Preparing Teachers

in Blended Early Childhood Education Programs:

A Report from 10 Years of Graduates

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ABSTRACT

Over 10 years, five state colleges and universities in a Midwestern state offered blended early childhood education training programs. A total of 242 teachers with unified ECE teaching endorsements in this state completed an online survey exploring their preparedness for work in inclusive settings with children birth to grade 3. Results describe teachers' current employment setting as well as ratings of effectiveness for instructional strategies used in college courses and various field experiences, and their feelings of preparedness. Overall, teachers valued their college coursework and field experiences and felt most prepared for Pre-K populations. Teachers reported limited or ineffective field experiences with infants and toddlers, and families from diverse cultures. Teachers also reported a lack of preparedness for working with special education teams and children with disabilities or challenging behaviors of any age. Implications for curriculum revisions and future research are presented.

Key Words:
Blended programs
ECE personnel preparation
Teacher preparedness
Field experiences
Inclusion

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The concept of teacher preparedness may be subjective but is considered one measure of teacher quality (Lewis, 1999). Factors influencing teachers' feelings of preparedness for their chosen profession and the age groups and content they will teach and strategies they will use include the quality of their preservice education as reflected in descriptions of its depth and breadth of courses and varied field experiences (Darling-Hammond, Chung & Frelow, 2002).

For young children, birth through third grade, teacher preparedness is especially important (Bornfruend, 2011; IOM/NRC, 2015; National Research Council, 2001). Early childhood education (ECE) teachers must understand typical and atypical developmental patterns in young children and the influence of environments and adult-child interactions on children's development and learning. They also must have preservice opportunities to a) observe experienced practitioners, b) practice new skill sets and philosophies of education and care with infants, toddlers, preschool and early elementary age children in a variety of settings, and c) learn how best to engage parents as partners, given the young age of the children (IOM/NRC, 2015). Training ECE teachers has become a complex effort as institutions of higher education (IHEs) focus attention on relevant curricular content and field experiences that best prepare students for the wide age range of children, abilities and settings now common in early care and education in the United States. Furthermore, IHEs must address content within campus and state requirements for degrees and teacher certification.

A Call for Blended Programs

A number of federal laws over the past 50 years have prompted considerable shifts in how early childhood educators are trained at the preservice level (Piper, 2012). For example, the advent of programs in the 1960s and 70s for preschool children at high risk for school failure due to family

poverty (i.e., Head Start), and later for infants, toddlers and preschool age children with disabilities and developmental delays and their families (Individuals with Disabilities Education Act, IDEA,1975, 1986, 2004) required IHEs to broaden their scope of training for teachers. In recent decades, two other societal changes have influenced the population of children early educators need to be prepared to care for and/or teach. First, the United States has witnessed increases in populations of immigrant families with young children, diverse cultural practices for raising children, and non-English speaking children entering schools (Garcia & Frede, 2010). Second, welfare reform policies that prompted single mothers to return to school or obtain employment resulted in greater numbers of infants and young children with diverse developmental skills and needs being enrolled in child care and home visiting programs, and in state- or federally-funded preschool and elementary school programs (IOM/NRC, 2015; Kameron & Gatenio-Gabel, 2007). In turn, IHEs have had to consider adjustments in curriculum for prospective early childhood teachers.

The call for inclusive education experiences for children with disabilities and a focus on family-centered services for infants and toddlers with disabilities in natural learning environments (IDEA, 2004) also prompted preservice early childhood education programs to consider the benefits of blended or “unified” programs of training. These blended programs had to address developmentally appropriate practices (DAP; Copple & Bredekamp, 2009) that included greater focus on infants and toddlers, home visiting practices, family systems and cultural diversity, as well as special education processes for prevention as well as intervention programs and the instructional strategies needed for changing children’s developmental trajectories in the early years. Furthermore, teaming skills were included to prepare early childhood educators for collaborative, diverse and inclusive work settings (DEC/NAEYC, 1993,1998; Hyson, 2003), which have continued to grow in our communities.

Blended early childhood education personnel preparation programs have been promoted by national organizations since the 1990s (Burton et al. 1992; Miller 1992; Stayton & Miller 1993). The National Association for Education of Young Children (NAEYC) and the Council for Exceptional

Children's' Division for Early Childhood (DEC) long ago recognized that their professional missions had more similarities than differences and that all early childhood educators must be prepared to welcome, guide and support the learning of all young children birth to age 8 (DEC/NAEYC 1993;1998; Piper 2012). Their Joint Position Statement on Early Childhood Inclusion for young children (DEC/NAEYC, 2009) called for a revision of program and professional standards to reflect a shared definition of inclusion and an integration of professional development systems to assure practitioners know how to provide all children birth to age 8 access to, participation in and supports for developmentally appropriate learning opportunities. ECE programs nationally however reflect a variety of curriculum packages with differences noted for what ages are addressed (birth to age 5, birth to age 8, prek- grade 3), what professional standards are used to guide curriculum and even what terms are used to identify blended programs (blended, unified, inclusive ECE) (Bruder 2010, 2015; Stayton, Smith, Dietrich & Bruder, 2012).

Generally, the need was evident that prospective early educators understand not only developmentally-appropriate practices but also recommended practices for young children with disabilities (DEC 2005, 2014). However, in a review of 39 IHEs with reported blended ECE programs, Miller and Stayton (1998) found that only 5% of the programs were using the professional standards from NAEYC and DEC in designing their programs of study. Furthermore, field experiences were not consistently including children with disabilities or families with children with disabilities nor providing supervision from faculty or staff with knowledge/experience with students with disabilities; access to quality inclusive ECE settings were limited. At the turn of the century, 18 states had begun to blend the professional standards from both organizations to guide quality teacher preparation for children birth to age 8 (Stayton & McCollum, 2002). More recent reviews of state certification standards however found that some states offering blended ECE programs had less than 25% of the CEC standards reflected in their professional standards for early childhood educators but 40%-90% of the NAEYC standards (Stayton, Smith, Dietrich & Bruder, 2012), and less than one-third specified requirements for work with infants and young children with disabilities in

Part C programs (Bruder, 2015). Finally, the IHEs reviewed more recently had greater representation of CEC/DEC standards (21%-98%) than their states' teacher certification documents required, but the range of NAEYC standards in IHE programs was still higher at 85%-100% (Stayton et al., 2012).

