts and conditions, regularities in practice can be seen over time. This means that *patterns of practice for equity* can be taught and learned in the crucible of practice through a variety of processes wherein teacher candidates and their mentors work together. Putting equity at the center of initial teacher education requires that teacher candidates learn how to construct patterns of practice that are consistent with the six general facets and are appropriate to particular content, tailored to particular local contexts and histories, linked to the culture of a particular school as well as the knowledge traditions of particular cultural communities, and embedded in the relationships of particular teachers and students.

This does not mean that every act of teaching is completely unique and improvisational, nor does it mean that every teacher must “reinvent the wheel” of teaching every time she or he teaches. But it does suggest that *patterns of practice for equity* are not the same as teaching “moves” or specific “best practices” or uniform “routines” that can be taught, learned, and evaluated outside of actual classroom contexts and school cultures and outside of

relationships with particular students and the resources they bring to school. A key distinction here between patterns of practice and other conceptions of practice is how closely we zoom in during initial teacher education and what grain size is useful for understanding and developing practice that supports equity. With the concept of *patterns of practice for equity*, the emphasis is on continuously helping teacher candidates interpret and apply the general facets of practice for equity in relation to particular clusters of attitudes, knowledge, and action that are appropriate to a specific context, subject matter, and point in time.

3.2.2. Practice for equity and “the practice turn”

In a certain sense, our interest in identifying facets of practice for equity and focusing on teacher candidates learning to construct patterns of practice for equity is consistent with “the practice turn” (Reid, 2011; Zeichner, 2012) in teacher education, also referred to as the “practicum turn” and the “practical turn,” although each of these terms has different meanings (Murray, 2016). The practice turn emerged internationally in the face of mounting claims that college and university preparation programs have failed to produce effective teachers in part because of the long-perceived gap between theory and practice. The notion of a theory–practice gap is based on the presumed failure of the university model of teacher education, which purportedly emphasizes theory, values, and beliefs at the expense of actual teaching practice, thus leaving new teachers on their own to implement or translate (university-produced) theory into (classroom-ready) practice.

As others have argued, the turn toward practice has many competing manifestations, including the markedly different notions of practice and teacher professionalism at their cores (e.g., Furlong & Lawn, 2010; Sachs, 2001; Whitty, 2008; Zeichner, 2012). Cochran-Smith (2015) has suggested that some are driven by a technical view, assuming that good teaching depends primarily on management techniques understood as explicit, highly uniform, predictable sequences of teacher behaviors. Others reflect a more complicated view, assuming that core teaching practices should be broken down into their many parts, which have highly stable and predictable relationships and that the parts should be taught and rehearsed separately and then brought back together in the act of teaching. Still others are based on a complex view, assuming that teaching is a more holistic activity that is not equal to the sum of its interacting parts, given their non-linear and not fully predictable relationships. Although all manifestations of the practice turn purportedly reject the theory–practice binary, some may actually exacerbate it by assuming that practice is inherently non-theoretical and theory is inherently non-practical (Carr, 1987). Our notion of “patterns of practice for equity” explicitly rejects the theory–practice binary by emphasizing that teachers’ understandings, actions, and commitments to improving marginalized students’ learning and their life chances are completely interwoven with one another. The assumption here is that putting equity front and center depends on teacher candidates’ learning to construct classroom routines and strategies for particular contexts but also requires broader visions (Zeichner, 2012; Zumwalt, 1989) of teaching, curriculum, learners, and equity in which those routines and strategies are couched.

4. Enacting equity-centered teacher education

Below we take up the third task laid out in Section 1: designing and implementing initial teacher education curricula and program structures that are equity-centered, complex, and finely-tuned to a local context and its history of inequality and inequity. To illustrate what it means to take up this task in a particular context, we build on the notion of practice for equity, as outlined in the previous

section, and we use the *Master of Teaching-Primary Program (MTchg Program)*, an innovative initial teacher education program sponsored by the University of Auckland in New Zealand, which puts the framework of *patterns of practice for equity* described in Section 3.2, into action. We begin with a discussion of the New Zealand and Auckland contexts to make it clear that the *MTchg Program* is one local response by teacher educators and their community and school partners to the issues and history of inequality in a particular political and policy context and at a particular point in time rather than a model of teacher education that could or should be replicated in other places. As we have argued throughout this paper, each place must fashion its own program in its own context.

