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Phonological awareness and phonics

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Phonological Awareness and Phonetic Skills

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Abstract

Research shows that a student's phonics and phonemic awareness skills are learned and practiced through direct instruction with follow up activities. This literature review shows some of the many ways in which teachers could help grow their students' knowledge and deeper understanding of phonics and phonemic awareness. This literature review will spotlight peer reviewed, scholarly journals that were used in order to inform the reader. The results of the many journal findings show that frequent practice of learned phonetic skills will encourage growth of the child's mind. Direct, explicit instruction followed by activities that include abundant teaching strategies have been found greatly successful.

Key Words: Phonological awareness, rhyming, story books, word wall, nursery rhymes, phoneme

Phonological Awareness and Phonetic Skills

Phonological awareness and phonetic skills are a large part of young children's lives in lower elementary school. Without learning these skills, children would not have the necessary tools to begin learning how to read (Double et al., 2019; Niklas et al., 2016). Learning skills such as rhyming, segmenting, letter sound correspondence, identifying syllables, identifying vowels and their phonemes, alphabetic principals, and more will help children develop those vital skills (Double, 2019). The National Reading Panel (2005) suggests that children learn these skills through second grade (The National Reading Panel Report, 2005).

The National Reading Panel (NRP) defines phonics as letters of the alphabet having sounds, or phonemes, and that these phonemes can be blended together to form words that can be written (The National Reading Panel Report, 2005). Phonemic awareness is directly related to that. Again, defined by The National Reading Panel, phonological awareness is the ability to take those phonemes, identify them, break them apart, and manipulate them (The National Reading Panel Report, 2005). Hearing words and changing them into other words that humans can still recognize (The National Reading Panel Report, 2005).

To begin a child's life with a strong foundation in phonetic skills, parents can start reading to their child as young as 6 months old to see vast educational gains (Niklas et al., 2016). Gains and benefits such as a home environment that fosters reading and oral language skills that continue to grow as your child does (Niklas et al., 2016). Starting at this young of an age can help your child get the head start that they need. The American Key National Indicators of Well-Being states that reading to young children supports literacy growth and is linked to an overall success in the student's educational environment (America's Children: Key National Indicators of Well-Being, 2019). One key indicator of this success is if a family member reads to the

child(ren) three or more times a week (America's Children: Key National Indicators of Well-Being, 2019).

When speaking about reading development, there are four stages: 1) pre-alphabetic stage, 2) partial alphabetic stage, 3) fully alphabetic stage, and 4) the consolidated alphabetic stage (Jasmine & Schiesl, 2009). Each stage scaffolds upon the next, building prior knowledge in student's brains (Jasmine & Schiesl, 2009). According to Jasmine, Schiesl, and Ehri, the pre-alphabetic stage develops before school age, without the child even knowing so. In this early stage, associations are made between child and visual cues (Jasmine & Schiesl, 2009). During the partial alphabetic stage is when children start to learn that letters and sounds are connected (Jasmine & Schiesl, 2009). At this stage, students are trying to read words by looking at the first and last letters of a word (Jasmine & Schiesl, 2009). Once students become more familiar with these words is when they move onto the next stage, the full alphabetic stage (Jasmine & Schiesl, 2009). This is when sight word recognition begins in a learner's educational journey (Jasmine & Schiesl, 2009). The last stage, the consolidated alphabetic stage, is when readers can recognize full words immediately, not having to sound out letters (Jasmine & Schiesl, 2009). These readers see words in chunks rather than individual letters. For example, the word smash can be broken up into chunks, sm-a-sh, or sma-sh (Jasmine & Schiesl, 2009; Ehri, 2005). Within these stages is when phonetic development happens, beginning with stage one when a child is young and relying on their parents to teach them correct phonetic education, all the way up through middle elementary school when students master reading (Jasmine & Schiesl, 2009).

Many ways to increase phonological awareness and phonetic skills in children are reading storybooks aloud followed by learning activities, the use of a word wall, nursery rhymes read aloud, rhyming in general, the involvement of music and movement, and interventions

(Jasmine & Schiesl, 2009; Kuppen & Bourke, 2017; Harper, 2011; Wagstaff, 1997; Jackson, 2018; Jackson & Narvaez, 2013; Henry, 2020; Van Druten-Frietman et al., 2016; Meyer et al., 1994). This literature review will guide readers in learning new and research-based lessons to incorporate into the curriculum. The stated activities will help promote further growth in phonological awareness and phonetic skills.