Evaluation of Blended Programs

The design and success of blended ECE programs have been only minimally documented. Piper (2012) summarized her review of research in this area into studies highlighting benefits and barriers for administration, faculty, students, curriculum and society. Benefits to students included increased opportunity for employment and increased confidence for work with families from diverse cultural and socioeconomic backgrounds and possibly an attitude that simply expects inclusion of diverse populations of children in their classrooms. For example, Dunne's (2002) survey of faculty and students in 27 programs across the country revealed that students in blended programs had a balance of ECE and early childhood special education (ECSE) course content as well as field experiences with children with and without disabilities. The students in ECE-only programs had minimal knowledge of ECSE content and few if any field experiences with children with disabilities or developmental delays. Furthermore, LaMontague et al (2002) found that graduates from unified ECE programs had more extensive knowledge than students in other ECE programs related to teaming and collaboration. Also, the unified majors had more competencies and skills related to work with families.

Challenges or barriers identified by graduates of blended programs in Piper's review also included descriptions of programs with a lack of adequate training for special populations. Piper (2012) cited Miller and Losardo (2002) findings from a state-wide review of survey data from first year ECE teachers who had completed preservice preparation in one of seven state-approved blended programs. Graduates reported greater confidence in their knowledge and skills for general early childhood education and child development than in areas relevant to ECSE. Specifically, graduates called for more preparation in working with families, behavior analyses and working with

children with moderate to severe disabilities. Piper (2012) called for continued efforts to describe blended programs and their outcomes as reported by teachers who can describe their preparedness for the roles they assume as teachers of children with a range of abilities, birth to age 8.

The relationship between teacher preparedness and teacher self-efficacy has been solidly established in studies of preschool, elementary and secondary teachers (Ingvarson, Beavis & Kleinhenz, 2007; Romi & Leyser, 2006). Dalgar and Sahbaz, (2012) established a relationship between preservice teacher preparation and the teachers' beliefs about inclusion of students with disabilities; factors influencing that relationship included teachers' field placements and student-teaching experiences. Other studies have confirmed that the degree to which ECE teachers believed they were prepared to implement inclusive practices influenced their reports of confidence and competence for including young children with disabilities birth to age 5 in learning activities and social contexts (Dunst and Bruder, 2014; Geoghegan, et al. 2004; Proctor & Niemeyer, 2001).

Proposed Study

The current study was designed to collect information from ECE teachers who completed their college coursework and teacher certification training between 2003 and 2013 from one of five blended ECE programs in a mid-western state. The state had instituted a unified early childhood teacher certification endorsement in 2001 (Birth to Grade 3) and universities and colleges received state support to design/redesign undergraduate ECE preservice programs to reflect those endorsement standards. The state standards at the time however did not include all NAEYC and DEC professional standards, but were instead an abbreviated representation of those standards addressing child development/learning, assessment/evaluation, curriculum development and implementation, family relationships and professionalism; each area had five to nine expected skills or knowledge statements that colleges were expected to address in coursework and field experiences. Teachers with the unified ECE endorsement were presumed eligible for positions as inclusive elementary level classroom teachers, kindergarten teachers, ECE and ECSE preschool teachers, as well as teachers of infants and toddlers. Subsequently, in 2011 the state revisited its

standards for ECE teachers and established a blended set of NAEYC and DEC standards for the unified teacher certification endorsement (Birth to Grade 3) to better reflect state and national calls for highly qualified ECE teachers for inclusive preschool programs, and the increase in state-sponsored infant/toddler programs for high-risk populations and their families (DEC/NAEYC 2009; NDE, 2015).

The current survey aimed to explore teacher preparedness for inclusive settings with children birth to grade 3. The results provide faculty at colleges and universities information they can use to build/revise blended ECE training programs as they consider teacher certification requirements and NAEYC and DEC personnel standards. Both quantitative and qualitative data were sought to learn what positions the graduates secured as ECE teachers, what populations they served upon graduation or thereafter, and how prepared the teachers reported themselves to be for these positions. Furthermore, to date, there had been no systematic evaluation of the state's investment in blended ECE preservice programs. A survey of ECE teachers with unified ECE endorsement provides a consumer/stakeholder perspective on teacher preparedness for the profession and reflects indirectly on the quality of IHEs' efforts to prepare highly qualified teachers in this one state.

Methods

Participants

The investigators sought the cooperation of the state's Department of Education in securing email addresses for possible participants. The state agency willingly provided the school email addresses for 502 teachers who met specific criteria at the time the study was initiated. Email addresses were secured for teachers holding the Early Childhood–Unified (Birth to Grade 3) endorsement and who had been employed as a teacher in the state public schools in the past 3 years; email addresses were not consistently available for teachers with longer unemployment in the state's schools. In addition, email addresses for graduates over a 10-year period from one of the state's oldest and largest ECE programs were used as a cross check with state email addresses

and provided 64 additional contacts; no other school had available email addresses for graduates of their blended ECE program.

A total of 264 teachers opened the online survey (53% response rate); 242 teachers met inclusion criteria and completed the survey for a representation rate of 48%. The surveys not used for analyses included 22 from teachers who completed at least part of the survey but indicated no recent employment in the public schools (n = 18) and/or had extensive amounts of missing data (n = 4). The final sample included 222 employed teachers and 20 who had been employed sometime in the past 3 years. Teachers represented graduates of all five, blended ECE programs established in the state from 2003 to 2006; 17% graduated in the past 12 months while 55% completed their degrees in the previous 5 years; 27% graduated between 2003-2007. The vast majority of respondents (79%) were graduates from the two largest programs in the state. Table 1 provides a listing of course titles for these two blended ECE programs as reported in 2010 college bulletins.

