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## Preschool Approach to Teaching Alphabet Knowledge

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**Preschool Approach to Teaching Alphabet Knowledge**

Ashley Kreinbrink

Capstone Project: An Action Research Project

Northwestern College, Orange City, Iowa

### **Abstract**

This action research project was completed by a researcher interested in the alphabet knowledge curriculum. More specifically, in the study of letters, and how to incorporate the relationship of uppercase and lowercase identification, letter sounds awareness, sound placements, and writing letter formation as critical components of an alphabet knowledge curriculum. This researcher taught preschool for thirteen years. The students were able to participate in the study. Students received Enhanced Alphabet Knowledge (EAK) lessons daily. The study was part of our priority standards aligned to the Iowa Early Learning Standards and Teaching Strategies GOLD. The students were asked to identify uppercase letters, lowercase letters, and produce letter sounds in random order. Following each teaching of six cycles of daily EAK lessons. Data was collected with priority standard assessments at the beginning of the school year, after each cycle rotation, and at the end of the school year to determine if EAK was a successful intervention. The research was conducted to result in continued lessons in the Enhanced Alphabet Knowledge if proven to be successful.

*Keywords: early literacy, preschool, alphabet knowledge, enhanced alphabet knowledge*

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### **Preschool Approach to Teaching Alphabet Knowledge**

Preschool children require foundational literacy skills, including reading comprehension and writing communication in the early years (Roberts, 2021). Emergent literacy is a combination of print-related and language-based skills that build upon the foundational skills that children will use as they transition into reading. In preschool, students are introduced to letters, letter sounds, and letter formations. The problem is letter curriculums for preschoolers are lacking a multi-modal approach. Children can develop an interest in learning all the components of letters. When children are encouraged to manipulate and explore letters and sounds in playful learning opportunities, they are taking the beginning steps in the reading process. Teachers need to ensure accessible, purposeful, and engaging learning resources for all students.

Frequently, letter instruction is taught with a letter of the week focus, resulting in twenty-six weeks to introduce the alphabet. Emergent literacy skills are the foundational skills for future readers. Early intervention and a multi-modal approach are crucial for all children to become fluent readers. Preschoolers are prepared for letter and sound knowledge instruction. Without a question, the literacy abilities children retain in preschool serve as a foundation for skills to build upon for the rest of their lives (Roberts, 2021). The brains of preschoolers are like sponges and undergo tremendous growth and development during these formative years. Learning experiences paired with repeated exposure and engagement influence the ability to retain and apply early literacy skills.

This study aims to determine the optimal approach for preschoolers to learn letter names, sounds, and writing formations before entering kindergarten. This researcher hypothesized that repeated exposures can build students' knowledge and skills earlier in the school year. In addition, students' confidence in emergent literacy skills will enhance their performance as they

enter kindergarten, providing them with the necessary foundational skills to cultivate a love of lifelong learning and reading.

As a result of review of literature, the researcher chose EAK because it demonstrated great improvement on student achievement. Teaching a letter a day increases scores on letter naming for uppercase and lowercase letters and letter sound identification. These skills educate preschool students the purpose of letters and sounds and prepare them to be future readers. EAK comprises, engaging lesson plan format demonstrating measurable growth in pre-literacy skills.

This action research study gathered 20 peer-reviewed studies on teaching alphabet knowledge, letter names, letter sounds, letter formations, differentiation, assessment tools and early childhood instruction from Northwestern College's DeWitt Library. All peer-reviewed journals were current within the past 10 years. The study aimed to understand the current knowledge base and identify gaps in emergent literacy and to find the best approach to teaching emergent literacy skills in the preschool setting for all students.

## **Review of the Literature**

### **Early Literacy in Preschool**

Recent years have seen an increased push for preschool attendance, as early introduction to foundational skills like alphabet knowledge, phonological awareness and early writing improved students' growth and abilities in early elementary years. Alphabet knowledge significantly predicts reading achievement and comprehension, emphasizing its importance (Roberts et al., 2019). A review lit of the literature reveals the importance of teaching early literacy and alphabet knowledge, focusing on planning and scheduling impactful approaches and skills in preschool classrooms environment.

In the study by Roberts (2021), she explored the concept of aligning instruction with children's learning of target content. The researchers hypothesized that initial learning of pairings between printed letter forms (visual) and their letter names and sounds (verbal) relied on visual-verbal paired-associate learning (PAL). PAL is a learning process that links stimuli by quickly pairing the two items, repeating the pair, limiting extraneous information between the presentation of each item, and providing sufficient practice. Roberts believed that instruction that exercises and strengthens the pairing of printed letters and their associated verbal names or sounds, for example, the visual component of the letter pairs via letter writing, and the verbal component of the letter pairs through attention to mouth articulation of names and sounds, contributed to learning. Practicing retrieval from memory after initial learning is instantiated to support long-term memory. Experiment 1, children in experimental treatments with PAL letter names and a lesson routine showed significant improvement in letter name ID speed compared to non-experimental treatments. Experiment 2, showed that more practice in associating printed letters with spoken letters led to greater accuracy and speed measures, compared to less

association practice and attention to mouth movements. The study found significant growth in letter name and sound identification with PAL of letter names and sounds causing letter sound gain. Average performance ranged from 35%-75% on eight to 12 letters, with 25-35 minutes of instruction. (Roberts, 2021)

