

Number Eight



21st Century Teacher Education for FirstSchool:

A Model of Collaborative Inquiry

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FirstSchool

FirstSchool is a pre-K-grade 3 initiative led by FPG and the UNC-CH School of Education to promote public school efforts to become more responsive to the needs of an increasingly younger, more diverse population. FirstSchool unites the best of early childhood, elementary, and special education.

www.firstschool.us

FirstSchool is part of a national PreK–3rd movement of schools, districts, educators and universities seeking to improve how children from ages 3 to 8 learn and develop in schools. While these different projects use a variety of names, all are working to connect high-quality PreK programs with high-quality elementary schools. For more resources on this movement, please visit the Foundation for Child Development's website.

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Who is FPG?

For more than 40 years, FPG Child Development Institute (FPG) research and outreach have shaped how the nation cares for and educates young children. We are one of the nation's oldest and largest multidisciplinary centers dedicated to the study of children and families. www.fpg.unc.edu

Who is the UNC-CH SOE?

The School of Education was established at the University of North Carolina at Chapel Hill in 1885 and is organized under four academic areas: teaching and learning; educational leadership; human development and psychological studies; and culture, curriculum and change. www.soe.unc.edu The preparation of teachers is under new scrutiny as schools struggle to respond to 21st century challenges, including a growing achievement gap. Today's schools are more economically, ethnically, linguistically and developmentally diverse than at any other time in our nation's history, and many of them now include three-and four-year old children in publicly funded pre-kindergarten programs.¹ Driving these policy changes is a growing recognition of the impact of early education on children's development and later academic success. Given these changes and their associated challenges, an age-old question has emerged with a new sense of urgency: *What should future teachers know and know how to do—and how can teacher education programs help them learn it*?

FirstSchool's response to the question of teacher preparation is, first and foremost, guided by a commitment to inclusive, effective and ethical schools for *all* young children. Such schools are characterized by a seamless transition across the pre-kindergarten, kindergarten and primary grades. This commitment to a new kind of school requires a new way of thinking about professional development across disciplinary boundaries. In spite of the rapidly expanding knowledge of teaching and learning processes, the ideological divide between early and elementary education, and a corresponding failure to maximize *adult* learning about this increasingly diverse population of children and families, are among the contributing factors to schools' failure to educate *all* of our nation's children.

For U.S. **early childhood educators**, the study of child development remains the 'scientific' basis for the field's work with children and families even as new bodies of research on culturally and linguistically diverse populations challenge any singular notion of a "knowledge base."^{2. 3} Within early childhood settings, a focus on children's emerging academic competencies

has historically been secondary and, for many, continues to be inconsistent with principles of developmentally appropriate practices.^{4, 5} Elementary educators have their own strengths and biases. With a historic favoring of the "Three Rs," elementary teacher education programs rarely require the study of child development. Rather, professional expertise is focused on specific content areas and sometimes but not always on their associated pedagogies, along with strategies of classroom management. Early childhood **special** educators also have much to contribute to improved schools for all young children, based on a strong body of research and professional knowledge around the observation, early detection, and intervention of children with special needs. Yet many future teachers have little or no required coursework in this area.⁶

Today's teachers of children ages three through eight need all the skills and understandings represented by these three fields, and more. Some states now require teachers of young children to attain both early childhood and elementary teaching credentials; others have combined the two to create a new licensing credential from pre-k through grades three or four.⁷ Many maintain discrete but overlapping licensing tracks. As policy makers, educators, and school advocates call for greater alignment across early and elementary settings,⁸ a reform of pre-service teacher education, a growing consensus is emerging across the broad field of teacher education. As outlined in a recent presidential address to the American Educational Research Association, teachers of America's children must have increased knowledge of

- subject matter and associated pedagogies;
- human development and learning as influenced by personal, familial, and circumstantial diversity; and
- the profession of teaching—including its leadership and advocacy responsibilities.⁹

For teachers of young children, these goals are necessary but not sufficient. The following FirstSchool

recommendations for improved pre-service teacher education expand upon these goals and are based upon contemporary theory, empirical research on child development and learning, exemplary practices in the U.S. and internationally, as well as a meta- analysis of research conducted and synthesized by major national organizations.[†] These recommendations were further articulated in a process of interviews and focus group discussions with teachers and teacher-educators and converged around the following:

- Knowledge of child development, subject matter and associated pedagogies are not in competition; each is essential to teachers of young children and should be integrated in informing a seamless approach to curriculum and instruction.
- Multicultural and inclusive education is built through ongoing and reciprocal engagement with families and the community.
- Effective teachers work within collaborative environments where they learn from and with children and other adults in children's lives.
- Teachers' professional identities embrace the centrality of relationships and the necessity of purposeful inquiry to the creation of successful learning environments for children and adults.

