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## Using Visual Arts to Teach Beginning Literacy Skills

Stacy Phaxaysithideth

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USING VISUAL ARTS TO TEACH BEGINNING LITERACY SKILLS

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Submitted in Partial Fulfillment of the Requirements

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## DEDICATION

This dissertation is lovingly dedicated to my supportive family. To my love, Luckey Phaxaysithideth, who never faltered in his belief in me while I achieved my dream; it was not easy, but together, we did it. My children and my joy in life, Parker Cahya and Nola Carolina, who showed me the most important and blissful job in life is to be their mommy. To my mother and father, who lovingly raised me to believe in myself and taught me to never give up, be adventurous, stay committed, and create my own path in life. To my closet friends who have supported me no matter what. To my colleague and friend Madeline, who this would not have been possible without. To my loved ones who watch me from above, my grandpa Harvey and my grandma Beulah whom I miss very much. To my Heavenly Father who is always my biggest fan.

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## ABSTRACT

This study examined the effect of using visual arts to teach rhyming words and word family words. Two interventions were used, both utilizing the use of visual arts to learn both literacy skills. The interventions were then assessed with a pre- and post-test to see if the interventions were successful. A student attitude survey was also given at the end of the study to see how the students felt about the interventions. A semi-structured interview was done at the end of the interventions as well to collect the thoughts of my co-teacher on the interventions. Lastly, my teacher observations were recorded to look at my thoughts on the study. My findings showed a large increase in scores from between pre-test and post-test, indicating an increase in students' understanding of rhyming words and word families and the success of the intervention. Additionally, the students attitude survey showed that overall students understood what rhyming words and word families were and that they also enjoyed using the visual arts during the interventions. My co-teacher interview revealed that incorporating visual arts encouraged visual learning that was appealing and effective. The interview also revealed that incorporating visual arts enabled learning by doing and that was hands-on and that created independence. Lastly, the co-teacher interview affirmed that incorporating visual arts enabled engaged learning. To conclude, my teacher observations revealed that incorporating visual arts facilitated collaborative learning and implemented engaged learning. The co-teacher interview and my teacher observations revealed the success of using visual arts in teaching rhyming words and word families. Based on the findings, I devised an action plan for my school to

follow. The action plan recommended that my school begin the implement of visual-arts based instruction to help with literacy achievement for the upcoming 2022-2023 school year in the Pre-K and TK (transitional kindergarten) classrooms.

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## CHAPTER 1

### INTRODUCTION

Learning is a gradual and steady process that requires tactical methods and approaches to pass knowledge and skills to an individual in an environment with a set of conditions. Positive and acceptable change in an individual displays the extent to which learning has taken place. This process is complex and delicate when it comes to children; they not only need to learn concepts in various fields, but also need to understand the language through which these skills are fostered. Credible methods of teaching are to be put in place to consider the pace and the content a child needs to learn (Rima & Rodriguez, 2020). This research focuses on the approach of teaching, models, and concepts that are applied in the learning environment to get children learning through different strategies. Visual arts, rhyming words, and word families are key tactics that this study will look into to investigate the nature and level of impact they have in learning on preschoolers.

Pre-school is the starting place for children on their journey through school. It is at this first start in which children can begin progress toward academic success, or it is here that they may begin to show signs of academic challenges. Pre-literacy skills play a significant role in the students' knowledge of how to read and write and also overall academic performance. Phonological and phonemic awareness have been identified as key influences on literacy achievement (Munro, 1998). Phonological awareness is the ability to recognize and manipulate the spoken parts of word and sentences (Reading

Rockets, 2022). The level of phonological awareness acquired determines a child's readiness to read (Genelza, 2021). Examples of phonological awareness are: being able to identify words that rhyme, counting the number of syllables in a name, recognizing alliteration, segmenting a sentence into words, and identifying the syllables in a word (Reading Rockets, 2022).

Phonemic awareness is the ability to hear, identify, move, or change sounds, in spoken words (Piper, 2010). Students with a firm foundation in phonemic awareness can break words down into sounds, recognize their identities, and put them back together again (Genelza, 2021, p. 24). In addition, improved phonemic awareness is linked to reading ability among children, especially in early stages, and is a strong predictor of the future reading ability at the age of six (Genelza, 2021). Examples of phonemic awareness are: rhyming, isolation, segmentation, deletion, substitution, and blending (Piper, 2010).

This action research addressed the impact of teaching with visual arts to help Pre-Kindergarten students (ages three and four) understand and remember rhyming words and word families. Rhyming words are words that have the same or similar ending sound, however, rhyming words do not have to be spelled the same, like "great" and "plate" but sometimes do have the same spelling at the end such as "bat" and "hat" (Rhyming Words: Lesson for Kids, 2017). Word families are groups of words that share a certain set of letter patterns with the same root words meaning that these groups of words have a common feature, pattern, or meaning (Twinkl, 2002).

In essence, visual arts can be described as forms that create primarily visual works, such as ceramics, drawing, painting, sculpture, printmaking, design, crafts, photography, video, film making and architecture (Unbound Visual Arts, 2012). Through

the use of painting, sculpture, decorative arts, and creativity in the Pre-K classroom, the needs of each child are met in various ways; for instance, when learning rhyming words and word families, painting aids important skills like acquiring hand-eye coordination and developing decision-making skills. Moreover, the art of painting helps children learn sizes, shapes, patterns and designs.

Antilla (2013) asserts that:

The ability to read and process information is a necessary part of our educational experience. The teaching of reading and writing is key for the formation of literacy as young children attend school, through adolescence, and finally, as they emerge as competent and educated adults. Literacy is now, more than ever, essential for basic survival on a day-to-day basis. The student that struggles to read will struggle in all subject areas, affecting and perhaps perpetuating negative attitude towards reading and school in general (p. 5).

Strickland and Riley-Ayers (2006) state that “it is important to develop literacy in a child early enough for students to have an easy time learning other concepts as they grow up (pp. 18-19).” Therefore, it is an essential part of learning to ensure that Pre-K students learn rhyming words and word families so they can build on those words to help them begin to read. On the same token of being creative, using visual arts in my action research project is an important part of who the students are as individuals, and when schools do not allow teachers to incorporate other areas of learning such as visual arts, they (schools) may be taking from the students’ future (Baranek, 1996). It is vitally important to use strategies like incorporating visual arts within the classroom to help teach early literacy skills to Pre-K students before they enter the elementary setting so

they are set up for success (Richardson et al, 2003). This is because visual arts help kids to create a connection between what they hear and what they see to improve their understanding of the skills taught. More so, the cognitive aspect of the mind in kids is well enhanced in them (Montessori, 2004).

### **Statement of the Problem**

The ability to read and understand is a significant skill for children to become successful and productive citizens in the current society (Tucker, 2017). In everyday life, individuals must read and comprehend what we are reading at some point during the day. Students experience difficulty learning their first words, which may permanently affect their academic success. Therefore, Pre-K teachers introduce learning rhymes and word families to make reading easy and enjoyable (Tucker, 2017).

Teaching about word families and rhyming words creates a foundation for beginning to read in which students will continue to build on throughout their schooling years (Bara et al., 2004). Teachers must discover the tools that can encourage students to gain literacy skills and build a positive reading attitude. Most teachers have contrasting views on using visual arts to help teach these skills as a bonus to help students have an enjoyable experience of learning literacy skills. Therefore, they may use approaches such as Reggio Emilia and Montessori. These two approaches make assumptions that students are curious and ready to learn from their surroundings (Van Dijk & Jochems, 2002). Teachers often struggle to incorporate Reggio Emilia and Montessori approaches in small and large classrooms because the students get to explore what they want to learn. This makes it challenging to teach the necessary literacy skills of rhyming words and word families because the students may not want to sit down for small group instruction to

learn these skills, due to being used to the freedom of exploring. The teachers are challenged by getting them to sit down and concentrate on the instruction (Baker, 1992). Having used these approaches in the classroom, I have realized that the last thing my students want to do is sit down and focus on an activity at the table when other classmates are free exploring

### **Problem of Practice**

Currently, half of my class struggles with both recognizing and producing rhyming words, as well as recognizing word families and producing words for a specific word family. However, the other half of my class can produce and recognize rhyming words and word families because they have either learned these skills at home or they came from a different school that uses more of the traditional approach. The traditional system of education is where educators are front and center and they are the gatekeepers of knowledge, they choose what to teach and how to teach it, and they pass information to students that will help prepare them for life beyond school (Watson, 2008). In traditional education, schools are less focused on authentic and individualized knowledge construction and more concerned with focusing on shaping students into moral and educated individuals who can contribute to the working world when they become adults (Poudel, 2019). It is also worth mentioning that it also heavily relies on practices such as memorization of concepts (OECD, 2016).

Using the Reggio Emilia and Montessori approach at Ivy Academy (pseudonym), the setting of this study, teachers help their students to be more inclined to learn on their own according to their interest, and to discover and explore. Similarly, their parents are less likely to help with these skills at home because they do not want to pressure their

children to produce these skills, preferring for them to discover them on their own. This lack of developmental readiness for these literacy skills can be attributed to the philosophies that we use within Ivy Academy.

These methods of teaching are largely used by public and private in-class teaching pre-schools because they make a learner an active individual in the learning situation. A teacher is a guide to the resources that will stimulate the targeted areas of reasoning in the child to build their cognitive and psychomotor development. The children under these environments will have an opportunity to learn at their own pace; which facilitates the right rate of mental development in the varied abilities of their minds (Mozes, 2000; Kelly, 1999).

The Reggio Emilia approach to learning has a central focus on the learner who is supported with two other bodies specifically the teacher and the environment (Van & Jochems, 2002). On the other hand, the Montessori approach focuses on our students making creative choices in their learning, and the teacher providing opportunities for them to do this (Puzalan, 2018). Both are vital in this discussion. These two are some of the approaches that have been widely accepted and used in learning environments that involve pre-school and primary education. They focus on the mental development of a child in acquiring knowledge and skills necessary in their lives under a given set of conditions.

In my Pre-K classroom, my philosophy focuses on the Reggio Emilia approach: we view our students as individuals who are curious about their world and have the potential to learn from everything that surrounds them (Van & Jochems, 2002). We also use the Montessori approach, in which our students make creative choices in their



learning, and I, as their teacher, provide opportunities for them to do this (Puzalan, 2018).

These are shown below:

**Table 1.1** *Montessori vs. Traditional Education (Puzalan, 2018)*

| Montessori  | Traditional   |
|---|---|
| Critical cognitive skills developed before cognitive age six. | Postponement of development until first grade.                      |
| Children learn from peers; self-correcting errors.            | Teacher corrects pupil's materials; the teacher role is as a guide. |
| Long blocks of time permit invaluable child's concentration.  | Class schedules limit involvement.                                  |

Learning early literacy skills in Pre-K should indeed be an enjoyable experience for all students and learning about word families and rhyming words can create a foundation for beginning to read which students will continue benefiting on throughout their years of schooling (Bara et al., 2004). Punzalan (2018) determined that “children do learn well through play and experimentation, and visual arts techniques can be used to encourage this learning across all curriculum areas (p. 22).”

According to Galvez (2018), learners respond to information differently. Thus, it is often to the advantage of the teachers to use many different formats and modes to teach the subject matter of a lesson. Since my school uses the Reggio Emilia and Montessori approaches, as opposed to much of the traditional methods of teaching, using visual arts to teach rhyming words and word families to my students will follow the philosophies of these approaches. This means that my students will be able to explore using visual arts to

help learn rhyming and word families freely on their own, as opposed to sitting down and learning them through direct instruction.

As stated above, using Reggio Emilia, I view my students as individuals who are curious about their world and have the potential to learn from everything that surrounds them, and using the Montessori approach, my students make creative choices in their learning in my classroom. Using this approach will help the other half of my class who do not struggle as much with recognizing and producing rhyming words and who can recognize and produce words for a specific word family. Being creative will challenge this half to use more challenging rhyming words and word families. I will be able to stay away from the traditional ways of teaching of relying mainly on textbooks and/or worksheets, emphasizing mainly basic skills that involve mastering a new language and word forms and assessing through tests. This will allow my students to explore and allow me as their teacher to create opportunities for them to learn rhyming words and word families through using visual arts in my classroom (Smilan & Miraglia, 2009).

The purpose of the study is to determine the impact of teaching with visual arts on students understanding and remembering of the important skills of rhyming and word families. This action research study will identify whether using visual arts in instruction had a positive effect on student academic achievement in literacy.

### **Theoretical Framework**

In this section I will explain the approaches that I used in my research study. Those approaches are Constructivism, the Montessori approach, the Reggio Emilia approach, and the visual arts approach. Each one of these approaches are significant in my research study as they will be used together in my Pre-K classroom.

## **Constructivism**

This approach to learning is created with a central focus being on the learner who is supported with two other bodies namely the teacher and the environment. These are the basic principles of this philosophy that work together in an interactive way to bring the required outcomes in the reasoning and behavior of a learner (Gandini, 1993). The child is taken as an individual with pre-existing interests and instincts full of ideas to be revisited and rebuilt at their own pace. This portrays a child as having a distinct personality in playing, exploring things, and doing things their way. The second principle is the environment that is taken as a platform of learning and this is where the child explores all the skills in doing things. Stimulant resources are to be available in the environment to engage in free learning. The third core item is the teacher who is to allow the child to access the area of interest as per instincts. The teacher is not supposed to direct the child; rather, he/she observes the child and encourages that child to explore the area of interest (Gandini 1993; Mozes, 2000).

## **The Montessori Approach**

The Montessori approach developed by Dr. Maria Montessori, is another vital aspect in this discussion. This approach focuses on the child in which the child guides his/her learning by using Montessori materials on their own without the guide of a teacher (Montessori, 2004). The teacher moves from group to group to observe and motivate the learner to do what they need to do. The child learns at their own speed even though interaction is also encouraged. This collaborative aspect is what enhances learning in the Montessori Method of learning (Smilan & Miraglia, 2009).

It is an educational approach that focuses on young children being able to develop

natural interest and participate in activities as opposed to using formal teaching methods. It also creates heavy emphasis on independence of the learning process as it regards children to be naturally eager to learn and considers children to have a capacity of initiating learning processes in an effectively supportive and well-prepared learning environment for the children (Montessori, 2004). It is also worth mentioning that the system of education also discourages particular conventional measures that are used as indicators of achievement for children such as their performance in terms of grades and assessment tests (Marshall, 2017). This is a theory that was developed in the early 20<sup>th</sup> century through a scientific experimentation with the students that Maria Montessori taught, and it has recently been adopted by both private and public schools in various countries across the world (Marshall, 2017).

### **The Reggio Emilia Approach**

The Reggio Emilia approach offers children a unique experience of self-exploration instilled in the arts. This is based on the argument that they both give children the opportunity to communicate in multimodal ways such as drawing, drama play, gestures, music and speaking while placing children at the center of their learning (Aden & Theodotou, 2019). The Reggio Emilia approach embraces different cultures and emphasizes that children express themselves through their hundred languages (which is a metaphor for the diverse ways children express and learn) and hence, enables children to utilize their originality (Aden & Theodotou, 2019). The hundred languages of children recognize that “creativity allows children to engage with their world and discover new meaning” (Boyd & Bath, 2017, p. 194). The hundred languages of the Reggio Emilia approach give children the autonomy and freedom to communicate and express

themselves and therefore provide them with the willfulness to communicate in an assortment of ways. Thereafter, these creative opportunities not only expand their creative and artistic capabilities, but they also give them ample ways to use their hundred languages (Aden & Theodotou, 2019).

The arts approach is similar to the Reggio Emilia way because it can be used in education through an open-ended environment and the arts have had a significant influence on children's education (Aden & Theodotou, 2019). Studies and research into the arts and their role in education have taken on new formats and styles in terms of learning and teaching because of the increasing use of digital media (Winner & Vincent-Lancrin, 2013). Much like the Reggio Emilia approach, the purpose of the arts is to enable individuals to communicate or express themselves and their ideas, thoughts or feelings through their three forms of art, which consist of the literacy arts, performing arts, and visual arts (Aden & Theodotou, 2019).

### **The Visual Arts Approach**

Using artwork to teach content can make it a carrier of multiple meanings that can stimulate understanding and emotion (Pelowski et al., 2016). Using art can also impact what we see, influence changes in students' visual or perceptual experience involving new attention to physical aspects of what is being taught (Pelowski et al., 2016). The Reggio Emilia approach focuses on the learner who is reinforced by the teacher and the environment. These are crucial ideologies of this philosophy that work together in an interactive way to bring the required outcomes in the reasoning and behavior of a learner (Gandini, 1993). The integration of art and other subject areas has certainly supported children's holistic development and learning within a meaningful socio-cultural context

which allows for children to be the learner and the teacher and environment as the reinforcer just like the Reggio Emilia approach suggests (Visser, 2005). Visser's (2005) states: "Childhood is a unique stage in life, and encourages children to be creative and expressive through self-directed play and one of the ways in which he did this was through what he called "occupations" (pp. 26-27)." Occupations are art materials such as paints and clays in which children could use to make what they wished. Using these art materials, children could externalize the concepts in which they were learning by creating artworks to understand the material (Chakma, 2021). Chakma (2021) states that Froebel mentioned that "children should be given full freedom so that they can express their ideas through activities and attain educational development." Activities such as using visual arts to teach these literacy skills of rhyming and word families are essential to my study.

While using the Reggio Emilia and Montessori approaches the children are taken as individuals who have pre-existing interests and instincts full of ideas to be revisited and rebuilt at their own pace (Smilan & Miraglia, 2009). This portrays a child as having a distinct personality in playing, exploring things, and doing things their way. The environment ideology behind these approaches is where the children explore all the skills in doing things (Smilan & Miraglia, 2009). Energizing sources such as a light table, sensory bin, flashlights, are to be available in the environment to engage in free studying (Chakma, 2021). The teacher allows the children to access the area of interest as per instincts and is not supposed to direct the child; rather, he or she observes the child and encourages that child to explore the area of interest (Montessori, 2004). When using visual arts to teach basic literacy skills studies to show that it is not just physical motions taking place but that the brain is processing information differently (Chakma, 2021;

Montessori, 2004; Chatterjee, 2004). The use of visual arts helps one to “process and make sense of what would otherwise be chaotic and overwhelming (Chatterjee, 2004, p. 55)” when it comes to a new array of information such as basic literacy skills. Besides, Constantino (2002) states that “instead of dichotomizing the value of the arts as intrinsic or instrumental, perhaps it is better to conceive of the arts as an essential component in an interdisciplinary curriculum in which every subject contributes to the cognitive restructuring process that generates future learning (p. 11).”

Using visual arts to help teach basic literacy skills such as word families and rhymes can be an alternative method to help students learn the necessary skills they need to begin reading (Tucker, 2017). After thinking about the current philosophies of my preschool in which we use the Montessori approach and the Reggio Emilia approach, I wanted to find a way to incorporate the visual arts in my literacy small group time. The Montessori approach views students to be capable of making creative choices in their learning and the teacher provides opportunities for them to do this and the Reggio Emilia approach believes that the students are curious about their world, and they have the capability to learn from everything that surrounds them. I wanted to learn more about integrating visual arts into teaching literacy skills and how implementing these ideas could effectively help my students with learning rhymes and word families.

### **Research Questions**

My research questions for this study are as follows:

1. What effect will the incorporation of visual arts instruction have on Pre-K students’ achievement in recognizing and producing rhyming words?

2. What effect will the incorporation of visual arts instruction have on Pre-K students' achievement in recognizing and producing word families?
3. What are the students' attitudes towards the incorporation of visual arts in learning rhyming words and word families?
4. What are the perceptions of the co-teacher about using visual arts to teach rhyming words and word families to students?

These questions helped me to understand the importance of visual arts in improving the mastery of new language and techniques that help to improve one's competence in their skill.

### **Positionality**

As an educator, my research will enable me to improve or critique my practice and facilitate my transformation in using visual arts to teach rhyming words and word families to my students. In essence, I wanted to help ensure that learners have mastered a new set of skills that improve and promoting their learning processes (Bloom, 1965).

Authorities refer to the individuals that supervise learning. Formal authorities supervise learning within the school environment such as teachers and co-teachers, while informal authorities are individuals that collaborate with teachers to promote education such as parents and guardians. In the action research study, the formal authority will be related to the teachers and co-teachers involved in the study as the research takes place and we are all collaborating and participating in the research. They as outsiders, will have an impact throughout the study by providing feedback, looking at the data, and making decisions. In this action research study, the informal authority will be impacted through my thinking as the teacher, planner, and one who implements the project. I will have an impact on this



study because as an insider I will know who needs more support in literacy and whom to target more with this study.

I have been teaching for over ten years and have taught ages 2-3 years-old and grades Pre-K-2<sup>nd</sup> grade. I earned both my Bachelor's and Master's Degree from Winthrop University in Rock Hill, SC. My Bachelor's Degree is in Elementary Education and my Master's Degree is in Curriculum & Instruction for Early Childhood Education.

