Teacher Preparation For Quality Teaching

Etta R. Hollins[1]

Abstract

In this article, the author presents a holistic practice-based approach, consisting of two parts, to preparing candidates for quality teaching. The first part describes the essential knowledge, skills, and habits of mind for quality teaching. The emphasis is on understanding the learning process as influenced by the cultural and experiential background of particular learners and the philosophical stance through which the purpose of school learning is appropriated. The philosophical stance influences the design of learning experiences, the framing of the curriculum, and the social context in classrooms. The second part describes the design of opportunities for leaning to teach with an emphasis on epistemic practices and program qualities. In this discussion, at the core, the practices in teacher preparation are a mirror image of practices for quality teaching in PK-12 schools. The standards of evidence for integrity and trustworthiness are the same in teacher preparation and in PK-12 schools.

Keywords

teacher preparation, learning to teach, quality teaching

Teaching is a complex and multidimensional process that requires deep knowledge and understanding in a wide range of areas and the ability to synthesize, integrate, and apply this knowledge in different situations, under varying conditions, and with a wide diversity of groups and individuals. In quality teaching, this knowledge is applied in ways that provide equitable access and opportunities that build upon and extend what learners already know in facilitating the ability to acquire, construct, and create new knowledge. Access to quality teaching is unequally distributed among public schools in different contexts and that serve different populations of students. The percentage of students underserved and who underperform across the nation increases as student diversity increases (Zhou, 2003).

Over the past two decades there has been a great deal of focus on reform in teacher preparation aimed at improving learning outcomes for students in PK-12 schools. The discussions and recommendations for reform have presented different perspectives on the process of learning to teach, the knowledge base for teaching, and the routines and practices of classroom teaching. The present discussion presents a perspective on a holistic practice-based process for learning to teach that is at the core a mirror image of the practice of quality teaching in PK-12 schools. This holistic practice-based approach integrates academic knowledge of theory, pedagogy, and curriculum across experiences in authentic contexts that are embedded in focused inquiry, directed observation, and guided practice. In this approach, candidates learn to use academic knowledge to interpret and translate knowledge from their observations in classrooms and communities into pedagogical practices that meet the standards of integrity and trustworthiness for accomplishing the desired outcomes for particular learners (see Figure 1).

Conventional preservice teacher preparation programs have been criticized for being too often characterized by fragmentation, weak pedagogy, and a lack of articulation among courses and between courses and field experiences, as well as for the absence of a set of organizing themes, shared standards, and clear goals (Feiman-Nemser, 2001; Zeichner, 2006). The standards set in the program accreditation process have been helpful, but this has not alleviated these problems; nor has the emergence of alternative routes to teacher certification and licensure (Zeichner, 2006). It is important for teacher preparation programs to meet the minimum standards set by the National Council for the Accreditation of Teacher Education, but more is needed to prepare candidates for quality teaching. There needs to be a clearly delineated process for learning to teach and a standard for quality teaching, both of which are incorporated into the holistic practice-based approach that is the subject of this discussion.

This holistic practice-based approach for learning to teach subsumes the standards set by professional organizations such as the National Council for the Accreditation of Teacher Education (NCATE), Interstate New Teacher Assessment

[1]University of Missouri–Kansas City, MO, USA

Corresponding Author:
Etta R. Hollins, University of Missouri–Kansas City, School of Education, 5100 Rockholl Road, Kansas City, MO 64110-2499
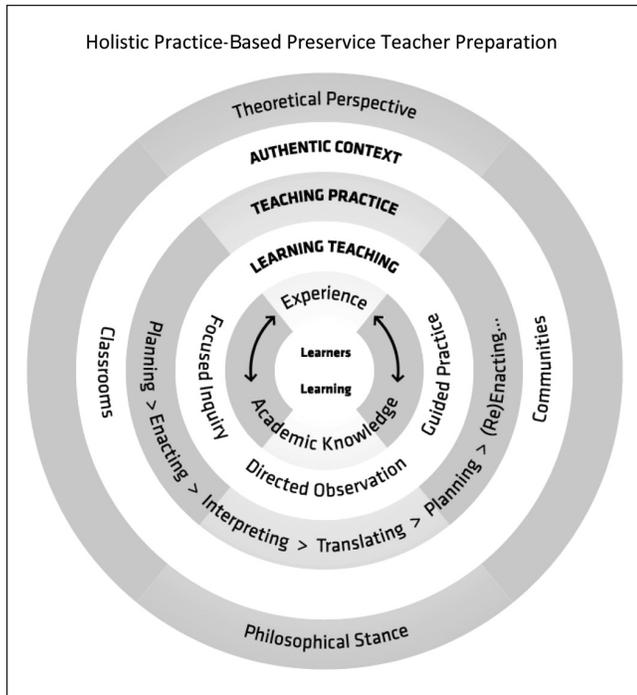Email: hollinse@umkc.edu

Figure 1. Learning to teach integrates academic knowledge and experience for teaching practice in an authentic context guided by a theoretical perspective and a philosophical stance

and Support Consortium (INTASC), and the National Board for Professional Teaching Standards (NBPTS); and the work of many scholars including Cochran-Smith and Zeichner (2005), Darling-Hammond (2006), Darling-Hammond and Bransford (2005), Feiman-Nemser (2001), Villegas and Lucas (2002), and Weiner (2006). NCATE and INTASC have provided the standards for determining the quality of existing preservice teacher preparation, whereas NBPTS has sought to raise the standards for professional practice through advanced certification. These and other researchers and scholars have identified the central tasks of teacher preparation, essential knowledge and dispositions for beginning teachers, promising programs and practices for preservice teacher preparation, and recommendations for improving preservice teacher preparation.

