



Evaluation of Head Start Curricula for Standards-Based Writing Instruction

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Abstract

Writing is a core school readiness skill, yet preschools typically provide children with limited writing opportunities. To consider how curricular materials guide writing instruction, the five most common Head Start curricula were systematically examined in accordance with the Head Start Early Learning Outcomes Framework. Curricula were coded considering the writing objectives they targeted, the teaching strategies proposed to promote early writing, the information provided on how to individualize instruction, and the tools provided to assess children's development in this area. Analyses indicated that although all curricula included objectives and guidance for writing these programs varied in their focus on orthography, mechanics, and composing. The primary focus was on materials, and guidance for supporting writing typically lacked sufficient specificity to implement the guidance in ways that promote children's writing development. Across curricula, there was scant information on how to differentiate writing instruction. The curricula themselves provided little in terms of assessment; two curricula did include a supplementary assessment program. Recommendations for enhanced supports for Head Start teachers are provided.

Keywords Writing · Curriculum · Head Start · Preschool · Assessment

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Head Start policy mandates that teachers working in Head Start programs employ the use of a research-based early childhood education curriculum to help children learn fundamental early literacy skills (Head Start Resource Center 2010). Although these curricula are intended to promote children's academic preparedness as well as align with national standards, it is unclear what types of supports are incorporated into commonly used curricula to guide teachers' instruction within their classrooms. One of the most

important areas of literacy to target during preschool is writing (National Early Literacy Panel 2008), a skill that is highly predictive of later reading achievement (Hammill 2004). Unfortunately, writing is routinely underemphasized in preschool classrooms (Gerde et al. 2015), although the underlying reasons for this neglect are currently unknown. This study evaluates curricula used most commonly in Head Start classrooms to ascertain whether teachers have the professional guidance needed to emphasize writing in their classrooms.

Early Writing Development

Even before children begin to write conventionally, they show an understanding of many writing principles (Puranik and Lonigan 2011) and use writing to share their experiences (Kissel et al. 2011). Far from being random, children's scribbles are often organized in similar ways as more conventional writing; they typically include straight lines, spaces, and are nonfigurative in nature rather than iconic (Tolchinsky 2003). Once children understand that writing conveys meaning, which typically occurs sometime during preschool, children's writing progresses in a predictable

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fashion, from drawing to scribbling to letter-like shapes to conventional letters and then words (Puranik and Lonigan 2011). Although children attending Head Start may lag behind their more affluent peers in terms of writing sophistication, most children employ at least some letters when writing their name by the end of the school year (Diamond et al. 2008).

Writing is a complex skill that encompasses several other aspects of literacy achievement (Puranik et al. 2011), which may help to explain why many children in Head Start classrooms find it challenging to write independently (Diamond et al. 2008). To write, children need to have letter knowledge (Gerde et al. 2012), an understanding of how print works (Welsch et al. 2003), and early decoding skills (Molfese et al. 2011). Engaging in meaningful writing activities also supports children's development of other literacy skills, including letter knowledge, print concepts, and phonological awareness (Diamond et al. 2008).

Writing instruction should emphasize three components shown to be influential for supporting children's writing development: orthography, mechanics, and composing. Orthography encompasses knowledge that children obtain about letters and letter-sound correspondence, as well as early spelling skills (Puranik and Lonigan 2014). Mechanics refers to the motor movements associated with handwriting (Kaderavek et al. 2009) as well as knowledge about the ways in which writing is organized (e.g., English is written from top to bottom and left to right; Nichols et al. 2004). Finally, composing entails how children create meaning from the writing process, develop their own ideas, and can reflect the ways in which children generate knowledge (Puranik and Lonigan 2014). Of these components, teachers tend to over-emphasize the mechanics of handwriting (Bingham et al. 2017; Graham 1990), even though research and best practice have shown that teachers' support of composing has greater predictive value for children's writing development (Bingham et al. 2017).

Supporting Early Writing

Part of the challenge with providing optimal writing instruction lies in the variability in writing expertise that children bring with them to the classroom (Puranik and Lonigan 2011), much of which is linked to the supports children receive outside of the classroom. Caregivers who provided higher levels of instructional support to their preschoolers during a shared writing activity had children with better decoding skills 1 year later (Skibbe et al. 2013). Higher levels of parental support are those which help children to break down words into their corresponding sounds as well as assist children as they physically form letters on a page (Aram and Levin 2004). It is recommended that these types of strategies be included as part of meaningful daily writing

activities within preschool classrooms as well (Gerde et al. 2012, 2014). In fact, interventions that target writing demonstrate greater outcomes for children's literacy development when compared to those that focus on reading (Aram and Biron 2004).