Throughout years of teaching, I have taught in the public school system in a variety of charter schools including a Greek charter school where the charter focused on students learning Greek language and Greek math, Charter Schools USA where the charter focused on the business model of assessing students continually and improving the process of learning and teaching, and CCC where the charter focused on STREAM (Science, Technology, Robotics, Engineering, Art, and Mathematics). CCC is also considered a Title I School which means that 75% of the population is considered at poverty or below poverty and the federal government must provide extra funding for these schools and students. I have also taught at a variety of private preschools which have focused on being a Montessori and Reggio-Emilia inspired school and a traditional private preschool as well.

With all of these experiences I have learned to teach through a variety of educational philosophies. I believe children learn through all types of experiences from hands-on to direct instruction. I think that education has a set of characteristics which make students what they are, and that the learning of science and philosophy calls for their discovery and expression. I also feel that schooling is practical and should prepare our students to become valuable members of society. With that being said, I do not

believe that basic literacy skills should be taught strictly through direct instruction and completely disciplined because students do not all learn the same way. This is where I maintain that children should have a say in their learning through testing experiments by using hands-on learning, experiencing by doing rather than being told what to do, and asking questions about what interests them (Diehl, 2006). Lastly, I conclude when students are self-motivated, they can achieve their highest level of achievement. They have personal freedom, choice, and are responsible for what they want to focus on in their own learning (Diehl, 2006).

Throughout my academic career, from as early as elementary school through college, I have used visual arts to help me remember facts, process information, and complete projects. Whether it be doodling pictures besides words to help me remember definitions or creating a song to help me remember the order of events for history, using visual arts or just the arts, in general, has always helped me achieve in different subject areas because it allowed me to express myself through the learning, I feel very strong about how important it is to incorporate the arts in the classroom with other core subjects. Knowing that I was able to use visual arts in school and still do use visual arts to help me remember things, I believe it will help make a significant impact with my students because I will be familiar with the different ways to use art to help them learn. However, knowing that these strategies work for me I have to keep in mind as the researcher that they may not work for my students the same way they did for me and that is adequate. Therefore, I will encourage my students no matter what and as a researcher, I can only hope that using visual arts helps my students recognize and produce rhyming words and recognize word families and produce words for a specific word family.

## **Research Design**

The study was conducted specifically in the pre-school (Ivy Academy) in which I teach thirteen Pre-K students and where my students would be able to achieve the goals of the intervention through conversations on photographs of their work, a student attitude survey, a pre- and post-test, an interview with my co-teacher, and my teacher observations. The action of research study used a mixed-methods approach. According to Efron and Ravid (2013), “action research is an inquiry conducted by educators in their setting to advance their practice and improve their students’ learning (p. 2).” I chose action research to make a change within my classroom that will affect my students and the practices of my teachings. The mixed-methods approach is a combination of qualitative and quantitative research practices. Using both qualitative and quantitative research practices, I addressed all the questions and concerns in my study versus using one approach (Treiman et al., 1998). By using a combination of qualitative and quantitative data I was able to strengthen the rigor and enrich the analysis of data. Additionally, I gained a profound and meaningful learning regarding the effectiveness and implementation of my research (Wisdom & Creswell, 2013).

The study involved the implementation of visual arts in the classroom to create better reading and language skills among my students (Catterall, 1998). When I implemented my action research project, I asked questions and did visual art projects that allowed my students to use their declarative knowledge, which is using any piece of information that can only be learned through memorization (Ahmet, 2016). Besides, they had to use their declarative knowledge by producing and recognizing rhyming words and word families. They have to use their procedural knowledge through sculpting, painting a

picture, or using decorative arts.

For my data collection instruments I used a pre- and post-test of ten questions, five questions relating to rhyming words and five questions relating to word families. I also provided a five-question questionnaire to my students about the research. For each question, there was a happy face, unsure face, and sad face for them to color in. For the questionnaire, I helped read the questions to them and helped them color in the correct face that they wished to color in. Throughout this entire process, my co-teacher kept notes, took pictures, and asked the students questions about what they were creating. I also interviewed my co-teacher at the end of the study. Lastly, kept notes of my observations in my teacher journal every day on what took place during the interventions.

### **Significance of the Study**

Students are doers who want to touch and feel things while they are learning. Therefore, why not use visual arts to teach them their basic literacy skills such as rhyming words and word families. The findings in my study will be significant to the curriculum of preschools if they prove to work because it will show that incorporating visual arts to teach basic literacy skills works. If it works within the subject area of literacy than visual arts can be used alongside other subject areas, allowing for improvement in all learning areas. The incorporation of visual arts into teaching literacy may help students who have not achieved with previous interventions make some improvements in their literacy academic performance. For the students coming into my classroom with lower literacy skills using visual arts can help these students decode different rhyming words and words in different word families by using pictures and images they can use clues to help them sound out these different words. This will then

also help with improvements and academic achievement in other subject areas such as math, science, and social studies. “If student cognitive development is foremost in the minds of educators, then learning experience should not be limited solely to those avenues offered by math, science, and reading (Gibson & Larson, 2007).” This means that this action research study will set out to identify whether using visual arts in teaching instruction has a positive effect on Pre-K student academic achievement with rhyming words and word families (Smilan & Miraglia, 2009).

### **Limitations of the Study**

A limitation I faced in this action research study was the abilities of the Pre-K students to follow instructions due to their ages of three and four-years old. Students of three and four ages still learning how to go to school and follow directions. Therefore, they sometimes are unable to understand fully what is being asked of them and may require extra assistance.

### **Dissertation Organization**

Children have open minds to learn and acquire skills from the environment and other resources including teachers and instructional tangibles. The ability to get concepts and skills in various subjects into their minds is a complex process that needs a properly designed teaching approach. Such technicalities are what calls for procedural teaching approach and other tactical in pre-schools Visual arts, rhyme, and word families are the main tactics this study looks into in finding out their impacts on their learning (Simons & Hicks, 2006).

Four more chapters follow. Chapter II is a comprehensive review of the literature on the impact of using visual arts to teach basic literacy skills. In Chapter II, the primary

topic discussed is the need for visual arts to be incorporated with other methods of teaching to help students learn rhyming word and word families. In Chapter III, the topics discussed include the research design and specific details of how the study was conducted. The remaining chapters focus on the actual research administered for this study. The research results are provided in Chapter IV, followed by an analysis of the findings in Chapter V.

### **Glossary of Terms**

The key terms or definitions that have been addressed at this point in the study are as follows:

**Action research**-a study that is conducted by teachers in their setting to advance their teaching practice and those around them to improve student achievement (Efron & Ravid, 2013) **Decorative arts**- art that is meant to be useful as well as beautiful, as ceramics, furniture, jewelry, and textiles (dictionary.com, 2020)

**Montessori approach**- developed by Maria Montessori, in which students make creative choices in their learning and the teacher provides opportunities for them to do this (Mavric, 2020).

**Reggio Emilia approach**- views our students as individuals who are curious about their world and who have the potential to learn from everything that surrounds them (Kaynak et al 2020).

**Rhyming words**- repetition of similar sounds (usually, the same sound) in the final stressed syllables and any following syllables of two or more words (Gerwin & Weber 2020).

**Sculpture**- the art of carving, modeling, welding, or otherwise producing figurative or

abstract works of art in three dimensions, as in relief, intaglio, or in the round (dictionary.com, 2020).

**Visual arts-** the arts created primarily for visual perception, as drawing, graphics, painting, sculpture, and the decorative arts (dictionary.com, 2020).

**Word families-** groups of words that have a common feature or pattern (dictionary.com, 2020).

## CHAPTER 2

### REVIEW OF LITERATURE

Learning to read and write is an essential achievement in life that is often attributed to the teacher. Children learn through exploring and experimenting with the surrounding. Engaging with various arts at early childhood promotes current learning outcomes and creates behaviors and attitudes that encourage children's future learning. The integration of visual arts as aids for teaching literacy skills like word families and rhyming words have been studied widely (Tucker, 2017). This will be discussed in the chapter in addition to the background literature, theoretical framework, literature review, analysis and conclusion. The study aims to research visual arts' impact in teaching necessary literacy skills such as word families and rhyming words. Pre-school is the starting point for children on their journey through school. According to Ahmet (2016), children begin progress toward academic success or show signs of academic challenges at this first stage. Teachers should use art in an early childhood setting to promote creativity because it allows them to discover their surroundings' identities and comprehension. Moreover, it allows students to advance their holistic development (Ahmet, 2016). The use of visual arts creates a free-learning environment that is exciting, enjoyable, and relaxing. Moreover, the use of painting, sculpture, and decorative arts in the Pre-K classroom meets each child's needs when teaching rhyming words and word families. Educators should create an environment for creativity and relaxation to improve children's comprehension of new ideas.



Visual art is a universal language for students without necessary literacy skills. Word families and rhymes equip reading beginners and students struggling with proficiency with an easy technique for future academic excellence (Tucker, 2017). I use the Montessori approach which views students as capable of making creative choices in their learning; the teacher provides opportunities for the students to make creative choices by providing materials for the things they may be interested in (Meinke, 2019). I also incorporate the Reggio Emilia approach, which is developed on the belief that the students are curious about their world and have the capability to learn from everything that surrounds them (The Scots College, 2017). I wanted to find a way to incorporate the visual arts in my literacy small group time. In this action research study, the informal authority will be impacted through my thinking as the teacher, planner, and one who implements the project. The approach will have an impact on this study by determine the vulnerable students that need support in literacy and whom to target more with this study.

Antilla (2013) explains that the skill of reading and processing information is an essential part of our educational experience and states that the “teaching of reading and writing is key for the formation of literacy as young children attend school, through adolescence, and finally as they emerge as competent and educated adults (p. 5).”

Literacy is essential for basic survival on a day-to-day basis. Students who struggle to read will face the same difficulty in other subject areas, which can create a negative attitude towards reading and school. It is an essential part of learning to read that Pre-K students learn rhyming words and word families to build on those words to help them begin to read. On the same token, the visual arts aspect of my action research project,

being creative, is an integral part of who we are as individuals. When teachers take this opportunity away from the children, they may be taking away their future. Therefore, it is vitally important to use strategies like incorporating visual arts within the classroom to help teach early literacy skills to Pre-K students before they enter the elementary setting to set up for success (Richardson et al., 2003).

In 2008, Exley studied the understanding of literacy as a visual arts process and content in Australia, as well as the procedural and declarative knowledge that went along with the learning process. Exley (2008) used the classroom as a study population of 10 students aged between eleven and thirteen years. The students were asked to respond to question in fifteen minutes and described what they feel about the 1965 painting by an Australian artist. The author wanted to determine a connection between visual arts, declarative knowledge, and procedural knowledge. The action research project will also utilize a similar methodology by asking questions and doing visual art projects that will allow my students to use their declarative knowledge and procedural knowledge. They will have to use their declarative knowledge by answering questions and writing. They will have to use their procedural knowledge by creating a song or drawing a picture.

Likewise, Reif and Grant (2010) studied integrating arts into teaching and learning and addressing content through these arts. Their study addressed several ways to teach the content through drawing, painting, sculpture, music, drama, and use lessons that reach diverse learners in multiple ways. Their review showed six types of benefits they discovered with arts: better reading and language skills, thinking skills, social skills, mathematical skills, a positive school environment, and a motivation to learn. The implementation of arts in the classroom can result in more engaging classrooms for

students of all backgrounds and those experiencing psychological challenges, such as autism (Reif & Grant, 2010). The advantages of including the arts include academic achievement and better self-esteem, increased cultural understandings, and healthier cultural identity. The study revealed that the use of arts in the classroom promotes engagement, helping the teacher establish a positive environment for all students.

Similarly, Puzalan (2018) conducted a study to investigate the impact of visual arts on students' academic performance. The study restricted its coverage to the 1<sup>st</sup> year Bachelor of Elementary Education Students major in General Education of College of Education. From the total population of 100 First Year students enrolled in the Humanities (Art Appreciation) course, 44 constituted the sampling. The primary purpose was to identify the impact of visual arts or art integration in the students' academic performance which is likewise what happened in my study. The overall findings revealed the advantage of art integration and the use of visual arts in the learning process of the students. The traditional lecture discussion method used in the control group revealed less active participation and difficulty in the learning process. The study showed that a significant difference exists in the post-test performances of the experimental and control groups; in other words, the group who utilized the visual arts to study art appreciation recorded a significantly higher performance than those who used the traditional lecture-discussion method. On the other hand, Power and Klopper (2011) used various art strategies including drama, theatre, visual arts, and literary arts for their study. The study involved current classroom practices of creative arts education of respondent classroom teachers in the New South Wales (NSW) Greater Western Region (GWR), Australia. The authors discovered that art education provides students with valuable opportunities to

experience and build knowledge and skills in self-expression, imagination, creative and collaborative problem-solving communication, and respect for self and others. They also discovered how engagement in arts education positively affects overall academic achievement, empathy towards others, and engagement in learning. The study revealed that the use of art to teach literacy skills helps students understand because they learn how to communicate using art. It also enhances collaboration because the activity brings various students together to work as a team. Using the student attitude survey should reveal that the students were given opportunities to experience and build knowledge the same way they did in Australia as mentioned in this study.

Bara et al. (2004) discovered that the factors influencing reading lie in the development of meta-phonological abilities, which are abilities that allow children to identify phonological components of linguistic units and manipulate them. They go on to discuss further research that the students have a hard time establishing a connection between a visual image of a word and the auditory image. The teacher may guide the young students to sculpt particular word family “at,” such as a bat, cat, and rat. “The kinesthetic exploration and visual-haptic of letters help the students develop phonemic awareness, sound correspondence, and knowledge of letters to Pre-K children. The skill assists them in comprehending the alphabetical principle (Bara et al., 2004).”

Furthermore, the results of this present study ascertained the findings by past researchers (Baker (1992; Richards, 2003; Antilla 2013). The past studies had found that systematic direct vocabulary instruction is highly effective, and teaching vocabulary in word families can lead to greater growth in learners’ vocabulary. The findings of this study also ascertained the need for systematic, structured, and effective vocabulary

instruction in schools as a strategy for increasing learners' vocabulary acquisition. In the present study, a majority of the samples started off with a small vocabulary size of fewer than 1000 words. This revealed that they had a limited vocabulary size to function effectively in any L2 learning activities as most researchers suggested that learners should have a vocabulary size of 3000-word families to function effectively in all the four language skills (Bara et al., 2004). Although the study was carried out for only ten weeks, the direct vocabulary instruction using the proposed contextualized word family model of DVI had left positive effects on students' vocabulary growth. Its effects on students' vocabulary growth were statistically significant between the pre-test and post-test scores for all the three proficiency groups (Subon, 2016). Considering its positive effects on students' vocabulary acquisition, this proposed model can be adopted as a model of direct vocabulary instruction in the second language and foreign-language vocabulary acquisition.

Lastly, Bara et al. (2004) used pre/post tests and training sessions to measure students' progress after the integration of visual arts in the participants. Specific improvement was only observed after the HVAM training on pseudo-word reading (whereas the performances were similar after the three interventions on letter recognition). They generalized that the haptic mode facilitates the knowledge of the letters and the sounds. Randolph (2012) study investigated whether teaching larger units (i.e., rhyme) of phonological awareness would facilitate the learning of the alphabetic principle (i.e., phonemic awareness, letter-sound association, and decoding CVC words) more than instruction focused on phoneme sequences for Pre-K children. Students received either a rhyme-focused intervention (experimental) or phoneme-focused

intervention for eight weeks (Randolph, 2012). Groups were compared for relative changes in gain scores as well as weekly probes.

### **Purpose of the Study**

The purpose of this study was to determine the impact of integrating visual arts in the instruction of literacy skills of word families and rhyming words to young students (Pre-K). The action research intervention focuses on the impact of teaching with visual arts to help Pre-Kindergarten students (ages three and four) understand and remember essential skills on which they can build every day (Parsons, 2005). In essence, visual arts can be described as forms that create primarily visual works, such as ceramics, drawing, painting, sculpture, printmaking, design, crafts, photography, video, film making, and architecture (Parsons, 2005). This action research study uses different media of visual arts to reach all aspects of student learning. For this reason, this project is focused on providing learners with practical ways of teaching.

### **Research Questions**

This study aimed at determining the impact of teaching with visual arts on helping students understand and remember the critical skills of rhyming and word families. This action research study identified whether using visual arts in instruction positively affected student academic achievement in literacy. My research questions for the study were as follows:

1. What effect will the incorporation of visual arts instruction have on Pre-K students' achievement in recognizing and producing rhyming words?
2. What effect will the incorporation of visual arts instruction have on Pre-K students' achievement in recognizing and producing word families?

3. What are the students' attitudes towards the incorporation of visual arts in learning rhyming words and word families?
4. What are the perceptions of the co-teacher about using visual arts to teach rhyming words and word families to students?

These questions will help the researchers understand the importance of visual arts in improving the mastery of new language and techniques that improve one's competence in their skill.

### **Literature Review**

The search engines ERIC and Google Scholar were used to find most of the scholarly journal references I will refer to in my literature review. I also just used the Google search engine to help get me started as well as various websites. Throughout this literature review I found several references to help support my argument in how affective using visual arts is when teaching students other subject areas including literacy, to help them to learn the skills they need.

### **Theoretical Framework**

Many theories touch on literacy skills and how they are developed over time. The next section focuses on the theories that explain the use of visual arts integration in the learning and teaching of literacy skills. The theories tackled are: constructivism, the Montessori approach, the Reggio Emilia approach and the visual arts approach.

#### **Constructivism**

This approach to learning is created with a central focus being on the learner who is supported with two other bodies namely the teacher and the environment. Within the cognitive approach intrinsic and extrinsic motivation can intertwine with each other.

According to Dev (1997), intrinsic motivation is defined as a desire to know, a desire to complete a task, and the need to contribute. Intrinsically motivated students are excited by the difficult nature of completing a task. Moreover, the students retain the knowledge acquired and confidently tackle unfamiliar activities, such as learning new words through rhyming and word families. There are different ways a teacher can increase the intrinsic motivation among their learners. As outlined by DeVries (2017), one such way is by allowing independent thinking among them. The teacher should seek to allow the learners work on a particular skill as they report back to them on the improvement, they have made about it. Depending on this improvement, the teacher will change or improve it to align with the way that they think is helpful (DeVries, 2017).

Additionally, the teacher can provide choices to the children to enhance intrinsic motivation among them. Intrinsic motivation will increase among children when they have the chance to dictate the pursuit of their goals. For this reason, the teacher should not make an activity that the students should engage in as a requirement instead the teacher should offer the children different choices or allow them to create suggestions on how to pursue different goals or completing a particular task will boost intrinsic motivation among them (DeVries, 2017). Moreover, there is a need for the teacher to accommodate the power of positive thinking among children. They should enhance the ability of the children to believe in their ability to perform different roles because it can be tremendous in building the confidence of the learners (DeVries, 2017).

Furthermore, enhancing cooperative learning may also be a strategy that a teacher should use in enhancing intrinsic motivation among the learners (Donovan & Pascale, 2012). The motivation to learn different skills among the young children will be



enhanced by allowing them to work together as groups with other children in their groups. Asking questions is another approach that a teacher may employ to enhance intrinsic motivation among the children. Asking them questions gives them a chance to think for themselves (Donovan & Pascale, 2012). This is an effective strategy, rather than providing them with answers. For example, the teacher may ask such questions as; what are the best ways to classify the rhyming words to easily categorize them without struggle (Halpern, 2013)?

Allowing some competition among the learners is another strategy the teacher can enhance the learners' intrinsic motivation. Many children develop pride in winning and they are always proud when winning comes their way. For this reason, teachers should intertwine games with academic materials and therapeutic activities (Hamilton, 2011). However, competition does not always work among the learners. In a situation where the learners in the classroom seem to struggle with competition, the teacher should avoid comparing abilities. They should acknowledge that the learners' abilities improve with time (Hamilton, 2011). For this reason, the teacher should take the initiative of teaching the learners to track their goals for visual improvement with time. Also, planning together with learners is another tactic of enhancing their intrinsic motivation. For example, the teacher should engage the learner in classroom learning by asking them how they would wish to reach a particular goal (Hanus & Fox, 2015). To further enhance the effectiveness of this approach, the teacher should explain to the learners the available options. This will allow both parties to devise the best strategies that will be most appropriate in enhancing their learning process (Wulf & Lewthwaite, 2016).

Additionally, the teacher should seek to educate the learners. In working on a

particular activity, it is crucial to explain to the learners the reason for engaging in such activity and how the new material will be helpful to them in their life. This explanation is critical during their learning process because it will give them an insight into the importance of being attentive to it. Lastly, the teacher should teach independence and self-direction. Every individual gains a feeling of accomplishment when they are in a position to accomplish a task by themselves (Reutzel, 2015). Most learners experience a challenge of organizing and planning the school tasks and assignments. For this reason, there is a need for the teacher to support, guide, and structure the student independence and self-direction in their planning, time management, and organization (Roe et al., 2018).