The central tasks for teaching have been delineated in different ways. For example, Grossman et al. (2009), based on an examination of learning across three professions, identified

> three key concepts for understanding the pedagogies of practice in professional education: representations, decomposition, and approximations of practice. Representations of practice comprise the different ways that practice is represented in professional education and what these various representations make visible to novices. Decomposition of practice involves breaking down practice into its constituent parts for

the purposes of teaching and learning. Approximations of practice refer to opportunities to engage in practices that are more or less proximal to the practices of a profession. (pp. 2055-2056)

The emphasis in this discussion was on making "visible the grammar of practice to novices" (p. 2069). The grammar of practice is viewed in relationship to clearly identified components of practice. In applying this metaphor to the present discussion of a holistic practice-based approach to teacher preparation, the grammar of practice is the *process of planning, enacting, interpreting, translating, planning, and (re)enacting*. The focus in this practice-based approach is on the relationship between characteristics of the learner, the learning process, pedagogy, and learning outcomes. In this holistic perspective, the processes of representation, decomposition, and approximation can be employed in the epistemic practices of focused inquiry, directed observation, and guided practice to help candidates understand the anatomy of pedagogical practice.

Ball and Forzani (2009) presented a proposal for reform in teacher education similar to that of Grossman et al. (2009):

> Redesigned around practice, the teacher education curriculum would include at its core opportunities to learn to perform a repertoire of teaching tasks and to choose among them with deliberate attention to pupils, as well as opportunities to acquire content and foundational knowledge centrally important to the work of teaching. (p. 507)

Ball and Forzani, as well as Grossman et al., acknowledged the difficulty in deconstructing practice for the purpose of learning to teach and reconstructing practice for facilitating learning in classrooms. This concern is addressed in the present proposal through the processes of focused inquiry, directed observation, and guided practice. In these processes candidates learn about and observe a wide range of teaching practices and approaches with a focus on students' characteristics and responses, the theoretical perspective driving the particular practices, and, ultimately, develop and experiment with enacting a short sequence of learning experiences under the guidance of faculty and experienced teachers.

Lampert and Graziani (2009) presented a proposal for reform in teacher education that is more directly focused on learning a particular set of instructional activities than was included in the proposals by Grossman et al. (2009) or Ball and Forzani (2009). Lampert and Graziani argued that

> by identifying a spare but comprehensive set of essential instructional activities for doing ambitious teaching and focusing teacher education on these activities, we could make it be about the work of teaching and prepare novices to accomplish ambitious learning goals. We could also begin to address two enduring

problems of professional education: The lack of a common technical vocabulary for defining the work of teaching and the generation of practices and programmatic features that would improve teacher education. (p. 494)

Instead of a focus on learning a set of essential instructional activities for quality teaching as proposed by Grossman et al. and Lampert and Graziani, in the present proposal, candidates learn procedures for developing pedagogical practices that meet the standards of integrity and trustworthiness for particular populations of students. However, a carefully selected set of essential instructional activities can be used to teach the anatomy of pedagogical practices using the processes of representation, decomposition, and approximation described by Grossman et al.

The discussion of the proposed practice-based approach to learning to teach is presented in two parts. The first part includes the organizing ideas and discursive practices for teaching referred to as essential knowledge, skills, and understandings for quality teaching. The organizing ideas for teaching include knowledge of learners, learning, subject matter, pedagogy, accountability and assessment, and the discursive practices in a professional community. This discussion addresses in broad strokes what candidates need to know, how understanding might be framed, and why a particular organizing idea is important. The second part includes the epistemic practices and program qualities that support learning to teach. The epistemic practices include focused inquiry, directed observation, and guided practice. The program qualities that support learning to teach include collaboration, coherence, continuity, consistency, integrity, and trustworthiness.

Essential Knowledge, Skills, and Understanding

The essential knowledge, skills, and understanding for quality teaching include (a) knowledge of human growth and development and individual and group differences that when combined with specific knowledge of particular learners—such as their background experiences, what they know and how they make sense of what they know, and what they value, how and why—inform the design of learning experiences and the specific ways in which learning is facilitated; (b) deep understanding of the learning process that combines findings from the new learning sciences with a clearly delineated theoretical perspective on learning as a framework for classroom practices and the assessment of learning; (c) deep understanding of the organizing ideas for a discipline; domain-specific reasoning and practices; the processes for participating in a disciplinary-based discourse community; and how to connect disciplinary knowledge and practices to the everyday experiences of learners from diverse cultural, linguistic, and experiential backgrounds; (d) an understanding

of pedagogy as a clearly designed and interrelated pattern of learning experiences embedded within a particular theoretical perspective and guided by a clearly articulated philosophical stance that provides vision and purpose for long- and short-term learning outcomes; (e) an understanding of how to identify and develop appropriate classroom assessment approaches for evaluating learners' progress in relationship to discipline-specific knowledge and practice and how to manage the demands of standards-based curriculum and assessment; and (f) an ability to maintain a strong professional identity, engage in self-directed professional growth and development, recognize characteristics and qualities of professional communities in different contexts, and work collaboratively with colleagues within a professional community to improve learning outcomes.

Knowledge of Learners

Perhaps the most important aspect of teaching and learning is how well the teacher knows the learner. Teachers need to know learners as individuals; as members of social and cultural groups; as learners with particular characteristics; and as learners at a particular point in their academic, emotional, psychological, and social development. The specific ways of facilitating and scaffolding learning depend on our understanding of the learning process and knowledge of the background experiences, perceptions, and values of the particular learners. Findings from the new learning sciences emphasize the idea that existing understandings form the basis for new learning (National Research Council, 2005). This finding illuminates the importance of the teacher's knowledge of the learner's background experiences and prior knowledge.

