

Preparing Early Childhood Teachers to Face New Challenges in the United States

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Introduction

“...teachers must learn how to maintain a healthy dialectic between the goals of teaching subject matter towards a common set of curriculum objectives and teaching students in ways that attend to their diverse interests, abilities, starting points, and pathways. This is like simultaneously pursuing both sides of a double helix that repeatedly intertwines and separates and intertwines again: the teacher bends the curriculum toward the students by making connections and adaptations and then nudges the students toward the curriculum by scaffolding and motivating their learning. Attending to the demands of the curriculum and the needs of the child without losing sight of either requires deep understanding of subject matter and students, and the potential connection between the two.”

Linda Darling-Hammond, 2006, p. 40

In the opening quotation, Darling-Hammond suggests a double-helix model of the child and the curriculum as an apt way to visualize how effective, sensitive teachers must function in contemporary education. Generally accepted, this image looms large in teacher education (TE) in the United States (US). US TE programs strive to meet national standards covering both the child and the subject matter content. Coursework and field experiences in child development, family, culture and diversity, observation and assessment, methods, pedagogy, and other topics help prepare new teachers to work with children from increasingly complex

linguistic and cultural backgrounds, as well as children with various abilities and exceptionalities (Daniel & Friedman, 2005; Hyson, 2003). This chapter focuses on preparing teachers to meet challenges and opportunities in early childhood education (ECE) public education in the US today.

ECE has enjoyed enormous change during the past several decades in the US. Only 10% of the nation's 3- and 4-year-olds were in any type of PreK center or classroom in 1960. Approximately 1.5 million children attended state-funded preschool in 2016, including almost 1.3 million 4-year-olds; nearly 5% of the nation's 3-year-olds and 32% of 4-year-olds were served (Barnett, Friedman-Krauss, Weisenfeld, Horowitz, Kasmin, & Squires, 2017). National expectations for ECE have been especially high since 2000 when the public became more aware of the importance of early learning and highly effective ECE teachers (Bowman, Donovan, & Burns, 2000; Horm-Wingerd, Hyson, & Karp, 2000; Shonkoff & Phillips, 2000). In addition to national expectations, pressure on ECE TE programs also comes from the fact that increasing numbers of preschoolers are attending US public schools (Barnett, Friedman-Krauss, Weisenfeld, Horowitz, Kasmin, & Squires, 2017) at the same time that the US faces a national teacher shortage (Sutcher, Darling-Hammond, & Carver-Thomas, 2016). Moreover, early learning standards are now fore-grounded, and teachers face new role responsibilities related to district policies regarding student academic mastery and teacher accountability. Changing expectations exist for teacher knowledge, abilities, and professional dispositions when employed in public school pre-kindergartens (PreK) for three- and four-year- old children or operating within a pre-kindergarten-to-third grade (PreK-3rd) educational framework for three- to eight-year-old children.

Changing Expectations in the US

The PreK expansion, known as Universal Pre-K, and the building of PreK-3rd educational systems in US public schools combine ECE and the early grades in deliberate ways to promote learning. They aspire to have the following characteristics: (1) high-quality, full day PreK for all 3- and 4- year-olds; (2) full day kindergarten; (3) standards, curriculum, assessments, and instructional methods that are aligned both horizontally (within grades) and vertically (from grade to grade); (4) qualified teachers at all grade levels; (5) appropriate resources and

interventions for struggling students and those at risk of failing to achieve proficiency by third grade; (6) structures, policies, and practices that support collaboration and alignment within and across grade levels (the exact nature of the structures, policies and practices will vary with district and community needs); and (7) shared responsibility among all stakeholders—public schools, early childhood providers, families, and communities—for children’s achievement outcomes at the third grade (Mead, New America Foundation, 2010).

Since 2001, when the Foundation for Child Development began promoting the PreK-3rd initiative, this movement has been gaining attention in state departments of education across the country (Boots, 2006). Noticeable numbers of school principals and administrators committed to ECE are seeking assistance in implementing PreK-3rd (FCD Report, 2006). PreK-3rd as a comprehensive reform strategy (Kagan, Kauerz, & Tarrant, 2008) has become an aligned, coordinated educational system based on research in early education and child development (Bogard & Takanishi, 2005; Bowman, 2012; Kauerz, 2006; Maeroff, 2006); PreK-3rd ensures that ever-increasing numbers of preschoolers have access to high quality classrooms and consequently strengthens the capacity of elementary schools to sustain preschool learning gains. This requires integration of ECE and Elementary efforts with significant implications for both ECE and Elementary TE programs. Effective Pre-K and the success of the PreK-3rd grade movement rests on the quality of TE programs in institutes of higher education (IHE).

PreK-3rd systems of education possess the seven characteristics noted earlier, but PreK-3rd is not intended to be a downward extension of elementary education into the lower grades producing academic achievement pressure, accountability ‘shove-down’, or the ‘hot-housing’ of young children (Hatch, 2002; see also Halpern, 2013). They are not intended to replace community childcare, early education programs, or Head Start; these systems often partner with districts to strengthen PreK-3rd systems (Gilliam, 2011). Realizing this, ECE TE programs must be based on the solid foundations and principles of ECE TE. However, to achieve the goal represented by the double helix model, academic content and methods of teaching are also necessary components of TE programs.

