Phonics Strategies and Letter-Sound Acquisition Knowledge

Kristina Reeb
St. John Fisher College

Follow this and additional works at: https://fisherpub.sjfc.edu/education_ETD_masters

How has open access to Fisher Digital Publications benefited you?

Recommended Citation

Please note that the Recommended Citation provides general citation information and may not be appropriate for your discipline. To receive help in creating a citation based on your discipline, please visit http://libguides.sjfc.edu/citations.

This document is posted at https://fisherpub.sjfc.edu/education_ETD_masters/197 and is brought to you for free and open access by Fisher Digital Publications at St. John Fisher College. For more information, please contact fisherpub@sjfc.edu.
Phonics Strategies and Letter-Sound Acquisition Knowledge

Abstract
This study addressed the question of how phonics strategies contribute to letter-sound acquisition knowledge through the use of three different phonics strategies. I emphasized that the use of phonics strategies in support to instruction increased the students’ identification knowledge of letters and sounds. Data was collected through using three phonics strategies, letter and sound assessments, interviews, questionnaires, and observations. Four out of the five students were able to increase their letter-sound acquisition knowledge by identifying more letters and sounds on the assessments following the initial. Educators should use phonics strategies as a tool to enhance their instruction since the students benefit from the extra support.

Document Type
Thesis

Degree Name
MS in Literacy Education

Department
Education

Subject Categories
Education

This thesis is available at Fisher Digital Publications: https://fisherpub.sjfc.edu/education_ETD_masters/197
Phonics Strategies and Letter-Sound Acquisition Knowledge

By

Kristina Reeb

Submitted in partial fulfillment of the requirements for the degree M.S. Literacy Education

Supervised by

Dr. Joellen Maples

School of Arts and Sciences
St. John Fisher College

December 2011
Abstract

This study addressed the question of how phonics strategies contribute to letter-sound acquisition knowledge through the use of three different phonics strategies. I emphasized that the use of phonics strategies in support to instruction increased the students' identification knowledge of letters and sounds. Data was collected through using three phonics strategies, letter and sound assessments, interviews, questionnaires, and observations. Four out of the five students were able to increase their letter-sound acquisition knowledge by identifying more letters and sounds on the assessments following the initial. Educators should use phonics strategies as a tool to enhance their instruction since the students benefit from the extra support.
Phonics Strategies and Letter-Sound Acquisition Knowledge

People encounter several different environments throughout life such as school, work, shopping centers, group activities, and many more which require the ability to read, write, and speak to become an active participant. While students develop their ability to speak, read, and write to engage in the primary discourse of school and of the working world they must be able to draw on their letter and sound acquisition knowledge. Gee (2001) states that “acquisition is a process of acquiring something subconsciously by exposure to models and a process of trial and error” (p. 20). Therefore, in order to acquire something through a trial and error process, the students will need to be able to have many opportunities to practice what has been modeled to them. When students are able to participate in letter and sound acquisition through life experiences that are made available, they will be practicing the use letters and the sounds to gain mastery.

Letter-sound acquisition is the foundation to the complexity of other literacy skills students will need to become proficient readers, speakers and writers. The essential skills of being able to recognize and pronounce letters need to be developed at a young age and should be targeted if a child is not developing at a positive rate. Students that do not acquire letter-sound recognition could struggle later in life with spelling, reading, and writing. Literacy knowledge starts to be acquired and mastered early which makes it crucial to give proper support to inspire learning. Since letter acquisition is a valuable aspect to the rest of the literacy, it is important to find what strategies teachers should use to improve this skill for all of the students in the classroom. With finding what the proper support would be to give the student, the teacher might have to go through many strategies and instruction to provide the necessary experiences to the students.
There are many different types of phonics strategies that could be used to improve the letter and sound knowledge of students. When finding the proper support to give the students, it is important to discover which strategies will benefit the students the most. Finding the proper support needs to be done through looking at several different strategies as well as assessing the strategy while it is in use. It is important to know what the purpose of why you are using the strategy so that the wanted outcome is achieved. I looked at several different strategies to see how they help the students learn their letters and sounds. There are several things to look at when assessing whether the strategy benefits the students letter and sound knowledge. The students interest in the strategy, the ability to understand how to do the strategy, and if it actually increases their knowledge are key indicators of knowing if the strategy should be used.