<Insert Table 1 here>

Teachers participating in this study were primarily female, Caucasian and between the ages of 22-32 years; 14% were 33-44 years of age and 15% were over the age of 45 years (see Table 2). Teachers reported employment of 1 to 5 or more years in the public schools with 27% reporting just 1 year of employment; 41% reported 2-4 years and 33% reported 5+ years. Teachers were employed in a variety of roles since graduation with the most recent and common titles including K-3 Teacher, Preschool Teacher, and Early Childhood Special Education Teacher. Figure 1 shows the percent of teachers with various titles; at least 8% of the teachers reported positions in grades higher than grade 3 or administrator roles.

<Insert Table 2 here>

<Insert Figure 1 here>

Procedures

Teachers were emailed an invitation to participate in an online survey. The email message was sent in May; follow-up invitations were sent every two weeks for one month; a final invitation

was sent in August as teachers returned to school. Response rates surpassed 50% with the August reminder. The email invitation included a brief description of the purpose of the study, the right to refuse participation and a link to a secure website and server (*Qualtrics*© Provo, UT) with an informed consent page and the survey. After providing consent, participants could complete the survey at a self-paced rate, allowing for completion in multiple sittings.

Participants were asked to reflect on their college training and their work with children birth to age 8 with and without disabilities and their families by marking the box from a drop-down menu for each question that reflected their experiences, or fill-in answers to open-ended questions. One empty textbox was provided at the end of the survey for participants' comments. The survey prompted information from multi-faceted questions (n= 67 items) related to: a) participant demographics including alma mater, degree and year of graduation (n = 6), b) employment title, setting and populations served (n = 8), c) perceived preparedness from college courses across three age groups (birth to 3, Pre-K and K-3; n = 19), d) perceived effectiveness of instructional strategies used in college courses (n = 12), e) perceived effectiveness of field experiences across three age groups (n = 11), f) student-teaching experiences (n = 3), and g) participants' perceptions of how well their training program prepared them for inclusive education with young children (n = 8) . All questions about perceived preparation from courses and effectiveness of field experiences were structured with multiple exemplars to assess a range of populations, settings and instructional subjects or areas of development as related to 0-3 year olds, 3-5 year olds and K-3 grades. Participants responded by choosing from a 5-point Likert scale of preparedness (*Well Prepared, Somewhat Prepared, Minimally Prepared, Not Prepared, NA)* or effectiveness (*Very Effective, Somewhat Effective, Minimally Effective, Not Effective, and NA*). A review of the analytics within *Qualtrics* revealed an average completion time of 25 minutes in 1 or 2 sittings.

Analyses

Primarily descriptive statistics were used to summarize the results, using SPSS software, v.2.2. Results are presented in percentages based on the sample of 242 participants. Chi-square

tests of independence were used to assess the pattern of responses for instructional strategies used in courses (*effective* = very + somewhat effective; *not effective* = minimally + not effective), course work preparation (*prepared* = well + somewhat prepared; *not prepared* = minimally or not prepared), and field experiences (effective or not effective) for cohorts of alumni from 2003-2007, 2008-2010, and 2011-2013. Cochran's Q test, was used to analyze within-group differences for (a) graduates' reports of preparation for three age groups of children (birth-3 years, Pre-K, K-grade 3), and (b) effectiveness of field experiences for the same three age groups. The McNemars test was used to conduct three pair-wise comparisons, (birth-age 3 vs. Pre-K, Pre-K vs. K-grade3, and K-grade 3 vs. birth-age 3) to specifically understand where the significant differences lie across the age groups. In order to protect against alpha inflation (increasing chance of a Type 1 error), a Bonferroni *p*-value = .0167 was used for pair-wise comparisons (.05 alpha divided by the three comparison groups). Comments from graduates were reviewed and clustered into thematic patterns by the second author and reviewed and found to be reasonable by the first author. Selected comments are presented to support or explain quantitative findings.

Results

Findings reflect the perceptions of nearly one-half the teachers in the state with unified ECE endorsements who were currently employed or had worked within the past 3 years in the public schools. The respondents represented all the blended ECE programs in the state. No significant differences were noted among cohorts of graduates for their preparedness to work with children birth to grade 3 as a result of specific coursework nor for the effectiveness of field experiences for Pre-K and K-3 populations; cohort 3 (2008-2010), more than other cohorts reported field experiences with infants and toddlers to be "not effective" (X^2 13.42 (4), p = .009).

Inclusive Settings

The majority of teachers reported working in integrated settings with less than 50% of the children in their classrooms having disabilities. Another 16% worked in integrated settings where

more than 50% of the students had disabilities; 11% had only typically-developing students enrolled and 6% had only children with disabilities. Figure 1 provides a graphic representation of graduates' current employment settings in regards to the percent of graduates working with children with disabilities. Collectively, the mean number of children assigned to each teacher, regardless of title, was 22 with a range of 6 for many teachers to 100 for one K-3 special education teacher; on average 14 children assigned to each teacher were typically developing and at least 7 children had disabilities.

Effectiveness of Instructional Strategies

Teachers across the state appreciated the coursework they received as part of their major in a blended early childhood education (ECE) program for children birth to age 8. In particular, over 85% of the graduates rated as "effective" teaching practices that included group discussions in class, one-time observations of practitioners on-the-job, and in-class activities or required assignments that focused on learning developmentally appropriate practices with young children. More than one-half, but less than 75% of the graduates reported the ineffectiveness of lectures, presentations from classmates and use of online modules or tutorials. A small percentage of graduates (10-12%) reported having no opportunity to learn from parents or panels of professionals in classes. Two graduates commented on the instructional practices as follows:

"*The only way to learn good teaching practices and what it looks like to be a good teacher is to be in the classroom. Lectures aren't helping anyone become a better teacher. I wish I had more time in classrooms than I did in the college classroom*."

