

## RESEARCH ARTICLE

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# Head Start Teachers' Beliefs and Reported Practices for Letter Knowledge

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Children's knowledge of letters at kindergarten entry is a critical marker of literacy development and predicts later reading achievement. Young children vary widely in their letter knowledge and that variation may be due to the ways in which early childhood educators approach letter instruction. The present study interviewed 48 Head Start teachers about their beliefs and practices in supporting letter knowledge for children in their classrooms. Results indicated that early educators believe teaching preschool children about letters is important and they articulated a variety of strategies for promoting this knowledge, primarily through playful learning experiences. Teachers capitalize on children's names, particularly the first letter, when beginning their letter instruction, providing some evidence for why children's name letters tend to be first known. In addition, other features of letters (e.g., position in the alphabet) and research-based practices (e.g., teaching letters and sounds in conjunction) were not prevalent approaches to instruction.

*Keywords:* letter knowledge, letter-sound knowledge, Head Start, preschool, teacher practice, teacher beliefs

Upon entrance to kindergarten, child knowledge of alphabet letters is the strongest predictor of early literacy skills and later reading achievement (Hammill, 2004; McIlraith, 2018; Schatschneider, Fletcher, Francis, Carlson, & Foorman, 2004; National Early Literacy Panel [NELP], 2008), making preschool a critical time to focus on this core skill. This task is particularly important for preschoolers who live in poverty, as they are likely to name fewer letters than their peers living in families with higher socioeconomic status (Barbarin et al., 2006) putting them at risk for reading difficulties (Schatschneider et al., 2004). Thus, it is essential to consider how preschool programs serving children from high-poverty communities, such as Head Start, approach letter knowledge instruction.

There is a strong connection between how teachers approach teaching letters and children's letter naming abilities (Lieberman & Schwartz, 2012). Even when considering what parents do at home, school-based letter knowledge instruction is strongly associated with children's ability to name letters (Piasta & Wagner, 2010). The practices that teachers use to support children's literacy

development in general are predicated on teachers' beliefs about literacy development and instruction (Bingham & Hall-Kenyon, 2013; Scull, Nolan, & Raban, 2012). Letter knowledge provides a foundation upon which children learn to read (NELP, 2008; Piasta & Wagner, 2010), thus, teachers' beliefs as well as the practices they use to promote children's letter knowledge development prior to kindergarten entry warrant examination, which is the purpose of the present study.

## The Importance of Letter Knowledge for Later Reading

In preschool, children's letter knowledge is related to other literacy skills including phonological awareness (Lerner & Lonigan, 2016), decoding (Molfese, Beswick, Molnar, & Jacobi-Vessels, 2006), and writing (Diamond, Gerde, & Powell, 2008; Gerde, Skibbe, Bowles, & Martoccio, 2012; Puranik, Lonigan, & Kim, 2011). Letter knowledge is predictive of reading skills in kindergarten, first, and second grade (Lonigan, Burgess, & Anthony, 2000; McIlraith, 2018; Schatschneider et al., 2004) and acts as a protective factor. Young children who are able to name more letters are less likely to be considered at-risk for developing reading difficulties later (Piasta, Petscher, & Justice, 2012; Torppa, Poikkeus, Laskso, Eklund, & Lyytinen, 2006). Thus, it is vital for children to develop a strong foundation in letter knowledge prior to kindergarten entry.

The current study investigates teachers' reported instructional practices surrounding letter knowledge in Head Start programs, which predominantly serve low-income children (Powell, 2013). Children living in low-income environments are more likely to exhibit developmental lags in core academic skills, such as letter knowledge (Barbarin et al., 2006). As such, letter and word knowledge have been emphasized strongly in early educational programming, with some success (Powell, Steed, & Diamond, 2010). Head Start programs have effectively helped children with low literacy skills to make gains in letter knowledge throughout the school year, although the number of letters children typically know remains behind their more advantaged peers (Diamond et al., 2008; Norwalk, DiPerna, Lei, & Wu, 2012). As one example, children who attend Head Start are able to name an average of 2.3 more letters than children living in poverty who do not attend Head Start (Puma, Bell, Cook, Heid, & Lopez, 2005). As students who enter kindergarten with underdeveloped skills tend to remain behind throughout their entire education (Duncan et al., 2007), it is important to understand the ways in which Head Start teachers provide support for this foundational literacy skill.

## Factors that Influence Letter Learning

*Features of letters.* Research in children's development of letter knowledge has found that some letters are easier to learn than others (Huang, Tortorelli, & Invernizzi, 2014; Justice, Pence, Bowles, & Wiggins, 2006; Tortorelli, Bowles, & Skibbe, 2017). Children are more likely to learn and retain letters when their name and sound coincide (e.g., b, m, p; Cardoso-Martins, Mesquita, & Ehri, 2011; Evans, Bell, Shaw, Moretti, & Page, 2006; Treiman, Kessler, & Evans, 2007), they are personally relevant (e.g., in own name, Justice et al., 2006; Treiman & Kessler, 2003) and relevant in other contexts (e.g., X marks the spot; Bowles, Skibbe, & Justice, 2011). Some work (e.g., McBride-Chang, 1999), but not others (Justice et al., 2006), has found that letters at the beginning of the alphabet are more familiar to children than letters at the end of the alphabet.

In addition, uppercase letters tend to be learned before lowercase letters (Pence, Bowles, Skibbe, Justice & Wiggins, 2010; Treiman & Kessler, 2004; Drouin, Horner, & Sondergeld, 2012). Regrettably, the role of instruction in this learning is currently unknown.

*Learning contexts.* Research has identified a myriad of practices known to support letter learning for young children. Exposure to letters, both uppercase and lowercase, increases a child's chance of successfully naming those letters (Fry, 2004). It seems presenting both forms of the letter to children can facilitate letter learning because children use their knowledge of uppercase letters to understand more about lowercase letters (Pence et al., 2010).