On the other hand, extrinsically motivated students are motivated through praise and rewards. Therefore, teachers will often adopt extrinsic motivations such as passing candy out or praising them by saying “amazing job” or “you did a great job” to promote students’ participation and task completion. Students are highly motivated by teachers’ behaviors that recognize and reward their efforts, which improve their academic achievements. Extrinsic motivation is crucial as it is based on extrinsic factors and can enhance change in the learning outcome. Also, there is little or no preparation for the production of the learning outcome. Application of the intrinsic motivation in learning does not require the knowledge of learners’ interests (Ray & Smith, 2010).

### **The Montessori Approach**

The Montessori approach developed by Dr. Maria Montessori, is another vital aspect in this discussion. This approach focuses on the child in which the child guides his/her learning by using Montessori materials on their own without the guide of a

teacher (Montessori, 2004). The teacher moves from group to group to observe and motivate the learner to do what they need to do. The child learns at their own speed even though interaction is also encouraged. While using the Montessori approach teachers are able to incorporate the social cognitive theory with their students. The Montessori approach relies on students to learn on their own and at their own pace but in order to do that, students must have self-efficacy to help guide them. According to Bandura (2005), self-efficacy concept is based on how people understand the inputs using four sources. One of the sources are people's mastery of experiences. The interpretation of the results of the past performance by a learner is the most significant source of the self-efficacy views. Using this theory, the teacher should invite learners to evaluate their work. To strengthen self-efficacy in the best way possible, the teacher should lead the learners in identifying the things they performed well on the tasks they are assigned (Tucker, 2017).

The second source is the vicarious experience of seeing the learners perform tasks. Learners will form beliefs in their own efficacy when they watch other similar model the anticipated behavior. Models are also a good educators and mentors if they can portray better ways of performing a task. In the classroom setting, a teacher might frequently ask the learners to assess something their peers have done (Bandura, 2005).

The third source is social persuasions. These are the spoken judgments that other people make. Appraising the learners negatively weaken their beliefs on self-efficacy (Bandura, 2005). On the other hand, if the appraisals are positive, they tend to strengthen the learners. In the classroom setting, upon asking the learners to assess/edit/review their peers' work, the teacher might require them to identify the things that were already done in the right way, rather than identifying the weaknesses and errors (Tucker, 2017).

Finally, we have emotional and somatic states. In the emotional and somatic states, the learner assesses their level of confidence by interpreting their physical and emotional state in the contemplation of the actions. In the classroom setting, a teacher might begin a lesson by asking the learners to imagine doing things they do perfectly. The teacher would then help the learners to identify their emotional and physiological states in their times of success. In the process of imagining taking up new challenges the teacher would let them know that they have great opportunity of becoming successful if they can repeat the same emotional and physical states (Bandura, 2005).

Bandura (2005), proposed the social cognitive theory because it shows the relationship between students learning and the role of teachers in enhancing the process. The students observe the teachers when writing and reading rhyming words and word families. The next step is to convert what they have learned into actions by reading and writing without the instruction of the teacher. This process allows the students to enhance literacy skills by learning storybooks, words on walls, and pictures on textbooks. However, the teacher should remember that students engage in the activity when provided with positive rewards and incentives (McMahon et al., 2015).

The social learning theory describes the behavioral and cognitive processes that play a major role in determining the understanding of children. The theory was applied in a study conducted by Mason et al. (2005) to determine the impacts of arts integration in children with disabilities. They found that the learning process occurs through active and constructive thought processes using the children's memory. For instance, students learn how to distinguish alphabetic letters by looking at them. The teachers use visual arts to teach the students to read rhyming words and words family because they yield to intrinsic

and extrinsic benefits. Although some teachers believe that visual arts have no benefits for children with disabilities, the results of the study revealed that they enhance their cognition. The integration of artworks abnormal children benefited academically, emotionally, cognitively, and psychologically from the experiences of visual arts (Mason et al., 2005). The study correlated with the theory of social cognition because it holds that learning is an internal thought process. The theory has been utilized to describe mental developments as they are affected by both intrinsic and extrinsic elements, which eventually bring about understandings to the children. It also demonstrates the diverse processes regarding learning can be explained by examining the mental progressions. However, ineffective cognitive processes, especially in children experiencing abnormalities, can be detected in early childhood education (Mason et al., 2005).

Teachers continue to search for ways to enhance learning and academic achievement for all students, and it could be very worthwhile to step back and reflect upon the role of the visual arts for all students and how best to tool for classroom instruction. The social cognitive theory explains that learning occurs in a reciprocal and dynamic interrelationship of the behavior, environment, and person (Bandura, 2005). Children express different thoughts about themselves and their responses to the social environment, which tells us their personality. This theory also explains that people do not respond to the surrounding influences, but individuals seek and interpret the environment information. The social cognitive theory also focuses on topics such as moral, physiological arousal, and judgment basing on the personalities of people. Young students act positively toward what is motivating them (Bandura, 2005).

There are different strategies that teachers can adopt to implement the social

cognitive theory. One such strategy is modelling attitudes and behaviors so that students can learn. There is a need for the teacher to be enthusiastic and facilitate role playing a particular group discussion as they show a learning body posture towards the speaker and maintain eye contact with the group members. The teacher will have a different group role playing a discussion that has a different observable behavior. Additionally in solving a problem, the learner should think aloud in working out a problem (McMahon et al, 2015).

Another strategy is by using peers such as the class leaders to act as models. In this case, the teacher should pair learners who perform well with those that experience challenges in learning. This will involve enlisting the help of the class leaders to model the behaviors for the whole class. To accomplish this, the teacher should convince the well-like learners to befriend with the isolated ones (Silvia, 2006). Additionally, a teacher may also use a strategy of ensuring that the learners observe that desirable behaviors result to reinforcement for other students. In this case, the teacher will be compelled to connect the desirable behaviors with the desirable outcome. They should ensure that there is fairness by ensuring that similar rules are used on the learners with problems and those without (Pelowski et al., 2016).

Another plan of action that the educators may employ in implementing the social cognitive theory among the learners is by setting the learning goals for the learners. This can be achieved by sharing examples on how particular abilities in a certain area can be achieved. The teacher can provide the learners with achievement models that are similar to the learners. For example, the teacher may read to the students the stories concerning others who overcame some challenges that they should also overcome (Pelowski et al.,

2016). Additionally, the educator can make particular suggestions that the learners can use to improve and revise their grades. For example, they can return the work that the learners submit highlighting the comments concerning the sections that the students did correctly and the sections that they did wrongly. The comments may also involve the parts they have made mistakes. Furthermore, the teacher may motivate the learners to encourage each other. This is an important value because the learners will identify the students in dire need of encouragement and act appropriately (Pelowski et al., 2016).

It is also recommendable for a teacher to help the learners to recognize and express their feelings (Knapen & Renard, 2019). This can be necessitated by providing vocabularies that can be used in expressing emotions. It is crucial to be distinctive and clear about the emotions that a person possesses (Vine et al., 2020). Additionally, the teacher can also help the learners to recognize other people's emotions. Moreover, the teacher should help the learners devise the mechanisms of coping with emotions. They should do so by modelling some strategies for the learners, and having discussions on how disappointments, anxiety, and anger should be dealt with (Moore, 2020).

### **The Reggio Emilia Approach**

Reggio Emilia, originated in Northern Italy in the late 1940s with the helping hand of community members and co-founder, Loris Malaguzzi (Harris, 2018). Since the 1980s, practices of Reggio Emilia infant, toddler, and preschool schools in Italy have inspired early childhood programs to implement the ideas into programs in the United States (Reggio Children, 2012). Reggio Emilia approach was created by Loris Malaguzzi around the 1940's in Italy. Malaguzzi's approach to learning (later called Reggio Emilia) was created with the learner being the central focus to their learning and they are then

supported by their teacher and by their environment. These basic principles work together in an interactive way to bring the required outcomes in the reasoning and behavior of a learner (Gandini, 1993). The child is taken as an individual with pre-existing interests and instincts full of ideas to be revisited and rebuilt at their own pace. This portrays a child as having a distinct personality in playing, exploring things, and doing things their way (Loh, 2006). Then the environment is taken as a platform of learning where the child explores different skills through doing different things. Stimulant resources are available to the child in the environment for him/her to engage in free learning (Day, 2001). Another core item is the teacher; who allows the child to access an area of interest through providing resources which appeal to the child's enjoyment (Loh, 2006). The teacher is not supposed to direct the child, rather, he/she observes the child and encourages that child to explore the area of interest (Gandini, 1993).

Reggio Emilia programs are grounded in developmentally suitable practices; developing, project-based learning; and an approach to learning that considers the whole child (Harris, 2018). These programs view every child as strong, capable, independent, curious, and full of imagination. Therefore, the program empowers children to think, inquire, examine, explore, and help navigate the journey of learning (Aribizzi, 2016). Malaguzzi wrote, "The child has a hundred languages, a hundred hands, a hundred thoughts, and hundred ways of thinking, of playing, of speaking" (Edwards et al., 2012, p. 3). Furthermore, the Reggio approach focuses on shifting the teacher's role from an instructor to that of a facilitator who scaffolds children's interests and learning. In a Reggio approach, through daily observations and thoughtful listening, the teacher is a co-learner along with the child (Aribizzi, 2016). The Reggio approach is considered as one



of the top practices for early childhood programs and developmentally appropriate for children (Hewett, 2001). Some process agents that define quality are developmentally appropriate curricular practices including dealings among teachers, school staff, children, and parents, while structural agents include the materials and physical components of the program (Arbizzi, 2016).

A typical characteristic of a Reggio Emilia school is that it is seen as a place of educational explorations where steady constructions of knowledge and values take place (Arbizzi, 2016). Cultural experiences should be shared and created both from the individual child's personal life as well as the culture of the school and the society as a whole. This reciprocal culture co-created by students, families, and teachers in turn will affect the value system of the society across-the-board (Piccinini & Giudici, 2012).

Active participation is an important component of the Reggio Emilia approach and the key aspects of this approach include discussions and an exchange of ideas in a stimulating classroom environment (Arbizzi, 2016). Reggio Emilia is a project-based educational approach that promotes in the sharing of ideas by all involved while keeping in mind the common goal and valuing communication as a necessary component of participation (Arbizzi, 2016). The goal of this daily participation is to encourage more conversations about cultures, beliefs, and values of all participants with a common aim rather than creating a division among all involved (Piccinini & Giudici, 2012).

The Reggio Emilia way is instilled in the cultural and political values of the community and considers the sociocultural diversity of children's families. It is based on the interaction amongst children and adults within the context of collaboration and dialogue (Hewett, 2001). Because of the nature of this combined educational system,

families are more enabled in their family, school, and community interactions (Arbizzi, 2016). Through active participations in their children's education, parents are informed of their children experiences at school and become self-assured in supporting their children's learning at home (Swick & Williams, 2006). Children, in turn, accrue life-long benefits by their parents' awareness in their education both at school and at home (Arbizzi, 2016).

The Reggio Emilia tactics also strongly connects families and the community within the mesosystem context in which they live and where their children go to school. In the Reggio Emilia approach school context, parents and educators are givers to their children's programs and for local administrations (Arbizzi, 2016). Along with other community members and through their involvement in committees and parent-teacher boards, they partake in their school's decision-making processes (Firlik, 1996). Their input is considered good and valid and is considered for curriculum development, planning, and school administrative decisions (Vakil et al., 2003).

### **The Visual Arts Approach**

Using artwork to teach content can make it a carrier of multiple meanings that can stimulate understanding and emotion (Pelowski et al., 2016). Using art can also impact what we see, influence changes in students' visual or perceptual experience involving new attention to physical aspects of what is being taught (Pelowski et al., 2016). The Reggio Emilia approach focuses on the learner who is reinforced by the teacher and the environment. These are crucial ideologies of this philosophy that work together in an interactive way to bring the required outcomes in the reasoning and behavior of a learner (Gandini, 1993). The integration of art and other subject areas has certainly supported

children's holistic development and learning within a meaningful socio-cultural context which allows for children to be the learner and the teacher and environment as the reinforcer just like the Reggio Emilia approach suggests (Visser, 2005).

Using artwork to teach content can help create multiple interpretations which in turn stimulate the visual senses of learners making it easier for them to learn and understand even the most difficult concepts in a simple way (Pelowski et al., 2016). Using art can also impact what individuals see; influence changes in students' visual or perceptual experience involving new attention to physical aspects of what is being taught (Pelowski et al., 2016). Using visual arts to teach necessary literacy skills entails the brain to process information differently. The use of visual arts helps students to understand and make sense of a concept that would be overwhelming and difficult. Creating artwork can become an experience where one can go through a series of information-processing stages, focusing mainly on perceptual attunement to various formal factors in the art (Silvia, 2006).

Based on these information-processing stages Silvia (2006) states that using visual arts through learning other subjects, one's brain can begin "cognitive mastering," in which one creates and discovers meaning by making interpretations, associations, and links to existing knowledge. Also, using visual arts to learn helps to "motivate learning, thinking, and exploring, actions that foster the growth of knowledge" (Silvia, 2006).

Development of communication skills is another benefit associated with the use of visual arts in learning. This is especially the case with the pre-literate learners. Visual arts will be the basic way of helping such children to communicate ideas that cannot efficiently be communicated verbally (Silvia, 2006). Visual arts are a good second

language that the children can use. Despite that they might not construct adequate meaning from their artwork, to a certain extent, it can encourage them to communicate as they work. Additionally, visual arts are important avenues of helping the children to communicate among themselves (Alford, 2015). This is especially the case when the teacher gives them opportunities to work on common projects or discover the common interests. This makes the children inspired to develop shared funs, consider solutions, and exchange ideas through collaboration. Such experiences give the children opportunities to advance in their oral language (NAEYC, 2021).

Another benefit associated with the visual arts is the promotion of creativity and imagination among children. They allow them to enter into the fantasy world, enhance creativity, and engage in frisky thinking. It is crucial to develop children's perception in learning to empathize with others. Creativity refers to the ability to advance unique and valuable solutions and ideas. The visual arts involve exploration and experimentation and enhance the advancement of creativity through imagination. Visual arts are expressions that seeks to nurture the power of imagination among the children (Hertzog, 2001). This can be enhanced through drawing, pottery, collage, sculpture, painting, or other mediums. Art enables the learners to use emotions in their work, make informed decisions, and express quality ideas. Management of visual art materials enhances the sense of freedom and also encourages concentration and focus. By engaging in art activities, learners are able to develop eye coordination and develop some motor skills as well as, the visual art activities help in building confidence as children gain skills on materials from the new creations (Silvia, 2006).

Another benefit derived from the visual art activities is the development of fine

motor skills in children. At their early age, the learners are still in the process of mastering fine motor skills. These skills are crucial especially when they are in the stage of using a pencil to write numbers and letters (Rymanowicz, 2015). Visual art is an essential aspect that will enable a child to master such skills in a creative and fun way. Grasping paintbrushes, markers, pencils, chalks and crayons is essential in helping the child to grasp, hold, and use tools in the same way they would do when writing. Additionally, finger-painting will help children to gain essential skills of controlling extremities (Rymanowicz, 2015).

Ensuring cognitive development is another benefit associated with the visual arts in childhood learning. It is not only effective in creative expression, but it also helps children in their cognitive development (Mason et al., 2005). Children are in a position to exercise such skills as recognition of patterns, and the cause and effect of something. Additionally, critical thinking contributes significantly because they will plan for the things they wish to create. From here, they will use the necessary steps in creating the image of what they planned. Their ability to observe the image and interpret it on a paper is an indication that there is a development of the brain in the child. Majority of children draw familiar world symbols within their environment.

Visual arts are an essential aspect of enriching the cultural knowledge among children. Studies reveal that visual arts and other domains used in art are the primary ways of enhancing the cultural identity and ensuring that such values are shared with children (The Education Hub, 2019). For children, the visual arts experience that their culture values during their childhood can help in communicating the value of families. Exposure of different visual arts to children as an example is important because they will

be able to understand different works of art in their early ages. The best way to achieve this is by having a close connection with culturally diverse visual arts while they are still young (Menzer, 2005).

Van Dijk and Jochems (2002) highlights that the bottom line of visual arts activities is that it is an important way of ensuring that children use their knowledge in accessing and communicating with the art media and link with the world in forming their theories about all they do in classroom setting. This is especially the case with the visual arts education, where parents and teachers can emphasize on the art strategy and media, thus enhancing the child's development of their creativity (The Education Hub, 2019). In engaging in visual arts during the early years of childhood, they will have an opportunity of exploring free resources and materials to enable them to construct something using their imaginations and ideas. It promotes their learning and development and allows them to express their feelings towards the world.

Cleman (2017) identified five content framing questions that teachers should apply in addressing visual arts by replacing text with the artwork. These questions might apply differently in particular works of art. One of the questions is about wonder. The question here is: What do you wonder and notice concerning this work of art Upon sharing the artwork in class, there is a need for the teacher to give the learners enough time for observing the work and generating questions based on the observations (Kanapathy and Mastan, 2014). The teacher should give the learners about two minutes for silent observation. Despite that this may initially be uncomfortable for them, they will later appreciate that the extended observation is valuable to them.

The second question that Cleman (2017) identified is about organize. Under this

aspect, the important question to ask is: What is going on in the work of art? This question challenges the learners to study like detectives as they write like investigators. Acting like detectives mean that the learners should identify the crucial elements in the text to fully understand the hidden meaning. Some of the questions that the learners should ask about the artwork to include: What is the setting? Who are the characters in the artwork? What is the relationship of the characters in the visual art? After some time, the learners will gain new vocabularies and will be able to identify and analyze different elements.

The third question is about revealing. The question seeks to answer the question: What does comprehensive examination of the artistic technique reveal about the artwork? During this stage, the learners explore beyond their point of comprehension to assess the work of the artists about the creative choices and how they will impact the entire work.

The fourth question is about distill, where the learners answer the question: What is the crucial meaning of the artwork? After a thorough exploration of each of the components of the work of art, learners will now synthesize their understanding in the same way they would distill the spirit of the text (Kanapathy and Mastan, 2014). The likely questions they are likely to ask themselves include: What is the importance of the artwork? How does the artist attract the attention of the learners? During this time, the teacher should introduce the circumstantial information, and help the learners to connect the artwork with the earlier learned knowledge (Silvia, 2006).

The final concept is about the knowledge, where the learner asks how the artwork builds their knowledge of the particular topic. During this stage, the learner takes the ownership of the knowledge they have gained and group together the learned expertise

with the existing knowledge. They might reflect on how the artwork conveys the natural force and the reasons it has undergone the test of time.

### **Related Research**

Dhanapal et al. (2014) used both qualitative and quantitative research approaches in their study to determine how the integration of visual arts in learning motivated Grade 3 students to study and learn science. The study found that the physical and mental development of children was not stimulated through learning science alone as integration of visual arts increased the children's growth and progress in terms of science learning. The research also found that the integration of visual arts made learning enjoyable as the learners were glad that they could choose their own art forms to show how much they had learnt. The teachers noticed positive changes in mastery of knowledge and understanding of science by the students who learnt through the use of visual arts. The researchers concluded that integration of visual arts in learning is essential in motivating learners to study and learn science. This shows that though learners can do without visual aids, those who experience the use of visual arts in their classes grasp concepts better and expose a better understanding of science than those whose teachers do not integrate visual arts in learning

Similarly, Jovita (2018) carried out a study to investigate the impact of visual arts on the academic performance of students. He noted that art is a crucial part of human experience that young people need in their communication, imagination, exploration, and self-expression. For this reason, he noted that the integration of visual arts should be all rounded and should not only be embedded on Humanities. He therefore conducted the study to examine the impact of visual arts on students' performance. He employed the



experimental research design to carry out the study. From the results obtained from the study, he revealed that there exists a significant difference between the experimental and control post-tests performance. That is, the group that used the visual arts to study registered a higher performance than the group that adopted the traditional lecture method. Additionally, further examination of the data obtained revealed that the use of visual arts in different learning fields motivates the learners to be active, thus enhancing their confidence and advance their learning process.

Likewise, Gibson and Larson (2007) used both qualitative and quantitative research methodologies that were employed for data collection and analysis. Primary data sources for this study included surveys, written questionnaires, and audiotaped face-to-face interviews using the written questionnaire as a guide. Classroom observations and informal conversations were documented and compiled in researcher field notes. Artifacts in the form of student artwork photos, newspaper articles, and student art workshop fliers were also collected (Gibson & Larson, 2007). The aim of the study was to document the knowledge, attitudes, and practice of teachers, students, parents, and community members regarding the value of visual art in elementary education. The two methods successfully showed that shows art education can help to expand all children's grasp of the world, social traditions, and appreciation of the artist's domain. In another study, Tomljenović (2015) tried to determine an interactive approach to learning and teaching in visual arts education. The study used quantitative research paradigms to undertake a pedagogical experiment. The experiment was purposed to evaluate three impacts related to visual arts. They include the students' knowledge of visual arts, the ability to use them, and the techniques used to perform a particular task. Lastly, students'

improved creativity in solving artistic tasks such as painting (Tomljenović, 2015). The data design and analysis of results showed that the teaching method helps students gain an understanding of the teaching content and better results in artistic expression.