Literature Review

Phonics and Phonemic awareness

The National Reading Panel (NRP) defines phonics as letters of the alphabet having sounds, or phonemes, and that these phonemes can be blended together to form words that can be written (The National Reading Panel Report, 2005). Skilled readers are able to break words apart that they have never seen before by sounding them out (The National Reading Panel Report, 2005). They also define phonemic awareness as the ability to segment, or break apart, words into smaller phonemes (The National Reading Panel Report, 2005). This study shows that children who are read to by adults, especially books with rhyming words in them, will develop a strong sense of phonemic awareness (The National Reading Panel Report, 2005). Vice Versa, children who are not read to at home will not develop these strong bonds with phonemic awareness and will need to be taught this once they get to school (The National Reading Panel Report, 2005).

The National Reading Panel identifies six approaches that are critical to teaching children how to read (The National Reading Panel Report, 2005). The six are phonemic awareness, phonics, fluency, guided oral reading, teaching vocabulary words, and reading comprehension strategies (The National Reading Panel Report, 2005). Fluency is defined as reading with ease, being able to recognize words easily, and reading at a good pace (The National Reading Panel Report, 2005). To read fluently, you must first master recognizing words (The National Reading Panel Report, 2005). Guided reading takes place with a skilled teacher, guiding the students and giving feedback on how they are doing with their reading skills; listening to them read (The National Reading Panel Report, 2005). New vocabulary words come up in guided reading text quite often and that's when teachers can teach it explicitly (The National Reading Panel Report, 2005). Teachers can also introduce new words at a certain time

during the day such as “vocabulary time” (The National Reading Panel Report, 2005). Reading comprehension is defined as being able to understand what you read (The National Reading Panel Report, 2005). This can happen with ease at guided reading time or during read aloud times (The National Reading Panel Report, 2005).

Literate adults and older children have the most impact on a young child’s improvement and growth (Niklas et al., 2016). Factors such as socioeconomic status, parent income, parent education, parent profession, and migrant status don’t have as large of an impact on child’s growth as parent-child interaction does (Niklas et al., 2016). Thus, it is more important for parents to spend quality time with their children, making meaningful interactions and memories (Niklas et al., 2016). These interactions need to be recurrent and constant (Niklas et al., 2016). The child’s home is where they learn their first literacy skills in which children can contribute to the world (Niklas et al., 2016).

To give children the best start possible, it is crucial that parents start exposing their children to literacy in their world (Niklas et al., 2016). Making frequent visits to the local library, reading books at home, teaching about letters and their sounds, a parents’ reading habits, and owning books can all contribute to a healthy literacy environment for children (Niklas et al., 2016). The most important of those activities is to read aloud with children (Niklas et al., 2016).

Phonics Programs

There are many phonics programs in circulation that lower elementary teachers use in their classrooms. The approach that seems to best benefit students is a systematic approach (Campbell et al., 2011). This approach involves teaching students that graphemes (letters) are connected to phonemes (sounds that the letters make) (Campbell et al., 2011). Much research

shows that using these phonics programs during the early years of schooling is what will benefit the students most (Campbell et al., 2011).

There are also phonics curriculums that are made for children of preschool age (3 years-old to 5 years-old) (Campbell et al., 2011). Most of these phonics programs have children singing, chanting, and stating the graphemes and phonemes of each letter (Campbell et al., 2011). While this may seem helpful to have the children doing this, there is not a lot of scientific studies backing up the benefits of this type of teaching (Campbell et al., 2011). This way of teaching is normally done whole-group and adult directed (Campbell et al., 2011). According to science, for children of this age it is more appropriate for them to engage in literacy learning during play time (Campbell et al., 2011). Play activities such as dramatic play, kitchen, coloring, sharing books, read alouds, nursery rhymes, and language play are much more beneficial to a children brain development rather than the traditional whole-group style (Campbell et al., 2011). Learning literacy skills through play supports speaking, listening, reading, and writing skills, all of which are supported through socialization of children (Campbell et al., 2011).