4.1. The New Zealand context

New Zealand is a bicultural nation, founded by the Treaty of Waitangi in 1840 between indigenous Māori and British colonizers. Although the treaty was imperfect and led to many injustices and misunderstandings (Orange, 1987), since the 1970s, processes with significant implications for education have been put into place to address these issues and honor the treaty. The city of Auckland, where the *MTchg Program* is located, is the largest Polynesian city in the world with a high level of diversity, including Māori, Pākehā (i.e., New Zealanders of European descent), many people from Pacific Island groups, such as Samoa, Tonga, the Cook Islands and Fiji, and immigrants from Asian nations including China, Korea and India.

International educational comparisons reveal a troubling achievement gap in New Zealand: while students appear to do well overall, aggregate results mask one of the largest gaps between high and low achieving students among OECD countries (New Zealand Ministry of Education, 2011). Low income and poor students, who are often Māori and Pacific Islanders, are over-represented in the low achieving group, while Pākehā and Asians are over-represented in the high achieving group (Snook & O’Neill, 2014). Although the N.Z. Ministry of Education has a strategy for Māori Education (“Ka Hikitia”) (New Zealand Ministry of Education, 2007) and a Pasifika Education Plan (New Zealand Ministry of Education, 2012), which are making steady progress, neither Māori nor Pacific Island students currently share the success experienced by other groups (Ministry of Education, 2007; Ministry of Education, 2012). Intersecting systems of social inequality, based on income, ethnicity, and language amplify differential outcomes for these groups in comparison to their Pākehā and Asian counterparts (Boston, 2013).

In response to disappointing results on international tests such as TIMSS and PISA (OECD, 2011) and in response to its designation by OECD as a “high achievement, low equity” country (Ministry of Education, 2011; OECD, 2011), in 2013 the New Zealand Ministry of Education called for proposals for “exemplary teacher education programs” that were more intellectually demanding (i.e., used higher entrance criteria and resulted in a Masters degree) and more practice-focused (i.e., they involved rich partnerships with schools where teacher candidates worked every week during the preparation period). To be competitive for this funding, proposals for new programs were required to focus explicitly on “priority learners,” which includes Māori and Pasifika learners, learners from low socioeconomic households, learners with special needs, and English language learners. This provided an opportunity for the University of Auckland to develop the *MTchg Program*, informed by complex understandings of learning to teach and centered on equity.

4.2. The MTchg program

The *MTchg Program* is a one-year, post baccalaureate preparation

program for elementary teaching with the central goal of developing teachers who can improve the life chances of marginalized students through their practice, their ongoing stance towards teaching and schooling, and their joint advocacy work with others in schools and communities. The *MTchg Program* is taught on the University of Auckland campus, at a variety of partner schools, and in community settings. Partner schools that have elected to work closely with the university delivering the program have school populations from traditionally underserved groups, including Māori and Pasifika learners as well as learners with English as a second language and learners with special needs. Teacher candidates spend two days a week in partner schools and three days a week on campus for the majority of the program. They also spend time in indigenous community settings and have blocks of practicum in two different partner schools and two weeks of on-campus time during summer school. The partner schools are an integral part of the program, sharing responsibility for covering essential program content, rather than separate sites where student teachers go to “practice” what they have learned at the university.

Below we describe four of the key features of the *MTchg Program* that are designed to put equity at the center of initial teacher education in keeping with the tasks we have argued are essential: the use of *patterns of practice for equity* as a central organizing framework; inquiry as a pervasive and ongoing approach to learning to teach; building on the knowledge traditions of cultural communities and making strong links between the university, schools and cultural communities; and, combining traditionally separate disciplines in innovative courses that distribute responsibility for conveying key ideas related to equity across faculty and school partners.

4.2.1. Patterns of practice for equity in the *MTchg program*

The *MTchg Program* is relentlessly focused on the facets of *practice for equity* as described in Section 3.2. These facets are addressed directly in presentations and assignments in every course and fieldwork experience and are thus a primary part of the shared discourse of the program rather than an “add-on,” an optional part of the program, or relegated to one or two courses or faculty. To establish *practice for equity* as a central organizing principle of the program, all instructors were involved collaboratively in a process of radically rethinking and adjusting usual course frameworks and content. The goal was that *practice for equity* would underpin the selection of content, methods of delivery, and assessments across all courses to build program coherence, which is known to increase candidates' understanding of equity issues (Sleeter, 2001), and also to provide rich opportunities for candidates' to learn what *practice for equity* looked like across settings, subject areas, circumstances, and the local histories of communities. For example, in courses that combined classroom observations with content in new ways, teacher candidates were required to analyze and critique their classroom observations, their own teaching, and their academic readings using the six facets of *practice for equity* as organizing themes. The facets were also linked to other practicum requirements and were part of professional discussions in the schools.