The emphasis on knowledge of learners and on linking subject matter to learners' prior knowledge exists in many preservice teacher preparation programs. However, practice in the direct application of this principle is not always integrated across courses and field experiences due in part to fragmentation in the program (Feiman-Nemser, 2001; Zeichner, 2006). In a holistic practice-based approach, academic knowledge of theory and research is used in making interpretations and translations of learners' knowledge for developing appropriate pedagogical practices and creating supportive social situations for learning. For example, academic knowledge of human cognitive development helps teachers make sense of what children know and can do at particular points in their development, informs observations of children's understanding and perception in different situations, and increases the teacher's ability to employ developmentally appropriate learning experiences to build upon and extend what children already know and can do (Kitchener, 1986; Kohlberg, 1968; Parke & Gauvain, 2009; Piaget, 1953; Vygotsky, 1986; Wertsch, 1985).

Academic knowledge of the psychological and social development of children related to such factors as personal identity, self-confidence, and relationships with peers and

adults forms a basis for making sense of how children behave and respond in social situations, their levels of comfortableness with experiences that are new and different, and their ability to learn in various situations. Understanding the psychological and social development of children informs ways in which teachers interpret and translate behaviors and responses under certain conditions to develop approaches that support children in developing emotionally and socially (Carver & Scheir, 2000; Erikson, 1963, 1968; Kohlberg, 1966; Kohlberg & Hersh, 1977).

The growth and development of a child occurs within an immediate cultural and social context of family and community. It is within this context that learning is first initiated for children and children first learn to develop relationships with others. Here, children develop the initial mental frames, mental processes, and experiences for formal learning. The extent to which teachers are able to build upon and extend these experiences and habits of mind will influence the success children will have with formal learning (Bornstein, 1995; Cole, 1995; Jordan, 2010; Stinson, 2006).

The child develops within a larger system that includes the immediate context where the child lives and those with whom the child interacts regularly; the relationship across different contexts with which the child has regular interaction; social settings outside the child's immediate context with which there is not regular or direct interaction, but which influence the immediate context; and environmental events that impact the child or the system within which the child interacts (Bronfenbrenner, 1979, 1986; O'Connor, Hill, & Robinson, 2009; Santrock, 2007). This system is composed of social, political, and power arrangements among groups based on race and social status that influence access and opportunities in the society, including opportunities for learning (Delgado & Stefancic, 2001; Freire, 1970; Kozol, 1991; Spring, 2009; Williamson, Rhodes, & Dunson, 2007). This knowledge forms the basis for understanding differences in experiences among individuals and groups and places differences in perspectives, practices, and values within a larger context. Access and opportunities for learning outside of school inform the development of meaningful experiences within school that build upon and extend what children already know and value to develop new knowledge and understanding. This is especially important for underserved students and students with special needs (Alper & Ryndak, 1992; Moser, 2006).

Knowledge of individual learners is based on a composite of knowledge about human growth and development and the system into which the individual has been socialized, specific knowledge of the immediate context into which the individual has been socialized including culture and community, and personal knowledge of the individual gained through conversation and observation. The composite of general knowledge and specific knowledge provides the background for making sense of conversations and observations about individual learners. Providing meaningful and productive learning experiences for particular individuals and groups requires deep knowledge of their prior learning experiences, their experiences outside of school, their values and interests, what they already know and how they make sense of what they know (Bornstein, 1995; Jordan, 2010; Lee, 2002; Nasir, Hand, & Taylor, 2008; Stinson, 2006).

Knowledge of Learning

Supporting learners in developing academic skills, deep content knowledge, and discipline-specific practices requires deep knowledge of the learning process, especially theoretical perspectives on learning. Particular theoretical perspectives are supported by discipline-specific professional organizations such as the National Science Teachers Association and the National Council of Teachers of Mathematics and have been incorporated into textbooks and other instructional materials for PK-12 classrooms. Deep knowledge of the learning process includes the ability to identify the basic principles and tenets of particular perspectives, to recognize different perspectives in practice, and to use different perspectives in planning learning experiences and the social context for learning and in solving learning and instructional problems. It is important to understand how specific pedagogical approaches and social arrangements for learning are associated with particular theoretical perspectives on learning, and that learning experiences are more powerful when organizing ideas are integrated across subject matter over time where there is coherence, consistency, and continuity in the application of a theoretical perspective (Peterson, Clark, & Dickson, 1990).

There are researchers and scholars in the field of educational psychology who question the appropriateness, value, and usefulness in applying theoretical perspectives on learning to pedagogical practices in PK-12 classrooms (Richardson, 2003), whereas others are concerned with how knowledge from educational psychology might be incorporated into teacher preparation to support candidates' understanding of how to facilitate learning and development for elementary and secondary students (Peterson et al., 1990). However, there are exemplary schools that follow the John Dewey tradition of inquiry and constructivism that incorporate knowledge of child and adolescent growth and development in facilitating learning and development for elementary and secondary students. These exemplary schools include the University of California, Los Angeles' Corrine A. Seeds University Elementary School, founded in 1882; Bank Street School for Children, founded in 1916; the University of Chicago Laboratory School, founded in 1896; and the Francis W. Parker School, founded in 1901. These schools have nearly a century-old practice of translating constructivist principles and knowledge of child growth and development into pedagogical practice for facilitating learning and social and emotional development. Visits to these schools over the past three years provided opportunities for me to

observe in classrooms from preschool through high school and to talk with teachers, counselors, and administrators at each school. Additionally, I sat with teachers during collaborative planning at the Bank Street School for Children and talked with teacher educators at Bank Street College.

At these schools, during their collaborative planning time, teachers talked about how particular students were progressing academically, intellectually, psychologically, and socially. The teachers talked about ways to intervene to support students they felt needed guidance or additional opportunities for growth in one area or another. They talked about the students as a collective group in terms of the general effectiveness of the curriculum and pedagogy. Teachers talked about ways to make changes in their project-based pedagogy to help students construct deeper understanding of principles, concepts, and ideas. Teaching practices and talk about the constructivist perspective on learning, pedagogy, and child growth and development were seamless.