^{*} Professional organizations whose work supports FirstSchool recommendations include the National Council for Accreditation of Teacher Education (NCATE); Teacher Education Accreditation Council (TEAC); National Association for the Education of Young Children (NAEYC); Division of Early Childhood of Council for Exceptional Children (DEC); National Center for Children in Poverty (NCCP); National Board of Professional Teaching Standards (NBPTS); and Interstate New Teacher Assessment and Support Consortium (INTASC).

Developmentally Appropriate Practices and Academic Achievement: New and Necessary Partners

As pre-kindergarten classes increase across the U.S., early childhood and elementary educators find themselves working in the same public school settings and

Imagine a course on **mathematics** that requires the pre-service student to observe the child at play in order to determine preferred activities that might effectively support mathematical engagement. How could this child's interest in Legos inform his skills in estimation? Consider if students were required to work with family members to devise homework assignments consistent with grade-level expectations while utilizing family resources and routines. How might the family business support this third-grader's understanding of place value? Are there opportunities for the child to use real money to tally and record? Not only will such assignments give future teachers essential insights into children's development in diverse contexts; they serve as catalysts for the practice of skills essential to effective and reciprocal relationships with parents.

yet their professional preparation has likely had little in common. Instead, they have developed expertise in two critical but distinct areas of need.

Ample research is available to demonstrate that early childhood teacher education provides a certain

advantage when it comes to teaching diverse populations of young children. Teachers who understand theories of child development and learning are often more successful at integrating current recommended practices regarding the teaching of content areas (e.g., math, science, reading, writing) with instructional strategies responsive to the developmental and individual needs of young children. Research shows that teachers who understand how learning is supported through processes of *scaffolding* and *guided participation* are more able to translate this theory into purposeful strategies of instruction corresponding to children's cognitive and social readiness, including open-ended activities, small group experiences, and long-term projects.^{10, 11} Teachers who develop multiple ways of learning about children are more likely to be successful in designing and selecting experiences and materials from a repertoire of instructional strategies that build on children's prior knowledge, respond to their curiosities, and move them to greater competence.^{12, 13} Teachers who know how to facilitate children's apprenticeship to the cultural routines of the classroom have a head start in effective classroom management and in guiding children's appropriation of the knowledge, skills, and dispositions essential to school success.

But knowledge of children—and how they learn is not sufficient.

Some of the most robust research on teacher education makes a compelling case for the role of subject matter knowledge.^{14, 15} Teachers' subject matter knowledge in combination with an understanding of children's processes of cognitive development builds upon Bruner's thesis of many decades ago that children are capable of learning just about anything if only teachers know how to teach it.¹⁶ But even this additional expectation of deep subject matter knowledge is not enough. Teachers with knowledge of the content areas **also need** content-specific pedagogies if they are to effectively support children's academic success in school.¹⁷

Schools would be different places if teachers entered the classroom with a deep understanding of all four of these foundations to good teaching: knowledge of child development, theoretical understanding of the teaching/learning process, content knowledge and associated content-specific pedagogies. Such teachers could use their knowledge of child development, subject-matter and pedagogy to design a variety of ways to meet the educational needs and interests of diverse populations of children. That will only be the case, however, if pre-service teachers begin this process of integration long before they enter the classroom.

Culturally Responsive Teaching Builds on Family and Community Engagement

Lectures and readings, no matter how inspired, are not sufficient to enable new teachers to gain a sufficient grasp of children's lives and their learning possibilities. Teaching and schooling are socio-cultural activities situated in particular places, so a major part of pre-service teacher education must take place outside the ivory tower.

Going outside the university is also imperative from a perspective of social justice, a construct grounded in realities often worlds apart from the experiences of student teachers. To become advocates for more equitable schools and schooling, pre-service student teachers must have opportunities to explore the surrounding communities and be guided to examine more deeply the social, cultural, and political underpinnings of their profession. Future teachers' knowledge of children's previous educational experiences and the circumstances of their families will further contribute to their ability to work with children as well as to work for them. This dimension of advocacy expands interpretations of effective multicultural pedagogy to incorporate critical (race) theory as a foundation for ethical teaching of children.¹⁸ Lectures, readings and discussions on poverty and targeted intervention will take on greater significance when supported by visits to Early Head Start, Head Start, and community-based early educational settings serving diverse socio-economic and racial groups.

