Preschool Preparation Chaos

Recent years have seen a steady push for expanding access to preschool education — local, state, and federal policymakers; presidential hopefuls; and even celebrities\(^1\) have jumped on the universal preschool bandwagon.\(^2\)

While the goal of giving every child a great start for school and life is incontrovertible, achieving this outcome would require much more than expanding access to preschool classrooms. Some of the strongest evidence in support of preschool is based on decades-old research about programs with intensive supports rarely available in a typical preschool.\(^3\) Since then, new studies have cast doubt on the staying power of the preschool advantage: some studies find lasting benefits, while others find the effects fade within a few years — or even leave children worse off than their non-preschool-attending peers.\(^4\)

We suspect teachers are the determining factor in either creating a successful preschool experience or presiding over a squandered opportunity. And yet, despite the seminal role of teachers, little is known about the best approaches to training aspiring preschool teachers. Even defining qualifications for a preschool teacher is fraught with complications.

Chaos in training requirements

NCTQ’s past work has revealed wide variation in minimum requirements for K-12 teachers, e.g. different certification grade spans, inconsistent course requirements, variable subject knowledge demands. But, amidst this maze, there have at least always been a few baseline expectations for all teachers, such as having a bachelor’s degree. In preschool, the regulations do not approach even this level of consistency, especially since preschool programs can be run and funded at the federal, state, or local level — each of which may have its own requirements.

The federal Head Start program funds local programs that serve a million children a year spread across every state and territory in the country.

- As of September 2013, the Head Start program required that at least half of all Head Start teachers nationwide have at least a bachelor’s degree in early childhood or a related major.\(^5\) Because this benchmark is set at the national level, some Head Start centers may be staffed only by teachers with bachelor’s degrees, while other centers may have no teachers with this qualification.\(^6\)

Many states fund their own preschool programs.\(^7\)

- All but nine states offer some state-funded preschool programs, but these all have different criteria for teachers.
- 33 state-funded programs in 27 states require all teachers to have a bachelor’s degree.
- 12 programs in 10 states require an associate’s degree, Child Development Associate’s (CDA), or similar.\(^8\)
- 12 programs in 10 states require a bachelor’s degree for teachers in public settings but not for teachers
in non-public settings (even those non-public settings that receive public funding), where teachers may only need an associate’s degree, CDA, or high school diploma.

- And it gets messier.
- Some states, like Kansas, require that teachers have a bachelor’s degree but not necessarily an early childhood specialization.⁹
- Some states, including Delaware, Ohio, and Washington, require early childhood specialization but not a bachelor’s degree.
- In Florida, requirements depend on whether the teacher works during the summer (must have a bachelor’s) or during the school year (a CDA or equivalent).
- In Kentucky, teachers must have a bachelor’s degree unless they have been teaching since before the 2004-2005 school year — then they’re grandfathered in.
- Pennsylvania boasts four different state-funded preschool programs. Two require a bachelor’s, but only one of these requires specialization in early childhood. The third requires an associate’s degree, and the fourth requires a bachelor’s for those in public settings and an associate’s for those teaching in non-public settings.

Within many states, school districts and private entities have their own preschool programs with their own requirements.

- In Denver, Colorado, teachers in district-run schools must have a bachelor’s degree and a teaching license, but teachers in the community-run schools follow any of eight different training paths laid out by the Department of Human Services. In Colorado’s state-run programs, teachers are required only to have a CDA.¹⁰
- In California’s state-run programs, teachers must have a CDA. In San Francisco, preschool teachers only need about 12 credits of college or lower-division coursework and a teaching permit, usually obtained through a community college. Despite the low requirements, 85 percent of San Francisco’s lead preschool teachers do have a bachelor’s degree, although the city does not have any systematic salary increase for having a higher degree.¹¹

These variations on what it means to be a qualified preschool teacher suggest that aspiring teachers will face difficulty determining what training they need in order to teach. Also, to the extent that these criteria impact the quality of instruction, equitable access to quality preschool is unlikely.