In order to ensure that students are receiving quality letter instruction, research recommends that literacy lessons in the pre-k classroom have an explicit instructional aspect (Jones, Clark, & Reutzell, 2013; Justice & Pullen, 2003). Explicitly drawing children's attention to letters is essential for letter learning because children do not look at print in books or their environment unless adults specifically draw their attention to print (Evans & Saint-Aubin, 2005). Intervention studies have found that children learn more letters when teachers point to print, identify letters, and discuss features of the letters with them. These types of activities can be incorporated into book reading sessions (Justice, McGinty, Piasta, Kaderavek, & Fan, 2010), yet a number of intervention studies have successfully taught children letters within the context of play (Roskos & Christie, 2011; Roskos, Christie, Widman, & Holding, 2010; VanHoorn, Nourot, Scales, & Alward, 2014).

Strategies that incorporate teaching letters in conjunction with other literary skills are more effective than practices that teach letters alone in isolation. For example, teaching letter names at the same time as letter sounds is more effective than teaching the skills independently (Lonigan et al., 2013; Piasta, Purpura, & Wagner, 2010) however, curricula may not provide support for such integrated learning (Skibbe, Gerde, Wright, & Samples-Steele, 2016). Intervention studies have identified the use of writing as a means of supporting children's letter naming abilities (Aram & Biron, 2004, Hall, Simpson, Guo, & Wang, 2015; Hofslundsengen, Hagtyet, & Gustafsson, 2016). This may be due to the attention that is drawn to the letter and its form when children write (Gerde et al., 2012; Aram, 2005). Finally, providing multiple and repeated opportunities to use letters in meaningful ways is key to letter learning (Jones et al., 2013).

In summary, children learn some letters before others. Unfortunately, we do not know whether this is due to the features of the letters themselves or the contexts in which they are taught, that is, the ways in which teachers instruct children about these letters. By interviewing teachers, we obtain a more accurate understanding about what matters for children's development of letter knowledge, a vital early literacy skill.

## Teachers' Beliefs Influence Their Practice

Teachers' selection and enactment of teaching strategies for promoting letter knowledge may be influenced by teachers' beliefs about how children develop and use letter knowledge (Bingham & Hall-Kenyon, 2013; Scull et al., 2012). Teacher beliefs about literacy development consist of the views and knowledge teachers hold about planning, teaching, and evaluating the skills that children need to develop (Cunningham, Zibulsky, & Callahan, 2009). Evidence suggests that the diverse educational background of early childhood educators results in a wide variety of beliefs regarding the academic achievement of preschoolers (McMullen et al., 2005). For example, teachers with

master's degrees tend to emphasize oral language development more than teachers with bachelor's degrees (Burgess, Lundgren, Lloyd, & Pianta, 2001). Teacher beliefs often include what educators assume to be the goal or outcome of their lesson plan. Further, work has found that teachers' attitudes about children's ability influences their assessment and expectations of the child's performance in the classroom (Scull et al., 2012). Ultimately, these beliefs are translated into practice, affecting the instructional methods used by teachers in the classroom (Cunningham et al., 2009). Therefore, considering teachers' beliefs and practices for the essential skill of letter knowledge is important.

Due to the significant impact letter knowledge can have on children's future literacy skills and development, it is important to explore how Head Start teachers' beliefs about letter knowledge influences their instructional practices in the classroom. Therefore, the present study examined Head Start teachers' beliefs and reported practices for supporting young children's letter knowledge in the classroom. Specifically, teachers reported on their beliefs regarding the importance of letter knowledge for pre-kindergarten children including how many letters and which features (e.g., letter name, sounds) they should know prior to kindergarten. Further, teachers were asked to identify the teaching strategies they employed to promote children's letter knowledge.

## METHODS

### Participants

Participants included 48 Head Start teachers (all female). Teachers were primarily Caucasian (88%), however, other ethnicities were represented including African American (4%), Asian (2%), Latina (2%) and multiracial (4%). Most teachers reported their highest degree as a Bachelor's degree (35%), or Associate's degree (35%), while others reported a master's degree (26%) or High School diploma (4%) as their highest degree. Sixty-three percent of the teachers reported their highest degree major specialized in early childhood education/development or a related field. On average, the teachers had 17.17 years of teaching experience ( $SD = 8.14$ , range 1-35 years).

### Procedures

Purposive sampling was utilized in this study (Creswell & Clark-Plano, 2017) to identify participants with unique knowledge and experience regarding the phenomenon of interest to this study (i.e., Head Start teachers of pre-kindergarten children). Thus, Head Start teachers were recruited via an informational letter sent to directors inviting teachers to participate. Head Start programs were selected because we had an existing research relationship with the organization; however, no professional development was being provided simultaneously by this research team. Teachers signed up to participate during one of their four regularly scheduled Head Start-led in-service days. Eligible teachers included lead and assistant teachers from pre-kindergarten (4-year-old) Head Start classrooms; all teachers who signed up met this eligibility criteria. Multiple interview days were made available, so teachers attending on different days had equal opportunity to participate in the study. Before any interview questions were asked, participants were able to ask project personnel questions about the study and complete consent forms.

Using an interview protocol, trained graduate research assistants ( $N = 4$ ) and the first author, all with at least a Master's degree in child development and preschool teaching experience, conducted individual teacher interviews. The interviews were structured, consisting first of demographic questions, followed by seven questions that asked teachers to report on their beliefs about and practices for supporting children's letter knowledge. Only designated prompts were used (e.g., "Are there any other ideas you would like to share?"). To enhance accuracy and credibility of the data (Creswell & Miller, 2000), at the end of each question interviewers repeated back to participants the response they heard and asked, "Am I capturing what you intended to say?" The initial questions were open-ended to capture teachers' broad beliefs and practices whereas other questions were targeted to understand more about how teachers' beliefs aligned with recommended practices in the field. Questions included: 1) Do you believe it is important to teach preschool children about letters? Why or why not? 2) Tell me about anything you do to support letter knowledge in your classroom, 3) Do you believe it is important for children to learn letter sounds before they enter kindergarten? Why/why not? 4) Do you help children to link letter names and letter sounds? How? 5) In what order do you teach letters of the alphabet? 6) Do you teach uppercase first, lowercase first, or do you teach them at the same time? 7) How many letters do you think children should know before entering kindergarten?

