

RESEARCH TO PRACTICE SUMMARY

Curriculum, Training and Coaching to Support the Development of Emergent Language and Literacy Skills

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This article discusses the need for accessible, practical, and cost-effective professional development and teaching materials for Head Start teachers in developing their children's emergent language and literacy skills. We describe the components of ABCDuet, a program designed to make training and coaching in language and literacy teaching practices more effective, accessible, user-friendly, and sustainable using innovative software and video assets. We summarize a study investigating the feasibility and efficacy of ABCDuet implementation on teacher and child outcomes from an evaluation of the program in 21 Head Start classrooms. Results indicated that the program can be implemented in authentic preschool settings by teachers with varied educational backgrounds and experience, serving children with a wide range of emergent language and literacy skills. We conclude with feedback from study teachers on their experiences using ABCDuet's technology and its components.

Keywords: emergent language and literacy, professional development, coaching, video technology

INTRODUCTION

Reading ability is powerfully affected by the emergent language and literacy skills children acquire in early childhood (Dickinson et al., 2003; Landry et al., 2017; McCardle et al., 2001; National Early Literacy Panel, 2008). The importance of teaching these early literacy skills is represented in the learning goals and curriculum frameworks across a broad range of early childhood policy reports (NAEYC, 2018; Head Start, Early Reading First: Jackson et al., 2007; Gamse et al., 2008).

With the growing knowledge base on the mechanisms underlying reading acquisition, there is general agreement among practitioners and researchers on the need for commercially published preschool curricula that develop the early literacy and language skills that provide a foundation for early reading development (Dickinson et al., 2003; NICHD, 2005; McCardle et al., 2001). Most preschool curricula include instruction in the evidence - based components of early language and literacy with age-appropriate activities and thematic content. However, curricula do not consistently give teachers clear directions on instructional approaches to maximize learning for all children, especially those with limited home learning experiences (PCERC, 2008). This includes lack of specific guidance on how to explicitly present activities and how to provide sufficient practice, feedback, and review. Additionally, most curriculum designers attend only superficially to the organization and sequencing of this content, which overlooks the importance of providing teachers with a theoretically sound instructional design to follow.

In addition to quality curricula, a related and important need exists for accessible, practical, and cost-effective training and coaching to support teachers in giving their children age-appropriate instruction that engages them and supports their development (LoCasale-Couch et al., 2016; Piasta et al., 2020). The traditional one-size fits all ‘in-service’ model for training teachers in evidence-based practices offers limited opportunities for the ongoing practice and follow-up coaching feedback necessary to fully master and implement new teaching practices within a dynamic classroom environment. Typical coaching also provides limited avenues for helping teachers reflect on, and adjust their teaching practices, especially in preschools with limited resources to provide teachers with extended support.

Overview of ABCDuet

As part of a strategy to improve long-term health and education outcomes, the National Institute of Child Health and Human Development (NICHD) funded the development and evaluation of ABCDuet. The program is designed to support teachers and assistants by making training and coaching in emergent language and literacy teaching practices more cost-effective, accessible, user-friendly, and sustainable. ABCDuet aligns with the practice-based coaching model currently used in Head Start centers, and offers a solution for early education programs seeking effective instructional materials, training and coaching resources. In this section we give a brief overview of the ABCDuet teaching tools, training and coaching components.

ABCDuet Teaching Tools and Materials

ABCDuet tools and materials are colorful, durable, and portable materials designed for carrying out teaching and learning routines. The supporting materials include alphabet wall cards, ABC picture word cards, and letter air trace cards. The materials are used for a series of brief, engaging, developmentally appropriate two to three-minute teaching routines that address the primary domains of emergent language and literacy: phonological awareness, alphabetic understanding, print awareness and vocabulary and oral language.

The teaching tools and materials are used across the 29 instructional modules of ABCDuet. The sequencing of new content and skills in the modules is designed to give children multiple opportunities, within and across modules, to use their new knowledge (Piasta & Wagner, 2010). Once new content and skills have been taught and practiced, review is programmed into the program scope and sequence, giving children opportunities to practice and use what they have learned. In the first three modules children learn simple behavioral routines for participating in circle time activities. These routines are practiced and re-taught as needed. The activities in the following 26 modules focus on teaching letter names and their most common sounds, how to form the letters of the alphabet using gross-motor skills, and developing vocabulary and oral language through interactive read-alouds and child-centered conversations using new vocabulary words.

Training and Coaching

In addition to the initial ABCDuet training, which can be delivered by Head Start staff, the program includes an online platform designed for interactive follow-up training and coaching. This web-based application for computer, or mobile app for tablet or smartphone, facilitates the ongoing modeling, practice, and feedback necessary for teachers to master and implement evidence-based teaching practices. Teachers can access organizational materials, such as the Scope & Sequence, to guide their language and literacy teaching schedule. Teachers can view video presentations that give the research evidence and rationale for the routines and teaching practices. They can also view models of the teaching routines being carried out with children in real classrooms.