Early preschool instruction and intervention are crucial for developing alphabet, phonological, print, shared reading, and early writing skills. In research conducted by Kaye and Lose, they shared the keys to effectively supporting letter knowledge were carefully observing and noting students' current and evolving letter knowledge and tailoring letter instruction to each student's current control over letters. Through data and observations Mr. identified a small group of 4 students to form a small group where he could focus instruction in letter learning. He expanded letter knowledge during guided reading and writing. Mr. Maldonado tracked students' letter learning through assessments, record-keeping, and anecdotal notes, focusing on teaching with intention and linking new knowledge to existing knowledge. He found that early exposure to reading and writing skills developed essential skills. He recommended preschool teachers create a literacy-rich environment by incorporating letters, words, and books, balancing student-led and teacher-led opportunities, offering small and large group instruction, and providing materials during free choice centers. (Burts et al., 2016).

Professional development and learning opportunities are crucial for teachers to effectively implement new knowledge in their classrooms. Mentors and team planning skills are essential for effective instruction and curriculum integration. According to Rachmani (2020), explicit exposure interventions enhance emergent literacy skills in preschool children. Teachers plan learning opportunities for large and small groups, embed them during play and transitions, and adjust daily schedules to incorporate literacy and writing activities.



They summarized preschool curriculum should include alphabet knowledge, early literacy, and writing skills. Find and piece together effective tier 1 instruction, administering proper assessments to identify students needing extra support, and creating interventions for small groups and individual students are essential to helping students obtain the knowledge and make growth in their weaker academic areas. Teachers must implement interventions and strategies to enhance students' reading and writing skills, so all students can learn to their greatest potential.

### **Delays and Disabilities in Early Literacy Skills**

Children enter preschool with a wide range of abilities and experiences. Some children enter preschool following a structured childcare or 3-year-old preschool program. Other children enter preschool as their school setting because they have stayed at home. A few children have gone through Early Access and transition into preschool as early as age three with an Individual Education Plan (IEP) due to an identified disability or diagnosis. All students come into preschool with a wide range of gifts and abilities. It is the teacher's job to assess the students through a range of assessments to determine where each student is and then find the best way each student learns.

An academic approach that works best for getting students what they need is a multi-tiered system of support (MTSS). Tier I instruction is taught as a whole group to all students. Through assessments, teachers are able to differentiate instruction and support students with tier II interventions in small group with reteaching and extra practice of skills. Some students might need more intense tier III interventions to help them understand the skills being taught. Teachers track the effectiveness of the interventions through assessments, observations, and data collection. In a study by Piasta (2014), differentiated instruction helped support alphabetic

knowledge, developed through assessments to guide group instruction individualized interventions through the MTSS framework. Research suggests embedding alphabet instruction in shared reading, using mnemonic aids, combining alphabet and phonological awareness instruction, teaching letter names and sounds at once, and teaching lowercase and uppercase letter forms for improved alphabet knowledge instruction. Olszewski, Soto, and Goldstein (2017), conducted two experiments for students that fit the criteria for tier II interventions. The experiments were conducted using multiple baseline design with assessments and data analysis. The experiments showed that all children acquired targeted PA skills, even though they did not make progress in letter names and sounds. The PA Fluency Probe subtests aligned with children's performance, indicating its usefulness for future studies and monitoring classroom progress. These results coincided with Carta et al. (2014), CRTIEC Tier 1 study which showed a higher proportion of struggling learners in low-income qualifying programs. Maximized focus on early literacy and language in Tier 1 instruction is needed to prevent reading failure. Income-eligible programs have larger proportions of children identified for Tier 2/3 services than Tuition-Based programs. A reconfigured Tier 1 foundation is needed to prevent and reduce these numbers.

Moreover, the higher proportion identified by the Sound Identification measure is likely a reflection of the fact that many children were not exposed to instruction on the letter-sound correspondence until the year before they entered kindergarten. According to a study by Heilmann (2018), the majority of children entering Head Start preschool had limited alphabet knowledge, with 146 out of 172 children knowing fewer than 10 letters. Around one-third of these children made substantial gains and met the 10-letter benchmark. After a year, the entire sample met the benchmark. However, most children with limited alphabet knowledge still

struggled with mastery (Heilmann et al., 2018). These results were compared to Wolf (2016), this study assessed 3-step letter-sound teaching intervention's effectiveness in preschool children's decoding, finding faster growth compared to control group. (Wolf, 2016).

These studies demonstrated how a variety of preschool programs used MTSS to identify students that needed more intensive tier II and tier III interventions in learning of letters and sounds and how MTSS result in positive growth. Some students made faster progress than others, but seeing all students' make progress was beneficial in the MTSS framework. Students can learn letters and sounds like their peers. Some students might not reach benchmark, make progress and make connections to the letters in their own names which is a positive indicator the other letters will come with continued individualized interventions and time.

### **Multimodal Approach to Alphabet Knowledge**

All students learn in different ways. Using a multimodal approach can benefit all students in learning and retaining knowledge. With the use of enhanced alphabet knowledge (EAK), embedded learning opportunities, and a multi-sensory approach, it is possible for all students to learn and be engaged in learning.