Explicit phonics programs such as Jolly Phonics, LetterLand, and Ants in The Apple are reported being taught mostly in the preschool or daycare settings (Campbell et al., 2011). These listed programs are meant to be taught in whole group settings, teacher lead, and a significant amount of time of sit time for children of this age (Campbell et al., 2011). Most programs teach systematic, explicit phonics but there are some programs that also teach phonemic awareness (Campbell et al., 2011). Teachers all over America are under pressure to get their students learning so that they can hit their grade level/age-appropriate educational state standards (Campbell et al., 2011).

In order for children to become skillful in their reading abilities, they must learn about 500 grapheme, phoneme, and spelling relations (Campbell et al., 2011). In reality, most publicly available phonics programs only cover about 90 of those rules (Campbell et al., 2011). Knowing this, schools must have the children catch up in other ways in order to achieve the educational state standards (Campbell et al., 2011). The English language is so complex that teaching and participating in learning phonics and phonemic awareness can be very difficult (Campbell et al., 2011). Schools are finding that after purchasing one of the commercially produced phonics programs, there is not a good professional development opportunity for its subscribers (Campbell et al., 2011). When there is professional development on the matter, it's done by the program's employees, further promoting their phonics program rather than phonics as a whole (Campbell et al., 2011).

Word Walls

When walking in lower elementary classrooms, parents will find a wall of large lettered, high frequency words, age appropriate for the grade their students are in (Jasmine & Schiesl, 2009). These words can be grouped, classified, pre taught, among many other strategies in order for students to learn the words (Jasmine & Schiesl, 2009). Some words that people might find on the word wall are sight words such as the, and, to, see, away, because, and play. Learners can also find words relating to subjects and topics that they are learning in science, math, social studies, etc. (Jasmine & Schiesl, 2009). These could be words such as investigate, problem, hypothesis, Thanksgiving, community, neighbor, addition, subtraction, place value, and internet (Jasmine & Schiesl, 2009).

The main reason to have a word wall in a classroom is for students to build sight word automaticity- looking at a word and recognizing it quickly and accurately (Jasmine & Schiesl, 2009). Teachers may use the wall to target spelling (Jasmine & Schiesl, 2009). Students are also able to make connections to their learning from word walls (Jasmine & Schiesl, 2009). When the teacher explicitly teaches around five sight words per week, those sight words are added to the wall for children to draw connections (Jasmine & Schiesl, 2009). The word wall can end up having around 120 words on it by the end of the school year (Jasmine & Schiesl, 2009).

In an observation made by Jasmine and Schiesl, they witnessed that simply teaching the sight word once and then putting it on the word wall was not enough. Students would come to words they learned in text and stammer, not knowing the word they have previously learned (Jasmine & Schiesl, 2009). After prompting the students to look on the word wall to see if they could find the sight word, prior knowledge still was not being applied (Jasmine & Schiesl, 2009). Jasmine found that in order for students to keep the familiarity with the sight words, follow up activities and reinforcements needed to be done (Jasmine & Schiesl, 2009). When sight words are explicitly taught to children and then strengthened by follow up activities, the information is embedded into the child's long-term memory, granting quick access to the words, noticing patterns, and then promoting connections to build between other words (Jasmine & Schiesl, 2009). Knowing this information provides further research on what activities can be added into teacher curriculum to strengthen student awareness in phonics and phonemic awareness (Jasmine & Schiesl, 2009).

If teachers are looking to make their word wall interactive, there are many ways to do so. An interactive word wall is a wall with vocabulary words on it connected with pictures,

examples, and things for the child to touch (Jackson et al., 2018). This word wall is used often, thus it must change often to keep up with current curriculum and lessons (Jackson et al., 2018).

In 2018, Jackson and Narvaez did a study on word walls. When they asked the students to describe what a word wall was, they took it much further and explained how the interactive word wall helped them learn. One child explained that the interactive word wall helped him because if he forgot what he learned, he could look over at the interactive word wall and it all came back to him (Jackson & Narvaez 2018). Another student states that since the words are always on the wall, they can rely on the word wall to help them remember what they have learned (Jackson & Narvaez 2018).