How are ECE TE programs responding the Pre-K and PreK-3rd reform strategies? Some consideration must be given to the relationship between ECE and elementary TE programs.

The two fields have separate histories and different teaching principles and emphases (Bloch, 1992; Goldstein, 1997; Whitebook, Gomby, Bellm, Sakai, & Kipnis, 2009). Kindergarten and primary grade teachers have come from both traditions; teachers of preschoolers including infants and toddlers (6 weeks to 3 years) come only from the ECE TE tradition. The ECE TE pathway has been grounded in emphasis on the development of the child and developmentally appropriate practices (DAP), and the elementary TE pathway has been characterized by a greater concern for methods and the content of lessons (File & Gullo, 2002; see also Halpern, 2013). School districts in states with separate ECE and elementary teaching certificates, the clear majority, have a choice to hire graduates from one or the other TE programs. Increasingly US public schools ask for a marriage between ECE and elementary in new teachers they hire, but an engagement leading to such a marriage may not have existed in their pre-service training. TE programs may not be keeping pace with developments in public school districts due to inertia from their separate traditions.

Standards for ECE, IHE, and TE in the US

In the US, the National Association for the Education of Young Children (NAEYC) is influential in setting and promoting standards for ECE TE and other basic programs; NAEYC standards cover a wide range of areas and convey a concern for quality linked to practices and policies. Table 1 lists standards for what teachers should know and be able to do, given standards for teacher preparation, professional development, and DAP principles of child development. Successful achievement of these standards ensures high-quality programs of education and care, and high-quality programs depend on high-quality effective teaching. All of these elements are interconnected and gesture to the important variables in sound ECE aspired for in the US.

For example, as seen in the left hand column of Table 1, there are six Standards for Early Childhood Professional Preparation for working with children from birth to eight-years-old; these six standards are complemented by the 10 Early Childhood Program Standards shown in the middle column. Professional Preparation and Early Childhood Program Standards directly correspond to the Developmentally Appropriate Practice Guidelines for Effective Teaching of

children from birth to eight years that appear on the right side of the table. The standards and guidelines are based on the twelve principles of Developmentally Appropriate Practice-Principles of Child Development for children from birth to eight years shown at the bottom of the table.

Table 1 Professional Preparation Standards, Program Standards, and Teaching Young Children Guidelines: Based on Child Development Principles

Crosswalk		
Standards for Early Childhood Professional Preparation (0-8)	Early Childhood Program Standards (0-5)	Developmentally Appropriate Practice: Guidelines for Effective Teaching (0-8)
1.Promoting Child Development and Learning	Child development knowledge base	Creating a caring community of learners. Teaching to enhance development and learning. Planning curriculum to achieve important goals.
2.Building family and Community Relationships	Standard 1. Relationships Standard 7. Families Standard 8. Community Relationships	Establishing reciprocal relationships with families.
3.Observing, Documenting, and Assessing to Support Young Children and Families	Standard 4. Assessment of Child Progress	Assessing children’s development and learning.

4.Using Developmentally Effective Approaches to Connect with Children and Families	Standard 2. Curriculum Standard 3. Teaching Standard 9. Physical Environment	Creating a caring community of learners. Teaching to enhance development and learning. Planning curriculum to achieve important goals.
5.Using Content Knowledge to Build Meaningful Curriculum	Standard 2. Curriculum Standard 3. Teaching	Planning curriculum to achieve important goals.
6.Becoming a Professional	Standard 6. Teachers Standard 10. Leadership and Management	

Developmentally Appropriate Practice: Principles of Child Development (0-8)

1. All domains are important
2. Development and learning follow well-documented sequences
3. Many aspects of children’s learning and development proceed at varying rates
4. Development and learning result for interaction of maturation and experience
5. Early experience have profound effects on development and learning
6. Development proceeds toward greater complexity, self-regulation, and symbolic or representational capacities
7. Children develop best with secure, and consistent relationships
8. Development and learning occur in and are influenced by multiple social and cultural contexts
9. Children learn in a variety of ways
10. Play is an important vehicle for developing self-regulation and promoting language, cognition, etc.
11. Development and learning advance when children are challenged
12. Children’s experiences shape their motivation and approaches to learning

Pizzolongo (2013)

High quality care and education is built upon a set of fundamental principles that governs the ways theories are put into practice in ECE classrooms, including public schools. These sound principles guide ECE teachers toward highly effective practice. Within that practice, the term *developmentally appropriate practice* (DAP) refers to the following foundational components: knowing children well; establishing challenging and achievable goals; using teaching practices that align with the children's ages and development; and research-based, child development knowledge (Copple & Bredekamp, 2009). For the past 30 years, beginning in 1986, NAEYC has published position statements defining and describing DAP in programs serving young children and their families. NAEYC's 2005 updated Early Childhood Program Standards clarified expectations for key components of high quality ECE programs and offered an opportunity for a contemporary position statement defining and describing DAP.