As noted by Jones, Clark, and Reutzel (2023), traditional alphabet knowledge (AK) instruction in early childhood classrooms across the country focuses on teaching one letter per week. In their study, they looked to see if using EAK, brief explicit teaching of the letter's name, sound, and written form in repeated exposures through six cycles, was more beneficial to learning alphabet knowledge. EAK significantly improved the learning ability of AK students compared to traditional one-weekly AK instruction (n = 329). EAK teachers found that most Kindergarten students master AK in less than 7 instructional cycles. Students who learned letter

names and sounds more quickly made greater progress in reading and demonstrated greater reading ability than those using traditional AK instruction with one alphabet cycle.

A study by Schlesinger and Gray (2017), aimed to compare the efficacy of multisensory structured language instruction for second grade children with typical development or dyslexia. The multisensory intervention used non-English graphemes to represent two pretend languages while the structured language intervention provided explicit systematic phonics instructions. Results showed that both interventions had an overall treatment effect for participants with typical development and dyslexia, although intervention effects varied by outcome variable. In Piasta's (2014) article, educators were provided with an evidence-based practice to help achieve alphabet learning goals. The framework recommends that early childhood educators use assessment and differentiated instruction to support different alphabetic learning needs. This approach offers greater efficiency, allowing children to learn unfamiliar letters, tailor instruction to individual needs, and repurpose class time for other educational goals.

Exley and Richard-Bossez (2013), studied the early five-year French students and focused on high-quality literacy learning outcomes. They examined pedagogical practices that disadvantage different types of students as literacy learners. The study revealed that different pedagogical framings have cognitive and social effects, resulting in different literacy knowledge and oppressive subject positions for at-risk students. The findings suggested that a stronger framing of the instructional discourse was realized through a more visible pedagogy, which redistributed literacy resources to the student who were most at risk of educational failure. However, when the pedagogy was weakened, this student did not benefit from the additional control often accorded to students.

The research-based strategy Harris, Kinley, and Cook (2017), included using peer-mediated intervention (PMI) to help promote alphabet knowledge and social skills in young children with disabilities. They looked at Miss Emily's inclusive kindergarten classroom of 5- and 6-year-olds with diverse learning needs. PMI is a practical tool to accelerate early literacy skill development in young children with disabilities, increased confidence and motivation. They found teachers using PMI for alphabet knowledge should observe, document, and reflect on peer culture, identify learning objectives, support children, monitor progress, and adjust strategies based on assessments. Teachers should identify target alphabet knowledge skill, align with child's IEP goals, and select strong leadership and social skills for a disabled child. Teachers should also consider selecting multiple peers to avoid fatigue or lack of interest. Effective sessions using PMI required engaging toys and materials that connected to children's interests and strengths. Teachers should be enthusiastic and positive during the training process, encouraging peers to practice the alphabet knowledge skill. Baker et al. (2019) study examined the effectiveness of task analysis (TA) in teaching emergent literacy skills to students with autism spectrum disorder (ASD). The research outlined six fundamental steps, including defining emergent literacy skills, using appropriate instructional methods, using systematic prompting techniques, piloting and updating the task analysis, and teaching and collecting data. TA provides consistency and aligns with common core standards, making it beneficial for all students.

These studies showed a wide range of research-based practices using a multimodal approach. Teachers need to identify the best approach for students to learn the essentials of alphabet knowledge. Early literacy skills in preschool are the foundational skills for reading and writing and facilitate future success in literacy in higher grades. Students should be given a

variety of strategies to find what works best for their learning. It is essential for future academic success and development.

### **Measuring Tools for Alphabet Knowledge**

Teachers need to have a variety of options for assessing students' knowledge. One assessment can give a snapshot for that day and time. Having a variety of options such as standard assessments, state standardized assessments, screeners, and observations give a comprehensive approach to looking at data and making a plan to help students meet benchmark. Assessments of ongoing progress monitoring help teacher, understand what a student knows, and help plan for reteaching and individual differentiated interventions.

According to Piasta et al. (2016), early childhood teachers are encouraged to support children's letter-sound ability development. However, current assessments for preschool-age children have limitations. This study used an item response theory to create psychometrically sound, quick, and easy-to-administer short-form letter-sound assessments. The results showed adequate test information, reliability, and theta recovery. The project developed brief letter-sound knowledge assessments for preschoolers, using item response theory (IRT) to address psychometric problems. Untimed short forms assessed child's performance under age-appropriate conditions, using IRT framework model, inter-letter differences, and equivalence. The IRT framework model accounted for first-first advantages and ensures equivalence across short forms, aiding formative progress monitoring and reducing bias. This study created empirically derived letter-sound short forms for formative and summative purposes, responding to calls for sophisticated measurement of alphabet knowledge and increased emphasis on alphabet learning and instruction. The findings contributed to research and educational practice.

Carta et al. (2014) used Get Ready to Read (GRTR) and IGDIs to measure early literacy skills, including print knowledge, emergent writing, and phonological awareness. The study identified students with weak and very weak language and early literacy skills. IGDIs are an universal screener developed the CRTIEC research team. The IGDIs screener is administered individually and is untimed. For the picture naming section, students are presented with a set of pictures and the student is asked to name each picture. Sound identification measures identify children at risk for literacy and language problems, with higher proportions identified due to lack of early literacy instruction. Screening measures did not consistently identify similar proportions. These content differences impact programs' teaching strategies and alignment of content domains.