All interviews were audio recorded and lasted between 15-20 minutes each. The research assistants transcribed the audio data verbatim. The first and third authors—both with at least a master's degree in child development and preschool teaching experience—engaged in Thematic Analysis utilizing a recursive step-by-step process that involved the following six phases (Braun & Clarke, 2006). To *familiarize ourselves with the data*, we read and re-read the transcriptions, noting initial ideas. *Generating initial codes* took place in a systematic fashion across the entire data set to collate statements relevant to codes. As data were collected and organized, we *searched for themes* by collating codes. We included illustrative teacher quotes to support the reasoning for each theme identified. During this phase, we used semantic and latent data analysis. With a semantic approach, themes were identified within their explicit or surface level meanings, making no inferences beyond that about the data (Vaismoradi, Turunen, & Bondas, 2013). This occurred through the creation and grouping of codes and patterns that emerged within the data set. This was followed by latent analysis, where data were examined to identify underlying ideas, assumptions, and specific conceptualizations (Braun & Clarke, 2006). Once the initial search was completed, a *review of themes* took place as the two coders came together to discuss the themes at length. Differences were settled via discussion and consensus; few differences were evident (e.g., one coder identified toys with letters as letter materials and another as letters in play). This analysis continued as data was *defined and themes were named* as specifics of each theme were generated. Analysis was an iterative process through discussion and refining of the major themes. Illustrative quotes and context were examined as evidence for themes. Once this process was complete, we *produced a final report of findings* (Braun & Clarke, 2006).

In order to summarize the various teaching practices reported to support letter knowledge and letter-sound knowledge, researchers counted the responses using enumeration (Miles & Huberman, 1994). For closed-ended questions, for example, *Do you teach uppercase first, lowercase first, or do you teach them at the same time?*, frequencies of responses for each category were identified.

***Trustworthiness of the data.*** Steps were taken to ensure the credibility of the interview data. Responses across teachers indicated that saturation of the data were met, at least for these

participants (Guest, Bunce, & Johnson, 2006). Member checking occurred during interviews and following analyses. During interviews, interviewers regularly checked in with participants to ensure they captured the participants' ideas accurately (Creswell & Miller, 2000). Following analyses, a summary of the findings was sent via mail and email to all participants with the instructions to review and comment on the results, "particularly if you feel as though your ideas are not represented," ensuing a well-established member checking process (Oktay, 2004). We received four responses, all of which were positive that their ideas were included in the report.

## RESULTS

### Head Start Teachers Beliefs About Teaching Letters to Preschool Children

Overwhelmingly, teachers (97.6%) reported that teaching letters to young children was important. Of these teachers, 54.2% reported utilizing direct instructional approaches to teach letter knowledge, while 17% reported that their role was to expose and support children's knowledge of letters. For example, one teacher said, "...so I do think it is important to expose and introduce them to letters and that letters make letter sounds, not necessarily to drill it into their head..." recognizing that individual teachers may have different approaches to children's letter learning.

Teachers articulate several rationales for why letter knowledge was important. The majority of these rationales aligned with two ideas. One group, 49% of teachers, reported that teaching letters was important in helping children develop later reading skills. One teacher commented that "...reading is one of the most important things a child should know, and you have to start with the letters". A second group, 29% of teachers, said that teaching letter knowledge aids children's kindergarten readiness. One teacher's response cited the increasing demands of kindergarten, stating "Kindergarten is different than it used to be, so they need to have a bigger knowledge base going into kindergarten than before." Finally, 14.5% of teachers reported that teaching children about letters is needed to *both* develop their future reading skills, as well as prepare them for kindergarten. Uniquely, one teacher reported that teaching letters was important for promoting a child's identity "To give them [children] identity and be able to identify themselves to others."

In addition to the categories mentioned above, many teachers reported supplementary reasons for why letter knowledge was important. Eighteen percent of teachers specifically mentioned that letter knowledge plays a role in helping children "learn to recognize their names..." Also, 10.4% of teachers said that teaching letters can be used as a means of developing writing skills as well as reading skills.

### Head Start Teachers Reported Teaching Strategies for Supporting Letter Knowledge

Teachers report a variety of strategies for teaching letters (see Figure 1). The most common strategy reported for promoting letter knowledge was incorporating letters into children's playful learning experiences (79.1%). For example, one teacher stated, "we use alphabet cookie cutters with play-doh" Another teacher reported, "we sing the letters of their names, have alphabet bingo, and alphabet matching games with letters." Sixty-five percent of teachers reported preparing a

print rich environment as a strategy for promoting letters. For example, “We have their names in various areas, on their cubbies, their coat-closet, their toothbrush, usually it’s in about 10 places in the classroom.” One teacher reported, “My room is literacy enriched so everything is labeled.” Another stated:

So, it is just like exposure, just like smothering them in a very print rich environment. One that they are actively a part of. I label everything in my room, but then I have them also make labels. And, it may not look like mine, but to them it does.