Many teachers provide writing tools and materials within their classrooms (Gerde et al. 2015). However, simply providing writing tools is not sufficient to support children's writing development, as these tools must be actively used in order to promote children's learning. To help children to use writing tools effectively, teachers should support the writing process by making it public to children (Gerde et al. 2012), modeling writing in the classroom (Quinn et al. 2016), and providing opportunities to write with a purpose (Neuman et al. 2007). Opportunities to engage in meaningful writing should be provided daily to preschoolers, as part of learning center play experiences (Bingham et al. 2018), routines, or transitions (Gerde et al. 2012). Encouraging children to talk about their writing can support expansions in composing and writing development (Kissel et al. 2011).

There is compelling evidence that suggests that teachers do not actively support writing using these recommended strategies within their preschool classrooms. In a study of 68 preschool classrooms, including Head Start classrooms, most teachers primarily provided writing materials without incorporating additional supports for how children should utilize these materials (Gerde et al. 2015). Unfortunately, strategies for supporting writing may not always be intuitive to teachers, making it important to consider the information being conveyed to teachers that would help them to plan their daily instructional activities. Curricula provides one means whereby to communicate this information to teachers and every Head Start classroom is required to adopt a curriculum for classroom use (Head Start Resource Center 2010). Preschool teachers report that their curricula provided little guidance for how to promote children's writing development (Gerde et al. 2014), although curricular supports for writing have yet to be studied empirically.

Features of Quality Curricula

High quality preschool curricula that support writing development should have the following features. First, curricular objectives should align with recommended advice and practices within the field, such as Head Start's Child Development and Early Learning Framework (Head Start Resource Center 2010). This alignment will help to ensure that curricula target objectives and goals generally deemed to be valuable for young children. Second, they should support the delivery of differentiated or individualized instruction to young children who may have a variety of learning needs. In Head Start, an estimated 14% of children have an identified disability that may interfere with children's educational

progress (Mouiduddin et al. 2012) and 29% speak a language other than English in their home (Administration for Children and Families 2015). Strategies should incorporate sufficient specificity to support teachers with a wide range of skills, as is often seen in Head Start classrooms (Administration for Children and Families 2015). Third, curricula should incorporate progress monitoring or assessment strategies, to document children's learning over time.

Research Questions

- 1) What objectives for writing exist in the curricula and do these objectives align with standards set forth by the Head Start Child Development and Early Learning Outcomes Framework?
- 2) What supports do widely used curricula provide teachers for promoting writing in Head Start classrooms? Do the supports provide explicit guidance on how to enact suggested activities?
- 3) What materials are provided for assessing children's writing competencies?

Study 1 Methods: Review of Overarching Framework Curricula

The most widely used Head Start curricula were selected for evaluation and coded as part of the present work, in line with previous research (Neuman and Dwyer 2009; Skibbe et al. 2016). We first focused on overarching framework curricula, as they are used in 68% of all Head Start classrooms. Framework curricula provide guidance to teachers regarding the essential components of the curriculum including knowledge, skills, and processes incorporated within the curriculum while explaining how curricular materials can be introduced in a logical, developmentally appropriate manner. These curricula included Creative Curriculum (53%) (Dodge et al. 2012) and High/Scope (15%) (Epstein and Hohmann 2012).

Coding System

Content analysis (Krippendorff 2013) was used to examine these curricula by coding every passage of the manual that focused on writing. Key words were utilized to identify relevant passages to be coded: write, writing, draw, orthography, spelling, writing tools (pencil, crayon, paper), and writing products (charts, graphs, books, lists, message, poster). Each statement of the curriculum manual within the identified sections was then coded as (0) not writing, (1) writing objective, (2) writing guidance, (3) assessment indicator/strategy (e.g., 'Can the child "skywrite" the upper and lowercase "Gg"?'). Objectives, guidance, and assessments were coded

in two ways (1) type (i.e., materials, orthography, mechanics, composing) and (2) quality (i.e., see below for how the objective/guidance/assessment could align with identified standards for writing from the Head Start Child Development and Early Learning Outcomes Framework). Finally, the guidance statements were coded for explicitness (i.e., included sufficient detail) and differentiation (i.e., included children of differing abilities and home language). Two researchers completed training on the coding system to meet agreement at 90% or above and then a random selection of 25% of all coded pages were double coded by the researcher who did not code that curriculum initially. Inter-rater reliability of the double coded selection was .93.