One group of students that the interactive word wall has been helpful for are the English as a Second Language students (Jackson & Narvaez 2018). Not only are the vocabulary words posted in big 4 black letters but there are many different types of representation for the vocabulary word other than just a definition (Jackson & Narvaez 2018). Sadly, English as a Second Language students a lot of time struggle with reading the English text (Ghazizadeh & Fatemipour, 2017). They don't know how to process the language used thus they cannot comprehend the book (Ghazizadeh & Fatemipour, 2017). Unfortunately, the children are then discouraged, showing a lack of interest in the texts (Ghazizadeh & Fatemipour, 2017). Using the word wall as a tool to help these children continues to be proven effective.

Many follow up activities should be done to follow up the learning of the sight words, whether they are on the word wall or interactive version. An article labeled by Janiel Wagstaff called these activities "word play". An activity that was suggested for a kindergarten classroom was having to do with beginning letter sounds (Wagstaff, 1998). The teacher calls out a letter and gives examples of words beginning with that letter (Wagstaff, 1998). They will then list words

that might or might not begin with that specific letter and the children must give thumbs up or down if the beginning sound matches (Wagstaff, 1998). Throughout the school day, the children then interact with that letter. For example, the teacher might call out the letter J and would then list words beginning with J such as jam, jacket, and jelly (Wagstaff, 1998). Then, the teacher will tell the students to give thumbs up or down if the beginning letter matches (Wagstaff, 1998). They might call out Jam and the kids would give a thumbs up. Then, they could call out car and the students would have to give a thumbs down (Wagstaff, 1998). The teacher would then ask students to take it further and write the capital and lowercase letter J in the sky, then on their desk, and then saying the phoneme that matches with letter J (Wagstaff, 1998). Wagstaff states that it's vitally important for children to hear the sounds that match the letter because it aids in the writing process (Wagstaff, 1998). Finally, throughout the day, students might be asked to find something in the classroom that starts with the letter J and the class would make a list on chart paper of all of their findings (Wagstaff, 1998). Providing activities like Wagstaff observed can aid children in manipulating sounds and how important it can be when learning about phonetic skills (Wagstaff, 1998).

Understanding the knowledge behind Wagstaff's study and the implications that it had on the children ultimately inform this research paper's purpose of learning about phonics and phonemic awareness activities teachers can implement into their classroom. Jasmine and Schiesl identify a significant list of word wall activities that teachers can use to promote literacy and phonetic growth in students. These activities include many hands-on games that students are able to participate in (Jasmine & Schiesl, 2009). Rainbow writing is one of the games in which students use different colored writing utensils to write their word wall words (Jasmine & Schiesl, 2009). Words in ABC order is another game in which students are to pick a certain number of

words from the word wall and organize them into ABC order (Jasmine & Schiesl, 2009). Shape of words is when students focus on letter formation and organize words by their letters (Jasmine & Schiesl, 2009). Letters can be organized into tall, small, or dropped letters (Jasmine & Schiesl, 2009). These games, among many others, help students to begin recognizing basic sight words quickly and encourage independent reading skills (Jasmine & Schiesl, 2009).

Read Aloud Books

Phonemic awareness and vocabulary knowledge are predictors of students learning how to read and write later on in elementary school (Van Druten-Frietman et al., 2016). If children are below average in those skills in pre-kindergarten and kindergarten, it can negatively affect the child's future schooling (Van Druten-Frietman et al., 2016). Consequently, it is vitally important for children to develop these skills before moving onto higher grade levels (Van Druten-Frietman et al., 2016). Children from low socio-economic status homes and migrant homes are at higher risk of not developing the skills they need because the vocabulary in the home is not what it should be or of a different language (Van Druten-Frietman et al., 2016). High quality school staff can encourage literacy and vocabulary growth by reading storybooks to children (Van Druten-Frietman et al., 2016).