Regardless of the specific content, field experiences beyond the university campus challenge future teachers to learn more about the real children they will teach and the communities where they and their families live. These teachers are better prepared and motivated to incorporate what they are learning into activities conducive to children's learning as well as their own collaboration and reflective practice. Future teachers will be inspired to attend to and engage in continuing socio-educational controversies when they are guided to explore these issues in actual contexts as well as texts.

Imagine an **Introduction to Teaching** course in which students observe in a variety of educational settings serving diverse socio-economic, racial and linguistic groups. Reflection papers on diversity in children's lives could draw upon visits to neighborhoods, grocery stores, adult learning centers. When these 'field trips' are guided by purposeful questions – How do prices in the nearby market where Latino families shop compare with those in your own neighborhood? What languages are spoken by adults in the home? – students learn how to consider children's out-ofschool lives as they might support or hinder educational and developmental trajectories.

Imagine a class on **children with special needs** that requires students to interview parents in culturally diverse households on their views of disabilities. Those future teachers will experience firsthand the emotional and intellectual challenges of negotiating diverse interpretations of children's educational rights, needs and potentials.

Students in a course on **reading methods** might be assigned to tutor a child of parents who cannot read (or cannot read English). As these future teachers become acquainted with the diversity of families, including those living in poverty, they begin to appreciate the challenges of creating truly inclusive classrooms, including 'literacy rich' environments that are meaningful to all of the children and their families, not just those who are Englishspeaking.

Communities of Collaborative inquiry

Pre-service teacher education is moving away from a transmission model whereby faculty members provide their expertise to an eager group of student-teachers. Indeed, inquiry-oriented practice has become a major feature of many teacher education programs in the US.¹⁹ While opportunities have increased within coursework and practica for critical thinking and reflection, the utility of those practices expands exponentially when teacher education students are immersed in collaborative inquiry.

Learning About the Children They Teach

In spite of a century of dedicated study, tremendous gaps exist in our understanding of the learning and development of diverse populations of young children. Future teachers must be able both to reference and critique the knowledge base in child development, adding their own findings to those found in child development textbooks. Inquiry-oriented models of professional preparation may include collaborative learning commu-

A pre-service **social studies** class that meets in a local elementary school provides unique opportunities for students to collaboratively investigate children's understandings of the local farming community as a source for a new curriculum project on sustainability. nities, early and ongoing involvement in action research, and/or innovative use of technological resources—each

of which can contribute to greater understandings about children, their learning and development.

Learning to be Curious about Teaching

When pre-service teachers work within collaborative learning communities they are more likely to adopt an inquiry stance to their own professional behavior. Systematic inquiry into teaching leads to new knowledge constructed collectively in local and broader communities and helps prepare teachers for diverse teaching environments.^{20, 21} When future and experienced teachers document, share, and reflect on their observations of children engaged in learning activities, their diverse perspectives shed light on children's strengths and their own instructional processes.^{22, 23} There is a reciprocal relationship between this orientation to teaching and curriculum decisions, such that project work and documentation strategies in combination support the development of inquiry dispositions, negotiation skills and assessment tools.²⁴ Studies on collaborative inquiry,²⁵ in turn, support its promise as a means to promote hypothesis generation, on-going assessment, and curriculum design and revision by pre-service, new and experienced teachers.

The Centrality of Relationships to Adult and Child Learning

A final and essential component of teachers' professional knowledge is an understanding of the interdependence of people and functions within the culture of schools. Pre-service teacher education programs must create conditions in which future teachers can develop and capitalize on relationships with one another, with children and their families, and with others in the profession, including those who came before and those who will come after.

A growing body of knowledge shows that teachers, too, will benefit from successful relationships with others. Given the extraordinary challenges facing teachers in 21st century classrooms, teachers need all the help

Imagine a course on children's social development in which student teachers are required to observe the classroom peer culture for evidence of children's relationships and interests as they might enhance their learning. Follow-up assignments can include re-arranging the physical environment to maximize children's interests in and capacities to learn from and with each other. Future teachers' developing understanding of the social dimensions of children's lives will serve as one of the bases from which they can develop integrative as well as singlefocus curriculum projects.

they can get—from each other, from experts in a variety of areas, and from children's families.