The most recent NAEYC position statement on DAP (Copple & Bredekamp, NAEYC, 2009) provides guidance for programs in flux within changing ECE contexts, for example: programs attached to or operating within public schools; and responding to and narrowing the achievement gap. DAP statements evolved and helped define the profession and served to challenge academic instruction inappropriate for young children (Bredekamp, 1987; see also Bredekamp & Copple, 1997 and Copple & Bredekamp, 2009). Commendable is NAEYC's attention to consistency in application of child development principles for DAP across the Position Statement on Developmentally Appropriate Practices in Effective Teaching and the Early Childhood Program Standards used for national accreditation of ECE TE in IHE. ECE TE in the US is strongly influenced by NAEYC's standards for early childhood professional development. Most programs seek to be accredited by NAEYC, and many states' governing bodies, such as boards or departments of education, require NAEYC accreditation. Currently, 1,064 Institutions of Higher Education (IHE) TE programs granting bachelor degrees in ECE in the US are accredited by NAEYC.

Studying ECE TE Programs in IHE

Research on ECE TE programs, though sparse, includes pioneering studies that provided survey information about faculties, students, course work and field experiences (*e.g.* Bornfreund, 2011; Early & Winton, 2001; Maxwell, Lim, & Early, 2006). A lack of diversity in faculty and students that was reported remains a continuing challenge in the preparation of new teachers to work with culturally and linguistically diverse students (Hyson, Horn, & Winton, 2012; Ray, Bowman, & Robbins, 2006). Winton and McCollum (2008, p.6) stated that “little is known about the context, content, needs, and practices of early childhood faculty and programs”. This is generally still true.

Early et al. (2007) and Early et al. (2006) reported that children’s academic achievement is better predicted by proximal variables such as teachers’ communication skills than by distal variables such as their credentials from a TE programs. Such research motivates closer examinations of ECE TE programs. As Hyson, Tomlinson, and Morris (2009, p.1) write, “The quality of the higher education program—that is, how well it prepares new teachers by, for example, grounding them in knowledge of child development and academic subject areas and providing them opportunities to practice new teaching skills—may be a more critical factor in a teacher’s ability to influence children’s development and learning in a positive way than having a degree per se.” With this in mind, we now focus on a study and an evidence-informed discussion about challenges and opportunities facing ECE TE programs preparing teachers to work in U.S. public schools.

The Penn State University Study

In this section we present selected results of a study conducted by a team of researchers that included, in addition to the co-authors of this chapter, Rick Fiene, Kathleen McKinnon, Sudha Babu, Michael Johnson, Serap Celik, and Mei-Fang Cheng- from The Pennsylvania State University’s (Penn State) College of Education in collaboration with the College of Health and Human Development (Johnson et al. 2010). *A study of ECE pre-service teacher education at major universities in 38 PreK states*, funded by the Foundation for Child Development, investigated 40 major research one (R 1) public universities across the nation. Concentrating on 38 states that have state funded PreK programs, the study focused on types

and make-up of certification and degree programs that serve to prepare teachers of young children. Forty-two ECE TE preparation programs at institutions of higher education (IHE) were studied in order to provide a description and analysis with special reference to the PreK movement and PreK-3rd educational approach in public schools. The study was organized around several central questions. How are TE programs preparing new ECE teachers to work in contemporary public schools? How have these ECE TE programs changed in response to PreK and PreK-3rd? What factors help and hinder ECE TE programs? Web sites, survey questionnaire data, and phone interviews comprised the information sources used generate evidence to help answer the research questions and generate new considerations.

Here, results are presented and ideas are discussed about program elements, improvements, and policies in relation to ECE TE in the US. Findings include: Program Features, Components, and Configurations; Program Changes and Plans; PreK and PreK-3rd Impact on Programs; Perceived Factors that Hinder or Help; and Exemplary Programs. It is our intent to discuss results from the Penn State University Study using a narrative format that unfolds other pertinent studies thereby illuminating ECE TE in IHE. The Conclusion of this chapter then discusses some impetus and hints for ECE TE program improvements in efforts to better prepare effective teachers to work in PreK and PreK-3rd classrooms in public schools in the US.

Program Features, Components, and Configurations

Twenty-one of 42 programs studied were NAEYC accredited, however all the programs offered pre-service training leading to ECE teaching certificates. Forty programs accomplished this in conjunction with a bachelor's degree and 2 in conjunction with a master's degree; 4 programs required a fifth year for completing the certification program. Masters programs were reported at 32 universities, while doctoral programs were available at 23 universities. Twenty-four programs were located in Colleges of Education which is consistent with recent research (Maxwell, Lim, & Early, 2006a; Maxwell, Lim, & Early, 2006b). Sixteen programs were without diversity representation on their faculty; similar faculty reports of low diversity representation and challenges attracting and retaining ethnically and linguistically diverse faculty are seen in other recent studies (Lobman, Ryan, & McLaughlin, 2005; Maxwell, Lim, &

Early, 2006a; Maxwell, Lim, & Early, 2006b). Similar studies report that diverse ECE TE student populations are more likely than diverse faculty population (Maxwell, Lim, & Early, 2006a).