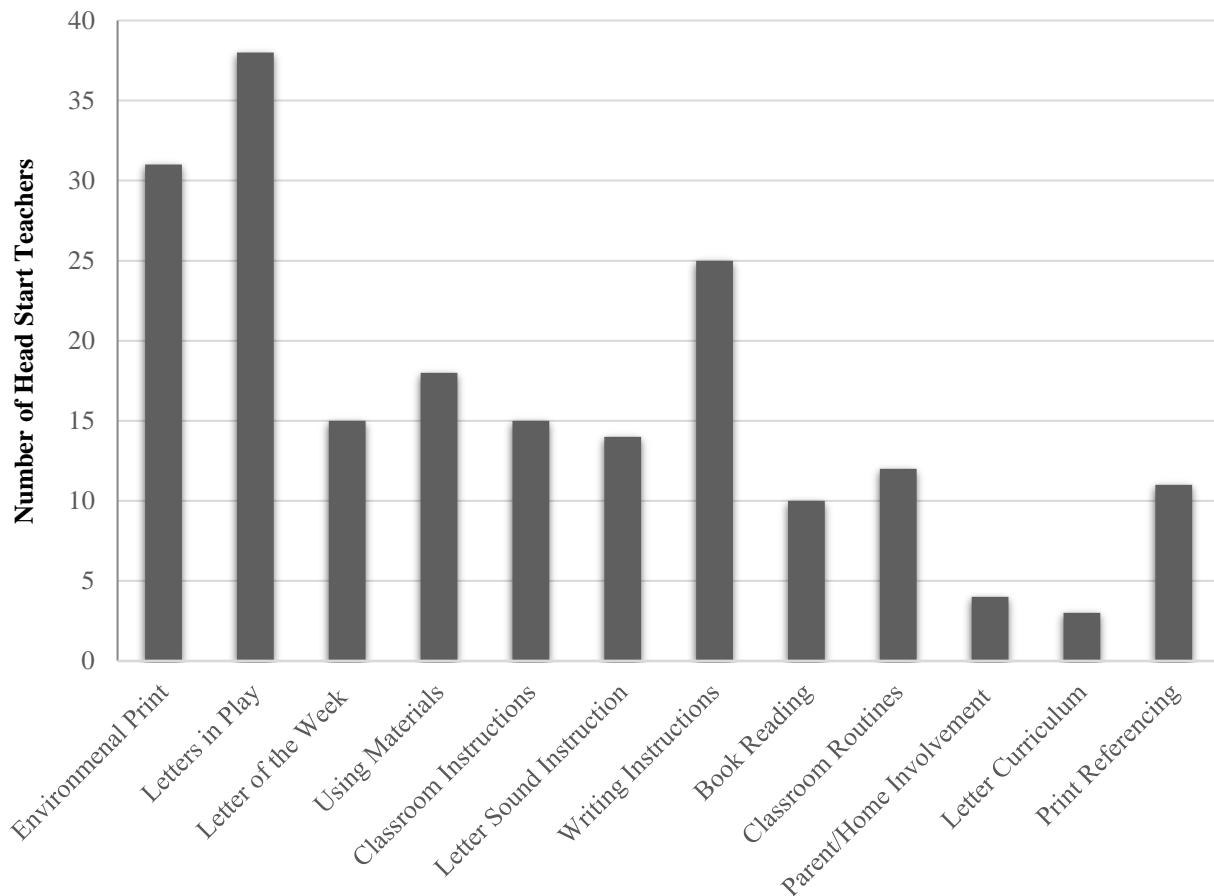


Figure 1. Number of Head Start teachers that reported using each strategy teachers identified to promote letter knowledge.

Thirty-five percent of teachers reported providing a variety of materials children could explore to promote letter knowledge. For example, teachers reported, “We have stamps and letter punches.” “You know, magnetic letters and foam letters,” and “I have a rug with all the letters on it.”

Also, half of teachers (54.2%) indicated that they engaged in intentional letter instruction. This included, “I introduce a letter a week, so each week we go over a letter,” “Each week we also do an ABC page—it is like an alphabet book—for each letter of the week.” In fact, 39% of teachers

taught one letter per week. Twenty-seven percent of these teachers reported discussing letter sounds in their letter-of-the-week instruction.

Fifty-two percent of teachers reported promoting letter knowledge during writing experiences as illustrated by this comment, “I do writing worksheets every Monday on the letter of the week.” Others reported, “We practice name writing everyday” or “We practice copying letters and letter-like-forms daily.”

Other strategies included promoting letters during book reading or routine activities. Twenty-five percent of teachers identified book reading as a strategy they used to promote letter knowledge as illustrated by this quote, “Obviously we read a lot of stories, those are pretty much the main ways [we promote letter knowledge].” Another stated, “We do lots and lots of read alouds.” Eighteen percent of teachers reported focusing on letter knowledge during a class routine. For example, “I do a lot of letter recognition with job chart and assignments” or “Every day we have a message board, and it’s divided into four squares and one square is always devoted to a phonological awareness or a letter type of activity.

Ten percent of teachers reported eliciting family involvement to promote letter knowledge. For example, one teacher reported, “I count on parents a lot to supplement what we do at this level.” Another identified letter knowledge homework she sent home. “My homework is not anything they have to complete, it’s just one way that we can get parents involved in the education of their child.” Finally, six percent of teachers reported using a letter curriculum; all of these teachers used Zoophonics, a phonics-based letter-sound curriculum.

## How Many Letters Should Children Know Before Entering Kindergarten?

When asked how many letters Head Start teachers believe children should know before entering kindergarten, teachers reported a variety of expectations, or benchmarks, for their students. Benchmarks included a range of numbers from 10, reflecting the Head Start standard, to 15 through all 26 letters. Other benchmarks articulated by teachers included children knowing “as many letters as possible,” “at least half of the letters,” and “at least the letters in their name.”

Thirty-nine percent of teachers said they wanted their children to know all of the letters prior to kindergarten entry. For example, one teacher said, “My goal is that they know all of them,” and another teacher said, “I’d love for them to know all of them.” Thirty-seven percent of teachers directly referenced the Head Start Program Standard of knowing 10 letters by the end of the program; all but one of these teachers articulated that, to be successful, students should exceed this standard as illustrated by this teacher response:

They should know at least ten for Head Start, that’s what the kindergarten teachers expect, but ultimately, if they want to stay academically with the rest of the kids and be able to keep up on the pace that kindergarten sets, they really need to know all the letters before they go to kindergarten.

Interestingly, teachers’ responses fell into two categories: teacher-designated (24.3%) or child-focused (75.6%). *Teacher designated* benchmark responses were characterized by their specificity and adherence to a program goal or teacher expectation, usually involving a certain number of letters that all children should know without differentiation between children. For example, one



teacher said, "I try to teach them at least 15" another reported, "For Head Start we are taught that they should know 10, so 10."

Teachers reporting *child-focused* benchmarks identified goals that explicitly considered or accounted for children's differentiated development. These teachers recognized the importance of considering the individual child when creating goals as illustrated in this teacher response:

To me, it varies by child, what they're ready to learn, where they are. I have children that already know a lot. And I have some children that come in and no one's worked with them before. I try to think about where they are and work on what they know and expand from there.

Twenty-nine percent of teachers with child-focused benchmarks specifically said that the number of letters a child should know by the end of Head Start varies from child to child (e.g., "It depends on the child and their learning style"). Further, nineteen percent of teachers also said they wanted children to "know as many letters as possible" recognizing that one specific goal may not meet the needs of every child. This idea is illustrated in the following teacher response:

For kids that come in with no concepts whatsoever and are behind developmentally, I think knowing all the letters is a high expectation for them, and high expectations are good, but it might not fit everyone's child.