At Bank Street College, teacher educators talked about their work with candidates in much the same way that teachers in the School for Children talked about facilitating learning for their students and administrators talked about facilitating professional growth for novice teachers. Teacher educators applied the same constructivist perspective in their work with candidates as was practiced in the School for Children. Candidates were provided carefully planned and purposefully designed opportunities for observing and interacting with children. Notes from these observations and interactions were the subject of collaborative dialogue among candidates and faculty that fueled further investigation and helped all participants construct a more powerful understanding of the academic, intellectual, psychological, and social development of children, as well as how to facilitate their growth.

These schools that have followed the John Dewey tradition of constructivism and inquiry provide models of exemplary practice in supporting growth and development for children and adolescents and surpass regular public schools in achieving academic excellence on standardized tests, although scoring high on standardized tests is not the goal. The children and adolescents in these schools develop a depth of knowledge and skill that is not often found in regular public schools. The curriculum and pedagogical practices in these schools are not test- or data-driven but, rather, are guided by the constructivist theoretical perspective on learning and an understanding of child and adolescent growth and development. The practices in the Bank Street College teacher preparation program are a mirror image of those in the School for Children. These exemplars are important because the traditions and practices have endured over time with consistent and predictable outcomes.

Knowledge of Subject Matter

Over the past two decades, there have been changes in conceptualizations of the subject matter knowledge that teachers need to facilitate disciplinary learning for their students. There are multiple reasons for these changes including consideration of research and theory from the new learning sciences, emphasis on culture and social justice, differences in values and perceptions, school reform efforts, and technology. These and other factors that influence what subject matter knowledge is valued and should be learned by students in elementary and secondary schools are dynamic and interrelated.

The learning sciences research and literature have emphasized domain-specific reasoning and practices that are situated in ongoing activity where learning is influenced by experiences, as well as the ways in which experiences are sequenced and mediated (Duschl, 2008). This means moving from a focus on conceptual learning towards a balanced focus on learning that is conceptual, epistemic, and social where students learn conceptual structures within a discipline, cognitive processes for reasoning, frameworks for developing and evaluating knowledge, social processes and context for communicating knowledge, and the formats for doing so. In essence, students learn the practices within a discipline concerning how theories, models, and arguments are constructed and the social processes for participating in a disciplinary-based discourse community. These practices are prevalent in science and mathematics (Duschl, 2008; Ford & Foreman, 2006; Moje, 2007; Nasir et al., 2008) but are often mediated by other values and practices in social studies (Don, 2003; Sperling & Dipardo, 2008; VanSledright, 2008).

In the social sciences, including American and world literature, in addition to preparation in the nature and development of knowledge in the particular discipline, candidates need to be knowledgeable about the influence of perspectives, purposes, and values on the curriculum content in elementary and secondary schools (Don, 2003; Moje, 2007; Sperling & Dipardo, 2008; VanSledright, 2008). For example, VanSledright (2008) described the purpose of United States history as

> the story of freedom and progress that animates the U.S. history textbooks and is oft repeated in history classrooms is, without a doubt, a schematic narrative template, functioning as a powerful cultural tool complete with identity markers. To know it, believe it to be true, and to be able to repeat it with conviction function as declarations of a speaker's Americanness. Without it one remains a cultural outsider. (p. 123)

This Americanization and acculturation process carried out through the social studies is believed to be a way to develop a national identity, to ensure national unity and a commitment to the founding principles of the United States. This central purpose for teaching the social studies in elementary and secondary schools has not traditionally incorporated the disciplinary practices in history and the other social sciences. Teacher candidates will need to balance the traditional

purposes for social studies education, the need for identity development of students from diverse cultural and experiential backgrounds, and teaching students domain-specific practices for constructing and evaluating knowledge and processes and formats for communicating (Don, 2003; Thornton, 2001; VanSledright, 2008).

In providing access to domain-specific knowledge and practices for students from diverse cultural, linguistic, and experiential backgrounds, candidates need to understand how students' everyday language differs from the academic language of a particular discipline in multiple ways including structure and conventions, the nature of concepts, the particular qualities of the information presented, and how ideas are presented and represented (Lee, 2002; Moje, 2007; Nasir et al., 2008). Candidates need to be able to use their understanding of students' language and everyday experiences to scaffold the learning of domain-specific knowledge and practices, including how to make observations and conduct investigations, how to integrate information across multiple sources, and how to present and represent findings from their investigations using the discursive practices of the discipline.

Knowledge of Pedagogy

In this discussion, pedagogy refers to a clearly designed and interrelated pattern of learning experiences embedded within a particular theoretical perspective and guided by a clearly articulated philosophical stance that provides vision and purpose for long- and short-term learning outcomes. In this perspective, teaching strategies are based on the developmental needs of the learner with the intent of facilitating learning and personal development that will result in achieving the immediate learning outcomes and contributing to the best quality of life possible for the learner, and that enable the learner to contribute to improving life conditions in the larger society. Philosophical perspective refers to the vision and purpose for education and its relationship to conditions in the larger society and how it benefits individuals and groups. In practice, a philosophical stance is the conscious thought process through which a deliberately constructed system of beliefs is operationalized.