Student teachers in the ECE TE programs had opportunities to acquire fieldwork experiences with preschoolers in a wide range of programs. ECE TE programs reported Preschool fieldwork in Early Head Start (11), Head Start (25), sites in Public Schools (24), Community sites (28), Campus ECE lab schools (27), and Campus Child Development Centers (11). Encouragingly, all ECE TE programs reported using fieldwork opportunities sites that were inclusive of special needs and culturally/linguistically diverse populations. These results accord with other studies (Lim & Able-Boone, 2005; Lim, Maxwell, Able-Boone, & Zimmer, 2009; Lobman, Ryan, & McLaughlin 2005; Ray, Bowman, & Robbins, 2006; Ryan & Lobman, 2008).

Program Changes and Plans

ECE TE program changes and plans related to new developments, extensions, standards, and state certification bands. Additional program changes targeted alternative pathways to certification, redesigning fieldwork and courses to meet early learning standards, and adjusting programs in response to state changes in certification bands. A popular program change created a new dual license by combining ECE and special education TE, and most programs were recently required to add 6 credits of Special Education or Inclusion credits to ECE teacher preparation.

Program changes in partnerships and collaborations were reported. ECE TE programs were forming new links with academic departments, such as physical therapy, psychology, human ecology, and special education. Connections with public schools, partnerships with state agencies, and articulation agreements with community colleges were identified. New emphases like state early learning standards or early literacy were identified. New courses and practicums were noted suggesting a dynamic can occur where some program changes lead to more program changes. Interview responses identified changes due to universal Pre-K, the PreK-3rd initiative, and changes in state certification bands. Additional changes were seen due to alterations in state standards for ECE TE programs; for instance, some states issued mandates with more requirements regarding special education courses and fieldwork.

Professional development activities to improve ECE TE programs included conferences, retreats, workshops, and site visits in addition to faculty meetings, new committees, and mentoring. New faculty professional collaborations were formed with PreK and PreK-3rd in public schools and with other units on or off campus, such as other university departments and colleges, community agencies, or state departments.

PreK and PreK-3rd Impact on Programs

The majority of the ECE TE programs indicated that PreK and PreK-3rd public education affected their programs: somewhat (37.7% PreK, 25% PreK-3rd); definite impact (26.8% PreK and 27.5% PreK-3rd); and strong impact (9.8% PreK and 10% PreK-3rd). There were 13 programs who saw little or no impact from PreK and PreK-3rd; interviewees explained these initiatives and program alterations were already well established.

Few program collaborations were reported with future school principals, school psychologists, superintendents, or school counselors who will hold important positions in public schools in connection with both PreK and PreK-3rd. Despite this deficit, programs report strong use of practicum sites; 36 of the 42 programs (85.7%) reported that they readily their use PreK and PreK-3rd public schools as practicum sites.

Methods courses were configured with respect to how topics were presented for grade implementations. Language and Literacy methods most often were reported as separate courses for PreK and primary (57.5%), followed by Math methods (45%). Other methods courses were most often covered in the same course. ECE TE programs on the average rated themselves as good-to-excellent in most content area courses, particularly Language and Literacy (3.59), Teacher-Child Relationships (3.54), and Teaching Strategies and Tactics (3.49). Programs rated themselves somewhat less positively in the areas of preparing students for Diversity (3.32), Families (3.5), Inclusion (3.24), and Math (3.2). While programs considered themselves good in Science (3.02) and Technology (3.02), they thought least well of themselves in the following areas: Teamwork for P-3 (2.55), Infant/Toddler Development (2.53), English Language Learners (2.59), and Transitions into PreK (2.62) and Between Grade Levels (2.44). Interestingly, they rated themselves notably higher for transitions between PreK and Kindergarten (2.80).

Sixty percent of programs reported research on Inclusion, and 55% on Diversity. Teacher-Child Relations and Human Development research occurred in 50% of programs. Other topics occurring less than 50% were: Family-School-Community Partnerships (35%); English Language Learners and Technology (each 32.5%); and Family Member-Teacher Relations (30%). Research participants were teachers (74%), preschoolers (72%), mentors (20%), administrators (13%), and supervisors (5%). Intermediate levels of interest were indicated for studies with the following kinds of research participants: student teachers (51%); kindergarteners (46%); teacher educators (46%); parents (38%); infant & toddlers (36%); and primary grade children (33%).

All 42 ECE TE programs saw preparing for the PreK-3rd continuum as a significant aim, and many considered this their central goal. The question, "How do your students learn about coordinating curriculum and instruction across the PreK-3rd continuum?" generated a variety of answers. One respondent said, "There is an emphasis on child development. We are grounded in development but try to give far more focus on diverse families, differences in family-community-cultural contexts." Another response explained, "Team building embedded in the special education course, inclusion, learning about collaboration with multiple disciplines...talking about the transition process, PreK to kindergarten for all kids, and entry into PreK classes from early intervention programs. This happens in infant-toddler methods courses and PreK methods courses," thus helping students be more responsive and sensitive to individual differences and variability in rates of development at the higher grades. Multiple field experiences across different age groups was viewed as very helpful, as were courses and coursework that included different ages/grades, or were dedicated to integrating the curriculum. Several ECE TE programs noted that this aim is important because of NAEYC standards and that they follow NAEYC and provide learning field experiences in preschool, kindergarten, and primary grades. Students create and present portfolios showcasing how their work demonstrates alignment to NAEYC standards.