4.2.2. Inquiry

While the notion of *practice for equity* shapes the content and assessment of the *MTchg Program*, the notion of “inquiry as stance” (Cochran-Smith & Lytle, 2009) shapes the processes by which teacher candidates learn to teach at the university, in partner schools, and in communities. Inquiry is developed at all levels of the program with instructors and co-operating teachers engaging in inquiry into their practice alongside the teacher candidates. From

the beginning of the program and continuing throughout, teacher candidates are encouraged to ask: “Why does this happen?” and “What is my role in this?” using evidence of student learning and evidence from their own and others' research. The inquiry stance that pervades the program culminates in individual teacher inquiries conducted alongside cooperating teachers during the final block of practicum. Rather than being confined to a single course, however, teacher candidates' inquiries evolve through campus-based and school-based learning opportunities. For example, over three courses the teacher candidates develop their ability to teach mathematics and literacy. Drawing on observations, their own reflections, and evidence of student learning, candidates select an inquiry focus for the final practicum placement. They are required to justify this focus in terms of their students' learning needs, their own strengths and needs as teachers, and relevant research literature, including theory and research related to the patterns of practice for equity. They need to show how practice has changed in response to evidence of priority students' learning from their first cycle of inquiry. It is important to note here that the inquiry project is not separate from the practicum nor is it regarded as “an assignment.” Rather the inquiry project is an instantiation of the inquiry stance that is promoted throughout the program.

4.2.3. Making links to communities

To fully realize the power of *practice for equity*, teacher candidates connect with the communities that make up the schools in which they work. For many teacher candidates in New Zealand this involves working with people who have very different backgrounds from their own. This work demands an open mind, an inquiry stance, and an awareness of one's own cultural positioning as well as knowledge of how assumptions about others shapes teaching practice. The *MTchg Program* begins with a cultural immersion experience that connects teacher candidates to the indigenous Māori community, including their knowledge traditions, language, and world views. Teacher candidates stay for several days and nights on a marae, which is a traditional meeting place of great significance in Māori culture. Through this experience teacher candidates begin a journey of new cultural understandings, which is extended through further marae visits as well as experiences with the Māori, Pasifika, Asian, and Pākehā families served by the schools in which they are placed. Establishing relationships with families and caregivers over their six month placements in each of two schools is critical to the teacher candidates' learning. In addition, in an arts course, which combines music with dance, drama, and visual arts, teacher candidates explore the role of the arts in local communities by attending, helping with, and critically commenting on community arts events. Different ways of knowing are explicitly valued and explored in many courses.

4.2.4. Transdisciplinary teaching

As Sections 4.2.1 and 4.2.3 suggest, in order to focus teacher candidates' attention on equity and on the teacher's role in promoting positive outcomes for marginalized learners, the traditional disciplinary areas of elementary school teaching (and of initial teacher education) were combined in new ways to create innovative courses in the *MTchg Program*. Some areas were placed with allied disciplines (e.g., music, art, dance and drama; science and technology) and others were taught in less obvious pairings (e.g., literacy and numeracy). By removing traditional boundaries and placing different content areas in juxtaposition with each other, patterns of practice for equity became clearer and more relevant. In many teacher education programs, learning about content selection or assessment occurs within single content area courses one at a time, which may result in teacher candidates' not recognizing the powerful synergies between resources and approaches belonging

to different content areas. Teacher candidates in the *MTchg Program* were able to given opportunities to look across two or more content areas and recognize the underlying principles. For example in three courses spread across the program, mathematics and literacy were integrated. The mathematics/literacy courses focused on practice for equity and in particular on the consequences of instructional choices for equity. A common practice in New Zealand schools is to group children by ability when teaching literacy and mathematics. This practice is increasingly being critiqued because ability groups are treated differentially with separate content determined by distinctly different expectations about students' capacity to make progress (Rubie-Davies, 2014). Making explicit connections between literacy and mathematics teaching and learning by thinking about the discourses of ability/disability and by questioning whose knowledge is valued in both disciplinary areas creates powerful new opportunities for the teacher candidates.