Read alouds are almost a cure-all solution for educators (Meyer et al., 1994). Children struggling with poor literacy skills, phonetic skills, and comprehension skills gain knowledge from read alouds (Meyer et al., 1994). Meyer says that studies that have been conducted on read alouds have been with preschool children because preschool children don’t have the knowledge and brain development to read to themselves, so they must rely on educated adults to read to them. This advocates that reading to a child is developmentally good for them and will help them

cultivate the important skills behind reading that they need (Meyer et al., 1994). One researcher interviewed parents that said they read to their child to see what other possible things they were doing with their child (Meyer et al., 1994). The findings were that parents would help their child learn letter and letter sound correspondence, sometimes even giving them a chalkboard so they could practice their letters and other skills on (Meyer et al., 1994). This questions parents on if they should simply read to their children or if they should be providing further assistance in aiding their child in learning literacy and phonetic skills.

There are four key benefits to reading aloud to children (Meyer et al., 1994). One benefit to read aloud are the vocabulary that children gain from it (Meyer et al., 1994). The language written in storybooks is rich and diverse, making it simple for children to pick up on the language and use it in their everyday lives (Meyer et al., 1994). The language in a storybook is expressive, vivid, and colorful with sentences that are full and complete (Meyer et al., 1994). Reading aloud a storybook can benefit child language (Meyer et al., 1994). This brings up the next benefit which is development in vocabulary (Meyer et al., 1994). Since the text is so rich and colorful, vocabulary development blooms within a child. The words in a storybook have meaning and intent (Meyer et al., 1994). The exposure alone benefits children (Meyer et al., 1994). Reading a book repeatedly and having follow up discussions can further the child's brain development (Meyer et al., 1994). Children gaining knowledge of the orientation of books is the third benefit (Meyer et al., 1994). The language used in storybooks is different of that in which we use in our everyday lives (Meyer et al., 1994). Meyer gave an example of the two different types of language that we use. When reading language in a book, the phrase "what is that?" is meaningless (Meyer et al., 1994). What is it that 'that' is referring to (Meyer et al., 1994). While in oral language, humans could use a different point of reference such as point to something to

make understanding of that question (Meyer et al., 1994). The older children get, the more they will understand the difference between the two and be able to identify it (Meyer et al., 1994). Book talk is different from the way humans talk in everyday life (Meyer et al., 1994). The last benefit defined in the study by Meyer is that children start to grow and understand phonemic awareness (Meyer et al., 1994). When children have a strong background in literacy and read alouds, they seem to have a better grasp on phonics and phonemic awareness (Meyer et al., 1994).

Coupling read aloud books with activities that match the book will encourage brain development of phonetic skills (Van Druten-Frietman et al., 2016). Using these together has been found to be more effective than using the interventions separately (Van Druten-Frietman et al., 2016). Teachers can focus on the vocabulary of the story, and use follow up activities to further the conversation (Van Druten-Frietman et al., 2016). This method has been found to be of great use for students from low socio-economic status homes as well as multicultural homes, creating a deeper understanding for unknown words (Van Druten-Frietman et al., 2016). With input from highly qualified teachers, student can rely on them to provide vocabulary that is at the child's level while still challenging them to reach for higher understanding (Van Druten-Frietman et al., 2016). Teachers model and provide explanations of the storybook and vocabulary throughout the school day and in future events (Van Druten-Frietman et al., 2016). Including a balanced literacy approach with storybook read alouds can provide students literacy education while being supported with multiple activities in different environments and times of the day (Chai et al., 2020).

In 1989, Allen and Mason completed research on low socioeconomic status preschool children and their parents reading to them (Allen & Mason, 1989). In the research and study, it

was noted that there was a positive correlation between parents reading and rereading short, predictable books (Allen & Mason, 1989). There was then an assessment given to the children about the books (Allen & Mason, 1989). A great deal of the words on the assessment were presented in the books, furthering a literacy understanding for students (Allen & Mason, 1989). Between the success of reading the books and the assessment, it was found that children comprehended what was read to them, benefiting from being read aloud to (Allen & Mason, 1989). It also shows that parents reading to their children is a key element of the home learning environment (Niklas et al., 2016).