"*Having people that are in current positions come talk to us or be on a panel was always enlightening."*

Effectiveness of Field Experiences

Table 3 provides a summary of graduates' responses to survey items associated with perceived effectiveness of field experiences with various age groups of children. Percentages reflect graduates' reports of experiences being "effective". Overall, 88%-94% of the graduates rated field

experiences including children with and without identified disabilities/delays as effective; a small percentage of graduates reported having no opportunity for such experiences with infant and toddlers (7%), preschool-age (3%) and K-grade 3 populations (5%). Results of the Cochran's Q test, used to analyze within-group differences for effective/not effective field experiences across the three age groups of children revealed statistically significant differences for experiences in settings in which there were only children with developmental delays and/or disabilities, $Q(2) = 6.14$, $p < .05$, with fewer reports of effectiveness for the K-grade 3 age group.

<Insert Table 3 here>

At least 84% of the responding graduates reported field experiences requiring lesson planning, intentional teaching, and intervention planning and implementation to be effective or very effective in preparing them to work with all three age groups of children; pair-wise comparisons revealed that that percentages were equivalent across the three age groups. Again, a small percentage of graduates (3%-10%) reported *NA* or no opportunity for these activities with one or more age groups; 4%-8% reported these experiences not to be effective in teaching them about how to work with a particular age group. Overall, reports of effective field experiences were generally most common with preschool-age children. Generally, graduates commented positively on the value of their field experiences.

"I encourage you to continue with the high number of practicum experiences in a variety of settings. This helped me to figure out which levels I enjoyed teaching most and helped me with job search as well."

"I learned so much more during my practicum experiences and it is information that I still remember and use today."

"The most beneficial parts of the program were working in classrooms with other very well-qualified teachers to show you how to do the job. Being able to apply what I was learning immediately was priceless."

There were no significant differences across age groups for the percent of graduates who rated their experiences as effective for working with parents, special education teams or para-educators. Field experiences that provided opportunity to interact with parents were viewed as effective or very effective for 78%-80% of the graduates, but 6%-8% reported no opportunity and 12%-16% reported these experiences as not effective in advancing their skills. A small percentage of the graduates (7%-12%) across all three age groups reported no experience working with special education professionals in their field experiences, and 6%-7% found the experience ineffective. Finally, 9% of the graduates reported opportunities to work with para-educators were ineffective and 15%-18% reporting no opportunity at all. Suggestions from graduates included:

"I think one of the requirements of the program should be to sit in on an IEP meeting…….should be discussed more throughout the program."

"More work with administrators, paras, MDT members would have been helpful prior to entering the workforce."

Only 60% of the graduates reported home visiting experiences with infants/toddler populations to be effective, while 30% indicated no experience with home visiting in working with this age group and 9% reported the home visiting experience as ineffective. A similar pattern is noted in field experiences that included opportunity to focus on parents; 7%-11% of the graduates found these experiences to be ineffective with preschool and infant/toddler placements, respectively. Graduates' comments regarding their field experiences reflected a need for more focused experiences:

"I felt prepared in conferencing and going on home visits and working with families but didn't have much background in helping with all those issues that families are facing now."

"Include more information/training/practicum working with families and children from poverty, home visiting and the needs of the community."

"I appreciate the education and field experiences …. But truly I feel I could have had more experience/knowledge in Special Education."

"The only thing I would change would be the amount of experiences I had in regards to ELL students, Title I schools and gifted or talented students. I would have liked more...."

Student Teaching Experiences

Across the state, graduates reported student-teaching experiences with more than one age group (*M* = 1.85) and location (*M* = 1.5), suggesting many had two or more placements for student teaching. A majority of responding graduates reported student teaching in K-3 and preschool classrooms, or both. Only 30% of the graduates from blended ECE programs student-taught in kindergarten classrooms and only 21% student-taught with children under age 3 years; 11% had at least one student-teaching experience with children older than 8 years of age or 3rd grade. A majority of the student-teaching experiences were in elementary school buildings but 23% and 22% were in university child development lab schools or public school-sponsored early childhood centers, respectively. Community childcare centers or preschools were the location for 9% of the teachers' student-teaching experiences and 7% reported student teaching in family homes. A few graduates mentioned a desire, in hindsight, for a modification of the student-teaching experience:

"Looking back, I would have loved to have student-taught in special education."

"It would have been nice to complete student-teaching preschool student-teaching in an inclusive preschool setting in the public schools, where most teachers are hired as an ECSE teacher."

"I think it would be great to have the opportunity to student-teach for a complete year so that you are able to see how the year starts with getting a classroom settled in with rules and policies of the classroom."

The training received, and subsequent teaching certificate awarded, permit graduates of blended ECE programs in this state to seek employment working with children birth to age 8; student-teaching was not required however with every age group. Table 4 provides a summary of analyses used to assess how well graduates' student-teaching experiences matched current job

titles. Although 5%-32% of participants failed to answer either the question regarding past student-teaching experience or current job title, we have a picture of match/no match for the majority of respondents. All the teachers currently working as childcare providers, and who provided the needed information, would have their student-teaching experiences viewed as a match, in that student teaching with infants, preschoolers and/or school-age children would prepare the graduate for in-home, center-based or after-school care programs for the same age range. Only half the current preschool teachers and primary grade teachers, however, had student-teaching experiences with preschool age children and school-age children respectively. Less than one-half of the current kindergarten teachers student-taught in kindergarten programs. The most disparate group were the infant/family educators; only 7% had student-teaching experiences with this age group, while 73% did not.

<Insert Table 4 here>

Course Experiences and Preparedness

Graduates of the blended ECE programs were asked to rate the degree to which they felt prepared after college graduation to address key populations of children, curricular areas and professional responsibilities for each of three age groups, and inclusive education for children with disabilities, specifically. Table 5 provides a listing of the specific populations, responsibilities and curricular content listed for the graduates to consider and the percent of graduates who indicated a feeling of preparedness for each with infants/toddlers, preschool-age and K-3 populations of children. Cochran's Q test was used to analyze within group differences for coursework preparation across the three age groups. Four populations of children and families (children with delays, gifted/talented children, families of children with disabilities or culturally diverse families), three groups of colleagues (para-educators, special education teams and school support personnel), and three content areas (math/science, language arts and music/art), had significantly different percentages of graduates reporting preparedness across the three age groups of children. Specific differences are

described in the following sections. Comments from graduates regarding preparedness focused on the perceived need for training focused on special populations:

"The Special Education courses we took were very helpful and I learned a lot of information."