**Preschool teachers need solid training — not empty credentials**

Beyond the maze of preschool teacher requirements lie grim economic realities: Preschool teachers often earn low salaries¹² and do not receive the professional respect they deserve.¹³ This low status persists despite the fact that preschools are expected to instill academic and social skills. However, some policymakers fear that raising the bar for preschool teacher qualifications — a step that could ultimately increase pay and prestige in the profession — could result in an immediate teacher shortage, halt movement toward greater preschool access, and possibly not greatly impact preschooler learning.

Research indicates that simply having more credentialed preschool teachers is not the answer. The current “gold standard,” as put forth by the National Academies and the National Institute for Early Education Research,¹⁴ is that high-quality preschool teachers should have at least a bachelor’s degree — even though the research does
not always support this policy. Instead, NCTQ asserts that the real answer lies in meaningful coursework and fieldwork that is part of the credentialing process for teachers regardless of their path into teaching.

What training should preschool teachers have? Do bachelor’s and master’s degree programs, often thought to be the hallmark of meaningful preschool teacher preparation, provide that training? NCTQ’s study builds upon the foundation of past preschool teacher prep evaluations to provide more detailed insight into what these programs offer. As we lay out in the work that follows, our review of these programs shows little evidence of quality training focused on the needs of the preschool classroom. With critical changes in course requirements and evaluation during student teaching, however, NCTQ believes that preparation programs could produce teachers ready to set preschool children on a trajectory for success.
The essentials: What preschool teacher prep programs should do and what they actually do

Programs that take responsibility for training preschool teachers must instill in them a wide array of skills and knowledge and provide adequate practice working with young children. This analysis focuses on a selection of the requisite skills and knowledge which are supported by strong research and require targeted training to learn and implement proficiently.

The focus areas include: developing children’s language ability, building a foundation for reading through emergent literacy skills and read-alouds, introducing emergent math, creating an inviting classroom environment, and honing skills through student teaching. The analysis is based on a sample of 100 preparation programs that certify preschool teachers, including five associate’s degree programs, 54 bachelor’s degree programs, and 41 master’s degree programs.

Many experts agree that science and social studies instruction are also important, but less information exists on what teachers should learn about how to teach these subjects. Other essential skills that are not analyzed here include engaging families, maintaining classroom safety, and supporting diverse learners.

Developing children’s language ability and building a foundation for reading

What is language development and why is it important?

Developing children’s language skills is important in and of itself, but it is also the key that opens the door to so many areas of learning for children. Many children entering preschool are hindered by a language deficit: By the age of four, an economically advantaged child may have heard as many as 45 million utterances and be well along the path to literacy, and to academic and social success. If economically disadvantaged, the child may have heard 30 million fewer utterances and be falling far behind.\(^{17}\) The gap in oral language plays out along racial lines as well as socioeconomic ones, and puts children at risk for “future academic and social difficulties.”\(^ {18}\)

Especially for young children who are already behind, preschool teachers can play a critical role in language development. It is imperative that preschool teachers have the skills to develop children’s ability to communicate.\(^ {19}\) Unfortunately, most preschool teachers do not naturally engage in these practices.\(^ {20}\) However, intensive and focused training can help teachers make big strides.\(^ {21}\)

FINDINGS

- Only 59 percent of preschool teacher prep programs require candidates to take a course that addresses developing preschool children’s language development.
- Many programs fail to evaluate whether student teachers can develop children’s language ability in key areas like building vocabulary (only 8 percent of programs evaluate this), providing opportunities for children to talk (28 percent of programs), and asking children questions (60 percent of programs).
What is emergent literacy and why is it important?

Emergent literacy encompasses a range of skills that are essential to reading, but may not come naturally to all children. These skills include phonological awareness (the ability to detect or manipulate the sounds in words, such as syllables and rhymes), phonemic awareness (a subset of phonological awareness relating to the sounds of letters), learning the alphabet, and concepts of print (such as title, author, text direction, and turning pages in a book). Teacher training in these areas can translate into substantial gains for children in alphabet knowledge, vocabulary, and language skills.