Further, in response to the above question about coordinating curriculum and instruction across PreK-3rd, participants shared challenges. For instance, some school buildings house PreK and K only, so student teachers cannot see how these levels are coordinated with the primary grades during their practicum. As one respondent explained, "The developmental

perspective creates a bridge, the educational system creates gaps.” Another noted that the quality of coordination depends on the professor or the students in the class; sometimes there are students in the elementary certification program enrolled in the same class as ECE teacher candidates. Sometimes adjunct professors hired to teach methods courses do not attend faculty meetings or do not share a common understanding about ECE. Also reported as problematic were adjunct professors who covered content, curriculum, and student evaluation through the 6th grade. Some courses did not include content connecting ECE with K-12 models of teacher preparation, thereby missing the important goal of learning how to coordinate curriculum and instruction from PreK-3rd.

Perceived Factors that Hinder or Help

Participants offered candid responses regarding relationships between ECE and Elementary TE programs and faculty. Six programs saw a positive relation between ECE and Elementary faculty/program, 6 programs were negative, and 7 programs were a mixed relationship. Nearly half of the programs were judged to be independent or separate from each other. Some programs described a strong, competitive relationship in which ECE TE complemented the Elementary program. In one program, a community donor helped support the ECE TE program, garnering more respect in their college, university, and community. Another robust ECE TE program described its relationship with Elementary TE as, “Fine. It’s good,” although the ECE faculty was decreasing compared to the Elementary program. Multiple field experiences across the age/grade range, helping student teachers learn about transitioning, practicing developmental continuity for learning, and curricular alignment contributed to a positive relationship for exemplary collaborations. Sometimes, commonalities were seen in the faculties’ educational philosophies. Mutual respect and administrative support were reported as well. As one respondent said, “We have a strong social constructivist approach that permeates birth to age 8 years, and the Elementary have a subject matter focus but say they are constructivists.” This respondent went on to say that each has a long separate history and philosophy, and sometimes the relationship is more productive than at other times, however improvement came with new faculty. Nevertheless,” Our students see we differ in how we talk about children, we have different jargon and students have trouble

bridging the gap.” While these programs described positive relationships between ECE and Elementary TE, their responses were nuanced. There was not a single ECE TE program that viewed themselves as operating as a harmonious whole with Elementary TE. Faculties were distinct and identified with either ECE or Elementary, not both; this is quite different from the relationships described between ECE and Special Education.

While positive factors describing the relationship between ECE and elementary faculty and programs were noted, programs also reported clearly negative factors. For instance, Elementary TE would benefit from connections with ECE and better understand early child development. Echoing this disconnect, a program classified themselves as the “poor cousins” despite faculties meeting monthly and collaborating on student admissions.

Some ECE TE programs reported thoroughly negative relationships between the ECE and Elementary, and explicitly negative statements dominated responses. Comments indicating a lack of respect and communication were common. As one respondent said, “There is no collaboration, no communication, we do not serve on committees together.” Another program serviced by, but not in a college of education, was worried about a take-over by the college of education with resulting disregard for DAP, infants and toddlers, and the importance of the family in education. Deep resentment and frustration were heard in replies such as, “Negative... there is really nothing to discuss,” and “We are substandard.”

Negativity carried over to public school placement sites. One respondent said that many principals do not want “those kids” (pre-kindergarteners) in their building, and they are often put in separate buildings with the kindergarten classrooms. First grade teachers often share the principals’ negative attitudes about ECE. Even though her state has a state-wide assessment system involving transferring a child’s folder onto the next grade level, one teacher reported, “...first grade teachers throw it in the trash...there is not a lot of respect...the first grade teachers say ‘aren’t those babies cute.’” She added that barriers are beginning to be knocked down, but there is great room for progress. Other programs cited an underestimation of the complexity of ECE’s philosophical differences and that it is difficult to be in a position of weakness. As one respondent put it, “you have to pick your battles.”

By far the most common characterization was of the relationships between ECE and Elementary was ‘independent’. Commonly shared statements included, “They are totally

separate programs,” and “Parallel programs that do not intersect.” One succinct explanation offered, “We (ECE) have distinctly different foci—we have primary concern with the child and elementary on content; we see the world differently.” This state of affairs was noted in a matter of fact way for the most part, without positive or negative connotations or evaluations. For example, one respondent said, “In teacher preparation the ECE and the Elementary are distinct programs with little overlap—the only overlap is in the general education requirements. Method courses are distinct. All method courses are distinct.” As a second example, the interviewee stated that, “We are in the same department but have different program requirements...elementary aims for deep content knowledge...they have a minor...they do not have a family course...educational psych provides the child development course. ECE is user friendly, offering evening classes, flexible, and has grown. We have equity and resource issues that serve to keep things tense below the surface.”