In the study by Kaye and Lose (2018), they focused on 1 teacher (Mr. Maldonado) and multi age classroom (12- kindergarten/12-first grade students). Mr. Maldonado observed students' literacy strengths and weaknesses by administering an Observation Survey of Early Literacy Achievement each year. He recorded changes in literacy progress and tracked letter knowledge, planning for and supporting learning. Mr. Maldonado aimed to apply letter knowledge in reading and writing continuous texts by observing and tailoring instruction to students' current and evolving knowledge. He identified a small group of four students for letter learning and expanded their knowledge through guided reading and writing.

Schlesinger and Gray's (2017), study used multiple baseline, multiple probe design for alternating structured language and multisensory interventions. The study involved 30-minute baseline and follow-up sessions and 1 hour intervention sessions, completed weekly. Participants learned alphabets using non-English grapheme names and phonemes using structured language and multisensory interventions. The study involved three phases: baseline, intervention, and

follow-up. Performance on multisensory letter name production was the mastery criterion. During the baseline phase, a group of participants entered baseline at once, with three data points taken over a week. A participant completed two data points, followed by a stable baseline pattern for letter name production in multisensory treatment. Data analysts evaluated data separately, ensuring a consistent level, little variability, and no positive trend. All participants received six baseline probes to ensure stable baselines. Students were allowed to enter the treatment phase if they demonstrated stable letter name production in the multisensory treatment. This was done by presenting structured and multisensory interventions in six sessions. To progress, participants had to meet mastery criteria, which required correctly naming newly taught letters twice in a row during assessments. Participants could meet mastery criteria for one intervention and move on to the next: the follow-up phase, two follow-up sessions were conducted 1-week post-intervention, 2 weeks post-intervention.

The study analyzed two reading interventions for teaching letter names, sound production, word reading, and spelling to 11 second grade students, including those with typical development and dyslexia. The study found that both interventions had a positive treatment effect on participants but no overall advantage was found. The study investigated the efficacy of simultaneous multisensory voice as a reading intervention using Saraf and Rasaf alphabets. Results showed structured language instruction in an Orton-Gillingham program for basic literacy skills. However, simultaneous multisensory input did not provide a treatment effect beyond structured language.

### **Summary**

The resources reviewed offered various approaches to learning alphabet knowledge for preschool students who face challenges in obtaining information. Short, engaging, and effective



learning, along with assessments, were shown to enhance understanding. When teachers can use data to drive their instruction and interventions, everyone benefits.

After reading these resources, the conclusion is there needs to be more research completed to identify the best approach to teaching alphabet knowledge and determine the best way to assess learning. Enhancing alphabet knowledge in teaching can facilitate learning and engagement. Action research will provide conclusions on effective approaches, data-based decisions for tier 1 instruction adjustments, and individualized interventions for small groups and individual students.

## **Methodology**

### **Research Questions**

What alphabet content optimizes alphabet learning: letter names only, letter sounds only, or letter names and sounds?

Can students with IEPs learn their letters and sounds, and what strategies do they need to be successful?

### **Variables**

The variable investigated in this study is whether using the Enhanced Alphabet Knowledge (EAK) approach to teaching and learning letters and sounds will be beneficial for all students. This was completed by taking data from students last year that completed the EAK daily lessons and data from students that used EAK as an intervention with a focus on the letters in their name.

### **Setting**

The assessments took place in a preschool classroom at Northeast Elementary in Goose Lake, Iowa. The Northeast Community School District consists of five rural communities which comprises 178 square miles of land. Charlotte, Goose Lake, Andover, Bryant, and Elvira are

included. The school district is also made up of 45 percent open enrollment from neighboring school districts around the area. In Goose Lake, Iowa, the School District has a single attendance center in which the elementary building and middle/high school building are located on the same campus. The district borders Clinton, Iowa on the north and east and contains approximately 3,000 rural residents. Clinton is an industrial community with a population of around 20,000. There are around 800 pupils enrolled in the Northeast Community School District, including open enrollments. The vast majority of pupils come from blue collar and agricultural families. About 30 percent of the district's students participate in the free and reduced lunch program. In the previous eight years, the district's enrollment has decreased somewhat, indicating stability. Not only are students at accomplished levels among the highest in Clinton County, but they also rank highly throughout the Mississippi Bend Area Education Agency (AEA 9). The Northeast Community School District aims to prepare students to become productive and responsible global citizens by offering quality education in a supportive environment. Geographically, the Northeast Community School District is 45 miles north of the Quad Cities and the borders of the Mississippi River (Rock Island, Moline, Illinois, Bettendorf, and Davenport, Iowa). The University of Iowa in Iowa City is approximately 90 miles to the west.