The central purpose for the deliberately constructed philosophical stance is to develop deep personal meaning, a sense of responsibility, and a commitment to developing teaching practices that contribute to academic and social growth and awareness of students as part of a collective effort to improve the quality of life in society in a particular way. Teaching with a deep sense of personal meaning and responsibility fosters a sense of connectedness with those being taught that might not otherwise exist in situations where the teacher and the students are from different cultural or experiential backgrounds. This connectedness is supported through the everyday classroom practices where a well-integrated theoretical perspective and a clearly articulated

philosophical stance are combined to develop powerful pedagogy that supports the expected academic and social learning outcomes. For example, combining a philosophical stance on social justice with a deep understanding of constructivist inquiry practices can inform the design of inquiry projects that involve students in learning about inequities in the society and potential remedies. This type of learning experience can address discipline-specific knowledge and practices in social studies and other areas of the curriculum while promoting an understanding of social problems.

An important reason for this emphasis on a clearly articulated philosophical stance is that there is an expanding body of research indicating that many candidates in teacher preparation programs have been socialized into an ideology of power and privilege that justifies inequitable treatment of those outside of their own cultural group on the basis that others are deficient, do not measure up to expectations, and are not deserving of equitable treatment (Hollins, 2011). This socialization process begins and is reinforced in early childhood and continues through adulthood with the support of a network of groups and individuals who subscribe to this ideology, and it is incorporated into the educational process in the curriculum and school practices from kindergarten through graduate school (Hollins, 2011). This ideology of power and privilege influences candidates' willingness to learn to construct instructional approaches that support learning for underserved students (Rodriguez, 1999; Southerland & Gess-Newsome, 1999) and their willingness to teach students from diverse cultural and experiential backgrounds (Hollins & Torres Guzman, 2005). Social discourse among individuals within a network with a shared perspective is an important factor in maintaining and perpetuating the ideology of power and privilege. This was evident in research on candidates assigned to cohorts (Bullough, Clark, Wentworth, & Hansen, 2001; Ohana, 2004; Radencich et al., 1998).

Hollins (2011) proposed an approach to changing the social discourse in learning to teach using an inquiry approach during field experiences that engages faculty, cooperating teachers, and candidates in shared observations, collaboration, and problem solving employing a particular theoretical perspective on learning. This approach was intended to focus attention on the relationship between learner characteristics, learning, pedagogical practices, and learning outcomes that would lead candidates to understand the power of their own practice in facilitating student learning. The present discussion builds upon and extends this inquiry approach to include metacognitive engagement through a focus on constructing a substantive philosophy of teaching based on the study of philosophy as a way of establishing a vision and purpose for teaching practices and learning outcomes.

There is a great deal of research on the influence of teacher beliefs on the process of learning to teach (Hollins & Torres Guzman, 2005). The research on changing candidates' beliefs

during preservice teacher preparation shows mixed results, and there is very little research that follows candidates into the first few years of practice (Hollins & Torres Guzman, 2005). Furthermore, there is very limited research on how or the extent to which candidates develop a substantive philosophical perspective on the work of teaching and how this influences the quality of their work with students from diverse experiential backgrounds. This aspect of the proposal for practice-based teacher preparation is based on a constructivist perspective, and it is an invitation for further research.

The supposition is that providing candidates with the opportunity to develop a deep understanding of a few carefully selected philosophical perspectives that have been explicitly applied to the curriculum and pedagogical practices, and that have directly incorporated a theoretical perspective on learning, encourages metacognitive engagement with their own philosophical stance on their work as teachers. This type of metacognitive engagement encourages candidates to develop a more holistic perspective on the meaning, purpose, process, and content of their practice as teachers. This encourages candidates to think deeply about their reasons for teaching and the commitment and social responsibility assumed by classroom teachers, as well as to develop a purpose that directs their work as teachers. Examples of philosophical perspectives that are particularly relevant for preservice teachers include progressivism associated with Francis Parker and John Dewey, social reconstructionism associated with multicultural education, critical theory, critical pedagogy, feminist and womanist pedagogy, and other perspectives on education as a vehicle for valuing difference, diversity, and social justice. In this process, candidates are encouraged to explore the relationship between assuming a philosophical perspective on the purpose of public education and the motivation for adopting particular pedagogical practices.

Knowledge of Accountability and Assessment

Integrity and trustworthiness are two essential elements of high-quality teaching. Integrity exists in the appropriateness of the pedagogical practices for particular learners and the strength of the theoretical perspective and philosophical stance in which practices are located. This means that the organizing ideas of the discipline are the focus of subject matter knowledge, the core learning experiences incorporate the discipline-specific practices, a clearly delineated theoretical perspective on learning guides the design of learning experiences, and a well-articulated philosophical stance gives purpose to teaching and learning. Under these conditions, trustworthiness exists when learners consistently achieve the expected learning outcomes. Quality teaching is maintained through accountability for the integrity and trustworthiness of pedagogical practices based on evidence from assessments of students' progress in relationship to expected learning outcomes. In cases where students do not accomplish

the expected learning outcomes, the teacher assumes responsibility for making adjustments in practices based on evidence from appropriate assessments of students' performance (Southerland, Smith, Sowell, & Kittleson, 2007).

Meaningful assessments provide evidence that learners are able to (a) make meaningful connections between their everyday experiences and discipline-specific knowledge and practices, (b) link organizing ideas across disciplines and make applications in new and novel situations, (c) engage in discipline-specific practices of inquiry and determine the legitimacy of particular claims and evidence, and (d) communicate and represent ideas using the discursive practices of the discipline (Duschl, 2008; Ford & Forman, 2006; Gipps, 1999; Jordan, 2010; Lee, 2002; Moje, 2007). The purpose of this type of assessment is to ensure that students develop deep understandings of discipline-specific knowledge and practices, that students can apply what they know in different situations, and that teachers have important information on which to base interventions for supporting the correction of misconceptions and misunderstandings. Candidates need to be able to identify and develop appropriate approaches to assessment that will provide the evidence necessary to determine the integrity and trustworthiness of their everyday classroom practices and that will allow their students to make consistent progress in meeting expected learning outcomes (Graue & Johnson, 2011).