"I would have benefitted from receiving more specific training on assessments in special education …and the relationship between teachers and paras and the roles they have in the classroom."

<Insert Table 5 here>

Infants/toddlers. Over 90% of the graduates indicated a feeling of being prepared to work with young children under age 3 years who were typically developing and their families. At least 75% of the graduates felt prepared teaching/supporting learning of music/art, math and science-related content, language arts and emerging literacy to children in the birth to age three group. Pair-wise comparisons revealed that significantly fewer graduates reported feelings of preparedness related to teaching *Music/Arts* with infants/toddlers than with other age groups of children *(p* = .004). A majority of graduates (over 78%) indicated preparedness for work with children with disabilities or delays at this young age. Graduates felt least prepared to work with children this age who displayed challenging behaviors or who were perceived to be gifted/talented.

Finally, a small percentage (12%-17%) of the graduates indicated they did NOT feel prepared to work with infants or toddlers or their families; graduates felt significantly less prepared to work with families of infant/toddlers than families of preschool age children (*p* = .001). Graduates also reported being significantly less prepared to work with families of infants/toddlers from culturally- and linguistically-diverse backgrounds than preschool age groups (*p* = .015). About one-third of the graduates (30%-44%) felt least prepared to work with special education team members *(p* =.005) and para-educators (*p* =.009) associated with programs for children birth to age 3

compared to older populations. Comments from graduates hinted at greater need for training with infants and families of young children:

"… include more information/training/practicum working with families and children from poverty, home visiting and needs of a community. "

"….there seemed to be less focus on special education part, especially for [birth to age 3] in the program."

Preschool-age children. Graduates of the blended ECE programs appeared to feel most prepared for work with preschool-age children. For nearly all items (15 of 19) a higher percentage of graduates reported preparedness for work with preschool age populations or settings than for other age groups; four of these were statistically higher than for work with infants/toddlers (see previous section). However, there were no significant differences noted for pairwise comparisons between the percentage of graduates reporting preparedness for preschool vs. K-3 populations and settings. Again, nearly all the responding graduates indicated a feeling of being prepared to work with children who were typically developing and their families. Over 87% indicated being prepared to work with children of preschool age who had developmental delays and their families, and over 83% reported that they felt prepared teaching and supporting learning in areas of music, art, math, science, and language arts and emerging literacy with preschool-age children. The graduates felt least prepared to work with preschool-age children with challenging behaviors or showing giftedness or special talents during the preschool years, and to work with para-educators, special education team members, school support personnel, and children and families from culturally and linguistically diverse populations when children were 3 to 5 years of age. The percent of graduates reporting a lack of preparedness in these areas however were significantly lower than reported for infants and toddlers or K-3 populations. Despite the high percent of graduates who reported feeling prepared to work with preschool-age children with delays or disabilities, comments frequently included mention of a lack of preparedness for special populations:

"I am not sure it prepared me to teach in an ECSE classroom…. I didn't think this was the route I was going to take. I was set on teaching Kindergarten, so I may not have focused on the special education component as much in my studies. "

"I feel prepared to be a [preschool] classroom teacher but still feel uneasy about being the special education specialist."

"I am currently the case manager for all the preschool children with special needs in my classroom….. I don't feel like I know enough to carry the responsibility."

Children in grades K-3. Nearly all the graduates indicated a feeling of being prepared to work with children in kindergarten to grade 3 who were typically developing and their families (Table 4). Over 82% of the graduates felt prepared to teach children of this age /grade level to read and support their learning in math, science, music, art and language arts. Although over 84% indicated being prepared to work with children with developmental delays, only 78% of graduates indicated preparedness to work with children with disabilities at this age. Over 34% of the graduates felt the least prepared to work with children in these grades who were gifted or talented or who presented challenging behaviors. As reported for the other age groups of children, over 25% for the graduates from the state's blended ECE programs felt unprepared to work with special education team members, school support personnel, para-educators and children and families for culturally- and linguistically-diverse backgrounds. Comments from graduates suggested they were less than confident about their ability to work with special populations in these early grades:

"I was not prepared to take on so many students with IEP needs as well as with behavioral issues."

"The two areas lacking the most were behavior management and special education working with students with disabilities."

"I felt under-prepared on how to make accommodations for students for curriculum and behavior needs. More work with how to help students who are struggling in classroom day-

to-day would be helpful. Particularly in kindergarten, some students come in not being identified for special education and is the duty of classroom teacher to support that student until official services can be provided."

"I didn't have much experience with technology to assist handicapped students in the classroom."

***Inclusive education*.** Graduates of the blended ECE programs were asked to rate the effectiveness of their college training program in preparing them for various skill sets associated with successful inclusive education programs for young children with disabilities (NAEYC/DEC, 2009). Over 85% of the graduates indicated that their program was effective or very effective in preparing them to encourage children's participation in learning by embedding instruction into routine events/activities and provide supports for that learning by engaging peers as models and partners for the children with disabilities. Over 75%-80% of the graduates rated their training program as effective or very effective in preparing them to partner with family members and multi-disciplinary team members and increase children's access to learning by developing adaptations for curricular content and social interactions. However, 20%-36% of the graduates described their training program as not effective in preparing them to partner with family and team members in a trans-disciplinary model, and use universal design and assistive technologies to help children access learning; another 30%-40% indicated having no opportunity to learn these skills for successful inclusion.