The early introduction of language and literacy can make a lasting difference for children. Unsurprisingly, children with low language and literacy skills in preschool demonstrate lower reading skills in kindergarten. However, not all approaches to teaching emergent literacy are equally effective, and the quality of preschool curricula varies, making it that much more important that preschool teachers have ample training in how to develop their preschoolers’ emergent literacy skills.

FINDINGS

- While literacy is an essential skill for ALL children, only 73 percent of preschool teacher prep programs require candidates to take a course that addresses building preschool children’s foundation for reading.
- Prep programs’ required courses do not always teach key skills: 62 percent of programs teach about building children’s understanding of the sounds of words or letters and 44 percent teach about developing children’s alphabetic knowledge.

What are read-alouds and why are they important?

Reading to a child is a powerful experience that builds an emotional bond, teaches new words and ideas, and introduces information about the wider world. Using read-alouds effectively can boost literacy skills for years to come, and can improve children’s vocabulary and other language skills.

FINDINGS

- Only 20 percent of programs teach about and expect candidates to practice reading aloud to children.

What is emergent mathematics and why is it important?

Young children can do much more mathematically than count to three and identify basic shapes. Introducing children to more complex mathematical concepts from an early age may increase their math ability in later years. In fact, some research suggests that the relationship between children’s early math skills and future math achievement is twice as strong as the relationship between emergent literacy and future reading achievement.

Teachers should build children’s number sense and understanding of numerals’ spatial position on a number line, as well as patterns, measurement, and geometric concepts. Teachers should also teach children to measure objects using formal instruments like rulers and informal instruments like the length of their arms.

FINDINGS

- Only 40 percent of programs require a math course that clearly addresses teaching preschool.
What should teachers do to create an inviting classroom environment?

Maintaining a positive, developmentally appropriate preschool classroom environment is no easy feat — and yet it is critically important. As evident from the reported behavioral problems of children in kindergarten and entering Head Start, as well as the high suspension and expulsion rate for preschool children, teaching appropriate behavior poses a challenge for many preschool teachers. Teachers need substantive training and practice with effective classroom management strategies that can build social-emotional skills and prevent or resolve many behavioral problems.

Of course, classroom management is about more than discipline: it is about establishing an environment that actively supports learning. Teachers’ emotional support for their students is associated with better social competence and lower rates of behavior problems.

FINDINGS
- Only one in five programs (19 percent) ensures that student teachers know what to do when a child acts out or disrupts the classroom.
- Only a quarter of programs (26 percent) evaluate student teachers on using positive reinforcement — even though this strategy is backed by a wealth of evidence.
- Preschool children often learn through play or activity centers — but only 36 percent of programs evaluate student teachers on managing these activities.

What are the hallmarks of an effective student teaching experience for a preschool teacher?

The importance of student teaching is undisputed. Student teaching offers the potential for teacher candidates to build skills related to instruction, classroom management, family engagement, and more. A bad experience can instead instill counterproductive techniques, or even worse, quash the candidate’s excitement about teaching.

Teacher candidates gain the most from their student teaching experiences when those experiences require frequent observations by a university supervisor who can give them ongoing feedback about their strengths and areas for growth. Great placements should also pair teacher candidates with a cooperating teacher who is both a good mentor and an effective teacher from whom the candidate can learn, last long enough for the student teacher to gain a wealth of firsthand classroom experience, and give the candidate an opportunity to practice with the age group she plans to teach.

FINDINGS
- Most programs (80 percent) give candidates the option to student teach in a preschool setting.
- Only half of programs (52 percent) make sure student teachers are observed at least four times by their university supervisor — even though the research says they need even more frequent observations.
- Only 5 percent of programs make sure to pair student teachers with effective classroom teachers.
Policy Recommendations

For all states and districts:

- Create centralized information about the different pathways available to earn credentials to teach preschool and in what settings each credential allows people to teach (e.g., in what settings an individual with a bachelor’s degree versus an associate’s degree can teach).
- Clarify the pay structures for any publicly-funded preschool programs. When there is a state or a local salary schedule, there is no justification for school districts to pay preschool teachers less than K-12 public school teachers.