Aside from ECE and Elementary relationships, the most frequently reported program weaknesses had to do with attitudes and budgets. Negative attitudes can be seen in statements such as “Department divisions play a huge role in what curriculum exists, the content in TE, and philosophical differences—the very strong behavioral traditions are an obstacle.” Sometimes ECE was viewed (by administration) as separate but not equal to Elementary education. A clear example was, “There are attitude problems, people not having a commitment, or agreeing with certain content areas emphases, such as the courses needed...there is difficulty in convincing people of the importance of what is needed in ECE and that it is not the same needs as Elementary Education.” These and other explanations mirror the controversial differences between the two perspectives as examined in recent studies seeking to understand and bridge the disconnections between ECE and Elementary Education (Delaney, 2015; File & Gullo, 2002; Whitebook, Gomby, Sakai, & Kipnis, 2009).

In addition, budget woes and lack of faculty were clearly seen as negatively impacting quality ECE TE programming. For example, one respondent said, “There was a 15% budget cut and we lost two of the four tenure-line faculty.” Other kinds of impediments were heard. Respondents explained, “The state government has made it more difficult to get certified in a timely fashion,” and “It is difficulty to move students to diverse field placements...there are

very rigid and tight time parameters...supervision is done by adjuncts not in ECE." In addition, one respondent bemoaned the fact that student teachers did not get exceptionalism and SES diversity in their placements. There were shortages of cooperating teachers, placement sites, and staying informed. Regarding "staying informed", a recent study reports that 19% of faculty member study participants considered themselves to be in "survival mode" and lacking support (Hyson, Tomlinson, & Morris, 2009).

Despite challenges and reported program weaknesses, ECE TE respondents remained hopeful and described significant assets such as: faculty and staff of the ECE TE program and department; strong collaborations; and research activity. Many respondents reported that assets were helpful for achieving success in teacher preparation and in fulfilling their commitments to the students. Many stated assets related to the faculty themselves. For example, one respondent said, "We work well together and are committed...collaborate constantly, take time, take five hour retreats three times per semester...even though we do not get any credit for this." Department operations and policies supporting the ECE TE programs were identified as assets; for example, granting release time, course release, or extra money was explained as, "We have good administrative support."

Frequently reported assets included research and collaborations. Connection to various departments, programs, state agencies and public schools were describes as strong assets. Some ECE TE programs reported being energized by collaborations that were very important to the faculty and its mission of preparing new ECE teachers. One respondent noted, "Early childhood is very visible in our state because of the PreK and PreK-3rd initiatives...there is outreach to Head Start." "New collaborations involve working with the Family Literacy Program on offering a reading and writing course," added another respondent. Many kinds of exciting, well-established, and relatively new arrangements were noted. Sometimes collaborations involved research with interdisciplinary and interdepartmental research teams. Often this involved research between ECE and Special Education. In contrast, others noted research done more independently and exclusively within their own ECE TE faculty. One respondent said, "We have a great deal of autonomy. We have a four-year grant to study assessment."

Program plans often were based on perceived strengths or weaknesses of ECE TE programs. While 5 programs identified as continuing in survival mode, the vast majority of respondents described program plans in general or resulting from new certification requirements. Here were answers such as, “Become an important part of a state-wide initiative to improve ECE quality in programs”, “Better serve minorities and families impacted by poverty”, “Have the state approve our latest changes”, “Develop a fourth grade and a fifth grade endorsement”, “Pull together and reinvent our program”, and “Need more training on inclusion.” Faculty-related plans included fulfilling specific needs by bringing in an infant-toddler specialist, a bilingual teacher educator, or someone in math or science, and general desires such as “much more full-time faculty”, or “a new tenure track line in ECE”. Other plans pertained to recruiting students, students from diverse backgrounds, or graduate students; some plans focused on courses, research projects, field placements, or collaborations. A few plans explicitly dealt with improved relationships between ECE and Elementary programs and faculty. Overall, programs were heartily committed to better preparing new teachers for teaching children in PreK and PreK-3rd public schools.

Exemplary Programs

Information from selected case studies offered important, transparent representations of successful ECE TE programs. Shown were positive features such as: high level of engagement and energy in program implementation; collaboration across departments and colleges; highly dedicated, experienced faculty; ECE and Elementary programs collaboration and cooperation; strong Pre-K or early childhood activity at the state level; support staff and other resources; and central administration support. For example, one state university funded the Parents as Teachers initiative for birth- three-year-olds children and their families and an At Risk Four-Year-Old Children Preschool. Launching public PreK programs included training teachers on the state’s new Early Learning Standards. Also of interest was the Early Childhood Higher Education Option (ECHO), a consortium comprised of special education, early childhood, and elementary faculty to create TE programs that meet standards for the Early Childhood Unified License. ECHO helped with developing curricula, courses, and learning resources to support on-campus instruction.