Relationships with Families

Future teachers need to learn how to build relationships with families that lead to strong sustainable partnerships and shared responsibility for children's school achievement.²⁶ When teachers understand and respect families, share information about children and view families as partners, children's school experiences are positively affected by teachers' new knowledge as well as these relationships.^{27, 28, 29} Genuine relationships help teachers understand the strengths of diverse forms of family life for new immigrants and traditionally mar-

Imagine, for example, a course in **science** that requires students to visit a child's home to identify scientifically rich learning opportunities, and to develop, in collaboration with parents or other family members, shared learning goals and a science project that builds upon linkages between home and school. ginalized populations, and better support children and families struggling to comprehend a new language in a new land.^{30, 31} It makes sense, then, that pre-

service teacher education students have opportunities to actually come to know and work with families.

Partnerships with Peers and Other Professionals

To become effective collaborators, future teachers need opportunities to practice and learn about shared communication and decision-making among themselves and across educational disciplines and divisions in the school community. Pre-service student teachers need opportunities to team and collaborate with literacy specialists, special educators, allied health professionals, school counselors and psychologists, and school administrators. Early and successful interdisciplinary collaboration experiences will go a long way toward helping new teachers move toward an integrated and more holistic approach to children's learning. When future teachers are placed within collaborative learning contexts, they gain from the diversity of their respective experiences and "develop deeper understandings of classroom situations."³²

Collaborating with Cooperative Teachers

Practical experiences gained in the presence of an experienced classroom teacher have historically been granted the greatest significance in pre-service education. And yet rarely are students expected to use the internship experience as an occasion to develop negotiation skills and engage in the sort of collaborative inquiry that might produce new understandings in both the practicing and the experienced teacher. A move to consider cooperating teachers as collaborative partners builds upon the professional development school's literature and expands interpretations of successful relationships in such settings. When pre-service teachers develop safe and respectful relationships as a context within which to share their own hypotheses and interpretations of children's learning, changes are inevitable. Such opportunities to work and learn collaboratively are a far cry from the pass/fail or 'get it or don't' conception of formative assessment of student teaching.33

These findings, and the theoretical tenets that predict them, resonate with calls for educational reform such that schools themselves are characterized by communities of practice and reciprocal relations.^{34, 35} But teachers who are to work in such schools need to experience these environments and relationships long before they enter their own classrooms. Pre-service teacher education programs can create contexts in which the co-construction of knowledge takes place through the purposeful planning of peer and cohort experiences both in and out of the classroom, with teachers, families, community-based programs, and other educators—including university faculty.³⁶ Easier said than done.

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Relationships Among and With University Faculty

The separate institutional and intellectual histories of pre-school and primary education and their associated conflicts have served as powerful disincentives for collaboration between these two professional groups. And yet it is precisely because of their respective areas of expertise that these teachers (and teacher educators) need each other. The coming together of faculty who have worked apart for more than a century can serve as a valuable model for future teachers preparing to work within complex systems of relations involving children, other teachers, parents, administrators, professional experts and community members-each with their own idea of what should be done, and how, and when. Indeed, the move away from the history of isolation in the field³⁷ is perhaps the most critical first step in supporting the premises of collaboration and inquiry fundamental to FirstSchool. Recent scholarship suggests that the process of collaboration itself (including its discourse and patterns of interaction) can lead to systemic changes inspired by collective intelligence and the emergence of new (shared) insights, curiosities, and conundrums.³⁸ Pre-service teacher education programs, their students, and the children of those future teachers will be the fortunate beneficiaries of such change.

Conclusion

Teaching is one of the few professions in which someone right out of school has the same level of responsibility as a teacher with thirty years' experience in the classroom. Novices and veterans alike are expected to create environments where all children can succeed. And yet there are compelling stories of beginning teachers in early childhood and elementary settings who struggle with the "emotional drama" of the classroom.³⁹ Even experienced teachers are challenged by the multiple and oft-competing demands of 21st century schools, soon to be exacerbated by the nation-wide push for common academic standards.^{40, 41} FirstSchool is committed to a new image of the teacher that is responsive to these challenges—an image that requires a new way of thinking about pre-service teacher preparation. If teachers are to understand child development *and* subject matter as they inform seamless and coherent curriculum and instruction, they need practical experiences in negotiating and uniting these heretofore separate bodies of knowledge. If teachers are to be designers and consumers of inclusive and culturally responsive curricula and authentic assessment, they need opportunities to learn about children from their families and other teachers.