For states and districts that require preschool teachers to have a bachelor’s degree and preschool teacher certification:

Examine the quality of the available teacher preparation programs to ensure they give adequate attention to the needs of preschool teachers.

- Encourage programs to offer either a more focused degree or an add-on endorsement targeted to teaching young children. Teacher prep programs that focus more on lower grades (e.g., preschool through grade two) tend to provide training that is more relevant to teaching preschool. In general, the more grades a program covers, the less likely it is to prepare teachers well in any particular grade span.
- Require that programs certifying teachers for preschool give them the option of student teaching in a preschool (with the caveats that the preschool must be high-performing and the cooperating teacher must be effective).
- Ensure that all programs require coursework in areas including (1) developing children’s language skills, (2) building a foundation for reading (known as “emergent literacy”), (3) introducing math and science, and (4) understanding early childhood development with a focus on early years (e.g., birth to age eight).

For states and districts that do not require preschool teacher certification:

Preschool programs for 3 and 4 year olds are expected to provide learning experiences that prepare children for kindergarten. Given this expectation, preschool teachers need to have specialized training through whatever mechanisms are available. For example, just as preschool teachers must submit to a background check, CPR training, and child abuse prevention training, so too should they show evidence of basic training in key areas.

- Require that teachers take a course or online training in building children’s language skills. Teachers should also have training in introducing math and literacy to preschool-age children, and a child development course with a focus on the early years (e.g., birth to age eight).
- Require that teachers conduct an apprenticeship in a high-quality preschool in which they not only observe the teacher and interact with children, but also teach and receive feedback on lessons.
- Do not assume that current credentialing routes that do not involve a higher education degree are adequate. Because coursework requirements for some credentials (such as the Child Development Associate’s, or CDA) are very flexible, they provide no guarantee that teachers have learned essential skills and content.
Endnotes


2 For the purpose of this study, we are defining preschool as “formal, center-based program for children 3 and 4 year olds.”

3 The two best-known are the Abecedarian Project and the Perry Preschool Project:


- The Perry Preschool Project focused on three- and four-year olds, employed one adult for every five or six children, and implemented home visits and monthly parent meetings. Researchers followed 123 children into their 40s and found that those who attended preschool had higher earnings, were more likely to have a job, had committed fewer crimes, and were more likely to have graduated from high school. Schweinhart, L. J., Montie, J., Xiang, Z., Barnett, W. S., Belfield, C. R., & Nores, M. (2005). *Lifetime effects: The HighScope Perry Preschool study through age 40*. Ypsilanti, MI: HighScope Press.

4 A sample of varying evidence and perspectives:

A study of a Texas preschool program that was “not considered high-quality” according to the study authors found that preschool participants had increased math and reading scores in third grade and a reduced likelihood of retention or need for special education services; however, this study used pre-implementation cohorts as a comparison group, rather than random assignment. Andrews, R. J., Jargowsky, P., & Kuhne, K. (2012). The effects of Texas’s targeted pre-kindergarten program on academic performance. (Working paper no. 84). CALDER. Retrieved from http://www.nber.org/papers/w18598.


In a recent paper, preschool researcher Dale Farran argued that research still has not answered the questions about which skills and dispositions are most important to develop in young children and what instructional approaches will best develop them. Farran, D. C. (2015). We need more evidence in order to create effective pre-K programs. Washington, DC: Brookings Institute. Retrieved from http://www.brookings.edu/research/reports/2016/02/25-need-more-evidence-create-effective-prek-programs-farran.


6 As of 2014, 71 percent of Head Start teachers had a bachelor’s degree or higher, 25 percent had an associate’s degree, 3 percent had a CDA, and the remaining 1 percent had no related certification or degree. Head Start Act.