Type of Statements

Statement categories were designed to reflect recommended research-based practice associated with writing in the field to include orthography (e.g., 'To offer a gentle extension, adults can encourage children to sound out words when they write based on their alphabetic knowledge'), mechanics (e.g., 'Trace and practice writing the letters'), and composing (e.g., 'Have children explain and then write how pieces of playground equipment help them move') while also recognizing that many teachers rely almost exclusively on providing writing materials (e.g., 'Taking Attendance: Provide paper and large pencils so children can sign in each morning').

Quality of Statements

The quality of objectives, guidance, and assessments was identified as whether the objective/guidance/assessment aligned with established goals for what children should learn as part of a curriculum identified from Head Start's Child Development and Early Learning Framework (Head Start Resource Center 2010). These goals include:

- Develops understanding that writing is a way of communicating for a variety of purposes.
- Begins to represent stories and experiences through pictures, dictation, and in play.
- Experiments with a growing variety of writing tools and materials, such as pencils, crayons, and computers.
- Progresses from using scribbles, shapes, or pictures to represent ideas, to using letter-like symbols, to copying or writing familiar words such as their own name.

Explicit

Guidance statements were examined for explicitness. That is, did the guidance provide sufficient information to implement suggestions with fidelity? For this, each guidance statement

was coded as not explicit (e.g., ‘Write a group story’), or explicit, that is, providing clear instruction, how, why or example quotes to say to children, (e.g., ‘As you write with children, draw their attention to symbols such as periods and question marks’).

Differentiation

Statements were coded for whether they provided differential support for children of varying abilities (i.e., simplifications/extensions), including children with disabilities and English language learners (e.g., ‘To offer a gentle extension, adults can model and encourage children to use print in many ways (e.g., write a prescription for a sick doll; look at a blueprint)’).

Study 1 Results

The total number of objectives, guidance, and assessment statements for each curriculum are included in Table 1. Both curricula included objectives; Curriculum A reported 8 and Curriculum B reported 3 distinct objectives (e.g., ‘Understand the purpose of writing’). Objectives reflected a range of type (i.e., mechanics, orthography, and composing) with the exception that Curriculum B included 0 objectives for orthography. All objectives aligned with the learning goals identified in the Head Start Child Development and Early Learning Outcomes Framework.

Both curricula included multiple guidance statements for supporting writing, 71 (Curriculum A) and 59 (Curriculum B), respectively. For each curriculum, over half of all statements were focused on providing materials. Far fewer guidance statements were focused on mechanics, orthography, or composing supports. Curriculum A only included 6 guidance statements that were considered explicit. However, for Curriculum B, 26 of the statements

were explicit. Explicit guidance included statements like, ‘You wrote J for juice. I should drink lots of juice to get better’. Further, Curriculum B provided differentiation supports for early, middle, and later level writers ($n = 33$ statements) and a few ($n = 2$) specific statements to support English language learners (e.g., ‘When children begin to write, adults should acknowledge and accept the alphabets they choose (including scribbles in alphabets that are non-Latin based) as well as the words they attempt to spell in both their home language(s) and English’).

The curricula included 57 (Curriculum A) and 25 (Curriculum B) assessment statements, respectively. All assessment indicators aligned with the Head Start Framework e.g., ‘Children may use their small muscles with moderate control’ (e.g., cut with scissors, make lines and shapes with crayons). Both curricula described children’s writing at different developmental stages. Both curricula include formal assessment programs to accompany their curriculum manuals. For this study, supplemental assessment materials were not coded as part of the curriculum.

Study 1 Discussion

Both overarching framework curricula provide objectives which aligned with standards in the field and reflect the three components of writing, with the noticeable absence of orthography for Curriculum B. Further, each included formal assessment programs. Although both curricula focused the majority of their guidance on providing materials, they differed greatly in the explicitness of the guidance they provided for supporting writing in the classroom. Only one of the two curricula consistently provided explicit directions on how to complete suggested strategies and supports for differentiated instruction.