Teacher education programs must therefore include opportunities for future teachers to study contexts as well as texts, to develop a repertoire of tools for observing, assessing, and studying children's early learning, and to acquire the skills and dispositions to do this work with others through processes of collaborative inquiry. Graduates of such a program will enter the classroom with a deeper understanding of their own potential to support children's learning. New teachers who have also learned how to develop and sustain respectful relationships with children's families and previous teachers will be more likely to turn to these other stakeholders for support, advice, and good ideas. When future teachers have the occasion to observe their faculty negotiate conflicting points of view about what is best for children, they will be more likely to do the same. And when university faculty engage in this same work with the schools and teachers where preservice teachers are placed for practicum experiences, they will help to insure that schools are ready for this new kind of teacher. FirstSchool principles of engagement, collaboration, inquiry and relationships are not only central to successful teacher education programs. They are foundational to more equitable and effective first schools for young children.

Endnotes

- ¹Barnett, W. S., Hustedt, J. T., Robin, K. B., & Schulman, K. L. (2005). *The state of preschool: 2005 state preschool yearbook*. New Brunswick, NJ: National Institute for Early Education Research.
- ²Bloch, M. L. (1991). Critical science and the history of child development's influence on early education research. *Early Education and Development*, 2(2), 95-108.
- ³Lubeck, S. (1996). Deconstructing "Child Development Knowledge" and "Teacher Preparation." *Early Childhood Research Quarterly, 11,* 147-167.
- ⁴Beatty, B. (1995). *Preschool education in America: The culture of young children from the colonial era to the present*. New Haven: Yale University Press.
- ⁵Crawford, G., Clifford, R., Early, D., & Reszka, S. (2009). Early education in the United States: Converging systems, diverse perspectives. In R. Clifford & G. Crawford (Eds.), *Beginning school: US policies in international perspective* (pp. 1-12). New York: Teachers College Press.
- ⁶Chang, F., Early, D. M., & Winton, P. J. (2005). Early childhood teacher preparation in special education at 2- and 4-year institutions of higher education. *Journal of Early Intervention*, 27(2), 110-124.
- ⁷Horm-Wingerd, D., Hyson, M., & Karp, N. (Eds.). (2000). *New teachers for a new century: The future of early childhood professional preparation.* Jessup, MD: US Department of Education, ED Publishing.
- ⁸Kagan, S. L., & Kauerz, K. (2007). Reaching for the whole: Integration and alignment in early education policy. In R. C. Pianta, M. J. Cox, & K. L. Snow (Eds.), *School readiness and the transition to kindergarten in the era of accountability* (pp. 11-32). Baltimore: Brookes.
- ⁹Cochran-Smith, M. (2005). The new teacher education: For better or for worse? 2005 presidential address. *Educational Researcher*, 37(7), 3-17.
- ¹⁰Bransford, J., Darling-Hammond, L., & LePage, P. Introduction. In L. Darling-Hammond & J. Bransford (Eds.), *Preparing teachers for a changing world: What teachers should learn and be able to do* (pp. 1-39). San Francisco: Jossey-Bass.
- ¹¹Bowman, B. T., Donovan, M. S., & Burns, M. S. (Eds.) (2001). *Eager to learn: Educating our preschoolers*. Washington, DC: National Academy Press.
- ¹²Horowitz, F. D., Darling-Hammond, L., Bransford, J., Comer, J., Rosebrock, K., Austin, K., et al. (2005). Educating teachers for developmentally appropriate practice. In L. Darling-Hammond & J. Bransford (Eds.), *Preparing teachers for a changing world* (pp. 88-125). San Francisco: Jossey-Bass.
- ¹³Bransford, J. D., Brown, A., Cocking, R. (Eds.) and Committee on Developments in the Science of Learning, National Research Council. (1999). *How people learn: Brain, mind, experience and school.* Expanded edition. Washington, CD: National Academy Press. <u>www.nap.edu</u>
- ¹⁴Ball, D. L., & McDiarmid, G. W. (1989). *The subject matter preparation of teachers*. Issue paper 89-4. East Lansing, MI: National Center for Research on Teacher Education.
- ¹⁵Wilson, S. M., Floden, R. E., & Ferrini-Mundy, J. (2002). Teacher preparation research: An insider's view from the outside. *Journal of Teacher Education*, 53(3), 190-204.
- ¹⁶Bruner, J. S. (1960). *The process of education*. Cambridge, MA: Harvard University Press.