Music and Movement

Music and movement activity with children has been reported to benefit children's literacy growth (Kuppen & Bourke, 2017). Studies have shown that music education encourages cognitive development, communication skills, and a boost of self-confidence (Bolduc, 2009). The practice of rhythm and tone encourage word recognition skills in children from grades 1-6 (Bolduc, 2009). Children who participate in musical practice are often ahead of their non-musical counterparts in linguistic capabilities (Bolduc, 2009). Often, when speaking about musical interventions, studies have found that musical interventions involve singing (Kuppen & Bourke, 2017). Around the age of one years old is when children really develop the skill of singing (Kuppen & Bourke, 2017). Although most word development happens during the young stages of being a child, older children have the capabilities of developing vocabulary (Pruitt & Morini, 2021). Learning vocabulary in a student's surroundings, getting hands-on experience, can help advance a student's phonological and word development as well as their social communication skills and decoding skills (Pruitt & Morini, 2021). Studies show that when

pairing physical activity with word association and learning, students have higher performances in the classroom (Pruitt & Morini, 2021). Physical activity can be effortlessly fused into any lesson in a classroom, therefore making this a fairly easy activity to include into any lesson (Pruitt & Morini, 2021).

There are two different types of exercise that teachers can include in the classroom- aerobic and anaerobic (Pruitt & Morini, 2021). Aerobic exercise is when the heart rate speeds up by using oxygen to drive it (Pruitt & Morini, 2021). Most people call exercise like this cardio (Pruitt & Morini, 2021). Swimming, biking, and walking are all included in this exercise and can be done for long periods of time (Pruitt & Morini, 2021). Anaerobic exercise is done in short bursts and cannot be done for long periods of time (Pruitt & Morini, 2021). Because of how fast and short this exercise is, the body does not rely on oxygen to provide energy (Pruitt & Morini, 2021). Weight lifting, sprinting, CrossFit, and calisthenics are all examples of this exercise. These activities must include rest times because of how highly intense the activity is (Pruitt & Morini, 2021). Looking at these two exercises, aerobics would be the easiest to incorporate into classrooms because of how straightforward the exercises can be (Pruitt & Morini, 2021).

One study was shown that teaching skills such as tapping, snapping, stomping, and clapping will enhance children's reading abilities (Kuppen & Bourke, 2017). These skills were taught to students with poor reading skills (Kuppen & Bourke, 2017). The results were that of a phonological awareness intervention (Kuppen & Bourke, 2017).

Sarah Kuppen describes a German study being done with German preschool students. There were three different types of intervention given to the students: a music intervention including drumming, singing, dancing, and rhythm exercises, a phonological skills intervention including identifying phonemes, syllables, and rhyming, and finally a sports intervention used as

the control group (Kuppen & Bourke, 2017). Once considering the age of students, their socio-economic status, and their IQ, students in the phonological awareness intervention as well as the musical intervention showed a great amount of growth in their phonological awareness (Kuppen & Bourke, 2017). This shows that song and rhythmic learning can have the potential to drive shifts in student learning significantly (Kuppen & Bourke, 2017).

Rhyming

In 2011, Harper writes about the significant link between preschool age children's nursery rhyme knowledge and how well they will do in the future with reading, writing, and spelling words. Harper notes that the understanding of rhyming and alliterations before a child starts school is important and displays the role it will have later on in the child's schooling career (Harper, 2011). This thought is mentioned quite often in the literature by different authors, all stating that a child knowing and chanting nursery rhymes will help to further their growth in academics (Harper, 2011; Suggate, 2014; Kuppen & Bourke, 2017).

While it was originally thought that language lived in the left hemisphere of the brain while singing lived in the right hemisphere, recent neurological studies have found that these skills cross hemispheres, activating both brains for each activity (Kuppen & Bourke, 2017). Training children's brains to recognize rhythm, pitch, and melody can enhance a child's literacy skills (Kuppen & Bourke, 2017). Children actively participating and singing nursery rhymes, activating both sides of their brain, is more beneficial for learning and gaining literacy growth long-term (Kuppen & Bourke, 2017).

The study that Harper conducts in 2011 shows the emphasis on nursery rhymes for the development of phonological awareness and literacy growth. Children who are exposed to

nursery rhymes such as Hey Diddle Diddle, The Itsy-Bitsy Spider, Mary Had a Little Lamb, Baa-Baa Black Sheep, and more are getting the knowledge that phonemes are a part of words and you can manipulate phonemes to change what word is read (Harper, 2011). An example that Harper provided was a child learning that the words *cat* and *bat* rhyme because those words have the same ending sound *-at* (Harper, 2011). By changing the beginning letter/phoneme and keeping the ending chunk, these two words rhyme (Harper, 2011).