The study included phonics strategies to aid the students in gaining letter-sound acquisition knowledge. There were three phonics strategies used to fulfill the needs of the study in order to provide multiple types of strategies. The students completed four assessments all together which included an initial assessment before completing any of the strategies and then an assessment after completing each strategy to track any improvements they might have made. While the students were completing the activity I observed what they did and their behaviors toward each strategy. All but one of the students were able to make gains in their letter-sound acquisition knowledge. The domino strategy did appear to have the greatest gains made overall but there were gains made after each strategy by at least one student.

**Theoretical Framework**

Literacy is the way that people communicate with each other but is difficult to explain using one definition. It is best to pull information from several authors to define literacy which is the reason I draw on Kucer (2009), Gee (2001) and Goodman (2001). Literacy is
multidimensional so people can participate in different societies. A literate person needs to be able to “effectively, efficiently, and simultaneously control the linguistic, cognitive, sociocultural, and developmental dimensions” (Kucer 2009, p. 5) of literacy. These four dimensions are intertwined within all the literacy experiences people have while participating in a literate society. Children are always developing their literacy skills whenever they are in a new environment or in a new situation they have not been in before.

There are two ways in which Kucer (2009) describes children being able to acquire literacy and they are being a “scientist” and a “construction worker.” Kucer (2009) talks about how the scientist tries out a new skill until they learn the correct way to use it and the construction worker builds new information they learn on to information they already know. Goodman (2001) discusses the way children are exposed to literacy and how they form hypotheses to discover new forms of language that they eventually gain control and ownership of the strategies they have used. Goodman (2001) says that literacy acquisition is discovered and invented when the children participate actively in a literate society. Gee (2001) discusses two different methods of developing discourses in society which are acquisition and learning. For students to have letter knowledge, they must have letters and their sounds around them as well as be taught directly. Acquisition involves acquiring information subconsciously by being exposed to models and by participating in the process of trial and error and learning involves gaining information consciously through the direct teaching from another individual (Gee, 2001, p.20).

Gee (2001) debates the importance of acquisition and learning for literacy development and states that children need to be exposed to both. He explains how the balance between acquisition and learning “can be quite different in different cases and different at different stages in the process” (p. 20). When children are young toddlers, it is more important to have them
acquire literacy by exposing them to different environments. As children get older, learning through teaching should be increased so they can improve the skills they have acquired. As students get older the use of phonics strategies would come in to play to help the students learn their letters and sounds. There are many different environments as well as life experiences that will help students learn their letters and sounds without directly being taught. When acquisition does not give the student the level of achievement necessary for success of letter and sound mastery, direct teaching using strategies then become necessary.

According to Gee (2001) becoming literate involves the mixture of acquisition and learning after initially becoming part of a culture. A person must be an active participant in society to get the benefits of experiences that would allow for acquisition and learning of literacy. If a student is not able to gain letter knowledge through acquisition or learning, then there needs to be different strategies used that will enhance the child’s learning. Freebody & Luke (1990) discuss that mainstream culture expects people to master four components of literacy to be successful readers. The four roles are code breaker, text participant, text user, and text analyst. The component that relates to the reader having to be able to be a code breaker relates to a person being able to learn the sound-symbol relationships in English which relates to pronunciation and the graphophonemic system. When there is a failure relating to reading acquisition, it could be concluded that there is a failure of the individual to acquire proficiency with phonemic awareness. When a person is unable to speak the alphabetic script correctly, there is going to be a break down in the pronunciation of words. Acquisition helps in the development of phonemic awareness through modeling of letter sounds and leads to the child being able to identify words.
Another aspect to developing literacy is to be an active participant to gain the benefits of experiences that allow for acquisition and learning literacy. Moll & Gonzalez (1994) state that a person needs to take advantage of social and cultural resources in order to become literate. People need to be exposed to meaningful events that will support literacy development, in some circumstances these events need to be created or made possible for the children to experience.

Goodman (2001) supports the importance of participation and that “children’s development of literacy grows out of their experiences, and the view and attitudes toward literacy that they encounter as they interact with social groups (p. 317). She believes that all children can become literate when they are in a highly literate society even when they are in a society that values literacy differently than the majority.

Literacy is the ability to use the discourse that a person has acquired and learned to be an active member in society. All educators want their students to become successful members of society which requires them to provide the best education as possible. It is important that teachers find out what the students have acquired through life experiences before coming to school and then decide what is best for instruction to help the students learn. With knowing that a student should acquire and learn literacy skills, the strategies used to aid the children should be based on both of those methods.