- ¹⁷Shulman, L. (1986). Those who understand: Knowledge growth in teaching. *Educational Researcher*, *15*, 4-14.
- ¹⁸Banks, J. A., Cookson, P., Gay, G., Hawley, W. D., Irvine, J. J., Nieto, S., Schofield, J. W., & Stephan, W. G. (2001). Diversity within unity: Essential principles for teaching and learning in a multicultural society. *Phi Delta Kapan*, 83(3), 196-212.
- ¹⁹Schulz, R., & Mandzuk, D. (2005). Learning to teach, learning to inquire: A 3-year study of teacher candidates' experiences. *Teaching and Teacher Education: An International Journal of Research and Studies*, 21(3), 315-331.
- ²⁰Cochran-Smith, M., & Lytle, S. (1999). The teacher research movement: A decade later. *Educational Researcher*, 28(7), 15-25.
- ²¹Rust, F. (2008). What do early childhood educators need to know and do to work in urban settings? In S. Feeney, A. Galper, & C. Seefeldt (Eds.), *Continuing issues in early childhood education* (pp. 184-195). Columbus, OH: Merrill.
- ²²Himley, M., & Carini, P. F. (2000). From another angle: Children's strengths and school standards. New York: Teachers College Press.
- ²³Project Zero. (2003). *Making teaching visible: Documenting group learning as professional development.* Cambridge, MA: Project Zero.
- ²⁴Forman, G., & Fyfe, B. (1998). Negotiated learning through design, documentation, and discourse. In C. Edwards, L. Gandini, and G. Forman (Eds.), *The hundred languages of children: The Reggio Emilia approach—Advanced reflections* (pp. 239-260). Second edition. Greenwich, CT: Ablex.
- ²⁵Moran, M. J., Desrochers, L., & Cavicchi, N. (2007). Progettazione and documentation as sociocultural activities: Changing communities of practice. *The Journal of Theory Into Practice*, *46*(1), 81-90.
- ²⁶Weiss, H. B., Kreider, H., Lopez, M. E., & Chatman, C. M. (2005). Preparing educators to involve families: From theory to practice. Thousand Oaks, CA: Sage
- ²⁷ Tharp, R. G., & Gallimore, R. (1988/1991). *Rousing minds to life*. Cambridge, UK: Cambridge University Press.
- ²⁸New, R., & Mallory, B. (2005). Children as catalysts for adult relations: New perspectives from Italian early childhood education. In O. Saracho & B. Spodek (Eds.), *Contemporary perspective on families and communities and schools in early childhood education* (pp. 163-179). Greenwich, CT: Information Age Publisher.
- ²⁹Rimm-Kaufman, S. E., & Pianta, R. C. (2005). Family-school communication in preschool and kindergarten in the context of a relationshipenhancing intervention. *Early Education and Development*, *16*(3), 287-316.
- ³⁰Crosnoe, R. (2005). Double disadvantage or signs of resilience? The elementary school contexts of children from Mexican immigrant families. *American Educational Research Journal*, 42(2), 269-303.
- ³¹Tabors, P. O. (1997). One child, two languages: A guide for preschool educators of children learning English as a second language. Baltimore: Paul Brooks.
- ³²Hausfather, S. J. (1996). Vygotsky and schooling: Creating a context for learning. Action in Teacher Education, 18(2), 1-10.
- ³³Otero, V. (2006). Moving beyond the 'get it or don't' conception of formative assessment. *Journal of Teacher Education*, *57*(3), 247-255.
- ³⁴Lave, J., & Wenger, E. (1991). Situated learning: Legitimate peripheral participation. New York: Cambridge University Press.

- ³⁵Rogoff, B., Turkanis, C. G., & Bartlett, L. (2001). *Learning together: Children and adults in a school community*. New York: Oxford University Press.
- ³⁶Tegano, D. W., & Moran, M. J. (2005). Conditions and contexts for teacher inquiry: Systematic approaches to pre-service teacher collaborative experiences. *New Educator*, 1(4), 287-310.
- ³⁷Zeichner, K. (1983). Alternative paradigms of teacher education. *Journal of Teacher Education*, 34(3), 3-9.
- ³⁸Sawyer, R. K. (2007). Group genius: The creative power of collaboration. New York: Basic Books.
- ³⁹Intrator, S. M. (2006). Beginning teachers and the emotional drama of the classroom. *Journal of Teacher Education*, 57(3), 232-239.
- ⁴⁰Wien, C. A. (2004). *Negotiating standards in the primary classroom: The teacher's dilemma*. New York: Teachers College Press.
- ⁴¹McNeil, M. (2009). 46 states agree to common academic standards effort. *Education Week, 28*(33), 16.

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