To participate in their learning rhyming skills, students can clap, snap, tap, or stomp in order to keep a rhythm (Kuppen & Bourke, 2017). By doing these skills while singing or listening to a nursery rhyme, students activate both sides of their brain, making it easier for them to identify patterns in words (Kuppen & Bourke, 2017). This method of identifying rhythm, patterns, syllables, etc. is ideal when teaching children with dyslexia or English as a Second Language (ESL) Learners (Kuppen & Bourke, 2017).

Assessment

To have baseline data on preschool students, Laurie Harper had all children take the PALS Pre-K (Phonological Awareness Literacy Screening for Pre-k) assessment (Harper, 2011). The PALS Pre-K assessment is a phonological awareness and literacy measurement tool given to children of pre-kindergarten age (Harper, 2011). This assessment is a great predictor of ultimate literacy and phonological knowledge and success (Harper, 2011). The assessment is given to pre-kindergarten students, age 4-5 years-old, all over the United States of America and is extremely reliable (Harper, 2011). PALS-Pre-K is administered three times a year; once in the fall, once mid-year, and once in the spring (PALS Resource Center). Doing so will give teachers and administrators data on how the child has grown throughout their school year. The assessment is

administered by a qualified teacher and there is no time limit on how long the child can take to answer a question (PALS Resource Center). The Pre-K PALS assessment includes name writing, letter sound identification, letter identification, beginning phoneme recognition, print and word recognition, rhyming recognition, and knowledge of nursery rhymes (Harper, 2011). During Harper ‘s study, she only gave certain parts of the assessment to the children and did so orally (Harper, 2011). Harper gave the beginning sound identification, rhyming recognition, and knowledge of nursery rhymes assessments (Harper, 2011).

A preschool teacher looking to assess where their students are at academically would give all subtests of the PALS Pre-K assessment. The first assessment is name writing (PALS Resource Center; Harper, 2011). During this assessment, the child is asked to draw a picture of themselves and write their name (PALS Resource Center). To grade the child, teachers use a scale of scribbles to full lettered writing to write their entire name accurately (PALS Resource Center). The next item assessed is alphabetic knowledge (PALS Resource Center; Harper, 2011). During this assessment, children are asked to identify all 26 upper case letters and 26 lower case letters, all letters being in random order (PALS Resource Center). The children then need to identify the 23 phonemes for those letters and three diagraphs, *ch, sh*, and *th* (PALS Resource Center; Harper, 2011). The third assessment is beginning sound awareness in which the child is shown pictures and they have to identify the first phoneme in the word (PALS Resource Center; Harper, 2011). Print and word awareness is the fourth assessment given to the child in which the child is given a nursery rhyme in a printed book version and the child has to identify different text components such as picture, page number, and title (PALS Resource Center; Harper, 2011). In the rhyme awareness assessment, the child is given an original picture to start. The teacher then gives the child three other picture cards and the child has to pick which word rhymes with

the original picture (PALS Resource Center; Harper, 2011). Finally, the teacher administers the nursery rhyme awareness assessment. In this assessment, the teacher begins to say aloud a nursery rhyme and pauses near the end for the child to finish the rhyme (PALS Resource Center; Harper, 2011). By using this well-rounded assessment with preschool aged children, teachers are able to get a data set that will tell them how the child is doing in school (PALS Resource Center; Harper, 2011). This assessment is a great way to begin assessing for phonemic awareness in the beginning stages of school.

Progress monitoring is an assessment used by teachers to test students' knowledge frequently in order to witness growth over time (Luckner & Bowen, 2010). Progress monitoring has been used for over three decades and can be used with many types of student groups (Luckner & Bowen, 2010). Educators, doctors, and many other professions use progress monitoring to measure growth (Luckner & Bowen, 2010). In education, progress monitoring has been used successfully with k-12 special education, English language learners, people who are blind or visually impaired, toddlers, and with people who are deaf and hard of hearing (Luckner & Bowen, 2010). Progress monitoring is now also used in the general education classroom.