**Research Question**

Since developing literacy is done through the combination of acquisition and direct learning, this action research project asks, how do phonics strategies contribute to students letter-sound acquisition knowledge?
Literature Review

The following literature review explores the use of phonics instructional strategies and the impact that methods and strategies have on students’ letter-sound acquisition knowledge that will create a solid foundation to their growth in reading and writing. This literature review will also include concerns of a strictly phonics based instructional framework in schools due to the overwhelming popularity in the media without having a vast quantity of empirical evidence to support the benefits of the program. There have been many diverse research studies done on different aspects of phonics programs, but it is necessary to keep in mind the findings of Wyse and Goswami (2008) who conclude that there is not one method of phonics instruction for teaching students to read that appears to be superior to any other method. Although according to Strauss and Altwerger (2007), advocates of phonics instruction have done studies on the effectiveness of intensive phonics instruction which has demonstrated significant improvement in various measures of reading proficiency.

First, the definition of what phonics instruction includes will be explained and the way it is used in order to impact the students’ learning will be explored. The goal of phonics instruction will demonstrate how the program ties into the alphabetic principle to increase literacy ability. Secondly, I will explain different methods and strategies of phonics instruction that have been used to contribute to letter-sound connections. The next important aspect of this literature review will discuss the connection between phonemic awareness and letter-sound knowledge. Finally, letter-sound knowledge related to the ability to read and write will be explored.

Definition of Phonics Instruction and its Impact on Students’ Learning

There have been many research studies done in order to prove the benefits or problems within the phonics instruction framework. Callinan and Zee (2010) compare two different
methods of synthetic phonics Dilorenzo et. al. (2011) conducted a study to determine if a phonics approach would increase early literacy skills, and Cihon et. al., (2008) explored the effectiveness of implementing a visual phonics intervention program. It is necessary to understand the goals and effectiveness of any program of instruction that will be used in your classroom before it is fully supported. Having a clear definition of phonics and what the goals are is a difficult task since there are many methods of phonics instruction and strategies that all lead to the overall goal of phonics. The first thing that must be accomplished is the explanation of what a phonics program is and the purpose a phonics program could have in schools. Mesmer and Griffith (2005) have a basic outline of two different meanings of phonics as well as how it is an important component of literacy instruction since English is fundamentally an alphabetic code. Phonics instruction includes “the letters or symbols used to encode a language’s spoken components” as well as how it “refers to teaching learners the relationships between letters and sounds and how to use this system to recognize words” (Mesmer & Griffith, 2005, p. 366). Phonics instruction is also part of a balanced program and an integrated approach to reading teaching according to Wyse and Goswami (2008). Phonics is simply a tool that a school adopts for the teachers to use while they help students learn the fundamentals of the English language as well as it is only a “means to an end” on the road to successful reading (Mesmer & Griffith, 2005, p.368). McNair (2007) includes a basic definition of phonics which is that it is instruction in letter-sound relationships. It is concluded by Villaume and Brabham (2003) and Mesmer and Griffith (2005) that it takes a teacher to be involved and active in the students learning in order to use the phonics instruction or any other instructional tool effectively that has been brought into the classroom. The teacher needs to be actively instructing the strategy or method so they can make changes as necessary to drive student success.
Many authors explain the goal of phonics instruction as the students having the ability to develop an understanding of the alphabetic principle (Villaume & Brabham, 2003). The alphabetic principle is having the knowledge of the fact that phonemes can be represented by letters and that whenever and wherever a particular phoneme is placed in a word that it is represented by the same letter every time. Students who are able to understand the alphabetic principle will know that sounds of words are laid out through a system, as well being able to use letter-sound relations to figure out unknown words (Villaume & Brabham, 2003; De Graaff et al., 2009; Byrne and Fielding-Barnsley, 1989). 

Byrne and Fielding-Barnsley (1989) claim that for full mastery of reading in an alphabetic print discovery of the alphabetic principle is necessary, although it is not sufficient enough alone to allow the students mastery of reading. After developing an understanding of the definition of phonics, a method or strategy of instruction will then be able to be determined to have the desired outcome achieved. Kim, Petscher, Foorman, & Zhou (2010) describe alphabet knowledge and phonological awareness as essential building blocks of early literacy acquisition. When students acquire letter-name and letter-sound knowledge they are starting to understand the alphabetic principle which will lead to reading and writing acquisition. The importance of developing the essential skills of the alphabetic principle is supported by Dodd and Carr (2003) through recent research they have found that suggests there is a correlation between a delay in the foundation of literacy skills and the ability for students to acquire letter-sound knowledge.