As we have shown, the *MTchg Program* is an illustration of how one group of teacher educators at one university worked to accomplish the third essential task involved in putting equity at the center of initial teacher education. Working closely with school and community partners, this teacher educator group created curricula and program structures centered around the notion of practice for equity (analyzed in detail in Section 3), but finely-tuned to the patterns of inequity in the local Auckland and larger New Zealand policy and political contexts.

5. Studying equity-centered initial teacher education: an illustration

This section takes up the final task we have argued is necessary to put equity front and center in initial teacher education: developing and executing a program of research with the dual purposes of improving local program content and structures, on one hand, and gradually building theory about how teacher candidates learn to teach for equity, on the other. In this section as in the previous sections, we use the work of our Project RITE group to illustrate one approach to developing a program of research around equity issues in teacher education. Below we very briefly outline both the theoretical framework we utilized to study teacher candidates' learning to teach for equity (Section 5.1) and the kinds of questions we are currently addressing through a portfolio of interrelated empirical studies (Section 5.2).

5.1. A theoretical framework for studying equity-centered initial teacher education

The Project RITE group aimed to work from a theoretical framework for research on initial teacher education for equity that would be rich and complex enough to account for: the multiple contexts and conditions of local teacher education program arrangements as well as larger policy and political contexts, the range and variation of teacher candidates' backgrounds and experiences, the diversity of school cultures, and the varying perspectives of teachers, students, and families in local schools and communities, especially the resources and needs of marginalized students. Our framework was initially inspired by Opfer and Pedder (2011), who argued that professional development for teachers is often ineffective because it concentrates on specific processes in isolation and is driven by an underlying process-product logic that fails to acknowledge that teachers' learning is deeply embedded in their professional lives and in the working conditions of schools. Opfer and Pedder proposed that instead of simplifying, researchers should conceptualize teachers' professional learning in terms of complex overlapping systems with the goal of developing explanatory theories based on patterns of interaction within and between

levels of activity.

Building on Opfer and Pedder (2011) and other work, the Project RITE group took up a theoretical framework for researching teacher education for equity, which we labeled "CT-CR" because it integrates key ideas from complexity theory applied to education (Davis & Sumara, 1997, 2006, 2007; Haggis, 2008; Mason, 2008; Morrison, 2008; Smitherman Pratt, 2011; Waks, 2011) with work in sociology that has linked complexity theory with critical realism (Byrne, 1998, 2001; Byrne & Callaghan, 2014; Reed & Harvey, 1992; Walby, 2007). Our CT-CR framework is intended to account for the complexity of teaching, learning, schooling (Davis & Sumara, 2006), and inequality (Walby, 2007), and at the same time, afford examination of how the "causal" or "generative" mechanisms of teacher learning occur under varying conditions and within differing contexts (Byrne & Callaghan, 2014). This theoretical framework, which we have elaborated elsewhere (Cochran-Smith, Ell, Ludlow, Grudnoff, & Aitken, 2014; Cochran-Smith, Ell, Ludlow, Grudnoff, Haigh, & Hill, 2014), is challenging to work with in part because it combines two multifaceted theories, both of which use unfamiliar language and concepts, and in part because it does not lead to a straight-forward or obvious set of methodological tools. Despite these challenges, we have found that the framework prompts important questions and powerful perspectives for understanding teacher education for equity, which have the potential to generate new insights and rich theoretical explanations about teachers' learning. Along the same lines, we have concluded that difficulties and challenges are inevitable in the utilization of any theoretical framework that is sufficiently complex for guiding research on preparing teachers for equity, which is among the most daunting tasks in contemporary teacher education world-wide.

5.2. Researching equity-centered teacher education

Guided by the CT-CR framework and using the *MTchg Program* as a strategic research site, the empirical studies in our research portfolio ask two kinds of closely-interrelated questions about learning to teach for equity. The first set of questions is designed to explore *what actually happens* in terms of the emergence of candidates' equity-related understandings and patterns of practice, given the initial conditions of the *MTchg Program*, wherein inquiry is central, practice is the focus, and the overarching goal is preparing teacher candidates to work for equity. The second set of questions is designed to explore *how things happen* in the program. In linking complexity theory with critical realism, Byrne and Callaghan (Byrne, 1998, 2001; Byrne & Callaghan, 2014) make a very important distinction between these two kinds of questions, pointing out that questions in the first group zero in on "how things are" in a particular context with a particular set of initial conditions and constraints operating. Answers to these questions are essential. However, as Byrne and Callaghan rightly argue, answers to questions of the second type, which move beyond analyzing "how things are" and instead aim to explain "how things work," are critical if we are interested in the potential of human agency to change the way things are, which is the *sine qua non* of equity-centered teacher education.