Table 1 Objectives, guidance, and assessment statements for framework and lessons-based curricula

Variable	Framework		Lessons-based		
	Curriculum A	Curriculum B	Curriculum C	Curriculum D	Curriculum E
Objectives	21	6	17	3	8
Mechanics	6	1	0	2	3
Spelling	9	0	6	0	4
Composing	6	5	11	1	0
Guidance	71	59	38	50	50
Materials	42	30	8	19	8
Handwriting	5	12	16	4	15
Spelling	3	6	5	7	9
Composing	21	11	9	14	18
Explicit	6	26	3	0	21
Assessment	57	25	0	5	0

Study 2 Methods: Review of Lessons-Based Curricula

Three lesson-based curricula are used in an additional 20% of Head Start classrooms. Curricula included information needed to complete daily lessons and described specific activities to implement throughout the school year. These curricula include: *Opening the World of Learning* (Schickedanz and Dickinson 2012), *Houghton Mifflin Pre-K* (Bredekamp et al. 2011), and *Links to Literacy* (Episcopal Children's Services, Inc. 2008). No other curriculum is used by more than 2% of Head Start classrooms.

Coding Process

The coding system described in Study 1 was used to code all sentences that were identified within the introductory material relating to the scope and sequence of the curriculum plus one randomly selected week of instructional materials. To avoid weeks of review or introduction, the first and last weeks of the school year were not included, a method employed in prior work (Newman and Dwyer 2009; Skibbe et al. 2016; Wright and Neuman 2013).

Study 2 Results

The total number of objectives, guidance, and assessment statements for each curriculum are included in Table 1. Results indicated that all curricula included objectives; each objective aligned with the Head Start Child Development and Early Learning Outcomes Framework. Unique objectives for each curriculum were 4 (Curriculum C), 3 (Curriculum D), and 6 (Curriculum E).

Guidance included providing materials (e.g., 'Materials: Big Book, chart paper and writing tools'), mechanics (e.g., 'You can form a T by drawing two straight lines, like this'), and composing (e.g., 'Remind children to work in pairs and record their observations in their science logs'). However, the curricula differed in the amount of focus for each type of guidance. Curriculum C provided the most guidance for mechanics, Curriculum D provided the most guidance for materials, and Curriculum E provided the most guidance for composing. Further, the curricula varied widely in the explicitness of this guidance such that Curriculum C included 3 explicit statements, Curriculum D provided 0 explicit statements, and Curriculum E provided 21 explicit statements. None of the curriculum provided guidance for differentiation; Curriculum E provided 1 statement to support English language learners. Finally, Curriculum D provided five assessment statements; however,

two lessons-based curricula (i.e., C and E) did not provide assessment indicators in the materials coded. None of these curricula included supplementary formal assessment programs.

Study 2 Discussion

Lesson-based curricula varied widely in their approach to guiding writing instruction. Each of the curricula provided writing-focused objectives; however, none of the curricula provide objectives fitting all three components of writing. Guidance was provided by each curriculum, yet two of the three curricula did not provide explicit guidance. Differentiated instruction for children with differing abilities including special needs or English language learners was not included. Only one curriculum provided assessment support, which was minimal.

Overall Discussion

Common curricula reflect the message that writing matters for young children, as it can help them prepare for kindergarten and beyond (Hooper et al. 2010). One strength of the curricula was that all objectives aligned with well-established goals for young children's writing development (Head Start Resource Center 2010). Included objectives, however, are broad (e.g., 'uses writing for multiple purposes,' 'writes letters or words'). Further, we subscribe to a holistic definition of writing, which includes orthography (i.e., spelling), mechanics (i.e., letter formation), and composing (i.e., idea generation, Kaderavek et al. 2009), yet only one curriculum includes objectives aligning with all three areas of writing. Neglected areas varied by curriculum, suggesting that developers have different or narrow priorities with regard to writing, which does not align with widely accepted early writing research (Puranik and Lonigan 2014).