On the other hand, another study was conducted to investigate the role of visual arts in education in helping students to thrive, achieve, and learn. The study noted that visual arts are a significant discipline that can enhance success in the learners' education, both in and outside the school. This can be achieved, whether using a person's creativity, or the objects that they encounter in their everyday lives. Such examples may include a logo of a particular place, or the design of a particular object. As the learners gain the skills of creating, responding, and connecting to their environment, their interactions with the visual arts play a significant role in gaining the necessary skills that may positively influence their experiences at school (Catterall & Peppler, 2006).

The study revealed that the visual arts can aid in cultivating the learning skills, boosting the academic performance of the learners, and enhancing the educational experience of the learners who were traditionally regarded as weak. The study noted that the visual arts promote learning by strengthening their critical thinking. When the learners interact with the visual arts in either a classroom or at a museum, they gain positively in their critical thinking skills. Also, the visual arts enhance the learner's engagement. Teachers noted that the learners who were active participants in the visual arts program in the classrooms or in the museums were more interested in the engagement and arts in school (Catterall & Peppler, 2006).

Furthermore, Baker (1992) used a quantitative method to collect data from different stakeholders. The design for gathering, analyzing, and interpreting data called

for four stages of the effort. The first stage focused on the physical and instructional presence of the visual arts in day-care and nursery school settings. It also sought information about art-related beliefs, values, and skills of caregivers in these settings. The second stage sought facts about the age, race, and preschool experiences of the children cited in this study and information about academic/art-related perceptions of their caregivers, classroom teachers, and parents. The questions asked of these informers addressed physical attributes, academic performance, social behaviors, and drawing abilities of the children (Baker, 1992). After the data elicited through carefully structured and controlled in-person interviews and tightly focused telephone interviews were collated, the third stage produced a statistical analysis of the various behavioral and performance relationships, this inquiry proposed to investigate. The final stage of the inquiry called for interpretations of the findings and the formation of conclusions issuing from them. The current action study will take place in stages to determine the effect of integrating visual arts in teaching pre-literacy skills such as word family and rhyming. Mason et al. (2005) conducted a study on the effect of arts in cognitive, social, and learning for children with disabilities in which the age group was not mentioned. The participants included 34 focus groups and interviews with teachers and resident artists in 16 states over two years. The researchers found that art improved students' literacy skills. The teachers responded that visual arts have helped children follow directions, plan, communicating, and reading skills. Teachers expressed that the use of arts helped promote students' freedom in learning to improve creativity.

Correspondingly, in a final study found, Tucker (2017) conducted a study to examine the effect of arts-based instruction on 5<sup>th</sup> grade student literacy achievement. By

incorporating arts-based instruction through reading interventions, the hope is to increase student achievement through engaging, rigorous, and innovative instruction and activities. This study focused on the effective implementation of arts-based lessons and activities within reading interventions and the effect of these alternative lessons and activities on student reading achievement.

According to the study carried out by Tucker (2017) on visual arts integration in pre-literacy instruction offer an alternative method for a student to discover their potential. The data collected during the study showed that art education impacts the social, academic, and emotional development of the students in 5<sup>th</sup> grade. Based on the data collected, there was an overall increase in literacy achievement after arts-based interventions were added to the curriculum, but the increase was not significant (Tucker, 2017). However, students showed improvement in the literacy assessment after receiving arts-based literacy interventions. The integration of visual arts in teaching helps create an interactive approach that connects students and the educational process. Moreover, the approach offers an independent, cooperative, and investigative learning environment. It uses student-centered teaching strategies that promote critical and creative thinking. The results are similar to a previous study by Van Dijk and Jochems (2002), who also found that using visual arts in the classroom helped students to understand the theme of the subject, improved cognitive skills, positive attitudes, and increased motivation. School tasks integrated with arts served as the best tool that encourages students to participate in the learning project.

All of these studies seek to show that the use of visual arts to teach other subject areas as well as incorporating the arts within the classroom, help to create a positive

classroom environment. Students also seem to have higher achievements within the subject areas that are utilizing visual arts to learn. These studies aid to demonstrate that the use of visual arts to help students grasp rhyming words and word families, should evince to be successful.

## **Summary**

Pre-literacy skills play a significant role in the students' knowledge of how to read and write and also overall academic performance. Most students experience a difficult moment when the concept of reading is introduced to them in an effective way. Students experience difficulty learning their first words, which may permanently affect their academic success. Therefore, Pre-K teachers introduce the concept of learning rhymes and word families to make reading easy and enjoyable. Vast studies show inconsistent results about teachers' use of visual arts in the classroom and its contribution to enhancing literacy skills. The analyzed literature from previous studies shows that visual arts improve students' pre-literacy skills when integrated into the instruction of Pre-K students. The purpose of the current study is to examine the impacts of using visual arts to teach literacy skills of rhyming words and word family. These are words that have the same sound and can be grouped in the same category because the vowels are similar. The study will add to the existing literature on the benefits of using visual arts to create a collaborative and interesting learning environment that attracts the attention of every child. The study draws the theoretical framework from vast background literature ranging from past to present. The studies found numerous benefits of incorporating visual arts in teaching pre-literacy skills. They include increased motivation, promote cooperation, fast acquisition of literacy skills, and increased understanding of the subject matter.

Teachers have a critical role in influencing the students' behavior and guiding them towards achieving their educational goals. Therefore, they must portray behaviors that will help students cope with academic challenges associated with traditional teaching methods such as Reggio Emilia and Montessori approaches. The current purpose focuses on primary data collection from the school where the author teaches. The aim is to promote Pre-K students with visual arts that will help them understand how to read and write word family and rhyming words. Primary data collection will be collected through qualitative and quantitative methods to enhance accuracy. The study is based on the theory of social learning, motivation theories, and self-efficacy. In this action research study, the formal authority will be related to the teachers and administration being involved in the study as the research takes place. The author will develop visual arts and introduce decorative strategies such as painting to make the lessons interesting and also memorable. The study will examine whether there exists a strong correlation between visual arts and improved students' performance in pre-literacy skills.

## CHAPTER 3

### METHODOLOGY

Learning early literacy skills is essential for Pre-K students to be able to understand how to read. Some of the most important literacy skills knowledge at this age are rhyming words and words that belong in certain word families. But swotting these skills are hard for our students because they no longer absorb simply from sitting at a desk listening to the teacher lecture nor do they learn from participating in lessons where the teacher is the primary person doing the work and students are watching and observing (Tucker, 2017). However now, students are more hands-on pupils, and they enjoy schooling materials that employ methods that are comfortable for them (Tucker, 2017). This is where the problem lies, because our students need to be absorbing more through hands-on activities and this is where incorporating the use of visual arts in the classroom will allow for this to happen. Arts integration is important because, if implemented correctly, it can help increase student achievement by giving students alternatives and choices regarding how to display their understanding and it allows for more student interaction within the classroom and during lessons, which helps to keep students engaged in a lesson (Kennedy, 2009).

The purpose of the study was to determine the impact of teaching with visual arts on students producing and recognizing rhyming words and producing and recognizing words within different word families. The research questions were:

1. What effect will the incorporation of visual arts instruction have on Pre-K students' achievement in recognizing and producing rhyming words?
2. What effect will the incorporation of visual arts instruction have on Pre-K students' achievement in recognizing and producing word families?
3. What are the students' attitudes towards the incorporation of visual arts in learning rhyming words and word families?
4. What are the perceptions of the co-teacher about using visual arts to teach rhyming words and word families to students?

### **Research Design**

In this research, I used action research to help improve the acquisition of skills and knowledge among the students, concerning the use of visual arts. As indicated before, the choice of this method of research was informed by my interest in bettering the performance of students as well as transforming the mode of teaching. This type of research targets engaging the participants, democratically, in a way that practically studies their actions thus providing real-time and actionable insights (Kennedy, 2009; Tucker 2007). It includes the involvement of both practice, theory, reflection, and actions with the participation of both students and teachers to come up with clear solutions and positive transformations. It aims at improving the experience of each of the students at a personal level.

By using my intervention through the action research approach, I gave the students a chance to experience different alternatives to the traditional teaching approach and learn in a different way. I also allowed teachers to gauge the learners' excellence through using visual arts to learn and allowing teachers to experience a new way to teach.



For example, one can easily tell the impact of visual arts in helping them improve memorization of language and facts learned in class verses not applying them (Puzalan, 2018). Steps were therefore taken immediately to improve the teaching and learners' educational developments. This action research approach will help the school practitioners in enhancing their professional developments, effectiveness, and educational practices.

Other various advantages come along with the application of the action research approach. Some of the advantages are: the research can be conducted within a specified situation, researchers have a chance to participate directly in the research activities, the research is continuous which allows for improvements and modifications to be made along the process, and the outcomes of the research are open-ended which allows for improvement in the future as well as improvements for future researchers (Blanche & Durrheim, 1999).

This action research study used mixed methods, taking into account both quantitative and qualitative approaches. Some of the advantages of using a mixed methods approach in an action research study are that it helps in the understanding of the relationship between the quantitative and qualitative findings, it gives a voice to the participants in the study and ensures the findings are grounded in their experiences, it provides methodological flexibility, and it helps to collect rich and comprehensive data instead of just one or the other (Wisdom & Creswell, 2013).

The key stakeholders involved in this action research study were my co-teacher and I who are seeing the decrease in student achievement in recognizing and producing rhyming words and word families. The students were the ones that learned these literacy

skills and were the ones who produced and recognized rhyming words and word families using visual arts to aid them. The final stakeholders involved in this action research study were my students' parents, who strived to see the academic achievements that were made using visual arts to teach rhyming words and word families during the action research study. Besides, "the fusion of arts with core content is important because, rather than seeing humanities or science as knowledge on a page, something to be recited in an exam, students see far greater benefits when art reflects the life and makes knowledge, stories, and facts come alive. Art brings color, life, and interpretation of those things (Ahmet, 2016, para. 11)."

In conclusion, the action research approach is important in carrying out studies that aim at improving the effectiveness of performance within a school or managerial setup. This is because it offers practical solutions that improve practices within a school or classroom setup (Blanche & Durrheim, 1999).

### **Setting**

The setting of this research study took place in a Pre-K classroom at Ivy Academy. The community in which the school is located is rich in history, charming and diverse, and is home to some of the oldest major businesses and residential areas. The educators at Ivy Academy understand the importance of creating a unique environment where education and community come together through the use of an innovative and progressive curriculum that we strive to connect with children and open doors to new ideas and perspectives each day (Myers Park Campus, 2021). Ivy Academy is a half-day, award-winning pre-school in which parents pay tuition for their child or children to go there. Tuition is based on the child's age and how many days they go a week. Ivy

Academy students come from high income families such as doctors, lawyers, bankers, and National Football League players and is home to over 200 students for morning and afternoon classes. The classes are as follows: toddlers (18 months old), younger two-year-olds, older two-year-olds, three-year-olds, Pre-K, and TK (Transitional Kindergarten) (Myers Park Campus, 2021).

At Ivy Academy where the research took place, there is a structured, direct instruction of collaborative themes such as fall, safety, and community helpers, which are taught directly to the students as a whole group or in small groups using lesson plans provided. The school also plans small group lessons in which the students are working to reach a common goal of mastery in one particular standard in math or ELA (English Language Arts). Moreover, the school has time in which the students are shown how to use new materials and are free to explore them on their own, which echoes progressivism (McLeod, 2019). Lastly, during the students outside time or free time within the classroom, they can have personal freedom, choice, and responsibility in taking care of the items they wish to explore. In the school, this type of teaching is considered a mixture of traditional teaching, the Reggio Emilia approach, and the Montessori approach, which correspond together.

The Pre-K classroom encompasses the use of Reggio Emilia materials which are things found in nature such as wood, plants, rocks, sand, shells, and other naturistic items. The classroom also uses Montessori math materials such as golden beads, number rods, sandpaper numerals, cards and counters, as well as traditional materials such as worksheets and games. The use of these approaches and materials will be important to note in the study because it makes the school setting unique and different from other

schools. The classroom also provides several play materials such as blocks, practical life, kitchen, and art. Students are allowed to explore any materials within the classroom and are taught how to properly use them, so they are able to use their imagination and use the materials however they choose. This allows for the teacher to observe and watch the students and allow for the students to be their own teacher and learner while the teacher observes and learns from the students as well.

### **Sample**

The classroom was made up of thirteen, three and four-year-old students and had two teachers, myself and a co-teacher. The demographic make-up of the class was as follows: seven girls and six boys. Out of these girls and boys, nine are Caucasian, three are African American, and one is Hispanic. The learners were mostly aged between three and four years and were just being introduced into formal education. All of the students came from a high-income background and all of their parents have a bachelor's degree or higher.

The sample for this study was composed of thirteen (the total made up my class) Pre-K children studying to master rhyming words and word families. They were expected to develop skills in recognizing rhyming words and word families in their literacy development.

### **Intervention**

This research study is vital in preparing for a future where learners will be helped, through visual arts, to easily learn rhyming words and discover word families while learning literacy skills. Therefore, for my intervention I started with a pre-test of ten questions, five questions relating to rhyming words and five questions relating to word

families.

### ***Word Families Intervention***

After data was collected from the pre-test, for the first week of the intervention, I began with the word families intervention in which the students and I worked in small groups using visual arts incorporated into the word family lessons. I used examples of art pieces by famous artists, paint, colored pencils, magazines, oil pastels, glue, scissors, clay, and more during the teaching of these lessons. For example, we did a small group lesson on the word family -it. We made a “kit” using clay and when the clay dried, we painted it white to make it look like a first aid kit. Then we placed items that go in a first aid kit such as Band-Aids, gauze, etc. For this lesson, we also used yarn to learn how to knit then drew with colored pencils other words that belonged in the “it” family such as: sit, mit, and hit.

For the second week of the intervention my students had to work together to produce a word family poster. I started by splitting the students into three groups of three and one group of four (total of thirteen). Once they were split up randomly, I explained to them that we will be working on word families for the next two weeks and that each group will be assigned a word family. The word families that were given out were: -ip, -an, -it, and -ar. After each group had their word family, they worked together to make a list of words that belonged in their word family. Once they had their list of 5-8 words, they created a visual arts poster together. Using markers, crayons, paint, magazine clippings, and 3D objects. They worked together to make their poster to represent the words and to explain the words that belong in their word family. For the poster, they decided what materials they wished to use. They could use posterboard, construction

paper, cardboard, and foamboard. For all of the materials I left it up to them to elect as a group what they preferred to use. After they finished their poster, they then had to agree how they were going to present the project to their classmates. I explained to them that they could use performing arts to perform the word family from their poster to the class. They were able to determine if they wanted to act out the words, sing the words, dance the words, or play music to the words. Once they established what they needed to do, they then practiced, and I provided them with any materials they desired to use. They then performed their word families to the class and presented their posters.

### ***Rhyming Intervention***

For the rhyming intervention, for the first week, the students and I worked in small groups using visual arts incorporated into the rhyming lessons. I used examples of art pieces by famous artists, paint, colored pencils, magazines, markers, glue, scissors, clay, cardboard, and other items during the teaching of these lessons. For example, we looked at *The Starry Night* by Vincent Van Gough and made a list of words that rhymed with “night.” For the words that the students came up with such as: light, kite, bite, height, and white, students did a variety of different things to represent each word. They colored with a white crayon on black construction paper, they cut out pictures from a magazine of a kid biting into a sandwich, they made a kite out of paper using scissors, string, glue, and colored pencils, they drew a lightbulb and fire to represent light, and they had their height marked on a piece of paper on the wall inside of the classroom, in which they placed a drawing of themselves beside their height.

For the second week of the intervention my students had to work individually to create a rhyme box. Each student was given a word in which they had to figure out three

words that rhymed with their word. Once they had all three of their rhyming words, they were given visual arts materials to use to create art that matched their words in a two-week span. For example, if their word was hat and they rhymed it with cat and bat, they could use clay to create a hat, make a colleague of cats, and paint a bat. Then, once they had created all of their rhyming words, they then made a box to hold all of their rhyming words together. For example, they could use a shoebox to place their rhyming word visual arts pieces and on the top of the box they would write: “Words that rhyme with \_\_\_\_\_ (the word I gave them would go here).” I again provided them with all the materials and any other items in which they asked for. I also allowed for them to have the freedom to design and use whatever products they wished.

After all of this was completed in a four-week span of time, I then gave them the post-test and it was the same test as the pre-test with the same questions, ten questions total with five-rhyming questions and five-word family questions.

**Table 3.1** *Intervention Chart*

| <b>Word Families (2-weeks)</b>  | <b>Rhyming (2-weeks)</b>  |
|---|---|
| Students were split into groups.  | Each student completed this independently.  |
| Groups were given a word family.  | Each student was given a word in which they had to figure out words that rhyme with their given word. |
| Groups made a list of words and created a visual arts poster together to show the words that belonged in their word family. | Students made their words using visual arts.  |

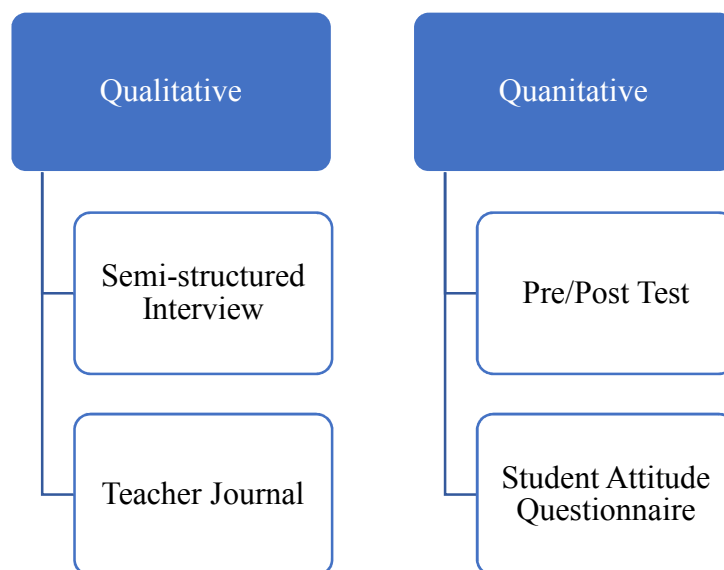
Students presented their poster to the class using some kind of performing arts to do so.

Students designed a rhyme box to place their words and pieces of art in.

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### Data collection instruments

To determine the impact of the visual arts interventions on rhyming words and word families, multiple sources of data were utilized. Data were collected during the second semester of the 2021-2022 school year, between March and April of 2022. I used multiple sources of data to ensure I was able to provide a complete picture of the teachers' and students' perceptions of the visual arts interventions; these instruments included one individual semi-structured interview with my co-teacher, journal entries from my observations of the interventions in the classroom during the visual arts implementation, the students' attitude questionnaire and the results from the post-test.



**Figure 3.1** *Data Collection Instruments Figure*



## **Qualitative**

### ***Semi-structured interview***

My semi-structure interview consisted of five-questions (Appendix C) in order to see the opinions of my co-teacher on how she felt the interventions went and suggestions for the next set of interventions that could be done with other subject areas.

### ***Teacher Journal***

I used a notebook each day after my interventions to document my observations. The journal entries were unstructured and just my personal opinions on how well the interventions were going or if anything needed to be adjusted for the next day the intervention was to take place.

## **Quantitative**

### ***Pre- and Post-Test***

The pre- and post-test (Appendix A) consisted of ten questions, five questions relating to rhyming words and five questions relating to word families. The tests involved students cutting and gluing words into the appropriate word families, matching rhyming pictures by drawing lines to match the pictures, coloring in the correct picture that matched the picture of a rhyme word, verbally telling me a word that rhymed with the provided word, and verbally telling me two words that go in a certain word family.

### ***Student Attitude Questionnaire***

The five-question student attitude questionnaire (Appendix B) to my students about their attitude on the experience. I wanted to see how the students felt after each intervention and if they noticed using visual arts helped them to grasp word families and rhyming words. For each question, there was a happy face, unsure face, and sad face

underneath the question and the students were instructed to color in the face that best portrayed how they felt.

**Table 3.2** *Data Collection Instruments*

| <b>Research Question</b>  | <b>Data Collection Instrument</b> | <b>Type of Data</b> |
|---|-----------------------------------|---------------------|
| What effect will the incorporation of visual arts instruction have on Pre-K students' achievement in recognizing and producing rhyming words? | Pre- and Post-Test                | Quantitative        |
|   | Teacher Journal                   | Qualitative         |
| What effect will the incorporation of visual arts instruction have on Pre-K students' achievement in recognizing and producing rhyming words? | Pre- and Post-Test                | Quantitative        |
|   | Teacher Journal                   | Qualitative         |
| What are the students' attitudes towards the incorporation of visual arts in learning rhyming words and word families?                        | Student Attitude Survey           | Quantitative        |
| What are the perceptions of the co-teacher about using visual arts to teach rhyming words and word families to students?                      | Teacher Interview                 | Qualitative         |

### **Pilot Study**

By doing a pilot study it allows for me to take the time to critique and test my data

collection instruments on a smaller scale, allowing me to see if I need to make adjustments with my instruments before I complete the full study (Wright, 2021). I decided to use my pilot testing on my student questionnaire and my pre-test to make sure that the questions for both instruments were appropriate for a three and four-year-old to understand. I choose to test the tools with a group of five students in my current Pre-K class in the fall, at the beginning of the school year. I had these five students complete only the pre-test and not the post-test since they are the same. The five students were able to answer the ten questions on the assessment without any issues and the questions were appropriate for their ages. They understood what they were supposed to do and they were able to cut and glue the words in the appropriate columns for rhyming words, they were able to name two words that belonged in a specific word family, they were able to color the picture that rhymed with a picture, and they were able to draw a line from one picture to another as well as tell me a word that rhymed with a specific word.