Normally, progress monitoring is done as frequent as once a week. During the monitoring, certain types of skills are being assessed. In first grade, there is the nonsense words, sight words, word segmentation, and CBMR assessment. These assessments usually take within 1-3 minutes of time (Luckner & Bowen, 2010). Using these assessments is key in understanding literacy and phonetic growth in students. After the FASTBridge assessments are given, teachers are able to utilize graphs and lists that can help focus their teaching and interventions (Luckner & Bowen, 2010). The graphs list words that were incorrect by the student, then being able to analyze the data to better teaching instruction (Luckner & Bowen, 2010). When teachers

understand exactly what their students need, they are better able to focus instruction, leading to faster attainment of state standards (Luckner & Bowen, 2010).

Intervention

A number of students coming into kindergarten or leaving it are risking not obtaining the literacy skills that they need to succeed (Noltemeyer et al., 2019). This fact is very true for children in low-income schools and high poverty areas (Noltemeyer et al., 2019). Providing quality and high quantity reading instruction in an intervention environment can help students catch up to where they should be at (Noltemeyer et al., 2019). Students who fight with whole group literacy instruction profit from being in a small group environment (Henry, 2020; Noltemeyer et al., 2019). Participating in small group instruction/intervention gives students a chance at learning higher quality, personalized information (Noltemeyer et al., 2019). Teachers are better able to address specific needs while in a small group environment, benefiting the students in the long run (Noltemeyer et al., 2019). In a small group, intervention environment, children are exposed to exactly what they need, in this case, phonetic and phonemic skills (Noltemeyer et al., 2019). Interventions can teach children letter-sound correspondence, word recognition, word segmenting, vowel-sound training, and so much more (Noltemeyer et al., 2019).

It is shown that students who are behind on reading and literacy skills struggle to keep up with the rest of the students, making it easy for low self-esteem to arise from student social emotional health (Henry, 2020). To combat student delayed reading abilities, teachers are taught to provide individualized, small group instruction that will support the student's daily literacy routine. Phonics and phonemic awareness instruction are most powerful when taught explicitly, with a multi-sensory and synthetic view (Henry, 2020). The use of different objects tied with the

reading intervention are found to help boost literacy scores and abilities (Henry, 2020). Using objects such as foam letters, flash cards, student white boards, word walls, chants and rhymes, and sound boxes are found to increase reading ability (Henry, 2020; Wagstaff, 1998; Jackson, 2018; Keesey et al., 2014; Noltemeyer et al., 2019).

Studies have found that students being able to identify the difference between graphemes and phonemes has improved their reading abilities (Henry, 2020; Noltemeyer et al., 2019). Once children understand the correspondence between letters and sounds (phonemes), they will start to understand that those letters and phonemes are inside words (Noltemeyer et al., 2019). Knowing this will further their growth in learning how to read accurately (Dolean, 2016). Children learning phonological awareness skills and coordinating that with their reading skills has long been supported by research (Noltemeyer et al., 2019; Dolean, 2016).

Conclusion

This literature review affirms the notion that children can learn phonics and phonological awareness through countless teaching and learning strategies. Some of the best ways to increase phonological awareness and phonetic skills shown in this literature review were read alouds, music and movement curriculum, the use of word walls, and rhyming. Copious amounts of studies have shown that through the use of these strategies, children are able to develop stronger phonological awareness and phonetic skills, challenging their brains to grow through learning and play.

There are two areas of future research that should be addressed- the length of studies and grade specific studies. When reading through the literature, it was evident that most of the studies happened in less than one school year. To get a good read on students' brain development, studies need to focus on long term studies rather than short term interventions. When focusing on the long-term effects that these activities can have on children, it will be unmistakable how much growth a child can really make. Most of the activities found in the literature can be adapted for grade specific curriculum and interventions. Secondly, there was not much research done on grade specific activities and results. Many studies that had to do with phonetic skills and phonemic awareness happened in the years before a child enters formal schooling. Kindergarten and first grade specific studies should be done because that’s where most of the formal teachings of phonics are taught. By using these activities and strategies shown in the research with children in lower elementary school, you will be able to see tremendous growth because of brain development happening at that stage in a child’s life.

This research was meant for teachers so that they may find helpful, research-based activities for their classroom. With the adaptation of these activities for teacher's specific grades, they can utilize the activities in order to help student growth and development.

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