A Need for Detailed Guidance

All curricula analyzed in this study provided guidance statements for supporting children's writing, reflecting the increased focus on writing in national policy reports (National Early Literacy Panel 2008) and national standards (Head Start Resource Center 2010). Results from the present work suggest that each curricular type may serve a unique function for teachers. More specifically, overarching frameworks focus most heavily on helping teachers to identify the materials that they can use in their classrooms to support writing. Fewer statements focused on helping teachers to use these materials to support the development of orthography, mechanics, and composing. Providing writing materials is

helpful in that it creates opportunities for writing to potentially occur; however, it is not enough in and of itself to promote children's writing (Diamond et al. 2008). Many teachers do not actively support children's use of these materials in their classrooms (Gerde et al. 2015) and may need explicit guidance to do so successfully. Regrettably, such guidance was only provided in one of the two overarching curricula.

Lessons-based curricula are designed for daily use and do indeed provide some support for the three major aspects of writing. Again, however, few guidance statements were identified as explicit, even though there is reason to believe that teachers would benefit from the inclusion of such supports (Gerde et al. 2015; Hindman and Wasik 2008). Head Start teachers are often limited in their knowledge of early literacy development and the practices which support these skills (e.g., Powell et al. 2008), particularly for writing (Hindman and Wasik 2008). Moreover, early childhood educators in general tend to struggle to implement literacy experiences in ways that promote children's development (Wasik et al. 2006). One major study concluded that instructional quality provided by most Head Start teachers is low, reflecting struggles with providing quality modeling, scaffolding, and explanations in their teaching practices in general (Early Childhood Learning & Knowledge Center 2016). Work examining teaching practices specifically focused on writing also identified that very few teachers provide effective modeling or scaffolding to support children's writing development (Bingham et al. 2017; Gerde et al. 2015). More explicit guidance within curricula for supporting children's writing is warranted.

Moreover, addressing the explicitness of the guidance provided marks one area where these widely used curricula have the potential to make important enhancements in teachers' skills and their ability to impact children's literacy development. Explicit supports are particularly important for supporting children's composing or meaning-making (Quinn et al. 2016) as this practice is something that occurs rarely in preschool classrooms (Bingham et al. 2017). Indeed, although all curricula included some guidance for composing, few statements provided explicit instructions regarding how to engage children in the writing process. Such instruction could help children connect meaning to writing, show what shared writing looks like, and also support independent writing beyond providing materials (Gerde et al. 2012; Kaderavek et al. 2009; Puranik and Lonigan 2014; Quinn et al. 2016). While meaning-making as part of composing was not systematically or explicitly emphasized, multiple meaning-making opportunities for early writing exist within children's play (Bingham et al. 2018) and during instructional times, such as writing workshop (Calkins 2011; King 2012). Including examples about what teachers can do and say to engage children in generating ideas for their story, discussing features of a map, or considering which greeting

to use to begin their letter to a peer may encourage teachers to enact these statements within the curricula. This level of support is important; children who attend classrooms where teachers provide supports for composing tend to have higher writing skills at the end of preschool compared to their peers in classrooms where supports for composing are not provided (Bingham et al. 2017).

One of the challenges faced by developers of curricula is that they are serving a very diverse audience of teachers. Head Start teachers vary widely in their educational background and experience (Administration for Children and Families 2015). Experienced teachers may feel marginalized by curricula that provide detailed guidance or scripted lessons, which could be perceived as limiting their decision-making abilities about how to teach (Garan 2004). Certainly, we recognize that a well-developed curriculum does not take the place of a highly qualified teacher or overcome the challenges resulting from ineffective teaching, yet curricula can offer a blueprint that teachers can follow to promote effective instruction particularly for teachers with less education or experience (e.g., Lonigan et al. 2011). Of course, even with explicit curriculum guidance, access to ongoing, intensive professional development related to the area of writing development may be necessary—as it is for other areas of literacy development (Powell et al. 2008; Wasik et al. 2006)—to enhance practice. Such questions should be examined in future studies.

Enhancements for Individualization and Assessment

Curricula largely ignored children with special needs; just one curriculum provided supports differentiated for children with varying skill levels. This finding is of great concern because 14% of Head Start children have an Individual Education Plan (Administration for Children and Families 2015). Writing is particularly challenging for children with a range of disabilities including those with language and motor challenges (Delano 2007; Lienemann and Reid 2008). For children with disabilities, an early focus on composing and idea generation may be an important entry into writing which allows children to communicate messages before they have developed the motor skills needed for mechanics, and the print and alphabet knowledge necessary for spelling.