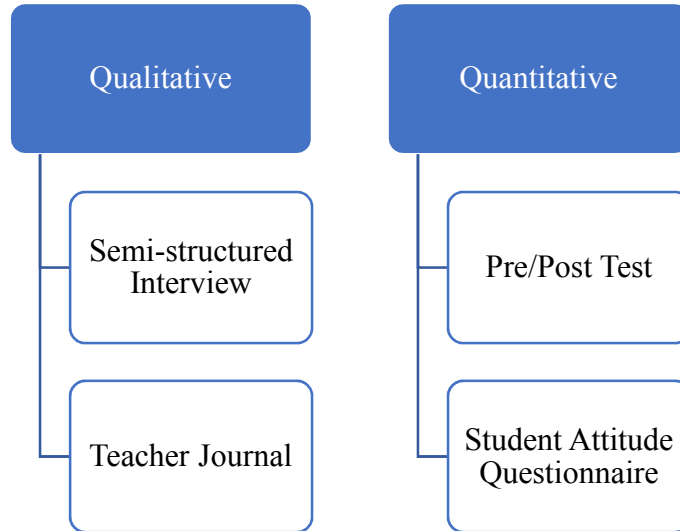
I also decided to pilot test a student questionnaire to see if students were able to understand the faces that represent different feelings on the questionnaire. Before I gave the students an attitude questionnaire, I showed the students the different faces: a happy face, a unsure face, and a sad face and when I showed each one of the faces, I described to them what they meant and had them to make those same faces. I explained that a happy face meant that they enjoyed the experience and it made them feel happy and excited. I explained that the unsure face meant that they did not quite know if they liked the project or not and that if they were confused about anything this would be the face to fill in. I explained that the sad face meant that they felt sad and unhappy about the project and experience and that they did not like it. I then had the students complete a rhyming

activity and after they completed the activity, I gave them a five-question questionnaire with the happy face, unsure face, and sad face underneath each question and when the question was asked, I directed them to color in one face that reflected how they felt about the rhyming activity they just did. All five of the students were able to color in one face that represented how they felt for each question. This helped to show me that my students understood the questionnaire and how to color in the faces. So, therefore for my study they would be able to complete the attitude questionnaire for the rhyming and word family interventions.

Lastly, I decided to pilot test the teacher interview questions by having another teacher to look over the questions to make sure that they were clear and precise and that she could understand them. After she took a look at the interview questions, she relayed to me that she felt they were clear, precise, and appropriate for my study.

### **Data Collection Methods**

Prior to the intervention, I assessed students on rhyming words and word families and collected each student's initial score. Once the initial data was collected the intervention was divided into two two-week interventions (4 weeks total), targeted instruction during these interventions, using visual arts to teach rhyming words and word families, and visual arts-based integrated instruction during interventions for both targeted rhyming words and targeted word families. At the conclusion of both interventions, students were given the post-assessment to determine the effectiveness of the interventions.



**Figure 3.2** *Data Collection Methods Figure*

### **Qualitative**

#### ***Semi-structured Interview***

After the interventions were completed and the research was finished, I sat down with my co-teacher and interviewed her with a brief five-question interview. The interview took about 20 minutes and was recorded on my phone as well as hand-written down beside the questions on paper using a pen and then transcribed by Rev transcript software into a PDF form. By completing an interview with my co-teacher at the end of my research is useful for getting the story behind her experiences as a participant. As the interviewer, I was able to pursue in-depth information around the topic. Interviews can also be useful as follow-up to certain respondents to questionnaires, e.g., to further explore their responses (McNamara, 1999).

#### ***Teacher Journal***

Each day after the interventions were implemented, I wrote my teacher

observations down in a teacher journal without prompts or anything, just straight my observations for that day. By using the teacher journal throughout my research, it became a tool for reflection in the midst of making choices, which is also referred to as reflection-in-action (Boutilier and Mason, 2012). The research journal can assist the researcher in acknowledging emotions, expressing them, and particularly seeing where these emotions threaten the progress of the research, analyzing and reacting to them after the interventions are completed for the day (Annink, 2016).

## **Quantitative**

### ***Pre-Test***

Prior to the intervention, I assessed students on rhyming words and word families and collected each student's initial score with my pre-test. Students used pencils, scissors, glue, and crayons to complete their pre-test. For the word family questions 1-4, I had them do a word family sort in which they matched four pictures to the correct word family. The first column was -ip words and the second column was -an words. They then sorted these four cards: fan, zip, pan, chip. For question five for word families, I had them name two words that belong in the word family -ar. For all of the word family questions, I had to explain the directions several times and I had to tell them the names of the pictures that they didn't recognize.

For the first rhyming question, I asked them to color the picture that rhymed with the first picture "cat." For the second question I asked them to color in the picture that rhymed with the first picture "mop." For the third and fourth question, I had them draw a line from one picture to another picture that rhymed with each other. For the last rhyming question, I asked them to tell me a word that rhymed with the word: "wig" and I wrote

their response down with a pen. For all of the rhyming questions, I had to explain the directions several times and I had to tell them the names of the pictures if that they didn't know.

### ***Student Attitude Questionnaire***

I also gave the student's an attitude questionnaire with five questions after the research was complete. This student attitude questionnaire looked to see if the students had an enjoyable learning experience while using visual arts to learn rhyming and word families. For each question, there was a happy face, unsure face, and sad face for them to color in.

### ***Post-Test***

At the conclusion of each intervention students were given the post-assessment (same questions as the pre-test) to determine the effectiveness of the intervention.

### **Data Analysis**

As expressed, this study utilized a mixed-methods research design. Both qualitative and quantitative data were collected, examined, and collated throughout the research study with the aim of answering the study's research questions.

### ***Qualitative Data Analysis***

After each intervention (2 weeks for each one, 4 weeks total), I arranged and composed the answers from the teacher interview and teacher observations in the journal, and then devised and coded it frequently until categories and themes emerged. According to Linneberg & Korsgaard (2019), coding in its most basic form is the straightforward operation of identifying segments of meaning in your data and identifying them with a code (also known as codifying), then arranging information into orderly categories to

allow researchers to better group and examine data. Creswell (2018) recommends using the coding process to produce a description before finally making meaning from the data either through personal evaluation or through a theoretical lens.

To begin the qualitative data analysis process, I began by organizing and composing the different types of data (Creswell, 2018). The recorded interview was transcribed by Rev transcription software and handwritten notes were used from the teacher's journal. Creswell (2018) states the intent of the data examination stage is to make sense out of all the data; it involves examining the data from front to back and then back to front again. Saldaña (2014) advises assigning a code, a word or a simple phrase, to further recognize the essence of the information, with the main goal of finding solidity and patterns of action. Codes should be looked at over and over with qualitative data until themes emerge. I used in vivo coding which entailed placing emphasis on finding themes from the actual spoken words of my co-teacher (John, 2012). Themes and sub-themes that emerged from the co-teacher interview are summarized in Chapter 4.

### ***Quantitative Data Analysis***

I used score percentages to determine whether a notable variation between the students' pre-test and post-test scores on the Word Families and Rhyming Assessment was present. Finding the score percentages help to measure the statistical variance between pre-test and post-test scores on the matching test obtained for the same students (Efron & Ravid, 2013). A remarkable increase in the students' scores from the pre-test to the post-test stipulates the value of the word family intervention and rhyming intervention. I will also compare the final score of the post-test to a failing or passing scale using the standard grading scale for North Carolina. By using the passing and



failing scale I can compare the final scores to see if the interventions were successful. For the Student Attitude Questionnaire, I will calculate the number of happy faces, unsure faces, and sad faces to see if the students felt that the interventions were helpful and if they learned what rhyming words were and word families were.

### **Procedures and Research Plan**

This action research study took approximately four to five weeks to complete once Institutional Review Board (IRB) approval was granted. The time period included the sending of the invitation letters, the pre-test before the interventions began, two weeks for the word families intervention, two weeks for the rhyming intervention, the co-teacher interview, the student attitude questionnaire, the post-test, analysis, and writing of the results.

**Table 3.3** *Procedures*

| <b>Data Collection</b>  | <b>Intervention (4 weeks total)</b>   | <b>Data Analysis</b>   | <b>Final Report</b>   |
|---|---|--|---|
| The data from the pre-test was collected the week before the interventions took place.                            | First intervention on word families-took place the week after the pre-test was completed (2 weeks). | After the post-test, teacher interview, student attitude survey, and teacher observations. | Created a report to discuss the interventions and if they worked or not.      |
| They were scored and put into a Microsoft Excel spreadsheet. I used this data to start my research on this topic. | Second intervention on rhyming words-took place after the first intervention (2 weeks).             | I then analyzed and scored (as needed) all four of these.                                  | Then I discussed future changes that could be made with future interventions. |

### ***Triangulation of the Data***

Carter et al. (2014) explains triangulation as the usage of multiple measures and methods in dealing with empirical phenomena. The method arises out of ethical concerns in ensuring the validity of cases and processes and can hence be achieved through the utilization of multiple sources of data, methods, and informants. For instance, the use of the class of thirteen Pre-K learners in the research and also the use of different interventions for analysis of their performance concerning the use of visual arts is critical to avoid bias and in the gathering of multiple results and information. Triangulation is, therefore, used to analyze whether the available data corroborates, hence determining their validity. Carter et al. (2014) explains triangulation as the usage of multiple measures and methods in dealing with empirical phenomena. The method arises out of ethical concerns in ensuring the validity of cases and processes and can hence be achieved through the utilization of multiple sources of data, methods, and informants. Triangulation is, therefore, used to analyze whether the available data corroborates, hence determining their validity.

### ***Rigor and Trustworthiness***

To present research that is trustworthy the reader of the research report must judge it to be so (Gunawan, 2015). Hence, I have to present data using tools that are meaningful and useful to support my research therefore both qualitative and quantitative data were collected as part of this research. The quantitative tools were matched with the Ivy Academy standards and reviewed by me and my co-teacher. Data was collected prior to and after the intervention in a quiet classroom environment and the same materials were used that were familiar to the participants (Ayers, 2020).

### ***Researcher Reflexivity***

By disclosing, discussing, and addressing my biases in the section on positionality, and indeed, in the whole research process, I am contributing to researcher reflexivity, “whereby researchers report on their beliefs, values, and biases that may shape their inquiry” (Creswell & Miller, 2000, p. 127). In turn, this contributes to the process of validity.

### ***Peer Debriefing***

I worked with a team my co-teacher who was inclusive within decision making in our classroom we share together. We were always eager and able to provide assistance and contest if needed about our ideas and methods. I also worked with my mentor from the University of South Carolina who provided much needed feedback and encouragement during this process and we also shared objectives and had several discussions. My co-teacher, my mentor, and I all provided support, played the devil’s advocate...and asked the hard questions about methods and interpretation for the qualitative data (Creswell & Miller, 2000).

### **Ethical Considerations**

Creswell and Creswell (2018) state that researchers have to protect their research participants, develop an assurance with them, promote the honesty of the research, and protect against misconduct and impropriety. To this end, I kept in mind various ethical considerations (Ayers, 2020).

Prior to the intervention, I sought approval for my study from the university’s institutional review board and then the principal of Ivy Academy. Once the study was approved, I provided the parents of the with a consent form. Because of my role as the

Pre-K teacher, I worked directly with my co-teacher (whom I mentor) and students. Creswell and Creswell (2018) warn against any possible power imbalances, and while researchers cannot always heed this advice, I made it clear that this was a voluntary study, and the results, whether positive or negative, would not in any way impact her position as a mentee and/or impact my students' assessments on standards. Finally, I used pseudonyms for the school and all participants to protect their identity and guaranteed to respect their anonymity through each step of the process (Ayers, 2020).

Ethical standards, an approval from the IRB, and use of participants takes part in a critical role when conducting research (Merle, 2014). Prior to beginning the research study, information was shared with parents, including the description of the study (Appendix E). Permission forms (Appendix F) were distributed for parents to allow their students to participate in the study. Confidentiality was also a critical aspect of the study. Since data collection consisted of students' pre- and post-test scores, data was collected using a confidential system. At the beginning of the study participants were assigned a different name other than their actual name. Only the participant-researcher knew the correlation between the participants and different names. The collected data was kept in a locked file cabinet in a secure location, which was only accessible by the participant-researcher (Tucker, 2017).

## **Summary**

This action research study revolved around my practice as a Pre-K educator and my own goals as a teacher through providing these interventions to help students grasp word families and rhyming words to build their literacy skills up. These interventions were conducted and evaluated using a mixed-methods study design. A mixed-methods

study collects both open-ended (qualitative) and closed-ended (quantitative) data as an answer to the research questions. The two forms of data were combined after sequential data collection occurred. Several steps were taken to avoid validity threats because of my insider position to this study. The study was conducted with two interventions over the span of four weeks. The phases of the study included a word families intervention and a rhyming intervention. The quantitative phase is included to measure the effectiveness of both interventions through the post-test results compared to the pre-test results. The qualitative phase employs data collection measures to capture the rich nature of the interventions and how students may have experienced them as well as how my co-teacher perceived the interventions.

Action research is a method of study to improve one's own practice. As an insider to my research, several risks of validity must be addressed. These threats include researcher bias and power differentials. To alleviate these hazards, several aids were employed including multiple forms of data collection and types of data collection in addition to teacher reflections. Data collection began in the Spring of 2022 and ended after the four weeks of interventions took place.

In summary, this study employed a mixed approach in the collection of both qualitative and quantitative data. This chapter hence looked at the sample (which involved five Pre-K children) and various intervention measures applied. It also discussed in details the setting, methods, the action research approach applied, the instruments of data collection used, how the data were analyzed (in particular the use of triangulation method), the procedures followed to conduct the research, and the rigor and

trustworthiness of the data collected.

## CHAPTER 4

### FINDINGS

This action research was designed to help students with literacy skills by using visual arts to teach rhyming words and word families to Pre-K students ages three and four. Teaching rhyming words using visual arts and teaching word families using visual arts were the two targeted skills for this research. The research attempted to answer the following research questions:

1. What effect will the incorporation of visual arts instruction have on Pre-K students' achievement in recognizing and producing rhyming words?
2. What effect will the incorporation of visual arts instruction have on Pre-K students' achievement in recognizing and producing word families?
3. What are the students' attitudes towards the incorporation of visual arts in learning rhyming words and word families?
4. What are the perceptions of the co-teacher about using visual arts to teach rhyming words and word families to students?

Mastery and understanding of rhyming words and word families are essential for students to help build their vocabulary which entails to assist them in learning how to read. Rhyme awareness is a significant help in the development of phonological awareness in the case of beginning readers (Grofčíková & Máčajová, 2021). Students who are able to recognize phonemes fast are able to read more fluently and are able to

hear and control sounds that make up the sequences of spoken sounds (Genelza, 2022). During the two years that I had been Pre-K teacher, observation and student data demonstrated a difference in students' development in reading skills. This action research was designed to support mastery in rhyming words and word families. I wanted to discover if integrating visual arts when teaching rhyming words and word families can support Pre-K students in remembering these phonological skills.

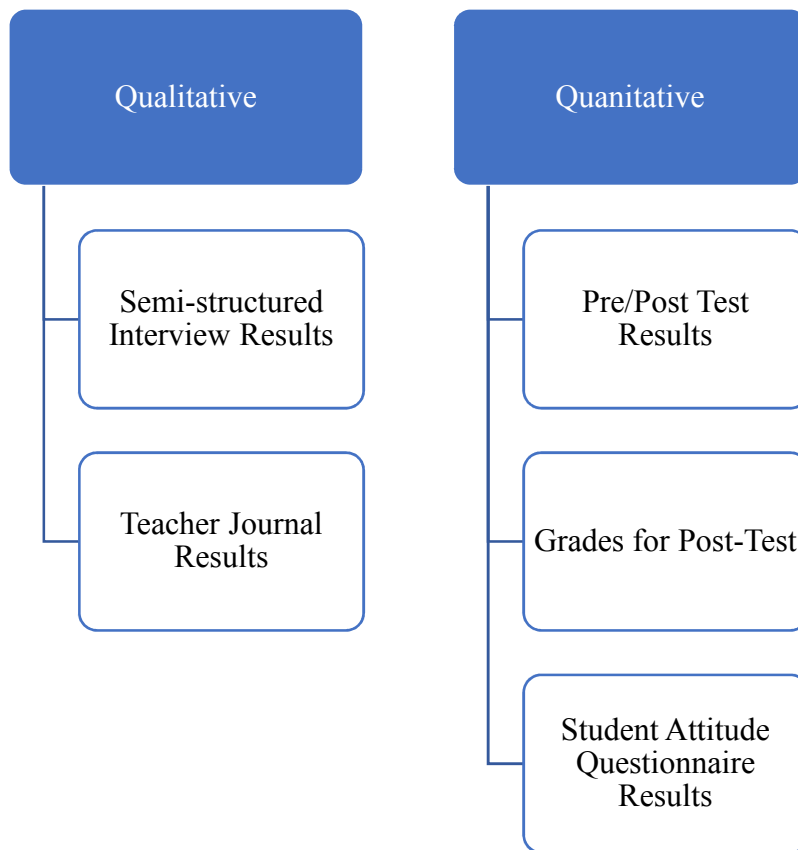
Phonological awareness is the ability to pay attention to the sound structure of words, to divide and manipulate sounds just like word families and rhyming words (Grofčíková & Máčajová, 2021). Phonological awareness is among the most powerful predictors of subsequent word reading ability (McBride-Chang, 1995). While researchers have recognized the importance of using visual arts to help teach, there is little evidence for determining best practice for rhyming words and word families in the classroom. Understanding the developmental needs in literacy for students, should be a primary consideration when developing instructional strategies and using visual arts. The interventions used were designed to include visual arts to help students learn rhyming words and word families.

The research was conducted in my Pre-K classroom in a private pre-school in a large city. The class had 13 total students all of whom had not mastered rhyming words or word families before the interventions. A deep understanding of using different visual arts to teach students rhyming words and word families is critical to see how Pre-K students and other students in the future can have academic success when learning using visual arts.

### **Interpretations of Results**



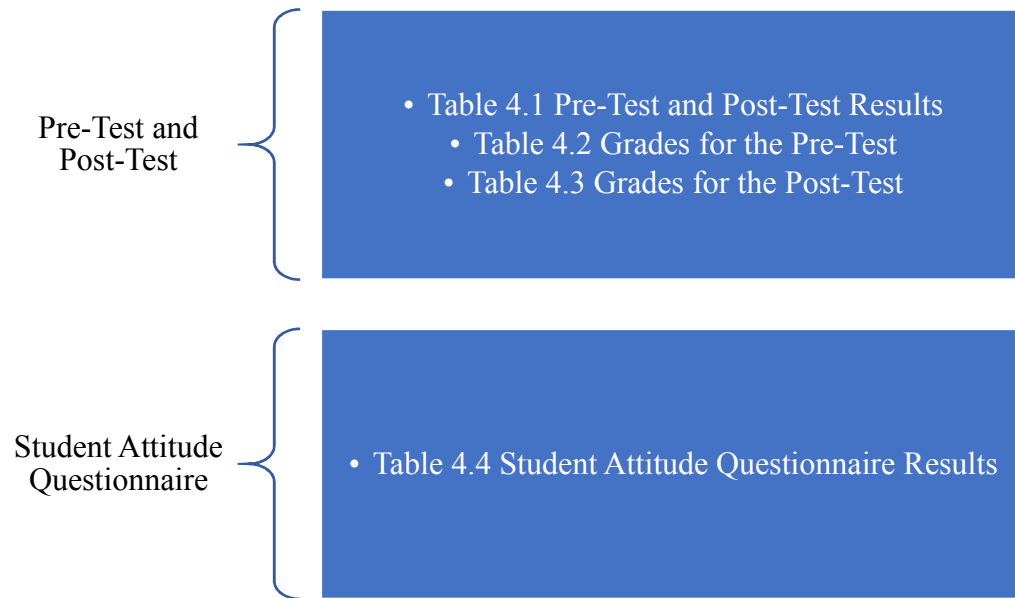
This research applied both quantitative and qualitative methods to explore the impact of the interventions used to help students learn rhyming words and word families using visual arts. For the quantitative results a pre- and post-test were used as well as a student attitude questionnaire. The qualitative results emerged from a semi-structured interview with the co-teacher and teacher observations. Figure 4.1 below shows the different data instruments used.