In the same state, but at different universities, an ECE TE program located in a College of Human Ecology, School of Family Studies and Human Services prepared graduates to work with young children in the Unified Birth to K program, accredited by both NAEYC and the Council for Exceptional Children (CEC). Courses included child development, family, assessment, special education, and classroom management and included excellent instruction on infants and toddlers and inclusive education. Although PreK-3rd was not an important program influence, this program prepared students to teach children from birth to K using sequenced planned instruction, field experiences, and reflection. Their Lab School offered a state-of-the-art experience for ECE pre-service students studying infant and toddler care and education and inclusive practices.

In a second ECE TE program in the same state, The Birth to 3rd Early Childhood Unified License is earned in a four-year Bachelor of Science degree program plus graduate work in a fifth year leading to a master's degree. The program is housed in the School of Education in the Department of Curriculum and Teaching, Graduate Licensure Program. Course work included: child development; infant-toddler development; applied child development, subject matter methods courses such as math and science; family; technology, special education; assessment; and diversity. Reported field placements included diversity and inclusive contexts and sites covering a range of PreK- 3rd levels. Exemplary programs often operated effectively despite concerns and challenges. This program reported strained relations with Elementary faculty who were seen to believe that increased student interest in ECE was due to the assumption that ECE courses were easier. Another concern reported was that students in the birth to 3rd grade program were required to take methods courses with content preparing them to teach up to sixth grade; these courses combined ECE and Elementary students.

Both ECE TE programs in the above state offered excellent programs preparing new teachers to work in inclusive settings making effective use of PreK practicum sites. The program with the smaller faculty, the second one, interestingly had a doctoral program. Both programs voiced similar concerns relating to the need for deeper, more authentic, and functional relations with the Elementary TE faculty. Both programs' survey and interview responses suggested that having more viable and positive ECE presence in the public schools was an important goal.

As a third example, an ECE TE program in the mid-Atlantic, reported that their program led to a birth to kindergarten certificate and a separate Elementary TE program led to a kindergarten to 6th grade certificate. However, TE programs were linked with The First School Initiative that is committed to: addressing collaboration across professional and institutional settings; creating greater communication and collaboration across home, school and community settings to insure greater coherence and continuity across the preschool and primary grades; and exploring the potentials of inquiry-oriented curriculum to support children's home-school transitions and involve children's families in their early education. Increasing cooperation was reported: between ECE and Elementary TE and the campus Child Development Institute; between Human Development and Psychology within the School of Education; and between Allied Health and Communication departments. Professional development that crosses disciplinary lines to better serve professional needs for working in public schools with PreK-3rd is an important goal.

In summary, these and other programs in the study showed dynamic and adaptive responses to challenges in exemplary preparing teachers to work with young children in the public schools. Significant faculty cooperation between ECE and Elementary TE programs was described, as well as collaboration across departments and even colleges. Committed and experienced ECE faculty, even if relatively small in number, designed and implemented very successful programs, especially if they had central administration support, staff, and resources.

Significant state-level contextual features were important. These features, external to the TE programs, are governmental or of the private sector or both. Examples included the establishment of an Office of Child Development, a Children's Cabinet, and the ECHO noted above. Collaboration across TE programs, public schools and communities supported by states was seen in a network of EDUCARE programs with emphasis in infant and toddler TE; First Schools was another strong example of collaboration across entities. These and other positive developments at the state level are affecting how ECE TE programs are working to prepare teachers to work young children in the public schools and other settings.

Exemplary ECE TE programs were meeting national standards in a variety of ways, including preparing ECE teachers to effectively work with diverse children and families in

inclusive educational settings. In addition, programs show that they are becoming more differentiated or specialized to meet new realities and anticipate challenges teachers face in public school settings. In these and other ways, exemplary programs are addressing issues and dilemmas in contemporary ECE TE (Katz, 2009). The influence of PreK and PreK-3rd on ECE TE programs is evident; programs clearly articulated the conceptual framework of PreK-3rd teacher preparation. Lee Shulman (2006) has called this having a 'signature pedagogy'. As a clear example, one ECE TE program had TE-PLUS for *Professionalism, Leadership, Understanding, and Scholarship*; this exemplary program aspired to prepare highly effective teachers as educators, communicators, decision-makers, scholars, action researchers, and leaders.

Conclusion

The Penn State study, *A study of ECE pre-service teacher education at major universities in 38 PreK states* (Johnson, et al, 2010) was organized around several central questions. How are TE programs preparing new ECE teachers to work in contemporary public schools? How have these ECE TE programs changed, if they have, in response to PreK and PreK-3rd? What factors are perceived to help and hinder these ECE TE programs in their efforts to prepare effective teachers to work in public schools? Here, we present Conclusions from the Penn State study and close with Recommendations and Final Thoughts.

This study demonstrated the ECE TE programs are meeting national standards and are making definite progress in responding to the challenges we face as a nation in preparing teachers for the 21st century to work in inclusive settings and with diverse children. Coursework and field experiences of all of the programs studies cover the key areas of child development and family relations, for example. Similarly, coursework in math, science, and literacy is consistently found, however the highest ratings on effectiveness are seen in language and literacy. This may have been due to the decade's influence of NCLB and the premium put on preparing teachers to support literacy development and teach reading. Program content emphasizing early learning, K-12 learning standards, assessment, technology, and professional ethics is encouraging, although some topics like infant-toddler development, professional leadership, and advocacy deserve more attention. In all, the ECE TE programs are meeting national standards.