When asked how well their college training program modeled inclusive education for them, 60% of the graduates chose the option that said: "*I could see a unified effort to promote quality inclusive education for young children/students*" as all curricular areas were coordinated. Another 22% chose the option: "*I was responsible for 'blending' the information for the unified ECE major,"* as the curricular coursework and faculty members were all independent from one another. The remaining 18% of the graduates chose: "*I seldom or never thought about 'general education' vs.*

'child development' vs. 'special education' aspects of the major," because the coursework and faculty were completely integrated into one department. Comments reflected the diversity of perspectives on this issue of inclusive training:

> *"It was balanced between general education, early childhood and special education and all three areas could build upon one another."*
>
> *"I definitely felt the separation between special education piece and the general education piece."*
>
> *"All my training in special education was combined with all age levels, so I did not receive age-appropriate training. I know what to do with a behavior student in middle school but not with an early childhood age student. "*

***Summary*.** Graduates of one state's blended ECE programs reported overall satisfaction with their training. Most were prepared for teaching children birth to age 8 and working with their families, especially if the children were typically developing and families and children were English speaking. Graduates indicated less preparedness for children with special education needs, and children and families from culturally and linguistically-diverse backgrounds. Although the majority of graduates reported feeling prepared for all age groups, confidence in teaching specific curricular content and diversity of populations was most evident for preschool-age children followed by children in grades K-3 and less evident for work with infants /toddlers.

Discussion

This study was conducted to evaluate, via alumni reports of "preparedness", the quality of blended ECE programs in one state's colleges/universities, offered between 2003 and 2013 to prepare teachers for the state teaching endorsement in Unified ECE (birth to grade 3). The college programs were all approved by the state as having addressed personnel competencies required for this endorsement; the state standards at the time however were not a true reflection of all NAEYC and CEC/DEC personnel preparation standards. Furthermore, curriculum on each campus varied as

to the degree to which required coursework addressed all age groups and ability levels of children and diversity of families.

The two largest blended programs in the state were represented most often in the sample, but every institution had alumni participate in the study. The response rate and useable surveys allowed us to comfortably reflect on the responses as informative. It was interesting to note that although the survey prompted participant comments only in one place, at the end of the survey, 59 graduates (24% of sample) provided comments and many addressed multiple topics. The teachers appeared to care about quality teacher preparation and made numerous suggestions for what to keep or what to change for future students in the blended programs. The results can help guide the state's efforts to revise college programs to best reflect new state requirements calling for high quality inclusive ECE teachers and reflecting both NAEYC and DEC personnel standards. The results also provide guidance to other states in understanding the importance of specific field experiences and course content when developing or revising training programs.

All blended programs in the state were housed in departments of child development or early childhood education; Miller and Stayton (1998) pointed out that such practice may result in a "watering down" of special education content and an over emphasis on typical development and families. The current results suggest this to be possible in this state's blended programs. Most comments from teachers addressed a lack of preparedness for work with special education teams/processes, children with developmental delays and challenging behaviors and knowledge of how to use universal design and assistive technologies to help all children access learning. A review of the curriculum in the two largest blended ECE programs in the state does not provide insight into the specific content covered in each course; however, only three courses by title in each program explicitly address the unified/blended ECE mission or special education populations specifically. Regardless of course titles, blended programs have a responsibility to infuse into each course or curriculum the necessary breadth and depth of information and experiences to best prepare teachers for inclusive settings.

Overall, graduates of the blended programs in this state felt prepared for inclusive settings and most were employed in integrated classrooms/caseloads that enrolled children with and without disabilities. Given that this state's regulations for teacher-child ratio is 1 teacher per 10 preschool-age or school-age children, and maximum enrollment of 20 (NDE Rule 11), the report of 7.7 children with disabilities as the average enrollment per teacher would seem high by national data (USDOE, 2015) which report 6% of children 3-5 years of age are identified for special education supports. Some teachers' reports of not feeling prepared may be exacerbated by having to deal with higher than expected numbers of children with disabilities in a classroom. For example, we know for a fact (CDC, 2012) that the prevalence of autism has increased in recent years; these added numbers of children with special educational needs could erode a teacher's feeling of competence and "preparedness".

Similar to findings reported for North Carolina (Miller & Losardo, 2002) the ECE teachers in this state reported greatest preparedness for work with Pre-K populations, and field experiences were viewed most effective in training them for this age group. Although the state endorsement requirements specified preparation and fieldwork (minimum 20 hours) with infants and toddlers with disabilities, some alumni in the current study suggested this to be lacking in their training. This may explain the limited number of respondents reporting current work with infants and toddlers. But unlike the reports by LaMontague et al 2002, the graduates of this state's blended ECE programs did not feel especially prepared to work in teams with families or special educators. These findings echo those reported by the Early Childhood Personnel Center in 2005 (as reported by Stayton, 2015). Although no attempt was made to compare the responses for these graduates of the blended programs with graduates of traditional (unblended) ECE programs, the report of 10%-12% of the alumni having no experience with such processes is concerning and worth colleges reflecting on how to assure all students have experiences such as these. Furthermore, the report that 28-30% of teachers had no opportunity to experience home visits with Pre-K or infant/toddler age groups

merits additional attention as home visiting programs continue to increase in educational, social service and health fields (Gaylor & Spiker, 2012).

It is assuring to see that the majority of teachers reported their courses and field experiences to be effective in preparing them for their work as ECE teachers. Although teachers' comments about feeling unprepared for students with disabilities and reports of a lack of relevant field experiences or course content could be isolated to one program/campus, the data were not analyzed by campus; the frequency of comments was high enough for some topics/populations however to warrant comment. Data from the current sample mirror, albeit to some lesser degree (lower percentages), the findings reported 15 years earlier by Miller and Losardo (2002). If blended programs continue to have any shortcomings in preparing teachers to work with infants, families and special education teams, we run the risk of teacher burn-out and turn-over in a field that prides itself on continuity of care and education for children and families. IHEs must pursue partnerships with local school districts to arrange for appropriate field experiences with special education staff and students for all teacher candidates in blended ECE programs and arrange with parents, community agencies and Part C program directors in the state for home visiting opportunities and experiences with infants and toddlers, with and without disabilities. Undergraduate programs need to find ways to embed infant home-visiting into curricula; scaffolding experiences from structured observation of video-taped visits, and assessment of needs, planning and implementation of visits with a familiar infant and family, if not those associated with community programs would help prepare ECE teachers (Kielty & Marvin, 2008). Geography and program size should not detour IHEs from arranging for these important learning experiences.