Another critical child-focused benchmark included children identifying the letters in their own name (38.7%). For example, "I would think it would be nice for them to know the letters in their name." Most of the teachers articulating child-focused benchmarks (74.1%) held more than one benchmark for the children in their classrooms. For example:

I think 10 is an appropriate start, I think they at least need to know the letters in their name, but for some that is only three letters. Head Start says 10 and I think that is a fair number, I personally would like to see them leave knowing all, but they all may not be ready for that.

### In What Order Do Head Start Teachers Introduce Letters to Children?

Enumeration was used to identify the order in which teachers introduced letters of the alphabet to children. Results indicated that the most popular order employed by teachers was to teach the children the letters in their name first. In fact, 47% of the teachers begin letter instruction with the letters in the children's first names, particularly the initial letter. Teachers reported that letters in the child's name were the most meaningful to the child and that those were the letters to which they could most easily relate. One of them stated that she, "...wants them to learn the letters of their name because it has greater importance to them personally."

Similarly, a second group of teachers (17%) considered child interest or ability when selecting the letters they taught. These teachers recognized that children have varied interests when it comes to what letters they want to learn. For example, one teacher stated that, "It depends on what they ask and how many letters they know already."

Very few teachers reflected on other features of letters and principles of child development when ordering their letter instruction. However, one teacher reported that she teaches the letters that are most easily recognized by young children (i.e., “You know, like the letters O and A”). Another teacher indicated that she orders her instruction using knowledge of children’s sound development stating, “I’ve gotten together with my speech therapist and gotten information from her and found out what sounds children are expected to know at what age.”

Interestingly, 22% of the teachers preferred to teach the letters in a random order. Teachers did not always give a reason for why they chose a particular random order; however, four teachers reported that they did not want the children to memorize the alphabet song or list without actually being able to individually recognize the letters as illustrated by the following teacher quote:

I try not to go in any order with the letters because a lot of the time, they can say their ABCs but you are really not sure if they really know or if they are just saying it. So, I try to mix the letters up throughout the year and in that way I could get a little sense about whether they know their letters or just memorize the song and matching.

Twenty percent of the teachers used the alphabetic order to teach letters. Two of these teachers reported that they start out with alphabet order but end up emphasizing more on name letters or will mix up the order during the school year. One teacher reported that:

I know alphabet order isn’t the most appropriate, but I have never been told another way. I have always been told “oh I will give you that list” but I never receive it. I just do alphabetic order because it’s easier.

### Do Head Start Teachers Begin Instruction with Uppercase, Lowercase, or Both?

Sixty-nine percent of teachers reported teaching both uppercase and lowercase together (e.g., “I teach them at the same time, I teach the letters as they are in print”). As one teacher put it, “I teach them all at the same time, mostly because, first letter is uppercase and the rest of them are lower case, I don’t do the whole name in one case just because that’s not how it is.”

While no teachers reported beginning instruction with lowercase letters, 31.3% of teachers reported teaching uppercase letters first. Responses indicated this decision reflected the ease and importance of uppercase letters. For example, one teacher reported, “I focus on uppercase letters; they’re more concrete for them to handle.” Another teacher’s response reflects this idea clearly:

It is mainly uppercase because that is the first letters of their name, which is uppercase 100%. When I have children write their name and I give them a model, I tend to give them all capitals. It tends to be what they are drawn to first and I think it is easier to learn.

## Do Head Start Teachers Believe it is Important for Children to Learn Letter Sounds Before they Enter Kindergarten?

Head Start teachers articulated three distinct beliefs about the importance of children learning letter sounds prior to kindergarten. The majority of teachers (61%) believed, “Yes” (i.e., “Absolutely”, “Definitely”) that letter-sound knowledge was essential for kindergarten preparation. Teachers’ responses reflecting this sentiment included, “Yes, so that they are ready to start reading in kindergarten” and “Yes, I work really hard on it. I think Head Start has [a goal of] ten letter sounds but, I really like them to learn more in order for them to be on track when they get to kindergarten and not be behind.”

A second group of teachers (29%) believed letter-sound knowledge to be important but recognized that exposure rather than an expectation of mastering this skill was appropriate. For example:

I think it is important that they are exposed to it, so they have an awareness that each letter has their own sounds, because it does help with reading skills and things like that. I don’t think it is important for them to have it all down perfectly.

Another indicated, “I would say it is important but not my top priority.” One teacher’s remarks reflected her understanding of the challenges children face regarding such advanced expectations:

I think at this age, it kind of goes hand in hand that they need to know their letters, they need to know the sounds, or some sounds before they go to kindergarten that way they can start to learn to read and hit those academic levels in kindergarten but, I don’t know how much of it is realistic. Where do we stop and say “no we need to allow them to be kids and it will come when it comes. I feel like a lot of the guidelines and the expectations are set by people who have never been teachers, especially teachers of early childhood education and so they’re not, they don’t understand maybe where these kids really are, especially our Head Start kids, they come from way different family backgrounds than say a middle-class family or an upper-class family so they are trying to just deal with life, let alone having to learn their letters and sounds.

A third, smaller group of teachers (12.2%), did not believe letter-sound knowledge was important prior to kindergarten entry, instead identifying this as something to focus on in kindergarten. For example, one teacher stated, “You know, I do think that [knowledge of letter sounds] is something they should teach in kindergarten. I think that is a kindergarten skill.” Other teachers in this category reflected that preschool children were not ready for this skill, “No, letter sounds is really a beginning reading skill, and I have not yet met a preschooler that is ready to begin reading.”

## How do Head Start Teachers Help Children to Link Letter Names and Letter Sounds?

Despite these varied beliefs about the importance of letter-sound knowledge, unanimously 48 Head Start teachers reported, “Yes,” they help children to link letter names and letter sounds. Teachers

reported, “Yes, always. It’s kind of hard not to” and “Yes, that’s part of their exposure; I try to do that as much as possible.” Teachers’ responses reflected the importance they placed on this skill:

No sense in bothering to teach letters if you’re not gonna talk about sounds. I think they’re gonna learn it easier if it’s all together versus, okay, we’re gonna do the letters now and then second half of the year try to work on the sounds.