8 Many preschool programs accept the Child Development Associate credential, or CDA. The CDA is widely available — over half a million people across the country possess this certification, although preschool is only one of the 4 focus areas of the CDA. To earn the certification, candidates must have a high school diploma and undergo 120 hours of
coursework and 480 hours of field experience. However, those seeking the credential can complete coursework at any of many training organizations and higher education institutions — and each institution determines which courses are eligible for the CDA, meaning that teachers with the CDA will have vastly different training backgrounds.

9 “Early Childhood” can be defined in many ways, including referring specifically to preschool, to birth through kindergarten, or preschool up to early elementary grades.


11 Information about San Francisco’s preschools comes from a personal phone call with Ingrid Mezquita of Preschool for All on March 9, 2015.


In support of requiring at least a bachelor’s degree, a 2004 report summarizing preschool research concluded that “the education levels of preschool teachers and specialized training in early childhood education predict teaching quality and children’s learning and development” (Barnett, W.S. (2003). Better teachers, better preschools: Student achievement linked to teacher qualifications. Preschool Policy Matters, 2, 1-12).

In contrast, a 2007 review of seven preschool studies found contradictory relationships between teachers’ level of education and child outcomes (Early, D. M., Maxwell, K. L., Burchinal, M., Alva, S., Bender, R. H., Bryant, D., ... & Zill, N. (2007). Teachers’ education, classroom quality, and young children’s academic skills: Results from seven studies of preschool programs. Child Development, 78(2), 558-580). Two studies found evidence of higher classroom quality when teachers held higher degrees, one found evidence of lower classroom quality, and the remaining studies found no association. Additionally, none of the seven studies found a relationship between teacher degree levels and children’s receptive language skills; some studies found associations between teacher degree and children’s reading or math skills, however.

A more recent study found only small and mixed results related to preschool teachers’ degree level. Whether a teacher held a bachelor’s degree had a small, positive relationship with child development of social competence, no relationship to children’s language and academic skills, and a small, negative relationship with measures of classroom quality and instructional support (Mashburn, A. J., Pianta, R. C., Hamre, B. K., Downer, J. T., Barbarin, O. A., Bryant, D., ... & Howes, C. (2008). Measures of classroom quality in prekindergarten and children’s development of academic, language, and social skills. Child Development, 79(3), 732-749).


The difference could reside in the amount of specialized training focused on preschool years. (For example, one study found that while degree level had no relationship with teachers’ ability to foster children’s language development, teachers’ specialized training in early childhood education and child development had a strong relationship. (Honig, A. S., & Hirallal, A. (1998). Which counts more for excellence in childcare staff—years in service, education level or ECE coursework? Early Child Development and Care, 145(1), 31-46)). In this vein, a 2010 study argues that preschool teachers should be required to have both a bachelor’s degree and specialized early childhood training, given that the combination of both factors is stronger than either requirement in isolation (Bueno, M., Darling-Hammond, L., & Gonzales, D. (2010). A matter of degrees: Preparing teachers for the preschool classroom. Washington, DC: Pre-K Now, Pew Center on the States. Retrieved from http://www.pewtrusts.org/~/media/legacy/uploadedfiles/wwwpewtrustsorg/reports/pre_k_education/pkneducationreformseriesfinalpdf.pdf).

In the 2007 paper noted above, five studies addressed the question of specialization. When considering only teachers who had an early childhood or child development major, three of the five studies found no relationship between teachers’ highest degree and child outcomes; one found a positive relationship between degree and classroom quality, and the fifth did not have statistically significant findings (Early, D. M., Maxwell, K. L., Burchinal, M., Alva, S., Bender, R. H., Bryant, D., ... & Zill, N. (2007). Teachers’ education, classroom quality, and young children’s academic skills: Results from seven studies of preschool programs. Child Development, 78(2), 558-580). Likewise, when considering only
teachers who earned a bachelor’s degree, there was no relationship between teacher majors and child outcomes. The study concludes, “Using seven recent, major studies of classroom-based educational programs for 4-year-olds, these analyses, taken together, do not provide convincing evidence of an association between teachers’ education or major and either classroom quality or children’s academic gains” (Early et al. (2007)).