### **Participants**

In the classroom this past 2022-2023 school year, twenty-four students were studied. There was an AM class consisting of eight girls and six boys. At the beginning of the school year, there was one three-year-old on an IEP for academics and speech services. By the end of the school year, there was another student that qualified for a speech only IEP. There were five students receiving group interventions with two of them getting more intense individualized interventions based on the data collected throughout the school year. There was a PM class consisting of five girls and

five boys. At the beginning of the school year, there was one four-year-old on an IEP for academics and speech services with a diagnosis of being Autistic. There were four students receiving group interventions based on the data collected throughout the school year.

### **Treatment/Intervention**

All students participated in the Enhanced Alphabet Knowledge routines for ten minutes daily. During the EAK routines students would work on a letter a day. There were six multiple distributed instructional cycles: own name advantage, alphabetical order, letter name-letter sound relationship, letter frequency, consonant phoneme acquisition order, and distinctive visual features letter writing. These cycles provided repeated exposures to the letters every twenty-six days. Each daily lessons focused on letter name identification in uppercase and lowercase, letter sound identification, recognizing the letter in text, and producing the letter form. There is a script to follow for each section and each section takes a few minutes to complete. Interventions in small group involved reteaching and extra practice for the letter of the day. When creating individualized interventions for students the same structure and format was utilized due to familiarity with instruction routine with a focus on the letters in each student's first name in order to individualize and differentiate instruction. For small group interventions, students received additional EAK practice two days a week. For students that had EAK as an individualized intervention they received their intervention four days a week for ten minutes, focusing on the letters in their first name.

### **Data Collection**

As a preschool educator, there were twenty-four students between the AM and PM class. The preschool team identified priority standards and created assessments to align with each standard. The team used the Teaching Strategies GOLD Objectives for learning to develop the

criteria for our assessment. At the beginning of the school year students were individually assessed to see what they came into preschool knowing, which gave us beginning of year baseline knowledge. Then they were individually assessed after each EAK rotation. Each of them had the opportunity to go to the back of the classroom where there were fewer distractions there was a stack of letter cards for uppercase letters and lowercase letters; the lowercase letters were also used for letter sounds. The teacher displayed one card at a time and the student identified name the letter for uppercase and lowercase. For the sound assessment the teacher held a lowercase letter card and the student produced the sound the letter made. The teacher waited three seconds and if the student didn't respond, then they continued to the next card. If students had limited language or were nonverbal the assessment would be adapted to a receptive task. The teacher would set out three cards and ask the student to point to the letter. These receptive accommodations would also be completed for the sound assessment. All the assessments were completed at one sitting unless a student was having a difficult time focusing then assessments could be broken down into different times throughout the day or on different days.

When collecting data for Teaching Strategies GOLD, data was collected in the fall and in the spring through observations during play and throughout the school day which was entered into the GOLD database. Another assessment that was conducted three times a year was the universal screening Individual Growth and Development Indicators (IGDIs) literacy assessment. This assessment is administered in the fall, winter, and spring. The data piece analyzed at for these students was the sound identification subtest. Educators complete a training in order to administer this test with fidelity. For this assessment, the educator used two iPads, one for the test administrator and one for the student. The assessment was given individually in the back of the classroom where there were fewer distractions. Students were headphones to hear the voice

from their device. The teacher modeled two sample questions and then the student responds to two sample questions. The teacher touched letters on their device and they transferred to the student's device. Once the letters were transferred, a voice comes from the student's device and indicates, what letter makes the sound. Then the student is required to touch the letter that makes that sound on their device. The teacher recorded student responses and moves on to the next question. There are fifteen questions in this assessment. If students don't respond correctly to the sample questions with modeling from the teacher, they are discontinued and are not ready to complete the assessment.

Collected data was entered into a excel spreadsheet where it was documented with all preschool data. This was used in our Professional Learning Community (PLC) meetings to discuss results and determine next steps. The Teaching Strategies GOLD and IGDIs data is stored in their database and there are login credentials required to access information. During the PLC meetings, the team would discuss results, make sure our tier I instruction was meeting the needs of all students and determine necessary adjustments for reteaching and intervention groups. The data would help to group students for interventions and identify the students that needed more intense individualized one on one interventions. The data also showed what was going well and what to celebrate. The learning targets were used to decide where the student results could be measured. It was documented according to the Iowa Early Learning and Teacher Strategies GOLD objectives for learning.

### **Data Analysis**

The location of the study was a rural elementary school preschool class. Before Enhanced Alphabet Knowledge daily lessons, twenty-two students were assessed at the beginning of the year and twenty-four students were assessed at the end of the year. There were seven students in

the AM class and one student in the PM class that were proficient on uppercase letters at the beginning of the year and seven students in the AM class and nine students in the PM class that were not proficient. There were seven students in the AM class and one student in the PM class that were proficient on lowercase letters at the beginning of the year and seven students in the AM class and nine students in the PM class that were not proficient. There were one student in the AM class and zero students in the PM class that were proficient on letter sounds at the beginning of the year and thirteen students in the AM class and ten students in the PM class that were not proficient. The results were then compared to the post test at the end of the school year after students had received six cycles of daily Enhanced Alphabet Knowledge lessons. At the end of the school year, there were eleven students in the AM class and nine students in the PM class that were proficient on uppercase letters at the end of the year and three students in the AM class and one student in the PM class that were not proficient. There were eleven students in the AM class and nine students in the PM class that were proficient on lowercase letters at the end of the year and three students in the AM class and one student in the PM class that were not proficient. There were nine students in the AM class and six students in the PM class that were proficient on letter sounds at the end of the year and five students in the AM class and four students in the PM class that were not proficient.