Teachers identified a range of practices they used to support letter-sound knowledge (see Figure 2). These reported practices included singing songs (58.5%), playing games (34.1%), and introducing sounds during routines (26.8%) (e.g., letter of the week or identifying jobs). In addition, a few teachers reported using book reading (14.6%), name writing (9.7%), or talking about names (21.9%) as a way to talk about letter-sound correspondence.

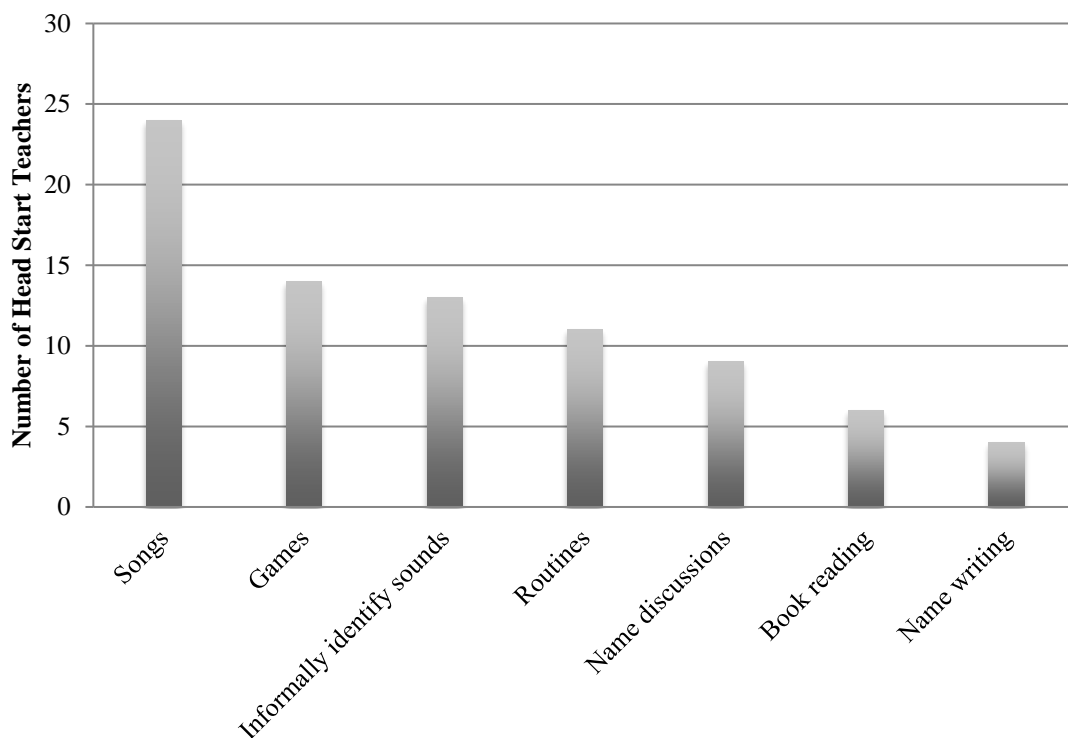


Figure 2. Number of Head Start teachers that reported using each teacher identified practice for supporting letter-sound knowledge.

Several teachers (31.7%) reported engaging in letter-sound learning through informal conversations. For example, one teacher reported:

Practices other than random when you’re walking by a child and you’re writing their name and then you help them by, if they don’t know the letter’s name, the sound, you give them the name or sound. I would say that’s more of an opportunity. I don’t have a procedure, it’s just all day, every day.

When teachers were asked to identify the teaching practices they used to support letter-sound knowledge, just 39.1% identified strategies that support letter-sound knowledge specifically. That is, over sixty percent of teachers identified only sound awareness opportunities (e.g., rhyming, syllables) or other literacy-focused opportunities (e.g., identifying letter names, saying vocabulary words) rather than letter-sound awareness opportunities.

Unlike the detailed descriptions of practices teachers used to support letter knowledge, the letter-sound practices reported were often vague. For example, one teacher stated, "We say the letter sounds from their names, clap their names, journals, book reading, we do a lot of letter sounding" and another said, "Um, like spelling out their names, we'll do the sounds or doing the jobs we might spell out or say the name of the job saying the sounds, you know, that kind of thing". In addition, 43% of teacher responses reflected a level of spontaneity indicating that much of this support may be unplanned or only occur when a child initiates it.

## DISCUSSION

Our interviews with Head Start teachers revealed that most teachers recognize the importance of teaching preschool children about letters, which aligns with core standards in preschool and kindergarten (Coppie & Bredekamp, 2009; Head Start Resource Center, 2010; Piasta et al., 2012) as well as research reports showcasing the significant role letter knowledge has in children's future reading skills (McIlraith, 2018; NELP, 2008). Indeed, letter knowledge at kindergarten entry is the strongest predictor of later literacy success (Schatschneider et al., 2004), perhaps explaining an increasing demand for children to know about literacy concepts earlier than in the past. Certainly, teachers reported awareness of the "increased" demands of kindergarten, in terms of reading and writing, but, until now, little was known about the practices they report engaging in to support this knowledge.

Despite the fact that some curricula do not provide teachers with adequate instructional support for teaching letter knowledge (Justice, 2006), Head Start teachers report multiple teaching methods to effectively teach letters to young children. Preschoolers living in poverty, like those attending Head Start, are at greater risk for reading difficulties because they do not learn all the letter names (Barbarin et al., 2006) without intentional support before kindergarten (Connor, Morrison, & Slominski, 2006). Teachers reported using strategies such as embedding letters into playful activities, providing a print rich environment, encouraging children to write letters, and identifying letters during book reading to teach letters to children. These are all recommended practices for supporting early literacy (e.g., Coppie & Bredekamp, 2009; Justice et al., 2010; Roskos et al., 2010; Roskos & Christie, 2011; VanHoorn et al., 2014). Thus, Head Start teachers recognize developmentally appropriate activities for promoting letter knowledge.