Even children without disabilities need differentiated instruction to maximize their developmental writing progress. Children arrive at preschool with varying skills in writing and differences remain in children's skills when they enter kindergarten as well (Diamond et al. 2008). Recognizing the need for differentiated instruction of early writing, recent work has articulated strategies for doing so (e.g., Cabell et al. 2013; Quinn et al. 2016). For children who do not yet understand that letters represent sounds, it is more helpful to discuss and draw attention to broader print

concepts rather than identify letter-sound combinations. For children beginning to make letter-sound connections, it is helpful to draw attention to initial sounds of words before identifying less salient sounds (Cabell et al. 2013).

English language learners represent 29% of the Head Start population, yet guidance for supporting the writing development of these children is not provided in the curricula reviewed. Providing supports for how to involve English language learners in writing activities should be a priority of curriculum developers moving forward. Encouraging English language learners to write in both their home language and English can promote writing (Duran 2016), even though many teachers find this practice to be challenging (Samson and Collins 2012). As with other learners, meaningful individual writing experiences and opportunities to discuss ideas with peers can be fruitful for promoting development for English language learners (Gomez-Zwiep and Straits 2013). Understanding how best to support these endeavors is an area for future research.

In addition to the areas associated with writing, there is emerging evidence that children's writing products serve different functions for children's learning. Most of the guidance provided to teachers within these curricula focused on helping children to write their name. Name writing is meaningful for children and may help to support their understanding of letter knowledge (Diamond et al. 2008; Puranik and Lonigan 2012), but even preschoolers can use writing in a variety of ways beyond name writing (Kissel et al. 2011). Teaching recommendations call for children to use writing in a number of authentic ways to create meaning (Gerde et al. 2012; Neuman et al. 2007) which can include a variety of products such as writing lists, stories, charts, graphs, and maps (Duke et al. 2006).

The curricular supports for assessment varied widely across the curricula. It is positive that the framework curricula each included a comprehensive assessment system. What is surprising is the lack of assessment in the lessons-based curricula leaving a gap for identifying children's current skills and needs. Explicit assessment, including assessment indicators and progress monitoring strategies, support effective teaching (Copple and Bredekamp 2009). Supports that promote teachers to identify the current skills of children and plan based on what the child can do and is not yet doing independently are vitally needed so that teachers may successfully scaffold young children's writing (Cabell et al. 2013; Quinn et al. 2016).

Recommendations for Classroom Practice

The most widely used early childhood curricula do provide some—albeit minimal—guidance for early writing; teachers can access objectives and strategies, particularly for material supports, from these resources. No matter the curriculum,

teachers will need to augment this guidance to comprehensively support writing. Integrating writing opportunities within instructional time (e.g., writers workshop, Calkins 2011; King 2012) or children's play offers myriad prospects for composing across a range of genres; for example, writing a recipe, grocery list, postcard, prescription, menu, or blueprint (Bingham et al. 2018; Duke et al. 2006). Depending on a child's skill (Cabell et al. 2013), teachers can utilize a variety of modeling and scaffolding strategies to expand on idea generation (e.g., "What other ingredients do you need for your potion?"), encourage letter use ("Treasure map starts with the same letter as your name, Tamara."), support letter-sound correspondence (e.g., "Write the sounds you hear in ba—na—na?"), and guide letter formation (e.g., "T is one line down and one line across at the top") (Quinn et al. 2016). In addition, composing opportunities can be integrated across the curriculum to support science, math, and social studies learning as well (Neuman et al. 2007).

Conclusions

As writing comes to the forefront of preschool teachers' attention, it is imperative to understand how curricula can support research-based practices in this area. Although the universal emphasis on writing objectives is encouraging, coverage of core concepts is uneven and nearly every curriculum studied was missing at least one component of writing. In addition, Head Start teachers encounter a range of children in their classrooms (Administration for Children and Families 2015), calling for a need for curricula to be applicable to a general education audience as well as for children with specialized learning needs. Finally, providing a companion assessment program or progress monitoring supports could help teachers to document children's progress in writing. These supports will help teachers to incorporate meaningful writing instruction within Head Start classrooms.

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