**Figure 4.1** *Data Collection Instruments*

### **Quantitative Data Analysis**

Figure 4.2 below shows the tables representing the results of each of the quantitative results.



**Figure 4.2** *Quantitative Data*

***Pre-Test and Post-Test for Rhyming Words and Word Families***

All the students in the class participated in this study. Prior to the intervention, they all struggled with recognizing and producing rhyming words and word families. I created a pre-test with eleven questions with six of the questions relating to word families and five of the questions relating to rhyming words. The post-test answered the first two research questions:

1. What effect will the incorporation of visual arts instruction have on Pre-K students' achievement in recognizing and producing rhyming words?
2. What effect will the incorporation of visual arts instruction have on Pre-K students' achievement in recognizing and producing word families?

**Table 4.1** *Pre-Test and Post-Test Results*

| <b>Students</b>   | <b>Pre-Test Scores</b> | <b>Post-Test Scores</b> | <b>Change from Pre to Post</b> |
|-------------------|------------------------|-------------------------|--------------------------------|
| Student 3         | 55%                    | 73%                     | +18                            |
| Student 7         | 73%                    | 91%                     | +18                            |
| Student 11        | 45%                    | 73%                     | +28                            |
| Student 1         | 36%                    | 73%                     | +37                            |
| Student 12        | 45%                    | 82%                     | +37                            |
| Student 13        | 18%                    | 64%                     | +46                            |
| Student 4         | 27%                    | 73%                     | +46                            |
| Student 10        | 36%                    | 82%                     | +46                            |
| Student 6         | 18%                    | 82%                     | +64                            |
| Student 9         | 18%                    | 82%                     | +64                            |
| Student 5         | 36%                    | 100%                    | +64                            |
| Student 8         | 27%                    | 100%                    | +73                            |
| Student 2         | 18%                    | 100%                    | +82                            |
| Total Students:13 | Average Score:<br>35%  | Average Score:<br>83%   | Average Change:<br>+48         |

The findings presented in Table 4.1, show an increase in student achievement for all of the students. All 13 students showed improvement between the pre-assessment and post-assessment. Students had anywhere from a 16- to 82-point increase, with an average

increase of 47.9 points. Based on the data collection, student 2 had the highest increase and was one of the students with the lowest percentage scored on the pre-assessment with only scoring an 18%. Student 2 then scored a 100% on the post-test assessment showing a +82 points. This shows that that the interventions used for rhyming words and word families with visual arts had the most impact in Student 2 because this student gained the most information and performed one of highest scores on the post-test of scoring a 100 or an “A.” Student 3 and student 7 had the smallest increase of +18 points from the pre-assessment to the post-assessment. These two students though had the smallest increase from the pre- to post-test they still gained points from the pre- and post-assessment but also had better scores on the pre-test than all of the other students. So, it was expected that if that gained points from the pre- to post-test it may be smaller than the rest of the students because they had higher scores on the pre-test compared to all other students. Overall, there was an increase in student achievement for all of the students, as indicated by the pre- and post-assessment results.

Below tables 4.2 and 4.3 show how the pre-test and post-test percentages in equivalence to their letter grade. I used the North Carolina (NC) grading scale for elementary students for the post-test results. The NC grading scale is as follows: A = 93-100, B = 85-92, C = 77-84, D = 70-76, and F = Below 70.

**Table 4.2** *Grades for the Pre-Test*

| Students  | Pre-Test Percentage | Grade |
|-----------|---------------------|-------|
| Student 2 | 18%                 | F     |

|            |     |   |
|------------|-----|---|
| Student 6  | 18% | F |
| Student 9  | 18% | F |
| Student 13 | 18% | F |
| Student 4  | 27% | F |
| Student 8  | 27% | F |
| Student 1  | 36% | F |
| Student 5  | 36% | F |
| Student 10 | 36% | F |
| Student 11 | 45% | F |
| Student 12 | 45% | F |
| Student 3  | 55% | F |
| Student 7  | 73% | C |

---

Based on Table 4.2 all of my students 1-6 and 8-13 made a failing grade on the pre-test and only one student, student 7, made a passing grade of a “C,” with 73%. This showed me that the students did not know much about rhyming words and word families and although student 7 did know some of the material, student 7 had room for improvement. After the interventions were done for four weeks, the post-test which was the same as the pre-test was given and the results in grade form are below in Table 4.3.

**Table 4.3** *Grades for the Post-Test*

---

| Students | Post-Test Percentage | Grade |
|----------|----------------------|-------|
|----------|----------------------|-------|

---

|            |      |   |
|------------|------|---|
| Student 13 | 64%  | F |
| Student 1  | 73%  | D |
| Student 3  | 73%  | D |
| Student 4  | 73%  | D |
| Student 11 | 73%  | D |
| Student 6  | 82%  | C |
| Student 9  | 82%  | C |
| Student 10 | 82%  | C |
| Student 12 | 82%  | C |
| Student 7  | 91%  | B |
| Student 2  | 100% | A |
| Student 5  | 100% | A |
| Student 8  | 100% | A |

---

Based on Table 4.3 students 1, 3, 4, and 11 all made a “D,” with scores of 73% and they are the students who make up the below average small group. The below average small group is made up of the students who perform lower than standard and need extra time with their work. Student 1, is a student whose English is a second language and has trouble learning due to English not being the student’s first language. Student 3 is the student who loses focus sometimes and can become easily distracted. Student 4 gets easily frustrated when learning something new. Student 11 does a great job listening and following directions but is just one of the below-par students, meaning that

this students' score is below where the student should be for their age and meeting their academic standards.

Student 13 is the only student who did not making a passing grade on the post-assessment. Student 13 is also a part of my below average small group and is a student who moves around a lot and can have a hard time focusing. This student uses a yoga ball to sit on when working at the table to help the student focus and has a variety of fidget toys to use when needed.

Students 6, 9, 10, and 12 all made a "C," with scores of 82% and they are the students who make up my average small group. The average small group is made up of the students whose work was passable. Student 6 and Student 9 do well when they are interested in learning but if the topic does not interest them then can get distracted and lose concentration. Student 10 can get upset if things do not go their way and therefore can perform well at times but can do terrible at times with their work. Student 12 can speak two languages-Spanish and English, therefore can sometimes mix up new curriculum but is still able to catch on fast and score averagely.

Student 7 made a "B," with a score of 91% and students 2, 5, and 8 made an "A," with perfect scores of 100%. These students make up my high average small group. Student 7 has a sharp mind and can catch on very quickly however this student can be off-task at times which is why the student scores a lot of "B's." Student 2 comes from a family in which mom and dad push academics at home and believe highly in education. This seems to be part of the reason why this student performs very high when they learn new material. Student 5 and 8 are both students that are very motivated to learn and catch on very fast. They both ask a lot of questions when learning new materials and enjoy

competing with each other by answering questions.

Overall, although I had one student who failed, student 13, who scored 64% on the post-test but still made an increase from their pre-test to post-test of +46 shown in Table 4.1, all of the other students 1-12 made a passing grade. Students 1, 3, 4, and 11 all scored a “D” but all still had an increase in points from the pre- to post-test. Student 1 made a +37 increase, student 3 made a +18 increase, student 4 made a +46 increase, and student 11 made a +28 increase. But, with that being said I would like for students 1, 3, 4, and 11 to get their grade above a “D.” I had four students who made a “C” but were 3 points shy of making a “B.” The one student whom scored a “B” but also close to making an “A,” only being 2 points shy of this. These students with A’s, a B, and C’s all made a passing grade as well as my students with D’s.

Although 75% of the students scored a passing grade of “D” or higher, a “D” and “C” letter grade are still below average or close to average grades and reflect students who have some behavioral and focusing obstacles in which they try to navigate while learning. However, I would like to see their grades higher because the higher the score the higher their knowledge in phonological and phonetic awareness, which will help strengthen their beginning reading skills. Even though some students earned D’s and C’s, they still showed considerable growth from the pre-test to post-test, suggesting that the interventions did work because the change was positive for all of my students.

### ***Student Attitude Questionnaire***

The student attitude questionnaire was given at the end of the interventions before the post-test was given to all 13 students. This questionnaire was given to examine the attitudes of the students about the interventions they had done with visual arts with



rhyming and word families and if they felt they had learned what a rhyme was and what a word family was. The survey helped to answer the third research question which asked: What are the students' attitudes towards the incorporation of visual arts in learning rhyming words and word families?

**Table 4.4** *Student Attitude Questionnaire Results*

| Questions   | Happy | Unsure | Unhappy |
|---|-------|--------|---------|
| 1. Did you like using visual arts to learn?                                     | 85%   | 15%    | 0%      |
| 2. Do you know what rhyming words are?  | 77%   | 15%    | .08%    |
| 3. Do you know what a word family is?   | 54%   | 38%    | .08%    |
| 4. Did you like the visual and performing arts activity with the word families? | 92%   | .08%   | 0%      |
| 5. Did you like the visual arts rhyming activity?                               | 100%  | 0%     | 0%      |

When asked in question 1 if they liked using visual arts to learn, 85% of them

colored in the smiley face representing that they were happy using visual arts to learn and 15% were unsure if they liked using visual arts to learn. The results for question 1 revealed that the majority of the students enjoyed using visual arts to learn. Question 2 asked students if they knew what rhyming words were after finishing the interventions, in which 77% colored their happy face meaning “yes,” they knew what rhyming words were and 15% again were unsure if they knew what rhyming words were, these students were students 1 and 4 who are in my below average small group and may not have understood what was fully being asked in the question since student 1 is an ESL (English as a Second Language) student and student 4 gets easily frustrated when learning something new.

Established through question 2, 77% of the students understood what rhyming words were after the intervention. Students 1 and 4 again colored in the “unsure” face representing that they may have not understood the question and student 13, who has trouble focusing, colored in the unhappy face representing .08% exhibiting that they did not know what rhyming words were. This student may have been distracted when filling out the survey and also did not score well in the rhyming section on the pre- and post-test.

Question 3 asked students if they knew what a word family was after finishing the interventions, in which 54% colored a happy face showing “yes,” 38% colored in the unsure face in which they did not know if they knew what a word family was, and the same student from question 2, student 13, colored in the unhappy face, representing .08% that the student did not know what a word family was. I believe that this student could have been unfocused when filling out the survey as this student often is. Question 3 had the lowest percentage of 54% out of all the questions that shows that only about half of the students understood what a word family was. Among these students that filled in that

they understood what a word family was were my students from my above average small group, students 2, 5, 7, and 8, as well as three students from my average group which were students 6, 9, and 10. Student 12 from my average group and students 1, 3, 4, and 11 in my below average group, filled in that they were unsure if they knew what word families were, showing that they may not have understood the wording of the question as two of these students 1 and 12 speak two languages and student 3 can get easily distracted, student 4 can get frustrated when they do not know what the question is asking, and student 11 may have not fully understood what the question was asking.

For question 4 the attitude survey asked students if they liked the visual and performing arts they used in the intervention with word families, 92% colored in the happy face showing “yes” they did enjoy the intervention, .08% colored in the unsure face illustrating that they were unsure if they enjoyed the intervention, and 0% colored in the unhappy face which means majority of the students enjoyed the performing and visual arts intervention with word families. All of my students from my above average (students 2, 5, 7, and 8), average (students 6, 9, 10, and 12), and below average (students 1, 3, 4, 11, and 13) small groups colored in the happy face revealing that they all enjoyed the intervention for word families except for student 13 who colored the unsure face and was having a hard time focusing when filling out the survey.

Question 5 asked students if they enjoyed the visual arts intervention with rhyming words and all 13 students (1-13) equaling 100% colored in the happy face reporting that they all enjoyed the visual arts rhyming intervention. Drawn from the answers via questions 4 and 5, overall students were happy with using the visual arts intervention with rhyming words and with the visual and performing arts intervention

with word families.

This survey shows a reflection of the students' attitudes in comparison to their post-test results as well. Overall students who scored higher in the rhyming section of the post-test reflected their positive attitudes on those questions relating to rhyming on the student attitude questionnaire which were questions 2 and 5. On the contrary, students who missed questions in the word family section on the post-test also reflected that in their attitude questionnaire with either an unsure face or sad face when answering questions 3 and 4. However when answering questions about their attitudes towards using visual arts for question 1 85% answered with happy faces as well as 92% for question 4 when using visual arts to learn word families and 100% when using visual arts to learn rhyming words. Table 4.5 below shows the answers from the student attitude survey and the students' scores from their post-test to compare attitudes and post-test results.

**Table 4.5** *Comparison of Student Attitude Survey Answers and Post-Test Scores*

| Students   | Q1 | Q2 | Q3 | Q4 | Q5 | Post-Test Percentage | Post-Test Letter Grade |
|------------|----|----|----|----|----|----------------------|------------------------|
| Student 13 | ☹️ | ☹️ | ☹️ | 😊  | 😊  | 64%                  | F                      |
| Student 1  | 😊  | 😊  | 😊  | 😊  | 😊  | 73%                  | D                      |
| Student 3  | 😊  | 😊  | ☹️ | ☹️ | 😊  | 73%                  | D                      |
| Student 4  | 😊  | 😊  | 😊  | 😊  | 😊  | 73%                  | D                      |
| Student 11 | 😊  | ☹️ | ☹️ | 😊  | 😊  | 73%                  | D                      |
| Student 6  | 😊  | 😊  | ☹️ | 😊  | 😊  | 82%                  | C                      |
| Student 9  | 😊  | 😊  | 😊  | 😊  | 😊  | 82%                  | C                      |

|            |   |   |   |   |   |      |   |
|------------|---|---|---|---|---|------|---|
| Student 10 | 😊 | 😊 | 😊 | 😊 | 😊 | 82%  | C |
| Student 12 | 😊 | 😊 | 😊 | 😊 | 😊 | 82%  | C |
| Student 7  | 😐 | 😐 | 😞 | 😊 | 😊 | 91%  | B |
| Student 2  | 😊 | 😊 | 😐 | 😊 | 😊 | 100% | A |
| Student 5  | 😊 | 😊 | 😐 | 😊 | 😊 | 100% | A |
| Student 8  | 😊 | 😊 | 😊 | 😊 | 😊 | 100% | A |

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As shown in the chart above, student 8 who scored 100% had a happy face on all 5 questions on the questionnaire. Students 5 and 2 who scored a 100% on the post-test as well had four happy faces on the survey and one unsure face. The unsure face was for question 3 that asked if students knew what a word family was after the interventions. As I stated above, several of my students gave an unsure face or sad face for this question because I believe they did not fully understand the wording of the question. Student 7 who scored a 91 had two unsure faces for questions 1 and 2, and a sad face for question 3, as well as a happy face for questions 4 and 5 which reflects the sections on this student's post-test in which they missed 1 question in the word family section. Students 12, 10, and 9 attitudes were all happy faces for all 5 questions, and they all scored an 82 that is an average score and a good reflection of their attitudes as well. Student 6 also scored an 82 and had a happy face for questions 1 and 2 as well as questions 4 and 5 but had the unsure face for question 3. Student 11 scored a 73 and had 2 unsure faces for questions 2 and 3, and happy faces for questions 1, 4, and 5. Student 4 scored a 73 on the post-test and answered with all happy faces for the attitude survey. Student 3 scored a 73 as well on the post-test and answered with a happy face for questions 1, 2, and 5, but had

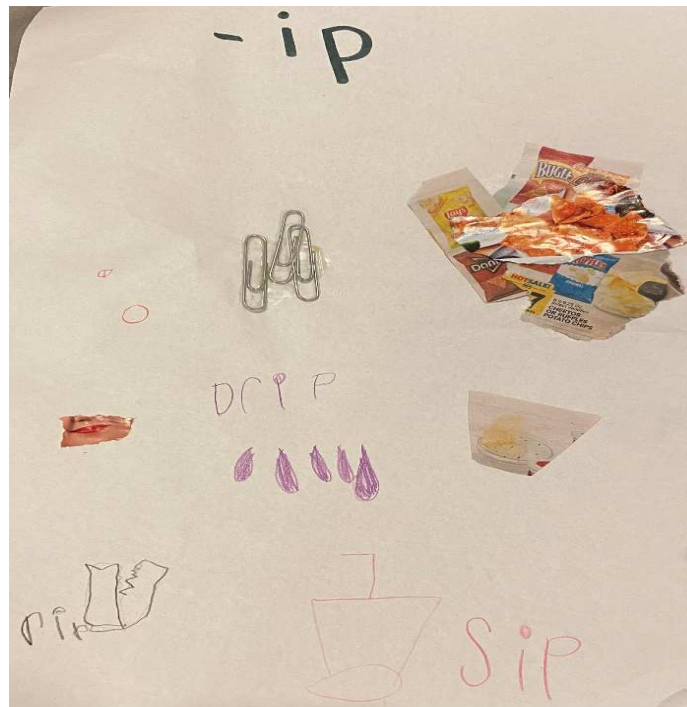
an unsure face for questions 3 and 4. Student 1 scored a 73 and answered all 5 questions on the student attitude survey with all happy faces. Lastly, student 13 scored a 64 and answered question 1 with an unsure face, question 2 with a sad face, question 3 with an unsure face, and questions 4 and 5 with a happy face. Overall, the students' attitudes seem to reflect how they felt they improved and learned, showing a positive attitude even if their post-test was not high, they still made growth and their attitudes show a reflection of that. I also feel that the wording of the questions may have not been understood by all students because students with high scores still had unsure and sad faces in some areas of the questionnaire.

The pre-test results showed that overall, my students did not know how to recognize and produce rhyming words and word families. But after the interventions were finished, the results from the post-test and the student attitude survey showed that the use of incorporating visual arts when learning rhyming words and word families was successful because 100% of the students enjoyed using the visual arts to learn these skills and 92% of the students passed their post-test. With 92% of my students passing their post-test showed a significant change from the pre-test to post-test and that the interventions proved successful.

Based on the answers from my student attitude survey I was able to conclude that student

During the interventions, students learned about word families and rhyming words in small group instruction incorporating the use of visual arts during these lessons. For the second week of the word families intervention, students created a word family poster. As well as for the second week of the rhyming intervention, students created a

rhyme box. With both projects, students used visual arts to help them learn these skills and complete their work. Figures 4.3 and 4.4 show an example of each. These projects were not graded because of the age group of the students and the complexity of the projects the students, required a lot of help from the teachers. With the help from the teachers, the graded work would be bias and not give a true grade for the project in which I could reflect in my findings.



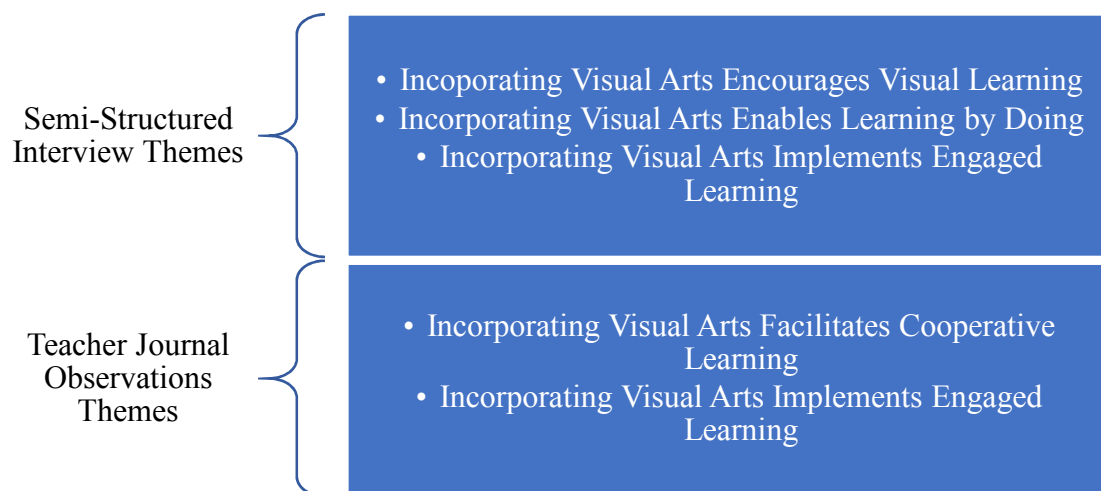
**Figure 4.3** *Word Family Poster*



**Figure 4.4** *Rhyme Box*

### **Qualitative Data Analysis**

Figure 4.5 below shows the tables representing the themes of each of the qualitative results.