5.2.1. 'How things are' in equity-centered teacher education

A first step in empirical studies about "how things are" in equity-centered teacher preparation is deep description and analysis of the initial conditions and enabling constraints (Davis & Sumara, 2006) of particular initial teacher education programs as they are embedded in, shaped by, and played out in local contexts. As noted, the *MTchg Program* deliberately juxtaposes ideas and subject matters not traditionally connected in initial teacher education programs with multiple field experiences that vary

considerably in terms of student populations, communities, resources, and curricula, with all of these organized around the idea of supporting the enactment of patterns of practice for equity. Drawing on program materials, course syllabi and other documents, teacher candidates' written work, school-community-university communications, school observations of teacher candidates, and interviews with key participants, the empirical studies in our portfolio are analyzing the program in terms of the three complementary pairs of "conditions for emergence," identified by complexity theorists, Davis and Sumara (2006), who have written extensively about complexity theory and teacher education. These are: diversity and redundancy, decentralized control and neighbor interactions, and sources of coherence and disruption. Building on detailed analyses of these conditions for emergence, the studies in our portfolio are also asking questions about the range and variation of understandings and patterns of practice that actually emerge among teacher candidate groups understood as knowledge-generating communities. That is, using data sources such as those listed above, we are exploring the knowledge, understandings, ideas, and questions about teaching, learning, schooling, inequality, poverty, and opportunity that actually emerge across groups of teacher candidates. We are also documenting and analyzing the range and variation of patterns of practice for equity that emerge in relation to particular teacher candidates and their university and school mentors, subject areas, and school and community settings.

What we are learning from studies that ask questions of this first kind is that there are differences in the understandings and patterns of practice that emerge within and across groups of teacher candidates, depending on: the nature of the coursework and experience that unfolds at different school sites; co-evolving relationships among teacher candidates, mentor teachers, and university faculty; density, mode and frequency of communication between and among participants and the interdependency of their roles; ways of dealing with uncertainty and unexpected events; and expectations and goals for the program. We also see differences in the emergence of understandings and patterns of practices across teacher candidates in terms of their previous experiences related to teaching and diversity as well as other aspects of their personal/teaching identities and their own biographies and the ways these are intermingled within learning communities.

5.2.2. 'How things work' in equity-centered teacher education

As noted, our second set of questions, which builds on the first, is intended to address not simply how things are in a local program, but also how things work. A key idea here is that identifying multiple, complex, and contingent "causes" depends on deep understandings of local initial conditions, sequences, and transformative events, linked to larger understandings of processes and outcomes at various intersecting systems levels. Drawing on many of the data sources above plus new research instruments that capture levels of enactment of practice for equity, we are seeking to identify the causal mechanisms, conditions, and contingencies that seem to explain why variations occur over time and across teacher candidate groups and school settings.

In keeping with our theoretical framework, we assume that relationships are critical and non-linear, dynamics are unpredictable, and interdependencies exist across the boundaries and levels of complex systems (Anderson, Crabtree, Steele, & McDaniel, 2005). Thus we are trying to identify and theorize the interrelationships, flows, and exchanges involved in how teacher candidates learn to teach for equity. Across the studies, the aim is to trace the emergence of ideas and actions indicative of patterns of practice for equity over time and across the various structures and arrangements of the program. By looking across courses, assignments, and

school sites, we are tracing relationships between ideas and learning opportunities and exploring the links that are created among the different parts of the program. Eventually this will provide a networked map, showing how key ideas and actions appear, how they develop, how and to what extent they are applied in differing contexts, and the conditions that occasion their emergence, development, and use. We are particularly interested in trying to account for both "multifinality," which involves different outcomes and understandings that emerge from what appear to be similar conditions and contexts, and "equifinality," which involves similar outcomes and understandings that emerge from what appear to be very different conditions and contexts (George & Bennett, 2005).