Strauss and Altwerger (2007) suggests caution when accepting a program such as phonics because they describe English phonics as a far more complex system than what the typical phonics instruction resembles when it is taught throughout elementary school. Since phonics is such a complex system, they feel that it would not be possible to teach a true phonics program in
school. It is concluded in this article that since there is a gap between the complexity phonics and the goal of phonics “children must be taught a highly simplified version of phonics, a gross caricature of the actual system” (Strauss & Altwerger, 2007, p. 300). Wyse and Goswami (2008) also illustrate a complexity of reading acquisition and therefore it is unlikely that one universal method of phonics would be able to be used without substantial evidence, but research studies have concluded that systematic phonics instruction is crucial for literacy acquisition. Some researchers claim that through intensive phonics instruction the brain can actually repair itself to use decoding skills that previously would have been difficult for the student to achieve, while other researchers believe that the brain is hardwired to process only spoken language which is how phonics is successful (Strauss & Altwerger, 2007).

The purpose of phonics instruction is not to find one method or strategy that would work equally well for all students, the purpose of phonics is to be flexible and find what each child needs to be able to get to the point of reading. De Graaff et. al. (2009), Mesmer and Griffith (2005), and Wyse and Goswami (2008) discuss approaches to phonics instruction, which are systematic phonics instruction and nonsystematic phonics instruction. The purpose of these studies is to pinpoint the most beneficial way to essentially help students learn how to read and write. The definition included in the research study conducted by De Graaff et. al. (2009) for systematic phonics programs includes that they are “programs in which prespecified sets of phonics elements such as simple grapheme-phoneme correspondences and onset and rimes are taught sequentially” (p. 330). Through analyzing the definition of systematic phonics programs the definition of unsystematic phonics programs was able to be concluded to “all those programs in which phonics is taught without sequences of prespecified sets of phonics elements” (De Graaff et. al., 2009, p. 330).
Methods and Strategies of Phonics Instruction

De Graaff et. al., (2009) and Wyse and Goswami (2008) conducted research into the effectiveness and importance of a systematic phonics instructional program. De Graaff et. al., (2009) found that the systematic phonics approach lead to better results in reading and writing than the nonsystematic approach. Even though Wyse and Goswami (2008) support the use of systematic phonics instruction, it is important to remember the main conclusion of their research on the analysis of phonic instruction which was found to be “that a range of ways of teaching systematic phonics is effective” (p.704). Beverly, Giles, and Buck (2009) support that the systematic phonics instruction is considered an essential reading component for beginning and struggling readers. Kim, Petscher, Foorman, and Zhou (2008) looked at the use of explicit instruction with young children and support the idea that it is an effective way of teaching the names and sounds of letters. Gates and Yale (2011) support the use of systematic phonics instruction but it also ties in the logical system of grapheme-phoneme relationships. According to Gates and Yale (2011), teachers should start to teach emergent readers letter-sound relationships explicitly to get them aware and start applying basic relationships. Systematic phonics instruction has led to the creation of many different programs that help in the students’ progress of phonemic awareness, spelling and reading. The programs that have been designed that follow the rules of systematic phonics are synthetic phonics, analytic phonics, embedded phonics, analogy phonics, and phonics-through-spelling (De Graaff et. al., 2009).

De Graaff et. al. (2009) states that synthetic phonics teaches the ability to identify sounds that are represented by each letter or letter cluster in a word. With that skill, the students will be able to blend the sounds together to form a word. Analytic phonics teaches the students that there are letter combinations that are found in words. The knowledge of letter combinations
allows the students to be aware that they do not have to say every letter sound in isolation because the combination of certain letters creates its own individual sound such as /th/ and /sh/.