The mandates for accountability and assessment at the state and school district level in the present context of standards-based, data-driven, and scripted curriculum with pacing guides is different from that associated with the development of deep discipline-specific knowledge and practices. The present school reform effort initiated by No Child Left Behind (NCLB) passed by the United States Congress and signed into law in 2001 was aimed at improving student performance and increasing equity for traditionally underserved students. This new mandate required that states receiving federal funding establish an accountability system with annual testing in mathematics and reading. Most states responded by developing curriculum content standards and a system of standardized testing where schools are held accountable for students' performance on standardized tests. Schools that fail to meet expectations are subject to negative consequences such as loss of funding, reorganization, and loss of enrollment due to a transfer option for students at consistently low-performing schools (Thomas & Brady, 2005).

Many scholars, researchers, and practitioners agree that public education in the United States is in dire need of reform as evidenced by the general underperformance of students in particular areas and the inequities in access to high-quality schooling based on race and social class. However, the reforms based on NCLB pose new challenges. In describing the changes in school practices in response to NCLB, Southerland et al. (2007) referenced Cuban's (1988) first-order/second order change. Here first-order change refers to "small alterations of or additions to existing practices"

(p. 46). Most of the changes in school and classroom practice in response to NCLB have been first-order changes based on an additive or transmission view of learning with an emphasis on drill and practice for rote memorization of facts and details that can be easily evaluated by standardized tests. In second-order change, learning is viewed as cognitive restructuring where existing understandings are altered to construct new knowledge. Second-order classroom practices engage learners in active participation in substantive, inquiry-based discipline-specific knowledge and practice that involve interpreting, analyzing, reasoning, and communicating, leading to deep knowledge and understanding of facts, principles, and theories (Gipps, 1999; Southerland et al., 2007). This type of learning is more accurately evaluated by interactive approaches such as essays, portfolios, tasks, and projects (Gipps, 1999).

A study conducted by Sandholtz, Ogawa, and Scribner (2004) provides one example of the unintended impact of local standards-based reform on curriculum and instruction. These researchers found that curriculum and instruction were impacted in three ways: "curriculum restriction, instruction aimed at different standards, and limited instructional strategies" (p. 1188). At the elementary level, the local district's benchmark and criterion reference tests included only mathematics and language arts. Teachers reported spending 70% to 100% of their time on these subjects with a focus on minimal standards to ensure raising the performance of the least academically skilled students. Instructional practices focused on basic skills represented in the standards using drill and practice as the primary approach. At the high school level, "teachers tend to emphasize different standards, depending on the academic ability and level of students in their classes" (p. 1191). Students in advanced placement classes received instruction aimed at higher standards than those in regular or remedial classes. Otherwise, teaching practices at the high school level were less affected than at the elementary level. The findings in this study are consistent with the findings and concerns of other researchers and scholars (Gipps, 1999; Sleeter & Stillman, 2005; Southerland et al., 2007).

The challenges posed by the present standards-based reform require that candidates are prepared to maintain and continue to develop their understanding of how to facilitate and assess deep discipline-specific knowledge and students' ability to engage in the discursive practices in particular disciplines. This could mean locating curriculum content standards within the organizing ideas and practices for the particular discipline under consideration and making sure that students can apply their knowledge in different situations and under a variety of conditions.

Ability to Participate in a Professional Community

Professional communities of practice provide a naturalistic cultural context for socialization into the profession and for teacher professional development. The process of socialization into a community of practice occurs through the regular informal discourse among teachers with or without a formal induction program. During this process, new teachers learn the culturally accepted norms of behavior, practices, and thought associated with the community of practice in which they are participants. This socialization process shapes the future practice of many novice teachers.

The nature and power of the culture and discourse in teachers' communities has been documented through research for more than two decades. In two classic studies, Anyon (1980) and Page (1987), it was found that teachers as a community adjusted their practices based on their perception of the students' social class status at both the elementary and high school levels. In these two studies, where teachers perceived their students as working-class, they provided work that was routine with few options and rarely explained assignments, concepts, or ideas of the subject matter being studied. More meaningful assignments were provided in schools for middle-class and affluent students. These researchers concluded that working-class students were being prepared to take on low-level jobs, while the middle-class and affluent students were being prepared for leadership roles in the society. In a more recent study, Abbate-Vaughn (2004) found three distinct teacher ideologies that governed practices among three groups of teachers in a large urban high school. None of these ideologies provided the support necessary for the students to accomplish the expected learning outcomes. However, Hollins (2006) reported that when teachers as a community were able to transform their deficit ideology through working collaboratively to construct knowledge of the relationship between learner characteristics, pedagogical practices, and learning outcomes, teachers were better able to facilitate learning for their students and to support learning for novice teachers.

The process of learning to work collaboratively in a teacher community begins in preservice teacher preparation programs where candidates are organized into cohorts. Radencich et al. (1998) found serious weaknesses in cohorts including the formation of cliques, negative and sometimes vicious treatment of those perceived as outsiders, and pressure to conform to group norms. Bullough et al. (2001) found that cohorts provided emotional support but little support for candidates' professional growth.

Studies that revealed the power and influence of the ideology in teachers' professional communities and those with troublesome findings for preservice cohorts suggest the need for deliberate and thoughtful preparation of candidates for participating in professional communities. Participation in a professional community requires that candidates be well prepared, knowledgeable, and capable of engaging in professional discourse with experienced and novice colleagues as part of their own development of knowledge in practice. The benefits of participating in a professional community are enhanced by a strong professional identity and the ability to

engage in self-directed professional growth and development, to recognize characteristics and qualities of professional communities in different contexts, and to work collaboratively with colleagues to improve learning outcomes for students.