The most common strategy teachers reported employing in their classrooms was promoting letters through playful experiences. For example, fishing for the letters in the water table, playing a letter jumping/hop scotch game, and creating a collage with letters from stickers, newspaper, and fliers in the art area. Though it was less frequently reported, some teachers reported promoting letters through socio-dramatic play experiences (e.g., talking about letters on food boxes or menus in the kitchen area) as well. Teachers' use of playful experiences to support children's letter knowledge is encouraging, as play is a successful way to increase children's literacy learning (Roskos & Christie, 2011; VanHoorn et al., 2014). Children's learning is enhanced in playful experiences in ways not observed in formal learning settings (McInnes, Howard, Miles, &

Crowley, 2009). Children within playful conditions show more on-task behavior, which can support independent learning (e.g., Whitebread, Coltman, Jameson, & Lander, 2009). The games and playful opportunities identified by teachers in this study give intentional space for children's spontaneous discoveries to play with letters, sounds, and words. Even more, Head Start teachers still incorporate playful learning as a meaningful way to teach children about letters, despite policies existing to reduce play in early childhood classrooms (Miller & Almon, 2009).

On the other hand, although over half of teachers reported engaging children in writing to promote letter knowledge, all of the examples provided focused on copying letters rather than writing within playful or meaningful writing experiences (e.g., creating books, writing an order, or composing a story) as recommended in the literature (e.g., Bingham, Quinn, McRoy, Zhang, & Gerde, 2018; Gerde, Bingham, & Wasik, 2012). In addition, teachers did not articulate ways that they model or scaffold writing, though these teaching strategies are recommended (Quinn, Gerde, & Bingham, 2016) and do promote early writing (Gerde, Bingham, & Pendergast, 2015). Fortunately, if teachers do scaffold writing, it is likely that the scaffolds focus on letter knowledge; identifying letters for children to write was the most common print-focused scaffold observed of teachers in previous classroom-based research (Bingham, Quinn, & Gerde, 2017). Unfortunately, though nearly all teachers report including ample environmental print in their classroom environments, teachers did not report using this print as a support for the writing opportunities they provided, though this approach is recommended (Gerde, Goetsch, & Bingham, 2016).

An integrated approach to letter learning, that includes learning letter names and sounds together, has been identified to be more effective than learning letters in isolation and is recommended practice (Lonigan et al., 2013; Piasta et al., 2010; Piasta & Wagner, 2010). While teachers reported disagreement in their beliefs about the importance of letter-sound knowledge prior to kindergarten entry, they all reported engaging in practices which linked letter names with their sounds. Unfortunately, the majority of these reported strategies did not support letter-sound correspondence specifically, but rather phonological awareness or literacy broadly (e.g., print concepts), which does not align with recommendations for supporting letter knowledge through letter-sound correspondence instruction (Lonigan et al., 2013). For example, teachers reported singing songs like "Willoughby, Walloughby, Woo" to support letter-sound knowledge, but this song draws attention to ending sounds of words not letter-sound correspondence explicitly. This is not unexpected as it aligns with previous work suggesting that teachers spend more time helping children learn the letters than teaching them to map letters to sounds (Pelatti, Piasta, Justice, & O'Connell, 2014).

In addition, it seems teachers do not clearly understand what strategies can be used to promote letter-sound instruction. This finding is not surprising, as a recent review of the most widely used curricula in Head Start identified many curricular supports for early phonological skills, like sound awareness and rhyming, but few supports for advanced skills like letter-sound correspondence (Skibbe et al., 2016). Explicit instruction, such as drawing attention to letter-sound correspondence, providing opportunities for children to say the letter name and corresponding sound, and identifying/listening for words beginning with the letter sound are essential tools for developing these skills (Jones et al., 2013; Lonigan et al., 2013; Piasta & Wagner, 2010). This important finding suggests a strong need for teacher education and curricular supports targeting the area of letter-sound awareness.

While there are many different ways to approach letter knowledge instruction, some teaching strategies reported did not align with research-based practices. For example, research has suggested that using letter-of-the-week instruction, while quite common in preschool classrooms

(Huang & Invernizzi, 2012; Justice et al., 2006) as with our sample, may not be the most effective way to teach letters due to the undifferentiated focus on each letter and the limited opportunities for repeated exposure throughout the year (Sunde, Furnes, & Lundetræ, 2019; Piasta, 2016). However, nearly forty percent of teachers still reported using this approach suggesting that communicating research-based instructional strategies to teachers still needs to be a priority.

Head Start teachers have varying standards regarding the number of letters they believe children should know before entering kindergarten, although 93% of teachers believed students need to know, or were capable of knowing, more than the 10 letters recommended in Head Start standards at the time of the interviews. Many held goals for children to know all letters, which aligns with recent research recommendations to know 18 uppercase and 15 lowercase letters by the end of preschool (Piasta et al., 2012). However, 76% of teachers reported objectives that were child-focused, choosing to craft goals based on the individual child's strengths and needs. Classrooms in which teachers approach instruction using a more child-centered approach have positive impacts on young children's learning (Perry, Donohue, & Weinstein, 2007) and identify greater gains in language and literacy skills (Connor et al., 2009). Providing appropriate instructional support is particularly important when working to support at-risk learner's academic achievement (Hamre & Pianta, 2005). Overall, interviews revealed that most teachers consider holding multiple benchmarks appropriate when creating letter knowledge goals for their students. Further, these individualized benchmarks also appear to contribute to teachers' use of multiple and varied instructional strategies.

### Teachers Focus on Letters in Children's Names

Previous work has identified that some letters are easier to learn because of their features (Huang et al., 2014; Treiman et al., 2007). Specifically, several studies postulate that children learn the letters in their name before other letters because of their personal significance (Bowles et al., 2011; Treiman & Kessler, 2003). In fact, ample correlational studies identify letters in a child's name, particularly the first initial, to be the first letters children recall, name, and use in their writing (Treiman & Broderick, 1998; Treiman, Kessler, & Baurassa, 2001). Our findings indicate that teachers often target name letters first in their approach to teaching letters. This may support or reinforce children's learning of these particular letters, particularly for those who enter preschool with no or very low letter knowledge, as is the case for many children attending Head Start (e.g., Diamond et al., 2008; Piasta & Wagner, 2010). When asked what order teachers taught letters, 47% identified that they started with name letters. In addition, 92% of teachers reported placing special emphasis on children's name letters and 98% targeted each child's first initial during instruction. Further, teachers used name letters as a minimum benchmark when setting goals for children's letter learning (31.7%) (e.g., "...at least they need to know their name letters"). This suggests that while it is true that children identify and use name letters before other letters, this may be related to the fact that, at least in this sample, Head Start teachers focus their letter instruction on children's name letters.