It is important to note that although a central purpose of our studies is to generate local knowledge to improve the *MTchg Program* itself, the point is not to develop a "model" of initial teacher education for replication. In fact, narrow notions of replication are inconsistent with the assumption that initial teacher education is complex, characterized by co-evolving relationships with local school and community partners, and focused on emergent rather than predetermined and prescribed outcomes (Byrne & Callaghan, 2014). In addition to providing evidence to inform program decisions, then, the larger point of the empirical studies is to build out from local findings to develop theories (rather than models) that are more broadly applicable.

The research group is currently engaged in studies that ask both types of questions described above. In doing so, we are exploring whether and how the CT-CR framework can contribute to the development in teacher education of what Byrne (1998) has called an "engaged science," *not* founded in "the assertion of an absolute knowledge as the basis for social programs, but rather in a humility about the complexity of the world coupled with a hopeful belief in the potential of human beings for doing something about it" (p. 45).

6. Putting equity front and center

Educational inequality and inequity are critical problems in many countries throughout the world, although the size and shape of the problem vary from country to country. This article offers guidelines for conceptualizing and acting on the formidable challenges involved in putting equity front and center in initial teacher education by concentrating on four major tasks. Although these four tasks are broadly applicable across programs, they are far from generic, and there are no generic ways to accomplish them. Rather accomplishing the tasks is shaped by myriad intersecting conditions and contexts, including policy contexts at multiple levels from global to national to institutional to school/teacher, the complex politics and power relations that play out at all these levels, the patterns of inequality and inequity that are part of particular local histories and contexts, and the emergent characteristics of knowledge-generating communities that are made up of multiple university, school, and community partners.

Given the complex factors that shape the conditions and contexts of initial teacher education, it should be clear that putting equity front and center demands variation and continuous change over time. This point about teacher education for equity is parallel to our ideas in Section 3 about teaching practice for equity. As we argued, the *facets* of practice we identified as appropriate for all students, including in particular those marginalized by the system, emerged from and can be applied generally across subject areas, school levels, and circumstances. However the enactment of *patterns* of practice for equity, which is our central aim for teacher candidates, must be understood as specific responses to and embedded within the concrete particularities of subject matters, learners, classroom and school cultures, and communities. The

same is true with initial teacher education programs and pathways that put equity at the center. We believe that the four tasks we have identified and elaborated in this article can be helpful in thinking about how to position equity at the center of teacher education programs across many countries and contexts. However, the ways those four tasks are accomplished are not universal or generic; they are shaped by institutional resources and goals, local and larger policies and politics, particular histories and patterns of inequality, and the values and priorities of teacher candidates, teacher educators, and school/community partners.

In closing, we comment on our framework for putting equity at the center of initial teacher education in light of international and global policy and political trends regarding teacher quality. As many others have pointed out (Apple, 2005; Ball, 2003; Brennan & Willis, 2008; Spring, 2011), neoliberal ideologies and market-based approaches now dominate educational reform initiatives in many places throughout the world. Even though some of these initiatives use the language of “equity,” underlying that language is an economic conception of reality. This defines many debates about initial teacher education in terms of effectiveness, efficiency, and accountability, which are assumed to come about as the result of close monitoring and surveillance of teachers and teacher education programs. This approach stands in sharp contrast to approaches that focus instead on responsiveness, morality, and responsibility, which are assumed to be the result of teachers' and teacher educators' professionalism and their continuous efforts to improve the learning and life chances of their students. The dominant neoliberal educational discourse makes efforts to put equity at the center of initial teacher education all the more difficult and all the more imperative.

In many ways, then, efforts to put equity front in initial teacher education are daunting. They depend on nuanced and complex understandings that equity can not be achieved by teachers and teacher educators alone. Rather policy makers and the public must acknowledge and address the fact that multiple factors—in addition to teacher quality—influence student outcomes, including in particular the impact of poverty, family and community resources, school organizations and supports, and policies that govern housing, health care, jobs, and early childhood services. Most importantly perhaps is the need to define equity and justice in ways that include both access to opportunities and positive outcomes, on one hand, and critique and challenges to the intersecting systems that produce and reproduce inequity and injustice, on the other. For this to happen, we need teacher educators and the teachers they prepare who understand that part of their work is to join others in local, national and international social movements aimed at changing systems not just at the individual level but also at larger levels.

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