A dependent samples t-test was conducted to determine whether there was a significant change in students' alphabet knowledge uppercase letters, lowercase letters, and letter sounds. A pre-assessment on uppercase letters revealed students were able to accurately name between six and fourteen uppercase letters and score an average of 2.21 ( $M=2.21$ ,  $SD= 1.32$ ) score on standard assessment rubric. Students participated in a daily Enhanced Alphabet Knowledge routines where they engaged in structured lessons on learning letter names, sounds, and writing

formation, followed by a post assessment of their uppercase letters. Students were able to accurately name fifteen and twenty-six uppercase letters and score an average of 3.67 ( $M = 3.67$ ,  $SD = 0.75$ ) score on standard assessment rubric. Results of the dependent samples two-tailed t-test reveal a significant difference between the baseline and final assessment,  $t(23) = -5.71$ ,  $p < .001$ . The alphabet knowledge routine and daily lessons increased students uppercase letter knowledge.

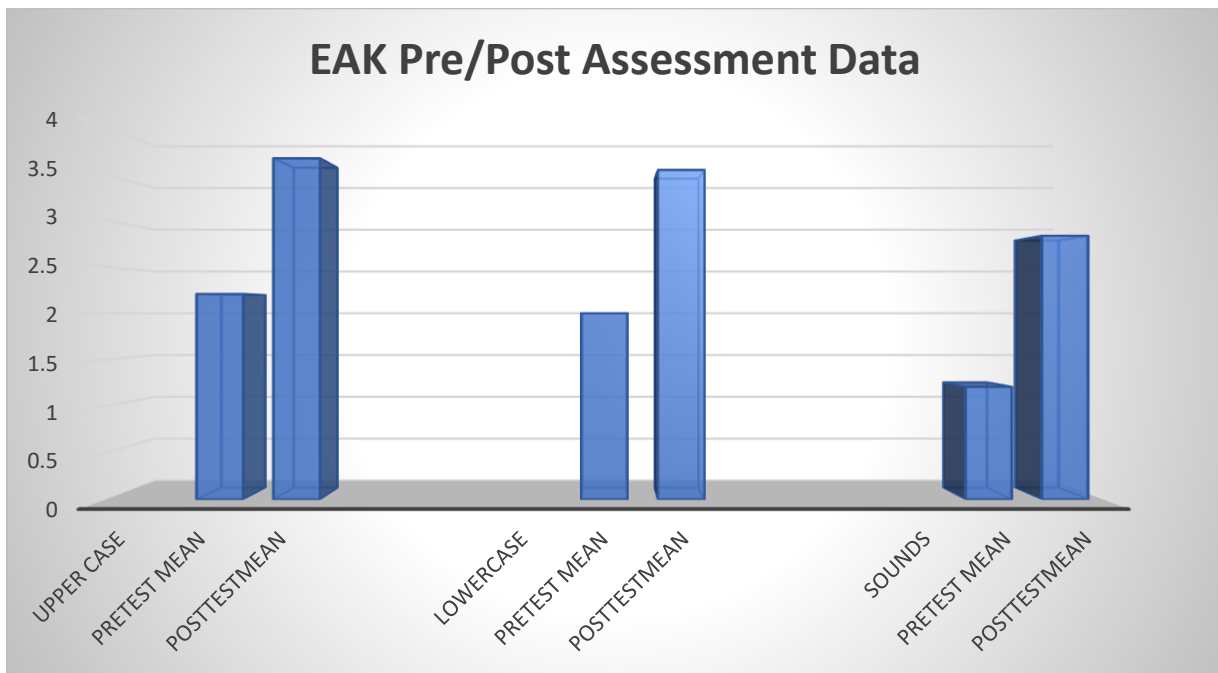
A pre-assessment on lowercase letters revealed students were able to accurately name between six and eleven lowercase letters and score an average of 2 ( $M = 2$ ,  $SD = 1.29$ ) score on standard assessment rubric. Students participated in a daily Enhanced Alphabet Knowledge routines where they engaged in structure lessons on learning letter names, sounds, and writing formation, followed by a post assessment of their lowercase letters. Students were able to accurately name twelve and twenty-six lowercase letters and score an average of 3.54 ( $M = 3.54$ ,  $SD = 0.96$ ) score on standard assessment rubric. Results of the dependent samples two-tailed t-test reveal a significant difference between the baseline and final assessment,  $t(23) = -5.73$ ,  $p < .001$ . The alphabet knowledge routine and daily lessons increased students lowercase letter knowledge.

A pre-assessment on letter sounds revealed students were able to accurately name between zero to five letter sounds and score an average of 1.20 ( $M = 1.20$ ,  $SD = 0.50$ ) score on standard assessment rubric. Students participated in a daily Enhanced Alphabet Knowledge routines where they engaged in structure lessons on learning letter names, sounds, and writing formation, followed by a post assessment of their letter sounds. Students were able to accurately name six and twenty letter sounds and score an average of 2.83 ( $M = 2.83$ ,  $SD = 1.18$ ) score on standard assessment rubric. Results of the dependent samples two-tailed t-test reveal a significant

difference between the baseline and final assessment,  $t(23) = -7.26, p < .001$ . The alphabet knowledge routine and daily lessons increased students letter sound knowledge.