ABCDuet's coaching framework helps teachers and coaches engage in specific, responsive, and supportive feedback interactions. After teachers watch the videos of teachers teaching the routines, they rehearse the routines by role playing both the roles of the teacher and child with their coach. Teachers learn and practice one new routine at a time, and video record their instruction with their children to share with their coach. Teachers in the study reported that they valued the step-by-step approach to coaching, with minimal demands on their time. Several teachers shared that it was challenging to record themselves at the beginning, but they found it beneficial to see what worked, what could be improved, and to notice details that were difficult to catch in real-time.

CURRENT STUDY

After the components of ABCDuet were developed and field tested, we conducted a 10-week pilot study to test the feasibility and efficacy of implementing the program in Head Start classrooms. We randomly assigned 21 classrooms in two Oregon Head Start centers to one of two conditions, ABCDuet (intervention) or to a control condition, in which teachers participated in the usual language and literacy professional development provided by their Head Start centers, and used their usual literacy activities.

At the beginning of the study, all teachers completed a demographic survey on years of teaching experience, gender, ethnicity, first language, and education. We conducted pre and post observations of teachers doing a circle time language and literacy activity, using a measure that documented the alignment of their instruction with the skills presented in the ABCDuet teaching

modules. At the end of the study, we assessed intervention teachers' satisfaction with the ABCDuet training, coaching, and materials. At pre- and post-test, the children in participating classrooms, who were going to kindergarten in the fall of 2019, were given a 10-item measure of letter names and sounds that were taught by ABCDuet intervention teachers during the study.

KEY FINDINGS

At the end of the study, ABCDuet teachers made clear gains in their use of evidence-based teaching practices compared to the control teachers in each of the twelve skills presented in the teaching modules. Teacher ratings of the ABCDuet training, coaching, and materials demonstrated high levels of satisfaction across all aspects of the program. Teachers rated items on a scale of 1 to 5, with 1 as the lowest and 5 as the highest. Table 1 shows teacher responses for the two highest ratings for each question for the program overall.

Table 1

Teacher Ratings for ABCDuet Overall

<i>ABCDuet Overall</i>	Rating Scale	Percent Agreement
Overall quality of the program	Above Average to Excellent	90%
Easy to become trained	Easy to Very Easy	100%
Easy to implement <i>ABCDuet</i>	Easy to Very Easy	73%
Recommend <i>ABCDuet</i> to other teachers	Likely to Very Likely	100%
<i>ABCDuet</i> training and coaching compared to other training and coaching experiences	Somewhat Better to Much Better	73%
Likely to use <i>ABCDuet</i> again	Likely to Very Likely	91%
<i>ABCDuet</i> provides valuable training in creating a safe and predictable learning environment	Agree to Strongly Agree	100%
<i>ABCDuet</i> provides valuable training in developing children's language and literacy skills	Agree to Strongly Agree	100%
<i>ABCDuet</i> provides valuable training in teaching letter names and sounds	Agree to Strongly Agree	100%
<i>ABCDuet</i> provides valuable training in teaching how to trace letters	Agree to Strongly Agree	100%
<i>ABCDuet</i> provides valuable training in teaching vocabulary and oral language	Agree to Strongly Agree	100%

Due to the short duration of the study, we chose to measure child gains in letter names and sounds that were taught in the intervention condition. Children in the ABCDuet condition learned about

1.43 letter names from pretest to posttest while children in the comparison classrooms improved by 0.56 letter names, a statistically reliable difference of 0.87. It was promising that despite children's brief exposure to the instructional routines, there was a measurable difference between the two conditions for letter names.

SUMMARY AND TEACHER RECOMMENDATIONS

ABCDuet is designed to meet the needs of all preschool children, especially those with weak or limited early literacy skills who are at risk for later reading problems. Preliminary findings from our pilot study indicate that the program can be implemented by teachers with varied educational backgrounds and experience, and for children with varying entry levels of literacy skills, including English language learners. We also collected feedback from intervention teachers at the end of the study. Teachers reported that having the ABCDuet ready-to-use classroom materials made it easier to teach the routines. They valued the model videos to see what the routines looked and sounded like with real teachers and children, and the step-by-step approach to coaching. A number of teachers highlighted the positive effects of brief daily routines and the cumulative practice and review in the program scope and sequence for children who typically struggle with attention and behavioral challenges.

We asked the teachers who participated in the study to also describe challenges and suggestions to improve the program. Suggestions included showing teachers implementing ABCDuet activities while navigating challenging child behaviors to demonstrate different approaches to completing the activities in more of the varied situations teachers encounter daily. Teachers also requested a slightly smaller version of the Alphabet Wall Cards to place in transition areas (e.g. hallway, lineup areas etc.) to facilitate review activities. With respect to the technology, teachers experienced some challenges viewing and sharing videos in the mobile app only, and some struggled to unlock new modules. We addressed the technology issues at the end of the project to make the app more user-friendly. In future research, we hope to study the effectiveness of the ABCDuet teaching materials, training and coaching when it can be implemented at the start of the school year, with adequate time for teachers to teach the entire scope and sequence. In a longer study we will also be able to measure vocabulary growth as a result of the read aloud routines. As part of an ongoing iterative design process, the project team plans to continue to incorporate teachers' valuable feedback into ABCDuet's technology and its components. We also plan to get feedback from other early education stakeholders so that we may best prepare ABCDuet for use in early childhood classrooms.

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