Student-teaching experiences are believed to be critical to establishing the future teacher's philosophy, practices and a sense of self-efficacy as a teacher (Dalgar & Sahba, 2012; Mulholland & Wallace, 2001). Although student teaching as a culminating field experience need not and cannot be completed for all three age groups without some sacrifice in hours and duration of placements, experiences in at least two settings seems important given the unique differences in

contexts for infants, preschool-age and K-3 populations. The current study identified more than one placement and age group for most student teachers and all reported assuming classroom teacher roles for this experience. Although nearly all graduates student-taught in a public school setting, over 50% of the participants described (also) student-teaching on campus in a lab school; comments from some graduates suggested that IHEs should change this practice in order to provide a more real-world experience. If student-teaching experiences have to be limited in weeks, and the age groups and settings prioritized, then IHEs will have to find ways during course assignments and practica to provide students the needed experiences with ECE/ECSE-relevant populations and settings.

Finally, nearly one-third of the graduates in the current study rated their preparedness as "not at all" for working with families and children from diverse cultures and linguistic backgrounds. Children from minority populations, including those with recent immigrant parents and/or families living in poverty, are most often targeted for publically-funded (state or federal) Pre-K programs. These programs are potential practicum sites for students in blended programs. However, the expectations for students while visiting these programs may need clarification/revision and supports provided for dealing with linguistic and cultural differences. Because added courses are not always favored in a credit-bound curriculum, IHEs may want to rethink where in the existing courses students can learn specific approaches for communicating with families using interpreters/translators and learning more about specific cultural practices. This state requires all teachers to complete one course on multi-cultural human relations; additional learning opportunities may be warranted for majors in the blended ECE programs.

Summary

Results of the current study add to our understanding of what comprises the curriculum for blended ECE programs. The data describe valued content and field experiences and identify potential shortcomings in IHEs' efforts to prepare teachers for inclusive settings. The need for continued research is clear. If a key to preparedness is graduates' perceptions of training

effectiveness and feelings of confidence and competence on the job in inclusive settings, then we need to continue to seek their voices. Focus groups, surveys, and video-taped demonstrations of teaching may help clarify to what extent graduates of blended programs provide all children access, participation and support to learning in natural and structured contexts. We also need to understand how ECE teachers in inclusive settings successfully team with consultants and families; what skills taught in IHE programs pay off in building collaborative partnerships? Finally, we need to understand the rationale administrators, state agencies and even campuses have for continued focus on ECE-only standards and/or training without consideration for blended programs and the population of children most likely to be enrolled in public Pre-K programs.

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Table 1

Curriculum for One State's Two Largest Blended Early Childhood Education Programs

Required Courses/Experiences	
Campus A (25,000 enrollment)	Campus B (6,900 enrollment)
45 credits of General Education+	45 credits General Education+
ECE-Unified Requirements	**ECE-Unified Requirements**
Philosophy of Education	Foundations of ECE
Education for a Pluralistic Society	Early Communication Development
Practicum Experience: Elementary	Management and Assessment in PreK-8
Introduction to Early Child Care and Education	Inclusive Practices: Students w/Excep. PreK-8
Introduction to Special Education	Concepts in Math and Statistics
Normal Language Development	Math Methods I w/lab
Infancy Development w/lab	Math Methods II w/lab
Development of Preschool Child w/lab	Children's Literature
Assessment in ECE	Literacy Assessment
Curriculum Planning in ECE w/lab	Phonics and Word Study
Working w/Families in Community & Schools	Primary Grades Literacy w/lab
Behavior Management	Literacy Methods for Preschool Teacher
ECSE Methods w/lab	Art Methods: Elementary w/lab
Children's Literature	Integrating Movement and Dance
Reading & Writing Disabilities: El Ed. w/lab	Music Methods: Elementary
Mathematics Matters El Ed	Integrating Music across Curriculum
The Arts in Elementary Curriculum	Methods of Inclusive ECE (B-age 3) w/lab
Practicum Experience: Primary K-3	Methods of Inclusive ECE (Age 4-8) w/lab
Student Teaching: K-3	Methods PreK/K classroom
Student Teaching: ECE-Preschool	Collaboration, Consultation and Teamwork
Student Teaching: Capstone Seminar	Partnerships with Families
Electives	Medical Aspects of Individuals with Disabilities
	Student Teaching: ECE Unified

Table 2. Participant Demographics

		Percentage
Gender	Female	99.0
	Male	1.0
Age	22-32 years	71.0
	33-44 years	14.0
	≥ 45 years	15.0
Ethnicity	Caucasian	91.2
	Hispanic	2.9
	Black	1.5
	Asian	1.5
	Native American	.5
	Other	2.4
Employment	1 year	26.8
	2-4 years	40.5
	5+ years	32.7
Title	Preschool Teacher	25.1
	[a] ECSE Teacher	21.3
	Teacher: Grades 1-3	18.0
	Kindergarten Teacher	13.6
	Teacher: Grades 4-6	10.6
	Child Care Provider	5.1
	Infant Family Educator	3.4
	Part C Early Interventionist	.4

[a] early childhood special education teacher

Table 3. Percent of graduates reporting field experiences perceived as effective across three age groups

Field Experience focus:	0-3 year olds		3-5 year olds		K-3 grades	
	Effective	N/A	Effective	N/A	Effective	N/A
Integrated settings	88.8	7.7	94.4	3.1	91.8	5.0
Lesson planning and teaching sessions	88.2	3.6	92.0	0.6	88.7	5.0
Intervention planning and implementation	84.1	10.0	90.2	4.9	86.2	9.4
Assessments	79.4	8.2	87.1	3.1	85.5	6.9
Only children who are typically developing	86.4	6.5	87.7	6.1	82.4	8.8
Only children w/ delays or disabilities	80.0	15.9	89.0	9.2	77.4*	15.7
Interacting with parents	78.8	12.9	80.4	11.7	78.5	15.8
Parent education	64.7	24.7	74.2	19.0	67.3	26.4
Special education team members	81.1	12.4	87.7	6.7	82.4	10.1
Work with para-educators	74.7	16.5	76.1	15.3	73.6	17.6
Home visiting	60.6	30.0	63.2	28.2	45.3	47.2

Note. N/A = not applicable; no experience.