Embedded phonics puts an emphasis on spelling patterns (at, ad, an, am) that are found in predictable texts which is similar to the way teachers use word families to allow students to make connections while reading. When students come across these spelling patterns, they will be able to identify them and recall on how to read them. Gates and Yale (2007) supports embedded phonics instruction when they are fostering students to move from learning to decode to independent reading and as they move in this direction they start to automatically decode many of the phonograms without explicit instruction (p. 337). Analogy phonics had students learn to identify new words by using words that they have already mastered. The students will start to realize similarities that are found within words which will be helpful when they come across an unknown word. An example of using analogy phonics would be if a student came across any new words such as van, ran, can and they already mastered the word man they would be able to pull out the similarity and read the new words. Phonics-through-spelling takes a different approach to reading words because it teaches the students to segment a word by writing down the phonemes of a spoken word to come to an understanding.

Another tool that supplements instruction and follows the design of a systematic, explicit, scripted phonics based reading program is visual phonics. Montgomery (2008) explains “visual phonics as a highly effective and innovative strategy to represent sound” (p. 177). Visual phonics can be used with literacy skill development and with students who have communication disorders. It is a flexible system that has the goal of making sounds concrete and representable by using its multisensory nature. Visual phonics uses hand-shape cues and if needed written symbols that the student needs to make sound-print connections or to make sound-production
connections. The hand-shape cues are kinesthetically to the production of the sounds that are in English, the hand-shape cue represent what actually happens in the mouth when making a sound (Montgomery, 2008; Cihon et. al., 2008).

Callinan and Zee (2010) completed a study that compared two methods of synthetic phonics instruction for learning to read which are Jolly Phonics and THRASS. The researchers investigated “how reading ability for words and non-words as well as short-term memory ability for words and phonemes improves in reception year children in three different schools using two different methods of reading instruction” (Callinan & Zee, 2010, p. 21). The ways that these two methods differ are with the length of time needed for the instruction as well as the delivery system for the instruction. Jolly Phonics is a program that lasts for the first nine weeks of school and after it is finished instruction is then determined by the teacher. The program is delivered in 15-minute sessions and introduces one new phoneme per day (Callinan & Zee, 2010). Students are taught 42 of the 44 phonemes in English and get instructions in 46 of the most common graphemes. The phonemes that are taught are able to maximize use for being able to construct new words (Callinan & Zee, 2010). Jolly Phonics uses both synthetic principles and analytic principles. THRASS is a program that lasts for the first three years of school and then the instruction is then determined by the teacher. Callinan and Zee (2010) explain how the program “uses pictures in relation to two, three, and four letter graphemes” (p. 21) to teach the students to identify the different phonemes. The program involves 10 stages and it is also delivered in 15-minute sessions each day such as Jolly Phonics. Students are taught all 44 English phonemes and 120 of the most common graphemes in a fixed order. Throughout the lessons teachers will use pictures to help students identify phonemes as well as show different possible spellings.
THRASS initially uses synthetic principle but later in to the program a shift to analytic strategies occurs.

Callinan and Zee’s (2010) participants of this study were twenty-four female students and 30 male students form a reception class. The mean age was determined to be four years, five months. Sixteen students were from Jolly Phonics school one, 18 from THRASS school, and 20 from Jolly Phonics school two. Students were assessed on all the tests during one session in September 2006, in November 2006 and June 2007 students were assessed in two sessions, all sessions lasted 15 minutes or less. One session included the Burt Reading Test Revises and the short-term memory test for word strings and in the second session that occurred on the same day as session one, the students were assessed using the short-term memory tests for phoneme strings and the Miskin non-word test.

The results found from the research done by Callinan and Zee (2010) on two methods of synthetic phonics came back positive for both Jolly Phonics and THRASS. Although the results showed greater gains made by Jolly Phonics school two in both word and non-word reading tasks. Callinan and Zee (2010) mention that the short time period of the study could be responsible for why the results that were anticipated by the THRASS method were not found due to the nature of the THRASS method. Further investigation would be needed to have a clear understanding of which method would produce greater results, but based on this study, both methods demonstrated positive results which supports a synthetic method of phonics instruction. This research study concluded with the outcome that there were no effects of gender on reading ability. According to Callinan and Zee (2010), the findings of their research is consistent with “that the synthetic method removes the variability found in reading scores between males and females” (p. 28) which has been found by literature focusing on synthetic phonics instruction.
Two different methods that are used to teach phonics to beginning readers are letter-to-
phoneme and phoneme-to-letter. According to Groff (2001), it is important to understand the
implications for instruction that each method creates, one is linked to systematic phonics
instruction and the other is an extramultisensory approach. The first method is the letter-to-
speech-sound approach which initially teaches the students to recognize letters and then they are
taught that letters regularly represent speech sounds. Groff (2001) states, “these letter-to-speech
sound generalizations are called phonics rules” (p. 291) and are the foundation to the systematic
phonics instructional approach. The other method is the speech-sound-to-letter combinations
approach and it initially develops students’ awareness of specific speech sounds. Once students
have developed partial phonemic awareness of these sounds, they are taught to spell (Groff,
2001). This speech-sound-to-letter approach assumes that if emerging readers are able to spell
correctly then they will be able to read those words correctly.