Programs are very concerned about helping new teachers become prepared for working with children with exceptionalities and special education needs; the importance of teaching in inclusive settings is apparent. Courses and field experiences are devoted to these subjects, and faculty research on inclusion is the most popular research topic. Still, ECE TE programs need to promote better understanding and skills in new teachers to work with culturally, ethnically, and linguistically diverse children; courses, field placements, and faculty research agenda would benefit from further investment and support. Faculty dedication was evident; ECE TE faculty often saw themselves as an indicator of program strength and noted their research and commitment to teaching. In response to shrinking budgets, faculty funded their own retreats, workshops, and professional development.

About half the ECE TE programs report impacts from PreK and the PreK-3rd with PreK a stronger impetus for change. The moderating factor appears to be timing of state funding for PreK initiatives. The adoption of state early learning standards, new teacher licensing, and different certification bands affected ECE TE programs. The clearest sign of PreK influencing program development are faculty responses indicating increased teamwork and coordination coursework, efforts to align program with NAEYC's TE standards, and moving placement students into more diverse settings. The least favorable self-perceptions occur in PreK and PreK-3rd transitions. In order to better prepare new teachers for the PreK-3rd approach to school organization, greater attention needs to be given to transitions; coursework and field experiences dedicated to team-building and collaboration across the PreK-3rd continuum would be necessary as well.

Even as there is growing recognition of the PreK-3rd framework, ECE TE programs remain committed to traditional goals such as preparing teachers to work with infants and toddlers, teaching in non-public school settings, closing the achievement gap, and instilling values such as social justice. Concerns about compensation, adaptive leadership, and multicultural competence were reinforced too. While heralding the importance of PreK and PreK-3rd, ECE TE programs see these two movements within the broader context of these other concerns.

While there are multiple factors that help or hinder ECE TE programs, our attention is drawn to the reports of significant challenges and stressful constraints under which programs

operate. Relative to Elementary TE faculty, ECE TE faculty is small in size; consequently ECE faculty often have less influence when decisions are made. At research universities pressure exists for faculty to secure external grants, engage in research, and publish in peer reviewed journals. ECE faculty few in number must juggle their research obligations with teaching and running a program. Fiscal constraints restrain the recruitment of new faculty members, and faculty work longer hours and assume additional responsibilities, leaving less time for research. Other challenges include: reliance on adjunct faculty, inconsistent instructional practices, and pressure to keep programs under four years. Access to quality field placement sites is seen as a program hindrance as was a shortage of field supervisors and cooperating teachers, field placements restrictions, and a limited number of field visits.

Considering compelling factors that help or hinder, one of the most clearly articulated issues is the relationship between ECE TE and their Elementary TE counterparts. Some programs describe favorable or independent co-existence, while others report mixed or negative relationship. The Penn State study reveals multiple points of tension between ECE and Elementary TE programs and faculty. The ECE TE emphasis on DAP often conflicts with Elementary TE academic focus and teacher-focused instruction. Competition over common placement sites, shared methods classes, and faculty lacking ECE knowledge are drawbacks. The dominance of a K-12 perspective and disrespectful attitudes, such as, "Transition practices and sharing information are not that important, because the preschool teacher is not really teaching anyway- just minding little babies," strain relationships. Often heard is that ECE TE operates in accord with a child-centered philosophy, and the Elementary TE program is content-centered; these philosophical differences are deeply embedded in the two different professional identities. For instance, ECE TE faculty engage in different state-level professional development activities than do Elementary TE faculty. ECE and Elementary faculty read different literature, subscribe to different journals, join different professional organizations, and in general have different traditions and histories. Consequently, professional networking and the collegial friendships are impeded.

Final Thoughts

ECE TE programs in IHE in the U.S. are responsible for preparing new teachers to work with young children in the public schools. PreK and PreK-3rd have generated changes in ECE

TE programs and have shown them to be adaptive and dynamic. ECE TE remains highly committed to child development and family studies principles as depicted in table 1 and earlier discussed. The field embraces opportunities for interdisciplinary work, community networking, and establishing a social ecology well-suited for serving an increasingly diverse preschool and school age population.

As well as changes, PreK and PreK-3rd have also created challenges for ECE TE programs. Perhaps the most perplexing issue is represented by the double helix model (Darling-Hammond, 2006) presented at the beginning of this chapter. Can ECE TE and Elementary TE faculty and programs establish a balance between child-centered perspective and content-centered perspectives? If new teachers in the public schools are required to embody the best of both perspectives, as represented by the double helix model, then how can they be expected to be able to do so unless their teacher educators do likewise? There are plenty of strong examples of teacher educators from both traditions, ECE TE and Elementary TE, who hold in common value children and families, childhood as a unique time of development, and the beauty of lifelong learning. Both ECE TE and Elementary TE traditions must step beyond “narrow definitions of learning” to embrace the language of human development (Armstrong, 2006). Teachers are waiting, and young children in PreK and PreK-3rd in US public schools are counting on us.

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