*Q-value 6.14, $p < .05$

Table 4. Percent of graduates with match/no match between student-teaching experiences and current job titles

	Student Teaching Experiences		
Current Job Titles	Match	No Match	Missing
Child Care (12)	75*	0	25
0-3: Infant/Family Educator/Part C (15)	7	73	20
Preschool: Pre-K/ECSE (108)	50	18	32
Kindergarten (32)	41	41	19
Primary Grades 1-3/Sped Grades 1-3 (48)	54+	17	29
Other (20)		95++	5

*Students taught with B to 3, 3 to 5, or K to 3rd Grade age groups

+Students taught in Grade 1 or Grade 2 or Grade 3

++ Students taught in grades above grade 3 and/or hold positions outside the birth to grade 3 teaching titles (i.e., administration)

Table 5. Percentage of graduates reporting preparedness for various populations and teaching responsibilities and Q-values for significant differences across age groups.

	0-3 year olds		3-5 year olds		K-3 Grades		
	Prepared/Not		Prepared/Not		Prepared/Not		Q-Values
Children developing typically	95.9	2.6	99.5	.05	94.3	2.9	
Families of children developing typically	93.8	5.1	94.6	4.9	90.3	6.8	
Children w/ delays	86.7	12.3	91.4	8.6	84.1	13.1	6.0*
Families of children w/delays	82.1	16.9	87.6	12.4	81.8	15.3	
Children w/ disabilities	78.5	19.5	84.3	15.1	78.4	18.2	
Families of children w/disabilities	71.8	26.7	81.6	17.8	77.3	19.3	9.78+
Children culturally/linguistically-diverse	72.8	25.5	75.7	24.3	72.2	25.0	
Families culturally/linguistically-diverse	64.1	34.4	71.9	28.1	69.9	27.3	9.6+
Children with challenging behaviors	65.1	33.8	64.3	35.7	62.5	34.7	
Gifted/talented children	51.8	43.6	57.8	38.9	60.8	34.1	7.32*
Children learning to read	78.5	16.9	83.7	14.1	82.4	14.2	
Language arts	83.1	12.8	89.2	8.1	85.2	11.4	6.95*
Math/Science	79.0	16.9	87.0	10.3	84.1	12.5	9.08*
Music/Arts	76.9	17.9	85.9	11.4	83.5	12.5	10.51+
Classroom observation assessments	80.5	17.9	83.8	16.2	79.5	17.6	
Supervisors/Administrators	74.9	23.1	78.9	20.0	77.3	18.8	
Special Education team members	63.6	33.8	73.0	25.4	71.6	25.6	12.0+
School support personnel	64.1	32.8	69.7	28.1	71.6	23.9	8.6*
Para-educators	53.3	43.6	61.6	36.8	64.2	32.4	15.8++

++$p < .001$, +$p < .01$, *$p < .05$

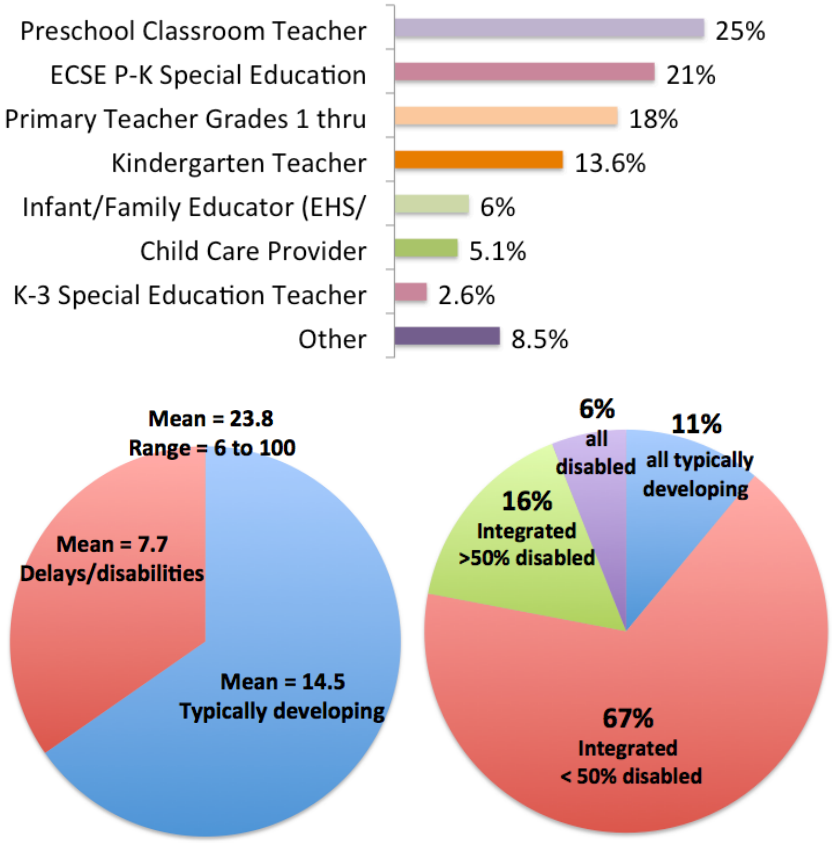

Figure 1. Graduates' current job titles and caseload/classroom enrollment of children with disabilities