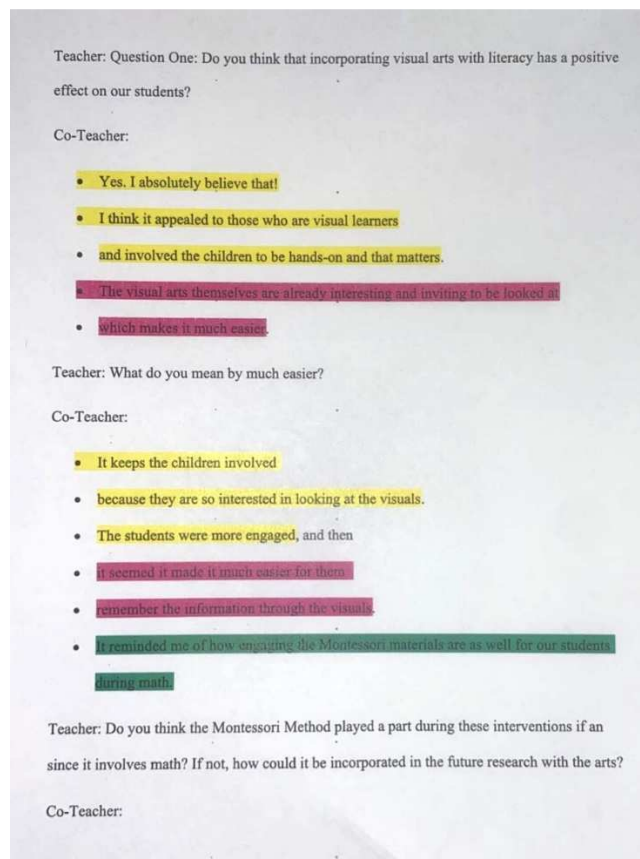
**Figure 4.5** *Qualitative Themes Emerged*

### ***Semi-structured Interview***

To find themes and sub-themes in my semi-structured interview, I used in vivo



coding. In vivo coding is a form of qualitative data that places significance on the actual spoken words of the participants (Manning, 2017). Accordingly, I placed an emphasis on my co-teachers' spoken words to find themes and sub-themes, and then I was able to develop three themes which emerged from the semi-structured interview. Using the co-teacher interview I was able to answer the fourth research question which asked: What are the perceptions of the co-teacher about using visual arts to teach rhyming words and word families to students? Figure 4.6 shows a page from the scripted co-teacher interview with codes highlighted to display the validity and trustworthiness of my coding.



**Figure 4.6** *Example of Coding the Co-Teacher Interview*

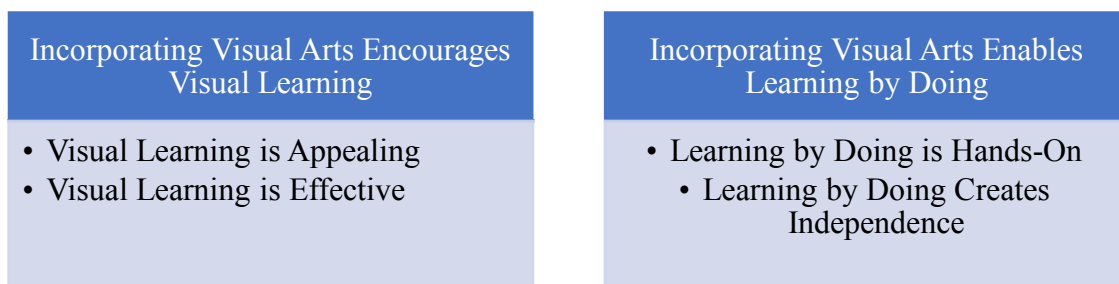
The first theme was Incorporating Visual Arts Encourages Visual Learning, where using visuals such as pictures and drawings helped to promote the learning of

verbal language (Moore & Dwyer, 1994). Therefore, my co-teacher found that our students used visuals to help them learn their rhyming words and word families.

The second theme was Incorporating Visual Arts Enables Learning by Doing, this is where students learn from experiences resulting from their actions where they (the students) can make the most of their education through actively participating in their learning (Mekonnen, 2020). My co-teacher reported that students were able to touch the visual art pieces, they were working with to help learn rhyming words and word family words.

The third (last) theme was Incorporating Visual Arts Enables Engaged Learning, in which students take responsibility for their own learning as well as actively thinking and formulating new ideas through conversational exchanges with other students (Hung & Khine, 2006). My co-teacher verbalized these thoughts on engaged learning in our interview in which she found that our students were able to focus and complete their projects with each other's help and through independently being in control of themselves.

With themes one and two, sub-themes emerged as well. Figure 4.7 shows you the sub-themes below.



**Figure 4.7** *Semi-Structured Interview Themes with their Sub-themes*

#### **Theme One: Incorporating Visual Arts Encourages Visual Learning**

The first theme that emerged during the coding process of the semi-structured

interview was Incorporating Visual Arts Encourages Visual Learning. Visual learning is a group of vision competencies a student can develop by seeing and at the same time having and integrating other sensory experiences (Moore, 1994) Also, through the creative use of these competencies' students are able to communicate with others (Moore, 1994). Visual learning in teaching has a positive effect on student learning outcomes (Kaswa, 2015). Two sub-themes that developed from visual learning were that incorporating visual arts is appealing and visual learning is effective.

### ***Visual Learning is Appealing***

Visual learning is appealing and according to the co-teacher it “helped those children who have different learning styles” (ways of learning) and “it appealed to those who are visual learners.” My co-teacher also thought that because of how appealing the visuals were that “visual arts could be used in all subjects!” My co-teacher found that incorporating visual arts had a positive effect on our students by captivating our students and grabbing their attention.

### ***Visual learning is Effective***

The second sub-theme that surfaced during the coding process of the semi-structured interview was the effectiveness of it. During the semi-structured interview, my co-teacher thought that the interventions of using visual arts to learn rhyming words and word families helped students to recall the information which they gathered during the interventions. “It seemed it made it that much easier for them (the students) to remember the information through the visuals,” meaning that the use of the visual arts helped students to remember the words that rhymed together and the different words that belonged in a specific word family list. “I did find that using the visual arts helped our

class remember the activities when asked to pull the information forward.” Specifically, she mentioned remembering one student who did not quite understand what a word family was but “then when asked what words are in the word family -ot, she was able to recall the visuals from the activities and answered correctly!” She continued to say that “the most beneficial part to the interventions was that the students could relate and recall easier when information was presented as a visual.” The visuals had the effect of “helping students to understand the similarities in the sounds of the rhyming words” and “to have students learn the memorization of recalling the word families helped with the visuals as long as the word was added next to the picture.” Also, “rhyming words also seemed to have the quickest effect using the visuals.”

According to my co-teacher using visuals, “was much more successful than just using the visual words.” If the words became overwhelming or learning through the listening is not preferred, using the visuals “was much more successful.” Using the visuals created more success when learning rhyming words and word families that it made it “much easier” and “it seemed it made it much easier for them.” Success “is something we encourage in the classroom” and using these visuals helped with the success of “them to understand the similarities and sounds of the rhyming words.” Overall using the visuals provided the students with the success to learn rhyming words and word families using visual arts.

### **Theme Two: Incorporating Visual Arts Enables Learning by Doing**

A second theme that appeared throughout the co-teacher interview was that the learning taking place using visual arts with rhyming and word families is hands-on and creates student independence which allows students to be in control of their own learning

as well as being productive through exploring and touching and feeling things. Two sub-themes that developed from visual learning were that incorporating visual arts enables learning by doing is hands-on and learning by doing creates independence.

### ***Learning by Doing is Hands-On***

The first sub-theme under learning by doing is hands-on. The learning that took place during the interventions “involved the children to be hands-on and that matters.” “Using the hands-on approach by allowing the students to touch the objects and materials to use” allowed the students to learn by doing because they were able to touch and feel what they were to be making and using with the visual arts. When the students were able to learn rhyming words and word families through using the visual arts materials and being hands-on “it was messy but so fun” and it allowed for the students to be involved in their learning and take pride in what they were doing which leads us to our second sub-theme under learning by doing.

### ***Learning by Doing Creates Independence***

The second sub-theme under learning by doing was that it creates independence. According to the interview with my co-teacher, students were able to “independently use tools in the classroom to accomplish their tasks.” The students “loved creating their own rhyme boxes with art materials” and because of this “our students had the freedom when making their own version of a word with materials as they interpreted it.” By completing tasks by themselves and having the freedom to work by themselves they were learning by doing but also, they were working as independent learners whom controlled their own learning. “Some were prompted by what they saw” when independently working and through working by themselves they “then became their own symbol of the words

regardless of their talent in creativity.” They were able to represent themselves through their work as individuals by learning by doing.

### **Incorporating Visual Arts Enables Engaged Learning**

Engaged learning allowed for students to actively participate in their own learning. This third theme that emerged throughout the co-teacher interview was that the learning taking place using visual arts with rhyming and word families is engaging and involves teamwork.

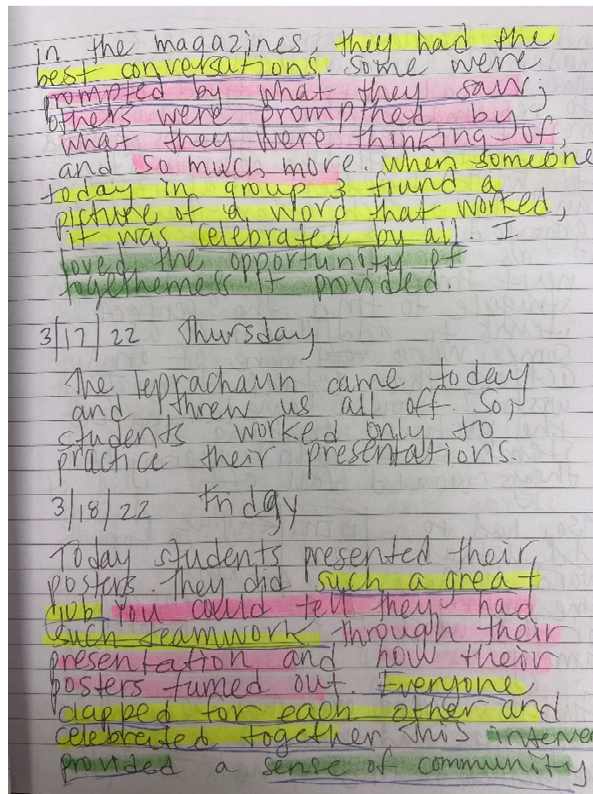
According to the interview with my co-teacher the interventions allowed for students to be engaged in their learning. Engaged learning with the use of visual arts “it keeps the children involved,” “the students were more engaged,” “they were on task,” and because they were so engaged it “helped with their attention spans and interest in learning.” The students were able to stay focused and become involved in their learning through staying engaged.

The interventions allowed for students to work in teams. When the students were working on their word family posters and rhyme boxes, “the kids had the best conversations,” “it provided such great teamwork,” and “the collaboration was amazing to watch.” Students were not only engaged while they were learning but they were engaged with each other. Through this they were creating a sense of belonging in the classroom and in the work, they were doing. They were absorbed, interested, and committed to working with each other through by sharing ideas and helping each other.

### ***Teacher Journal***

I also used in vivo coding to analyze my teacher observations documented in my journal from which two themes emerged: one new theme and one similar theme as my

co-teacher: Incorporating Visual Arts Facilitates Collaborative Learning and the similar theme as my co-teacher: Incorporating Visual Arts Enables Engaged Learning. Figure 4.8 represents a sample of my in vivo to display the validity and trustworthiness of my coding.



**Figure 4.8** *Example of Coding the Teacher Observation Journal*

### **Incorporating Visual Arts Facilitates Collaborative Learning**

Students who use collaborative learning develop certain skills and learn content more adequately and efficiently than by other means of learning (Olson & Dobrin, 1994).

As stated in my observations the interventions allowed for students to collaborate with each other to find answers to what they were working on with rhyming words and word families. Collaborative learning took place when:

- “Students worked together to help each other.”

- “Students worked so well together, helping each other out to find the visuals for their posters.”
- “They worked together to try and accomplish the common goals they had when they were looking for pics.”
- “They had the best conversations.”

The students were able to come together and share their ideas with each other while they were working to meet a common goal.

The interventions allowed for the students to work together and “I could tell they had such teamwork through their presentation.” Also, through the teamwork and collaboration they all celebrated each other, “everyone clapped for each other and celebrated together,” “these interventions provided a sense of community and togetherness,” “being in groups provided students with the opportunity to work together, collaborate, and help each other.” These interventions provided my students with time to team up and help each other find the visuals they needed to be successful with their interventions.

### **Incorporating Visual Arts Implements Engaged Learning**

Similar to the findings in the co-teacher interview, I also found that using visual arts to teach rhyming words and word families kept the students engaged. Engaged learning goes beyond superficial knowledge, such as memorizing, to a more complex and compelling meaning (VanDeWeghe, 2009). “Using real-life materials and visuals with visual arts helped the students to remember.” Through this engagement “some (the students) were prompted by what they saw and were able to touch and feel,” “they were able to devote themselves to finding visual, hands-on, real-life materials” in which they



were able to match the words in the word families as well as with the rhyming words.

Being able to use actual materials that my students could touch and feel helped to keep them engaged. They were able to learn the literacy skills of knowing and producing rhyming words and word families and not memorizing facts. Engaged learning can be cognitive, emotional, or physical and can take place individually or with others involved (VanDeWeghe, 2009) and it is clear from these journal entries that this is the type of learning that took place with these interventions.

After the interventions, the results from the co-teacher interview and teacher observations journal, that the use of incorporating visual arts when learning rhyming words and word families was successful because when creating their projects from the interventions, they understood what rhyming words and word families were through the creation of their word family posters and rhymes boxes.

### **Triangulation of Findings**

In a mixed methods research design, triangulating data sources serves as a means for joining both qualitative and quantitative methods to ensure the validity of the data (Creswell & Creswell, 2018). Triangulation of the findings allows for a better understanding of the results from the data.

My data analysis began by looking at the results of the quantitative data: the pre-test and the post-test as well as the student attitude surveys. The results from the pre-test showed significantly lower grades, showing that my students did not have a full understanding of what rhyming words and word families were. However, after the interventions were taught and the projects done with incorporating visual arts, the post-test showed a significant improvement in grades.

Importantly, the perspectives of the students about the interventions, based on their attitude surveys, further supported the claim that using visual arts to recognize and produce rhyming words and word families were effective interventions. The students shared consistent positive attitudes regarding their use of visual arts during the interventions and they help it gave them when learning rhyming words and word families. The findings from the student attitude surveys corroborate the findings from the post-test that using visual arts is an effective approach to recognizing and producing rhyming words and word families.

Because I wanted to further understand my data, I integrated my quantitative results with the qualitative data I collected with my co-teacher interview and my teacher observations journal. Through this process I was able to look at and understand the bigger picture of the data. I found that my qualitative data supported the quantitative results.

The co-teacher interview provided insight into the classroom environment and its impact on learning rhyming words and word families with incorporating visual arts. As noted, the quantitative data suggested that when incorporating visual arts:

- students are engaged
- it encourages visual learning which is appealing and effective for the students
- it enables learning by doing which creates independence and hands-on experiences

All of which when taught correctly, positively affected student achievement with rhyming words and word families. The co-teacher interview supported this claim; using visual arts to teach rhyming words and word families has a positive effect on students producing and recognizing words that rhyme and words that belong to a certain word

family.

Finally, my teacher journal observations were written every day during the interventions which provided insight into the classroom environment and the positive impact of using visual arts to teach rhyming words and word families to my Pre-K students. The quantitative data suggested that when using visual arts to teach these skills, students are involved in engaged learning and collaborative learning, assuredly affecting student achievement. My observations supported the same claim my co-teacher made in which using visual arts to teach rhyming words and word families has a positive effect on students producing and recognizing words that rhyme and words that belong to a certain word family.

### **Summary**

Quantitative and qualitative data were collected during this mixed methods research study for the purpose of answering the research questions. I used the quantitative data derived from the score percentages from the pre- and post-assessments to see if there was a change in scores after the interventions were given. The pre-assessment compared to the post-assessment showed a significant increase in scores. Showing that the gains made between the pre- and post-test, there is evidence of an increased understanding of both rhyming words and word families. I also used quantitative data from the student attitude questionnaire which revealed an overall satisfaction and happiness in using visual arts to learn rhyming words and word families.

Qualitative data was also collected to answer both research questions. Based on my co-teachers answered from the semi-structured interview, my co-teacher believed that using visual arts to teach rhyming words and word families is an effective approach.

Likewise, my teacher observations indicated that my students enjoyed the incorporation of visual arts and that my journal entries supported the questions answered from my co-teacher in the semi-structured interview.

I concluded that if using visual arts to teach rhyming words and word families is taught conscientiously and with allegiance, the interventions have a positive effect on student achievement as measured by the post-test and student attitude questionnaire. The co-teacher's semi-structured interview and my journal observations of the interventions further confirm these discoveries. Chapter 5 will discuss the implications and recommendations based on the findings

## CHAPTER 5

### IMPLICATIONS AND RECOMMENDATIONS

This chapter includes a review of the purpose of this research study, along with the research questions, methodology, and findings of the study. It also contains an action plan and implications for future research and classroom practices. Finally, the chapter concludes with limitations of and reflection about this research study.

#### **Overview of the Study**

The action research study focused on arts-based interventions and literacy skills specifically word families and rhyming words. Pre-K students completed a pre-assessment of rhyming words and word family skills. The pre-assessment gave the teacher-researcher a baseline to understand students' current achievement level on rhyming and word families. The class received an arts-based word family intervention and an arts-based rhyming words intervention. During these interventions, students were encouraged to use their talents to demonstrate their learning through arts-based assignments and activities. Two weeks were dedicated to word family skills and two weeks were dedicated to rhyming skills. All of the lessons focused on the different literacy skills presented on the pre-assessment. Students used the visual arts to demonstrate their learning as a method of taking ownership of their learning. I identified the effects of the incorporation of visual arts into the literacy classroom focusing on word

families and rhyming words and achievement by reviewing pre-assessment and post-assessment scores of the visual arts-based literacy interventions. The scores were analyzed to determine if visual arts-based interventions had an effect on learning word family and rhyming skills achievement. A student-attitude questionnaire was also given at the end of the interventions to determine the students' attitudes on using visual arts to learn word families and rhyming words. I also used a co-teacher interview and teacher observations to find themes from the study to help determine the success of the interventions.

### **Research Design**

An intersecting mixed methods design was used for this study. Since a mixed-methods design combines both qualitative and quantitative approaches, it provides a deeper understanding than each method on its own (Efron & Ravid, 2013). Creswell and Creswell (2018) determined that collecting data from several sources and using several methods of analysis reinforce both reliability and internal validity. Further, action research provides educators with an opportunity to study issues in their own schools and it is both practical and relevant (Mertler, 2014).

### **Research Questions**

To achieve my purpose, this study was guided by the following research questions:

1. What effect will the incorporation of visual arts instruction have on Pre-K students' achievement in recognizing and producing rhyming words?
2. What effect will the incorporation of visual arts instruction have on Pre-K students' achievement in recognizing and producing word families?

3. What are the students' attitudes towards the incorporation of visual arts in learning rhyming words and word families?
4. What are the perceptions of the co-teacher about using visual arts to teach rhyming words and word families to students?

## **Methodology**

I collected the quantitative data from the pre- and post-test given before and after the interventions and from the student attitude survey given after the intervention from each of the thirteen student participants. Using Microsoft Excel, I analyzed the data using descriptive statistics. The qualitative data consisted of one interview with the co-teacher participant and classroom observation notes. I used in vivo coding to find the patterns and themes that emerged from the data (John, 2012).

## **Summary of the Findings with Connections to the Literature**

The summaries from each research question are described below and show the outcome of the effectiveness of using visual arts to teach rhyming words and word families.

### ***What effect will the incorporation of visual arts instruction have on Pre-K students' achievement in recognizing and producing rhyming words?***

To answer the first research questions, I broke down the quantitative data from the pre- and post-tests. Using the same questions for rhyming words on the pre-test and post-test, results showed a large increase in the rhyming sections and on their scores. Scripps & Paradis (2014) completed a quasi-experimental experimental study design examining the effects of arts-focused schools versus academic-focused schools to find out the causal links between arts integration experiences, teacher professional development regarding

arts integration, and student academic and arts outcomes. Students in the arts-focused programs outperformed the students in the academic focused schools on arts-based assessments and standardized tests. Combining traditional auditory methods with visual learning tools creates neurological cross-talk that increases brain activity, thereby improving comprehension and retention (Serafini, 2010).

***What effect will the incorporation of visual arts instruction have on Pre-K students' achievement in recognizing and producing word families?***

To answer the second research questions, I broke down the quantitative data from the pre- and post-tests. Using the same questions for word families on the pre-test and post-test, results showed a large increase in the word family sections and on their scores. Arts integration is an approach in which educators use visual and performing arts as tools for constructing meaning and demonstrating understanding (Silverstein & Layne, 2020). Learners have both the words and visual images associated with them as potential reference points to call upon when trying to remember a word (Eftekhari, 2020).

Arts integration has also been described as promoting the effective transfer of knowledge and skills from arts to non-arts curriculum and to help students draw connections among different disciplines (Hardiman et al., 2019). Arts integration is a means to promote the effective transfer of knowledge and skills from arts to non-arts domains and to help students draw connections among different disciplines (Burnaford et al., 2007).