The Design of Practice-Based Teacher Preparation

Learning to teach is a complex and multidimensional process that depends on the ability to synthesize, integrate, and apply knowledge from multiple sources in constructing an understanding of how to facilitate learning in complex dynamic contexts with a multiplicity of aspects that require attention and action. The challenge for teacher educators is to provide opportunities for candidates to learn the professional discourse and practices and the conditions of engagement and enactment in ways that facilitate learning in PK-12 schools with diverse students. A part of the challenge is identifying and describing the professional discourse, practices, and the conditions of engagement and enactment that candidates should learn. This is especially difficult given the contextual and interpretive nature of teaching (Steele, 2005). What I mean by this is that how learners respond to a particular learning experience depends on who they are, their prior knowledge and learning experiences, the social context in the classroom and other factors, as well as how the teacher interprets and responds to all of the factors that influence learning. How one learns to engage in this interpretive process is at the heart of teacher educators' work in providing opportunities for learning to teach. In the previous part of this discussion, emphasis was placed on learning theory and teacher philosophy as superordinate in the interpretive process for classroom teaching. This discussion presents the internal aspects of a practice-based design for preservice teacher preparation as the context for learning to engage in this interpretive process.

Epistemic Practices

Practice-based teacher preparation in this discussion refers to the discursive processes, reasoning, and actions taken in interpreting and translating the experiences and responses of learners in authentic situations within and outside of classrooms as a way to construct understanding of the substantive relationship between learners, learning, pedagogy, and learning outcomes. The opportunities for learning in this type of practice-based approach are positioned within a constructivist-sociocultural perspective with an emphasis on focused inquiry, directed observation, and guided practice as epistemic practices for facilitating learning to teach. These epistemic practices are interrelated and reciprocal.

Focused inquiry. Focused inquiry is an investigation into particular phenomena that influence the processes and conditions for learning within and outside of classrooms. In focused inquiry, candidates address questions about what has happened or what is happening, why, and the impact or outcome in relationship to teaching and learning. The immediate context for the investigation can be (a) a university classroom where candidates read and discuss research and theory related to learning, subject matter, pedagogy, and the social context in classrooms, or interrogate their own thinking about teaching and learning in an effort to construct a sound philosophical stance; (b) the local community for a particular school where candidates examine the social and political context, the goals and aspirations of community leaders, and the resources in the community that can be used to increase the authenticity and connectedness of classroom learning to students' prior knowledge and experience; (c) a public school where candidates examine the organizational structure, the procedures and rules that govern the school, the relationship between participants in the school, and the nature of the discourse that permeates the school community in an effort to understand the ideology and philosophy that drive school practices; and (d) classrooms where candidates examine the relationship between participants, the norms and rules for discourse and engagement, the theory of learning and the philosophical stance that guide classroom practices, and the particular opportunities provided for learning and the students responses in a effort to construct an understanding of the substantive relationship between learner characteristics, learning, pedagogical practices, and learning outcomes. Focused inquiry in these different contexts will take different forms including reading published research and theory, document analysis, interviews with participants, and observations in authentic contexts in person or through the use of videotaped recordings.

Directed observation. Directed observation is a primary tool in most instances of focused inquiry. In directed observation, candidates are provided guidance for investigating particular aspects of a phenomenon in isolation or in relationship to other aspects and examining patterns of actions or responses to actions in the present or past with the ultimate goal of making connections that support constructing a deep understanding of teaching and learning in classroom contexts. Directed observation is particularly important because candidates in preservice teacher preparation understand classroom learning from a student perspective, but very few have examined classroom learning from a teacher perspective, and most will need guidance in learning what to attend to and how to make sense of it (Grossman et al., 2009).

During instances of focused inquiry and directed observation, candidates learn to take different social perspectives (the student, teacher, parent, etc.), different theoretical perspectives (behaviorist, cognitivist, constructivist, sociocultural, etc.), and different philosophical positions (social justice, feminist, critical pedagogy, etc.). This supports candidates' developing the insight, habits of mind, and norms for engaging in meaningful professional discourse. Through this process, candidates develop standards of practice for

developing appropriate and meaningful opportunities for learning, developing appropriate approaches for assessing learner progress in meeting expected learning outcomes, and determining what counts as evidence for learning. Steele (2005) argued that the

> practice of setting the norms for pedagogical evidence and consistently pressing for the reasons behind opinions and values has the potential to add evidence to pedagogical discussions, and combat the propagation of unsubstantiated maxims and memes about the practices of teaching. (p. 318)

Other scholars have pointed to the "contemporary view of teaching as highly improvisational and wholly context dependent" (Ball & Forzani, 2009, p. 503) as problematic and indicated that there is a need for candidates to "develop the habits of mind and character that are appropriate to professional practice" (Grossman et al., 2009, p. 2060). In this practice-based design for preservice teacher preparation, focused inquiry and directed observation introduce and set standards and procedures for the interpreting and translating processes that are central to the discursive practices in teaching.

During focused inquiry and directed observation, candidates learn a great deal about the learning process, how different learner characteristics influence responses, how sequences and patterns in instruction influence opportunities for learning, and how approaches to representing subject matter differ. Candidates learn to use particular perspectives on learning to interpret pedagogical practices and students' responses in the classroom. Candidates begin to develop their own philosophical stance that will give purpose and vision to their teaching. These experiences and the knowledge candidates construct form the basis for understanding how to plan sequences of learning experiences for particular learners. Candidates are prepared to begin experimenting with planning and enacting short sequences of learning experiences when, after spending time in a classroom, they are able to identify patterns in particular students' thinking and responses to specific types of learning experiences and to anticipate where in learning new concepts and skills these students are most likely to experience difficulties.