Previous work has found other features including the sound the letter makes (Treiman et al., 2007), and position in the alphabet (Bowles et al., 2011; McBride-Chang, 1999) to predict children's knowledge of the letters. In contrast, teachers did not report targeting letters due to these features. Additionally, it is suggested that uppercase letters are learned before lowercase letters (Drouin et al., 2012; Pence et al., 2010; Treiman & Kessler, 2004). This does not seem to be a

function of teacher instruction as our data indicate that the majority of teachers introduce both upper and lowercase together, which aligns with recommended practice (Jones et al., 2013; Pence et al., 2010; Piasta et al., 2012).

Teachers did not indicate that these features influenced the order or process they used for teaching letters. Beyond the name letters, teachers identified wide variation in responses—many of which did not align with recommended practices—regarding the order in which to teach the letters (e.g., “for me, I do it A-Z; I realize kids have to learn letters out of order, but at this stage, we do it one at a time”). Some relied on teaching materials from the local kindergarten (e.g., “I do the list from the kindergarten teacher because that seems to be the way they work on it”) and others reported knowing what not to do, but could not articulate what to do (e.g., “I do it alphabetical order, and I know that is not the most appropriate but, I have never been told the other ways to do it”). There is evidence here that professional development regarding appropriate letter order is necessary.

Further, the pace of letter learning articulated by the majority of teachers, that is, teaching one letter each week, is ineffective and inefficient. Recent research examining variations in the pacing of letter instruction found that children had higher letter knowledge at the end of preschool when they were in classrooms that employed a quicker pace (i.e., faster than one letter per week) for letter learning (Sunde et al., 2019). Intervention work has demonstrated effects when teaching 3-4 letters each week (Piasta & Wagner, 2010) and other methods recommend a letter-a-day pacing (Jones et al., 2013). Teaching one letter each week does not permit teachers to differentiate time for or focus on letters, which are easier or more difficult to learn as suggested by the research literature (e.g., Treiman et al., 2007). Using a letter instruction approach which permits varied attention to individual letters can be beneficial for all children. Reducing introduction time for each letter can offer children the opportunity to engage with each letter earlier in the school year and allows children multiple opportunities to cycle through the alphabet in various orders depending on features of letters, including name letters (for examples see Jones et al., 2013). This approach permits more time for challenging letters and less time for the letters all children know early (e.g., B, O, X, as suggested by Bowles et al., 2011).

## EDUCATIONAL IMPLICATIONS

Communicating with teachers about effective and research-based practices that can be implemented in Head Start classrooms in developmentally appropriate ways may impact children’s letter knowledge outcomes. For example, child and teacher directed classroom activities involving explicit instruction are linked to preschool students’ alphabet knowledge (Connor et al., 2006; Jones et al., 2013), particularly when this instruction includes opportunities to see, say, and hear both letter names and sounds (Piasta & Wagner, 2010). Other effective strategies that promote students’ alphabet knowledge include using writing as a means of drawing attention to letters (Aram & Biron, 2004; Hall et al., 2015; Hofslundsengen et al., 2016) and identifying letters and letter sounds during shared book reading (Justice et al., 2010). Providing a variety of print in the classroom, particularly when it is meaningful to young children, can help promote letter knowledge (Gerde, Goetsch, & Bingham, 2016; Neumann, Hood, Ford, & Neumann, 2012). Examples include putting children’s names on cubbies, labeling learning centers and materials, and posting teacher and child writing (Copple & Bredekamp, 2009; Gerde et al., 2016). In addition, imbedding letters into children’s play experiences is a consequential way to provide opportunities to identify letter



names and sounds (Roskos et al., 2010; VanHoorn et al., 2014). It is essential to ensure all letters are covered multiple times supporting the recommendation for repetition in letter instruction (Jones et al., 2013). To accomplish such repetition, it seems teachers need to pick up the pace to target 3-4 letters each week as recommended (see Piasta & Wagner, 2010; Sunde et al., 2019) rather than only one letter each week. Finally, introducing upper and lowercase together is essential, particularly in light of recommendations for children to know a majority of both upper and lowercase letters prior to kindergarten (Piasta et al., 2012). Utilizing specific teaching strategies or incorporating these effective teaching strategies within the framework of a curriculum, may increase children's letter knowledge.

### Limitations and Future Directions

While this study utilized a rigorous structured interview methodology, which allowed teachers to report all practices they use to promote letter knowledge, it does not include direct observation of teacher behaviors. Although some previous work has identified that teachers' reported practices generally align with their observed practices (e.g., Gerde, Wright, & Bingham, 2019; for a review see Hook & Rosenshine, 1979), more work is needed in this area. Future work might expand on the interview data presented here by observing enacted practices.

We recognize the data were obtained from a relatively small sample of teachers who all work in a Head Start center. Interviews with teachers in other early childhood programs reflecting different funding structures, programmatic models, and policies may produce different findings. Although we met the criteria for saturation (Guest, Bunce, & Johnson, 2006), it is possible additional discoveries might have been made with a larger participant pool. Future research should explore the practices of early childhood educators from a diverse group of programming models.

### Conclusion

Head Start teachers recognize the importance of letter knowledge for young children and target this skill in their instruction. This instruction, overwhelmingly focused on children's name letters, seems to play an important role in children's letter learning and may provide evidence for why name letters are learned first (Treiman & Kessler, 2003; Treiman et al., 2001). Although teachers report a range of practices for supporting letter knowledge, beyond a focus on children's name letters, teachers do not capitalize on the features of letters (i.e., name-sound similarity) or research-based practices (e.g., teaching letter names and sounds in conjunction) for promoting this vital skill. Head Start teachers need more education and professional development focused on effective strategies to increase children's letter knowledge, particularly in light of recent work indicating that the current Head Start benchmarks for letter knowledge may be too low when considering risk for reading difficulties in later grades (Piasta et al., 2012).

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