These studies suggest that preparation programs devote substantially less time to key topics other than emergent literacy, including emergent math and child development. In one, faculty rated early mathematics as least important among the teaching domains (Whitebook and Austin (2015)); another revealed that only 59 percent of bachelor’s programs required an entire course on numeracy and math for young children (Maxwell et al. (2006)). Although educators and policymakers frequently cite social and emotional development as a primary benefit of preschool enrollment, only about half of programs prepare prospective preschool teachers in this area (Maxwell et al. (2006); Buettner et al. (2016)). These studies did not report findings on coursework in developing children’s language skills.

Each study that disaggregated findings by program level reported differences, especially between associate’s and bachelor’s degree programs (not all included master’s degrees). At the associate’s level, programs focused more on “practices,” like program and classroom management (Maxwell et al. (2006); Buettner et al. (2016)), and employed more faculty members with experience working in early childhood settings (Bornfreund (2011)). In contrast, bachelor’s degree programs tended to require more coursework on “knowledge,” such as early literacy and assessment (Maxwell et al. (2006); Buettner et al. (2016)). Finally, although research did not indicate whether field experiences consistently occurred in an early childhood setting, most associate’s and bachelor’s degree programs required a practicum, while bachelor’s programs were more likely to require a full-fledged student teaching experience (Whitebook and Austin, (2015)).

A few caveats: three of the four studies above rely on surveys, which are hampered by issues of selection bias. Furthermore, these studies lack a mechanism to verify that survey respondents report data accurately or have a shared understanding of various terms (e.g., “using developmentally appropriate teaching practices”). Finally, these surveys do not examine specific aspects of course content and fieldwork expectations.

With regard to young children, “oral language” is a broad term that encompasses many specific skills. For instance:

- The IES defines oral language as “children's understanding and use of language to communicate ideas.” Diamond et al. (2013).
- Coll (2005) defines the components of oral language as “various skill sets including vocabulary (receptive and expressive), syntactic and semantic knowledge, and narrative discourse processes (memory, comprehension, and storytelling).”


For example:

- Gerde et al. (2009) found that teachers with more extensive training/educational background in early childhood were


Neuman and Wright (2010) found that current preschool teachers showed no improvement after taking professional development coursework in early language and literacy development; however, they showed sustained improvement in teaching practices when completing this coursework in conjunction with weekly on-site coaching. Neuman S. B., & Wright, T. S. (2010). Promoting language and literacy development for early childhood educators: A mixed-methods study of coursework and coaching. The Elementary School Journal, 111(1), 63-86.


An additional study defines print knowledge as “young children’s emerging knowledge of the specific forms and functions of written language. This includes understanding letters, rules governing print organization (e.g., left-to-right directionality of print in English orthography), and concept of word (i.e., words as being meaningful, discrete units that map to spoken words).” Piasta, S. B., Justice, L. M., McGinty, A. S., & Kaderavek, J. N. (2012). Increasing young children’s contact with print during shared reading: Longitudinal effects on literacy achievement. Child Development, 83(3), 810-820.


Diamond et al. (2013).

Diamond et al. (2013).

Diamond et al. (2013); Piasta et al. (2012).

Watts et al. (2014) found that math achievement and gains between preschool and first grade were highly predictive of math achievement up to age 15, although the strength of the relationship faded over time. Watts, T. W., Duncan, G. J., Siegler, R. S., & Davis-Kean, P. E. (2014). What's past is prologue: Relations between early mathematics knowledge and high school achievement. Educational Researcher, 43(7), 352-360.


Diamond et al. (2013).


Frye et al. (2013).


Mashburn et al. (2008).


Diamond et al. (2013).
The National Council on Teacher Quality advocates for reforms in a broad range of teacher policies at the federal, state and local levels in order to increase the number of effective teachers.

Follow us on 🌐facebook