Guided practice. Experimenting with planning and enacting a short sequence of learning experiences for a small group of students under the careful supervision of university faculty or an experienced classroom teacher is part of the process of guided practice. Prior to enacting a short sequence of learning experiences, candidates are expected to demonstrate the ability to justify the approach based on knowledge of the particular learners, the learning process, subject matter, and the expected learning outcomes. After enacting a short sequence of learning experiences, candidates are expected to be able to interpret the results through the use of a particular perspective on learning and to establish the level of integrity for the approach based on the extent to which the expected learning outcomes were accomplished. When the sequence of learning experiences accomplishes the expected outcomes, candidates are encouraged to demonstrate the ability to build upon and extend learning and the learning sequence. In cases where the expected learning outcomes were not fully accomplished, candidates are expected to be able to identify appropriate adjustments and present a justification for the proposed changes. When appropriate, candidates are encouraged to experiment with the adjusted sequence of learning experiences. *This process of planning, enacting, interpreting, translating, planning, and (re)-enacting is essential for engaging in quality teaching* and is the essence of guided practice in learning to teach.

The dialogue during the process of planning, interpreting, translating, and revising the sequence of learning experiences makes candidates' thinking transparent to peers and enables the teacher educator to engage in scaffolding as necessary and provides opportunities for the group to coconstruct an understanding of the process of pedagogical planning and enactment. During guided practice, candidates are supported in expanding their responsibilities in the classroom as they gain confidence and expertise in planning learning sequences with increasing levels of integrity and trustworthiness.

Practice-Based Program Qualities

In the discussion to this point, essential knowledge and epistemic practices that frame opportunities for learning to engage in quality teaching have been the focus; however, specific elements within the teacher preparation program are part of the context and support for learning to teach. These elements include collaboration among teacher educators and candidates, coherence, continuity, consistency, and integrity.

Collaboration. The same discursive practices, reasoning, and actions that candidates learn are characteristic of the collaboration among a team of teacher educators in a program that values integrity and trustworthiness (Feiman-Nemser, 2001). *The process of planning, enacting, interpreting, translating, planning, and (re)-enacting* that is essential for engaging in quality teaching in PK-12 schools characterizes the efforts of teacher educators in refining the work in a practice-based teacher preparation program. Teacher educators collaborate in designing a program with specific sequences of learning experiences based on focused inquiry, directed observation, and guided practice. When candidates move through the sequences of learning experiences, they are carefully observed to determine the strength of the sequence in facilitating the desired learning outcomes. When the expected learning outcomes are achieved, candidates continue with subsequent planned sequences of experiences that build upon and extend their understanding. When the expected learning outcomes are not accomplished, teacher educators collaborate with each other and with candidates in identifying

appropriate adjustments and re-enact the sequence of learning experiences.

The practice-based teacher preparation program allows candidates to view teaching practices from two perspectives—that of the student and that of the teacher. The student perspective provides opportunities for candidates to experience the same type of learning they are expected to facilitate for their students. In the process of learning, candidates are able to observe faculty model specific practices in their everyday teaching (Loughran & Berry, 2005). Participation in dialogue with peers and faculty supports learning the discursive practices of the profession. Focused inquiry and directed observation enable candidates to deconstruct and reconstruct aspects of the teaching process, which makes the anatomy of pedagogical practices visible to candidates. Through these experiences, candidates are able to view teaching as student and as teacher.

Coherence. The interconnectedness among short sequences of learning experiences over time provides coherence across the program and support development of deep knowledge of the organizing ideas for teaching. The discourse for quality teaching is focused on explanatory theories for the learning process, approaches to constructing appropriate sequences of learning experiences for particular subject matter or skills and for particular populations of students, standards of evidence for learning, and procedures for determining the integrity and trustworthiness of pedagogical practices (Hiebert, Morris, Berk, & Jansen, 2007).

Continuity and consistency. The interrelatedness of the organizing ideas and the epistemic practices distributed across experiences, and the discursive practices among candidates and teacher educators, provide the core for continuity in the teacher preparation program (Brouwer & Korthagen, 2005). An important aspect of continuity is the consistency with which faculty represent the organizing ideas for teaching and model in their own teaching the practices and habits of mind candidates are expected to learn.

Integrity and trustworthiness. The terms *integrity* and *trustworthiness* are seldom used in reference to teaching practices and teacher preparation. Yet the standards of integrity and trustworthiness are central to the quality of learning outcomes in both instances. The level of coherence, strength in the representation of the organizing ideas for teaching, the quality of the epistemic practices that frame learning experiences, and the consistency in application determine the integrity of the program. Programs with high levels of integrity are more likely to be trustworthy than those with low levels. Trustworthiness is based on the consistency with which program completers are able to engage in quality teaching that results in their students achieving the desired learning outcomes.

In summary, the proposed holistic practice-based approach to teacher preparation for quality teaching is based on research and theory in teacher education; theory and research in disciplinary teaching; recent research from the learning sciences and theories of learning; research on reform in PK-12 schools; and observations and conversations with teachers, administrators, and faculty in exemplary schools and teacher preparation. The result is a proposal for a program that features clearly articulated organizing ideas for teaching; epistemic practices that frame opportunities for learning to teach; and program qualities that include collaboration, coherence, continuity and consistency, and integrity and trustworthiness in the preparation of candidates for quality teaching. The practices in the preparation of teachers for quality teaching, at the core, mirror those candidates are expected to apply in PK-12 schools. The standards of evidence for integrity and trustworthiness of practices are the same in teacher preparation as they are for quality teaching in PK-12 schools.

Declaration of Conflicting Interest

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About the Author

Etta R. Hollins is the Ewing Marion Kauffman Endowed Chair for Urban Teacher Education at the University of Missouri-Kansas City. The focus of her scholarship and practice is the preparation of teachers for urban and other underserved students.