The questions that Groff (2001) raised are “what is the best way for these two methods to
be used” and “is one of the methods superior to the other” (p.291). These questions bring back
the point that Wyse and Goswami (2008) conclude about how there is not one method of phonics
instruction for teaching students to read that appears to be superior to any other method. The
results of Groff’s (2001) research are that the letter-to-speech-sounds and speech-sound-to-letter
correspondences were approximately the same which concludes that these two approaches will
develop about the same results which supports the use with students. Even though one method
does not follow the direct rules of phonics, it still has the goals of phonics and the outcome that
will allow students to foster a reading and writing ability. Treiman’s et. al. (1998) research
found that it is important to all the students to use their knowledge of letter names when learning
the letter sounds. The reason behind a student using their knowledge of letter names is because there are several letter names that already correspond to the sound of that letter.

A few small methods of teaching systematic phonics are Mnemonics through a program called *Itchy’s Alphabet* with Early Decoding, phonics activities that motivate learners, as well as using highly personal literacies such as students’ names. Dilorenzo et. al. (2011) explored the method of *Itchy’s Alphabet* and concluded it to be “an innovative approach to teaching letter-sound connections through multisensory cues” (p. 28) which indicates gains for all students including those who are at risk, receive special education services, and typically developing. This method is used to help students who are struggling beginning readers overcome their difficulty mastering the alphabetic principles. Picture mnemonics involve building a familiar picture around a letter shape, that picture must also begin with the target sound. An example that Dilorenzo et. al. (2011) used to explain what picture mnemonics looks like was the letter /b/ represented by using a picture of a bat for the long part of b and a baseball for the round part of b and then the student would be able to remember the sound.

Morgan and Moni (2005) discuss phonics activities that help to motivate learners that have difficulties since teachers need to be able to have ways of having all students especially those with difficulties have the phonics knowledge to lead them to reading. Activities that are relevant and meaningful to the learner help heighten and maintain their motivation to participate and therefore learn (Morgan and Moni, 2005). Activities that are chosen to do with the students can be done in any order, the activities can be combined with other activities and they can be used in any area of literacy that there is a need. McNair (2007) suggests the use of a strategy that will target the students personally. The strategy is called “Say my name, say my name” and it touches on the highly personal aspect that literacy learning has in the beginning. McNair (2007)
discusses the point that “kindergarten and primary grade teachers can tap into this personal connection to enhance children’s literacy development” (p.84). In classrooms that incorporate the social constructivist theory into instruction will create a student-centered environment which creates interest and motivation for the students to want to learn.

**Connection Between Phonemic Awareness and Letter-Sound Knowledge**

The methods that have been included focus primarily on the outcome of learning to read and write, but to do this, students need to have a solid understanding of phonemic awareness and letter knowledge. When talking about phonemic awareness and letter-sound knowledge, it is critical to remember that “letter-sound knowledge and phonological awareness, rather than being two separate foundations of literacy, are intimately related” (Treiman et. al., 1998, p. 1537). Cardoso-Martins et. al. (2011) supports the idea of the related field of phonemic awareness and letter-sound knowledge because it is stated in the article that “enabling letter names to contribute is that they help children to acquire letter sound knowledge regarded as a foundational for the acquisition of word reading skill” (p. 26). Treiman et. al. (1998) states that students must have some phonological skill to be able to use clues that are provided by many English letter names about the sounds the letters represent (p.1537). McNair’s (2007) strategy of using the letters of the students names not only makes personal connections that will motivate the students to want to make other letter connects but it can also help them develop a sense of phonological awareness. O’Leary et. al. (2010) includes that teacher approaches to “teaching phonological awareness commonly includes explicit instruction connected to a letter of the alphabet” (p. 191).