The outcome of the action research was proven that Enhanced Alphabet Knowledge exposure daily with six cycles was effective for teaching and learning alphabet knowledge. The students learned uppercase and lowercase letter names, letter sounds, and written letter formation. All students made gains and improved from the beginning of the school year. Some students required more practice or individualized intervention focused on their name. Using the EAK lesson formation served as a useful resource for students to learn and understand letters and sounds.

**Enhanced Alphabet Knowledge Pre/Post Assessment Data Chart**





## **Discussion**

### **Summary of Major Findings**

The action research study of Enhanced Alphabet Knowledge (EAK) lessons and routines has proven to be successful in teaching students about the uppercase and lowercase letters, letter sounds, and writing letter formations. The students that participated in daily whole group lessons and students that used EAK as an intervention were able to make progress towards meeting benchmark. On the uppercase and lowercase letter assessments, twenty students out of twenty-four were proficient or exceeding benchmark with four students not proficient at the end of the year. On letter sounds, fifteen students out of twenty-four were proficient or exceeding benchmark with nine students not proficient at the end of the year. The assessments indicated growth in all three areas by all students making some level of measurable progress.

### **Impact of Teaching and Learning**

Enhanced Alphabet Knowledge lessons and routines proved to be successful and made an impact on the teaching of letters, sounds, and writing formations as well as the learning experienced by preschool students. The lessons were short, effective, multisensory, and engaging, making the learning accessible for students with their short attention spans. Enhanced Alphabet Knowledge addressed identification of uppercase and lowercase letters individually and within text utilizing a variety of fonts and environmental print. It also included letter sound awareness and letter formation in concise daily lessons. Over time, the students learned the instructional routines and procedures for the lesson format and were able to focus more on the letter of the day and all of its unique characteristics.

**Alignment to Research**

The literature review supports the data that was found at the beginning of the year and end of the year assessments. Students gained alphabet knowledge of letters, sounds, and writing formations through their daily lessons and routines of Enhanced Alphabet Knowledge. There were very few articles on Enhanced Alphabet Knowledge. Every article from the literature review supported using a multimodal approach with hands on learning and engagement activities during learning activities to help students acquire skills in learning about alphabet knowledge. Learning letters, letter sounds, and writing formations is important for the foundational skills in reading. These are essential skills for students moving into kindergarten as they become beginning readers. Learning about alphabet knowledge and having a multimodal, repetitive, and engaging approach to learning letters and sounds through the Enhanced Alphabet Knowledge lessons and routines helped build alphabet knowledge and pre-literacy skills. The articles prove the findings confirm the benefits of teaching children's letters, letter sounds, and writing formations together as a mean of fostering alphabet knowledge in young children.

**Limitations of the Study**

The limitations of the study were there was a lack of any data from other sources from Enhanced Alphabet Knowledge lessons. The data was taken from standard assessments on alphabet knowledge in one classroom with one teacher. Learning the data from the research in this study proves the lessons are effective, now it is time for other classrooms, teachers, and schools to implement the lessons and routines. Another limitation would be the class size. The two classes that were analyzed were different sizes. It would have provided better evidence if there were additional classes to analyze in each category. This demonstrated a better depiction of the effectiveness of the Enhanced Alphabet Knowledge daily lessons and routines.

### **Future Research**

Future research is needed to discover out if the results of using enhanced alphabet knowledge daily continues to increase students' alphabet knowledge as they advance through elementary school. There was only one year of data used. With additional time or another year of classes using enhanced alphabet knowledge, the researcher would have more data to efficacy and progress.

Future research could include engagement activities such as making the lessons hands on, interactive, and utilizing technology. The manipulatives, smart board use, and YouTube videos are easy to access and the students enjoy them. This could further increase alphabet knowledge and identification of uppercase and lowercase letters, letter sounds, and writing formations as well.

The researcher plans to continue with the daily enhanced alphabet knowledge lessons. The engagement and interventions lessons prove to be effective for all students. Ultimately the goal in teaching is for all students to meet the standards and benchmarks in literacy developments. These lessons serve the needs of the students in preschool with alphabet knowledge, an important foundational skill in pre-literacy and literacy growth.

### **Conclusion**

This study provided information about daily lessons on enhanced alphabet knowledge to increase the identification of letters, letter sound connection, and writing letter formations in preschool students during their preschool year. The literature review showed engagement and interventions help to increase student learning as reflected in student data. It also showed the enhanced alphabet knowledge lessons created for letters and sounds were beneficial for preschool students. This information and daily lesson formatting is what the researcher used to

deliver alphabet knowledge instruction in large group, small group, and individualized interventions.

The researcher took pretest data from one classroom of twenty-four students before the implementation of enhanced alphabet knowledge, and post test data from the same class after implementation of enhanced alphabet knowledge daily lessons. The assessment was done at the beginning of the school year and routinely after each cycle of enhanced alphabet knowledge with the final assessment at the end of the school year. The data showed that enhanced alphabet knowledge daily lessons were beneficial to all students, increasing their alphabet knowledge of uppercase and lowercase identification, letter sounds, and writing formation abilities.