***What are the students' attitudes towards the incorporation of visual arts in learning rhyming words and word families?***

To answer the third research question, I conducted thirteen student attitude surveys



at the end of the study which indicated that the students believed that the interventions for both rhyming words and word families were an effective approach. In addition, the students also indicated that they did understand and were able to recognize and produce both rhyming words and word families, answering both research questions one and two. Attitudes to art as a child and young person are key to their relationship with the subject they are learning. Therefore, the role of the arts in education is currently at the fore of debates about the future of education and the curriculum (CVAN England, 2021). Burton et al., (1999) found that by letting children express themselves and convey what they thought was important through the arts, the students thought that they were important and worthy individuals, which made them acquire a sense of confidence. Children have a voice that should be listened to and teachers can learn new insights about how children view visual arts and there learning together (Robb, 2021).

***What are the perceptions of the co-teacher about using visual arts to teach rhyming words and word families to students?***

To answer the last research question, the qualitative data was derived from the co-teachers' responses in the semi-structure interview which was analyzed and coded. These results also showed that using visual arts was effective through several of the themes that were revealed. Özsoy (2020) did a study on the opinions of teachers after a project that involved using visual arts in their teachings and interviewed the teachers after and found that one of the teachers said: "I think it can be effective at all grades but not all of them of course, a selection of them. We can also modify some of them, changing parts of it to apply in classrooms (p. 778)."

I also used my teacher observation journal entries which were analyzed and coded

and they too showed the effectiveness of using visual arts to teach rhyming and word families. Therefore, I determined that when using visual arts to teach basic literacy skills such as rhyming words and word families can be an effective approach in a Pre-K classroom. “To me, the biggest experience is the fact that art is a very effective teaching approach, if there is art, there is learning (Özsoy, 2020, p. 774).”

The action plan and next steps based on my findings and how to move forward are below.

### **Action Plan**

After conducting the research and analyzing the findings of the study, I shared the findings with the co-teacher, school administration, and other teachers in the school to provide an additional source of interventions for student learning and achievement. Based on the data from the study, I recommended that the school begin to implement visual arts-based instruction to help with literacy achievement. Thus, in the upcoming school year, the school plans to implement visual arts-based interventions in the Pre-K classes and TK (transitional kindergarten) class, beginning in September. During the summer, the researcher will work with the discovery teacher and assistant principal whom are both trained in visual arts integration to provide professional development for effective visual arts integration for Pre-K and TK teachers. Teachers will participate in visual arts integration for professional development during the 14 professional development days at the beginning of the school year. Additionally, during the summer, the researcher will meet with the administration to discuss the materials needed for Pre-K and TK teachers to effectively implement visual arts-based literacy interventions. The participant-researcher will work with the administration to purchase basic visual arts supplies so that materials

are ready for use at the start of the school year. Additionally, advance purchase of materials will allow the researcher and teachers to be aware of what is available as they plan their new visual arts-integrated curricula.

Beginning in August, the researcher will work with the Pre-K and TK teachers to help them increase their comfort levels for integrating visual arts into the classroom. The researcher will have the teachers complete a survey about their perceptions of visual arts integration to better understand their attitudes and concerns regarding visual arts integration and to be able to provide information to a visual arts integration trainer for professional development purposes. Once the new school year begins, the researcher will work with the teachers to gain information on the students. The researcher will administer various pre-assessments on different literacy skills to the students. This information will help the researcher and teachers when developing interventions for students.

In September, at the beginning of each four-week period, the researcher will meet with the Pre-K and TK teachers and the discovery teacher and assistant principal to develop a visual arts-based literacy curriculum that will be used during the intervention. The researcher, along with the teachers, will review the current curriculum map for Pre-K and TK. The group will review curriculum requirements for each four-week period to develop a guide to help with visual arts integration. The discovery teacher and assistant principal will work with the Pre-K and TK classroom teachers to offer visual art ideas that can be implemented with the literacy skills that will be covered during the following four weeks.

Beginning the week of September 12, when small groups begin, students will receive visual arts-based literacy interventions two-three times per week during the

school's designated intervention time period which will be during their small group time. The researcher, along with the other Pre-K and TK teachers, will meet bi-weekly to develop lessons and activities for literacy interventions. The researcher will provide continual visual arts-integrated support to the teachers.

The details of this action plan are outlined below in Table 5.1.

**Table 5.1** *Action Plan Timeline*

| Date           | Activities  |
|----------------|---|
| Summer 2022    | <p>-Current Pre-K and TK teachers participate in Professional Development sessions to review visual arts integration and reflect upon the areas of success as well as areas of improvement.</p> <p>-All Pre-K and TK teachers alongside the Discovery teacher and Assistant Principal participate in collaborative planning sessions to provide support and ensure alignment.</p> |
| August 2022    | <p>Teacher modeling and classroom observations will take place to provide support for the first year of implementation.</p>   |
| September 2022 | <p>-Beginning the week of September 12, when small groups begin, students will receive visual arts-based literacy interventions two-three times per week during the school's designated intervention time period which will be during their small group time.</p> <p>-After each intervention, the teachers will meet to see what worked well and what</p>                        |

|                       |   |
|-----------------------|---|
|                       | needed some improvement.  |
| October 2022-May 2023 | Different interventions will be given throughout the school year and assessments will be given as well to see the success and failures of the interventions.  |
|                       | -End of year reflection will take place, highlighting areas of success and room for improvement.  |
| Summer 2023           | <ul style="list-style-type: none"> <li>-Teachers will participate in relevant and necessary professional development opportunities.</li> <li>-An action plan for the next school year will be developed and implemented.</li> </ul> |

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### **Implications for Future Research**

Previous research has documented the benefits of connecting arts learning with learning in other subjects, showing the positive impact of arts integration on academic achievement in reading (Marisol et al., 2014). Incorporating visual arts in teaching is a well-researched and highly documented approach for learning literacy skills such as rhyming words and word families; it may prove to be beneficial to in all subjects in the classroom.

In the future it would be beneficial to study the use of visual arts in additional subject areas for comparison purposes to determine if it was solely the visual arts-based interventions in literacy that led to an increase in student achievement. For future research, two subjects could be used, with one class receiving visual-arts based instruction in literacy, and the other class receiving visual-arts based instruction in

mathematics. A pre- and post-test could be given after an intervention in both subject areas. The results of the assessments could then be analyzed to see if the effects of using the visual arts were effective in both subject areas. This would be important to see if effects in the use of visual arts for all subject areas, because if proven successful in both literacy and mathematics, the two required core subjects for all grades, it could then be incorporated into other subjects such as science, social studies, and other core subject areas to see if it has the same success rate.

In addition to this study, not only could I look at the benefits in different subject areas but I could try different grade levels as well. I could look to see if incorporating visual arts in higher grade levels such as third and fourth grade which are standardized testing grades, would help in higher achievement on standardized tests for different subject areas. I could compare a third and fourth grade classes scores on standardized testing in literacy who incorporated visual arts in learning compared to a third and fourth grade class who did not incorporate visual arts in their learning. It would be helpful to see if incorporating visual arts can be proven effective because it could help to improve test scores in standardized testing.

Another study that could be done would be the effects that visual arts have on students' attitudes towards learning. Visual arts could be incorporated throughout the school day in all subject areas in one class and in another class no visual arts would be incorporated. After a few months in each class, a student survey could be given to see how students in each class feel about learning and specifically what they like most. This study would help to show the effects visual arts can have on a student's attitude towards learning which would help to show if incorporating visual arts in the classroom is

important to student learning or not. Going along with this the teachers could also be asked if incorporating visual arts was helpful to their teaching or difficult to add to their teachings. This way I could see if teacher feel they are capable of using visual arts in the curriculum or if they feel as though it is just another thing they have to do and that it's not helpful.

One more study that could be researched would be the attitudes of teachers after the completion of professional development on incorporating visual arts into teaching literacy. A benefit to this type of study would be understanding the perspectives of the teachers and their attitudes on the use of using visual arts in the classroom and if the professional development proves effective on teaching them how to do these lessons with their students. This would also help to see if additional professional development needs to be done on the subject or if other ideas on this subject arise.

In addition to these other studies, since my school is demographically made up of high-income families and 80% of our student body are Caucasian, I would like to see how beneficial this study could be in a more diverse setting and/or a Title 1 school in which 72% of the student population are economically disadvantaged. It would be beneficial to see if learning using the visual arts has the same effects on the students' attitudes and learning of these rhyming and word family skills as well as their academic scores. This would help to see if it also works in disadvantaged and diverse schools.

Lastly, it would be interesting to conduct a study comparing student achievement and attitude towards learning word families and rhyming words between classrooms that use traditional teaching methods such as worksheets and scripted lessons and classrooms that incorporate visual arts into their teaching. This would help us investigate the effect of

using the visual arts compared to traditional methods.

Digging deeper into using visual arts in the classroom will help to show the positive and/or negative effects they have on students and teachers. It will also show if more research could be done and what that could look like in the future.

### **Summary**

Literacy skills are an important part in the success of students-both in the classroom and thereafter. Literacy skills help students gain tools to help them learn how to read, learn how to develop skills in thinking and expressing, and help them engage in learning (Tucker, 2017). Literacy is critical in every subject, across the curriculum, in enabling and shaping social interactions, promoting cultures, and laying the foundations for lifelong learning (Bozsik, 2015).

For this project, I wanted to study the effect of incorporating visual arts on recognizing and producing rhyming words and word families. First, I worked to better understand where my students were on a literacy level with rhyming words and word families. Then I worked to incorporate visual-arts based interventions to provide students with visual-arts literacy lessons and projects with the purpose of discovering if incorporating visual arts improved student' literacy skill achievements in rhyming and word families. After conducting the research, it was found that the students who received visual arts-based literacy interventions showed an increase in recognizing and producing rhyming words and word families, which supported the research found on visual arts integration.



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APPENDIX A

PRE-TEST

Word Family Section:

Cut and sort the word family words into the correct word family column.

|            |            |
|------------|------------|
| <b>-ip</b> | <b>-an</b> |
|------------|------------|

|     |      |
|-----|------|
| fan | zip  |
| pan | chip |

Name two words that belong in the -ar word family.

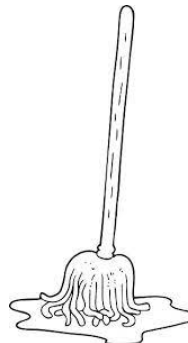
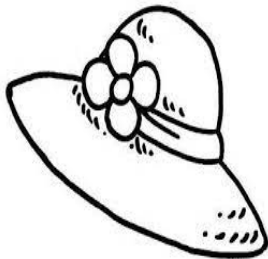
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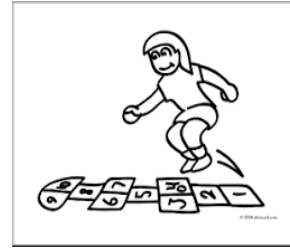
Rhyming Section:



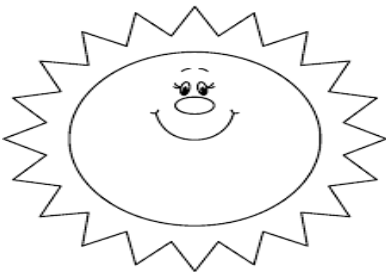
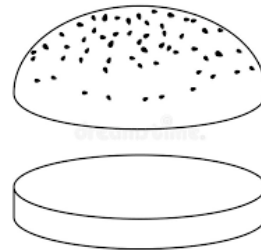
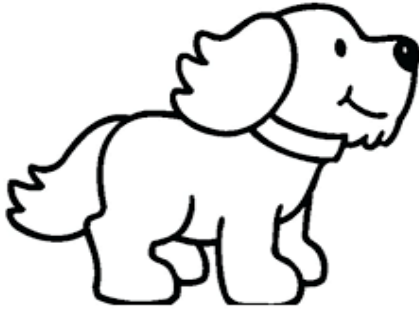
Color the picture that rhymes with this picture:



Color the picture that rhymes with this picture:



Draw a line to match the rhyming pictures.



Tell me a word that rhymes with the word “wig.”

---

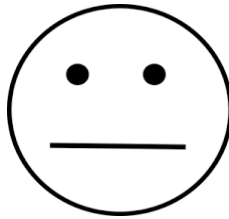


## APPENDIX B

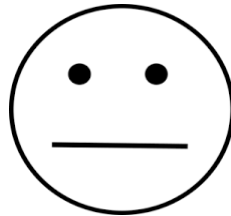
### STUDENT ATTITUDE QUESTIONNAIRE

Color the face that answers the question on how you felt about your rhyming and word family activities.

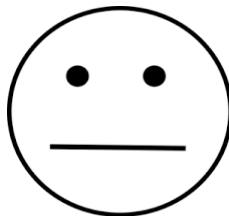
1. Did you like using visual arts to learn?



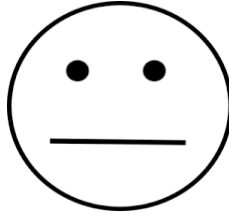
2. Do you know what rhyming words are?



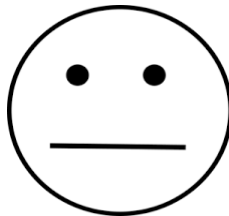
3. Do you know what a word family is?



4. Did you like the visual and performing arts activity with the word families?



5. Did you like the visual arts rhyming activity?



APPENDIX C  
TEACHER INTERVIEW QUESTIONS

1. Do you think that incorporating visual arts with literacy has a positive effect on our students? If yes, how so?

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2. Do you think that by incorporating visual arts with word families it helped our students to learn them faster? If so, how?

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3. Do you think that by incorporating visual arts with rhyming has helped our students to learn them faster? If so, how?

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4. What was the most beneficial part to this whole experience of incorporating visual arts with teaching rhyming and word families?

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5. If you could add or change anything to help future researchers, what would it be?

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APPENDIX D

POST-TEST

Word Family Section:

Cut and sort the word family words into the correct word family column.

|            |            |
|------------|------------|
| <b>-ip</b> | <b>-an</b> |
|------------|------------|

|     |      |
|-----|------|
| fan | zip  |
| pan | chip |

Name two words that belong in the -ar word family.

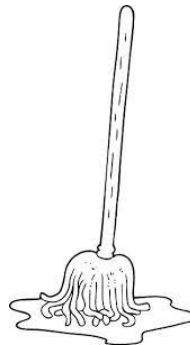
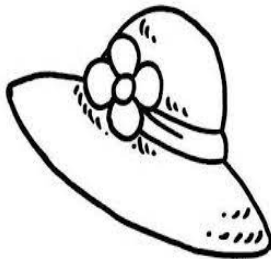
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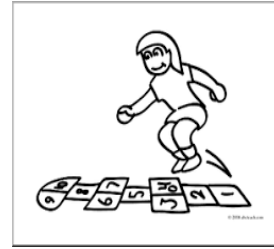
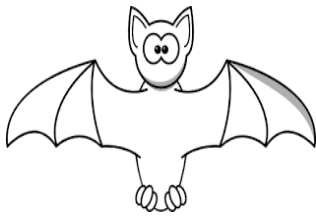
Rhyming Section:



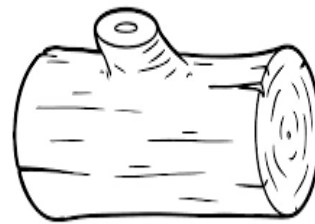
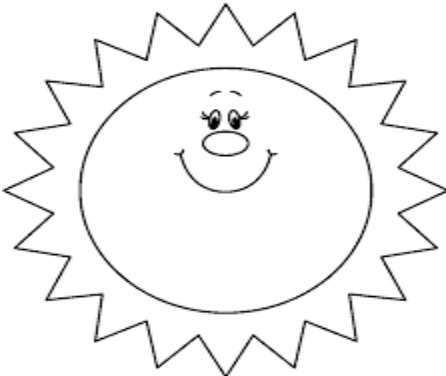
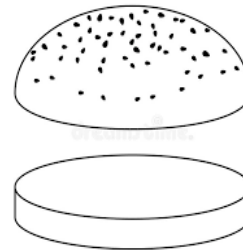
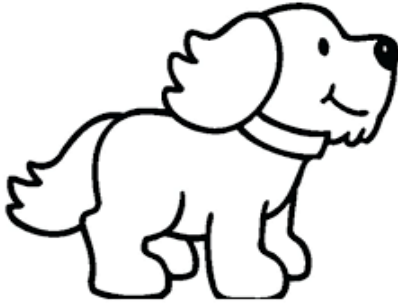
Color the picture that rhymes with this picture:



Color the picture that rhymes with this picture:



Draw a line to match the rhyming pictures.



Tell me a word that rhymes with the word “wig.”

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APPENDIX E  
RESEARCH STUDY INFORMATION

Dear \_\_\_\_,

My name is Stacy Phaxaysithideth. I am a doctoral candidate in the Department of Education at the University of South Carolina. I am conducting a research study as part of the requirements for my Doctor of Education degree and I would like to invite you to participate.

I am striving to better understand the benefits of using visual arts to teach basic literacy skills. Specifically focusing on rhyming words and word families and the ability to increase an understanding of how words rhyme and what words belong to certain word families.

Participation is confidential. Study information will be kept in a secure location. The results of the study may be published or presented at professional meetings, but your child's identity will not be revealed.

Participation, non-participation, or withdrawal will not affect your child's progress. If you begin the study and later decide to withdraw, no ill-effects will occur in any way.

I will be happy to answer any questions you have about the study. You may contact me at (704)724-8760 or stacyfp@email.sc.edu or my faculty advisor, Dr. Suha Tamim at tamims@mailbox.sc.edu. If you would like to participate, please respond to this email. Thank you for your consideration!

Warm Regards,

*Stacy Phaxaysithideth*

Stacy Phaxaysithideth  
(704)724-8760  
stacyfp@email.sc.edu



## APPENDIX F

### UNIVERSITY OF SOUTH CAROLINA CONSENT TO BE A RESEARCH SUBJECT

#### **Using Visual Arts to Teach Beginning Literacy Skills: An Action Research Study**

##### **KEY INFORMATION ABOUT THIS RESEARCH STUDY:**

You are invited to volunteer your child for a research study conducted by Stacy Phaxaysithideth who is a doctoral candidate in the Department of Education, at the University of South Carolina. The purpose of this study is to use visual arts to help students learn rhyming words and word families. This study is being done at Ivy Academy (pseudonym) and your child is being asked to participate due to their age and grade level.

##### **PROCEDURES:**

If you agree to have your child participate in this study, your child will work with different visual arts materials to create word families poster and a rhyme box to help them remember a variety of word families and rhyming words.

##### **DURATION:**

Participation in the study involves 2 weeks for each project, a total of a 4-week duration.

##### **RISKS/DISCOMFORTS:**

There are no identifiable risks other than a potential loss of confidentiality. There is always a risk of a breach of confidentiality, despite the steps that will be taken to protect your child's identity. Specific safeguards to protect confidentiality are described in a separate section of this document.

##### **BENEFITS:**

This study will likely benefit the participants and the teachers by learning strategies using visual arts to help the participants and students learn rhyming words and word families. The responses and analysis from the study will help future students who are in similar circumstances.

##### **COSTS:**

There will be no costs to you for your child participating in this study

**PAYMENT TO PARTICIPANTS:**

You will not be paid for your child participating in this study.

**STUDENT PARTICIPATION:**

Participation in this study is voluntary for your child. **You are free to not have your child participate, or to stop your child participating at any time, for any reason without negative consequences for your child.** Your child's participation, non-participation, and/or withdrawal will not affect your child's progress or his/her relationship with his/her teachers or Ivybrook Academy.

**CONFIDENTIALITY OF RECORDS:**

Information obtained about your child during this research may be published, but your child will not be identified. Information that is obtained concerning this research that can be identified with your child will remain confidential to the extent possible within State and Federal law. The investigators associated with this study, the sponsor, and the Institutional Review Board will have access to identifying information. Study information will be securely stored in locked files and on password-protected computers.

**VOLUNTARY PARTICIPATION:**

Participation in this research study is voluntary. You are free to not have your child participate, or to stop your child from participating at any time, for any reason without negative consequences. In the event that you do withdraw your child from this study, the information you have already provided will be kept in a confidential manner. If you wish to withdraw your child from the study, please call or email Stacy Phaxaysithideth.

I have been given a chance to ask questions about this research study. These questions have been answered to my satisfaction. **If I have any more questions about my child's participation in this study, I am to contact Stacy Phaxaysithideth at: (704)724-8760 or email floydsp@email.sc.edu.**

Concerns about your rights as a research subject are to be directed to, Lisa Johnson, Assistant Director, Office of Research Compliance, University of South Carolina, 1600 Hampton Street, Suite 414D, Columbia, SC 29208, phone: (803) 777-6670 or email: LisaJ@mailbox.sc.edu.

I agree to participate in this study. I have been given a copy of this form for my own records.

If you wish to participate, you should sign below.

\_\_\_\_\_  
Signature of Guardian of Child Participating

\_\_\_\_\_  
Date

\_\_\_\_\_  
Signature of Qualified Person Obtaining Consent

\_\_\_\_\_  
Date