### References

- Baker, J. N., Rivera, C., Devine, S., & Mason, L. (2019). Teaching emergent literacy skills to students with autism spectrum disorder. *Intervention in School and Clinic, 54*(3), 166–172. <https://doi.org/10.1177/1053451218767907>
- Botha, S., & Africa, E. K. (2020). The effect of a perceptual-motor intervention on the relationship between motor proficiency and letter knowledge. *Early Childhood Education Journal, 48*(6), 727–737.
- Campbell, S. (2020). Teaching phonics without teaching phonics: early childhood teachers' reported beliefs and practices. *Journal of Early Childhood Literacy, 20*(4), 783–814.
- Carta, J. J., Greenwood, C. R., Atwater, J., McConnell, S. R., Goldstein, H., & Kaminski, R. A. (2014). Identifying preschool children for higher tiers of language and early literacy instruction within a response to intervention framework. *Journal of Early Intervention, 36*(4), 281–291.
- Exley, B., & Richard-Bossez, A. (2013). The abcs of teaching alphabet knowledge : affordances and challenges of 'weaving' visible and invisible pedagogies. *Contemporary Issues in Early Childhood, 14*(4), 345–356.
- Harris, K. I., Kinley, H. L., & Cook, A. (2017). Promoting alphabet knowledge using peer-mediated intervention: a dynamic duo for early literacy development. *Young Exceptional Children, 20*(2), 55–68.
- Heilmann, J. J., Moyle, M. J., & Rueden, A. M. (2018). Using alphabet knowledge to track the emergent literacy skills of children in head start. *Topics in Early Childhood Special Education, 38*(2), 118–128.

- Holliman, A. J., Hughes, D. J., Wood, C., Cunnane, H., Pillinger, C., & Hélène, D. S. (2021). A longitudinal investigation of prosodic sensitivity and emergent literacy. *Reading and Writing*, 34(2), 371–389. <https://doi.org/10.1007/s11145-020-10077-7>
- Jones, C. D., Clark, S. K., & Reutzell, D. R. (2013). Enhancing alphabet knowledge instruction: research implications and practical strategies for early childhood educators. *Early Childhood Education Journal*, 41(2), 81–89. <https://doi.org/10.1007/s10643-012-0534-9>
- Kaye, E. L., & Lose, M. K. (2019). As easy as abc? teaching and learning about letters in early literacy. *The Reading Teacher*, 72(5), 599–610. <https://doi.org/10.1002/trtr.1768>
- Olszewski, A., Soto, X., & Goldstein, H. (2017). Modeling alphabet skills as instructive feedback within a phonological awareness intervention. *American Journal of Speech-Language Pathology*, 26(3), 769–790. [https://doi.org/10.1044/2017\\_AJSLP-16-0042](https://doi.org/10.1044/2017_AJSLP-16-0042)
- Piasta, S. B. (2014). Moving to assessment-guided differentiated instruction to support young children's alphabet knowledge. *The Reading Teacher*, 68(3), 202–202.
- Piasta, S. B., Farley, K. S., Mauck, S. A., Soto Ramirez, P., Schachter, R. E., O'Connell, A. A., Justice, L. M., Spear, C. F., & Weber-Mayrner, M. (2020). At-scale, state-sponsored language and literacy professional development: impacts on early childhood classroom practices and children's outcomes. *Journal of Educational Psychology*, 112(2), 329–343.
- Piasta, S. B., Phillips, B. M., Williams, J. M., Bowles, R. P., & Anthony, J. L. (2016). Measuring young children's alphabet knowledge: development and validation of brief letter-sound knowledge assessments. *Elementary School Journal*, 116(4), 523–548.
- Rachmani, R. (2020). The effects of a phonological awareness and alphabet knowledge intervention on four-year-old children in an early childhood setting. *Australasian Journal of Early Childhood*, 45(3), 254–265.

- Roberts, T. A. (2021). Learning letters: evidence and questions from a science-of-reading perspective. *Reading Research Quarterly*, 56(S1), 192. <https://doi.org/10.1002/rrq.394>
- Roberts, T. A., Vadasy, P. F., & Sanders, E. A. (2019). Preschoolers' alphabet learning: cognitive, teaching sequence, and english proficiency influences. *Reading Research Quarterly*, 54(3), 413–437. <https://doi.org/10.1002/rrq.242>
- Schickedanz, J. A., & Collins, M. F. (2018). Alphabet letter-name knowledge. *Teaching Young Children*, 11(5), 4–6.
- Schlesinger, N. W., & Gray, S. (2017). The impact of multisensory instruction on learning letter names and sounds, word reading, and spelling. *Annals of Dyslexia*, 67(3), 219–258. <https://doi.org/10.1007/s11881-017-0140-z>
- Wolf, G. M. (2016). Letter-Sound Reading: Teaching Preschool Children Print-to-Sound Processing. *Early Childhood Education Journal*, 44(1), 11-19. <http://ezproxy.nwciowa.edu/login?url=https://www.proquest.com/scholarly-journals/letter-sound-reading-teaching-preschool-children/docview/1826659241/se-2>