Throughout the use of visual phonics, Montgomery (2008) supports the literacy principle that letters represent sound and not that letters have sounds is supported. With this awareness to
the literacy principle phonemic awareness and phonics skills are facilitated since there is a stronger sound-letter connection. Nicholas (2011) supports that idea of visual phonics brought up by Montgomery (2008), since she sees the positive relationship of when the students were taught letter sounds using mnemonics learned sounds better than other students. Montgomery (2008) and Cihon et. al. (2008) express the importance of developing letter-sound knowledge as well as having well developed phonemic awareness skills. Both of these tasks are closely related to the ability of reading, writing, and spelling as well as mastering the alphabetic code. Dilorenzo et. al. (2011) agrees with Montgomery (2008) and Cihon et. al (2008) that in order to become a reader a student must master the areas of phonemic awareness, alphabetic principle, fluency with text, vocabulary, and comprehension.

Shapiro and Solity (2008) stress in their research on delivering phonological and phonics training to whole-class teaching is that “early supplementary phonological awareness training is widely help to be beneficial for children at risk of developing reading difficulties, especially when combined with phonics training” (p. 597). Through the research found in the article by Shapiro and Solity (2008), the intervention strategy of incorporating phonological and phonics training into a whole-class setting can be very effective which would result in more intensive intervention not to be necessary anymore. Kim, Petscher, Foorman, and Zhou (2008) stress the use of activities that encourages preschool students to write because they are a promising avenue to support the young students learning of letters and sounds.

Of these areas, the alphabetic principle is commonly identified as a challenge to students since it is comprised of two parts that are alphabetic understanding “that words are made up of different letters that represent different sounds” and phonological recording “using the relation between those letters and sounds to pronounce and spell words (Dilorenzo et.al., 2011, p. 28).
The task of learning all of the major letter-sounds is also a daunting task as explained by Cardoso-Martins et. al. (2011) “not only because there are many to learn but also because the relations are abstract and arbitrary” (p.26). Dodd and Carr (2003) include that “once letter-sound knowledge has emerged, it assists children in linking each letter (or digraph) to an individual phoneme. This ability is essential for the development of the alphabetic principle” (p.128).

O’Leary et. al. (2010) state that the sequence of instruction regarding sound-letter associations are challenging in order to help students understand that some sounds do not have a unique letter that is correlated to it. There is a strong correlation and importance between phonological awareness and letter-sound knowledge because there is not one most appropriate instructional method of teaching the students. There is not one best sequence of teaching letter sounds and letter names or a certain order for the alphabet to be taught in (O’Leary, 2010). Kim, Petscher, Foorman, and Zhou (2010) support the importance to mastery of the alphabetic principle because they have found research that has “shown that alphabetic knowledge and phonological awareness are critical for students’ reading acquisition in languages with alphabetic orthographies” (p.313) because students need to use basic letter-sound relationships to read, write, spell, and speak to communicate.

**Letter-Sound Knowledge Related to the Ability to Read and Write**

Childrens’ letter-name knowledge has a direct relationship with word reading such that letter names provide a link between letters and print and help children understand that spellings are not just strings of letters (Kim, Petscher, Foorman, & Zhou, 2010). Diamond, Gerde, and Powell (2008) agree that there is a relation between letter-name knowledge and the students’ literacy abilities. Kim, Petscher, Foorman, and Zhou (2008) looked at one of the important predictor of school success by assessing the students’ literacy skills as they entered kindergarten.
Through the research that Kim, Petscher, Foorman, and Zhou (2008) did, they found that a student's literacy skills at kindergarten entry were associated with the reading achievement they had in the early elementary grades and extending through high school. Share and Gur (1999) found that there are strong correlations between word recognition, phonological awareness, and letter knowledge. This research is supporting the other researchers’ views that there are strong correlations between early literacy skills such as phonological awareness and letter knowledge which impact the students’ abilities for reading and writing as they get older.

Letter knowledge is the ability to recognize that phonemes are represented by letters and that the use of letters allows for words to be spelled out. The child needs to be able to hear the sounds in a word, recall the appropriate letter shape or find it on an alphabet strip to master letter knowledge (Huxford, 1995). Dilorenzo et.al. (2011) state that many students “struggle to consistently and automatically identify letters of the alphabet by sight or make the connection between a letter, its name, and its sound” (p. 28) which shows basic literacy skills to be absent which will lead to greater difficulties in connections of letter knowledge. An experience of a breakdown in the development of the alphabetic principle is when a student has trouble making the initial connection of letter-sound relationships and has trouble reading words in isolation as well as in context. Not being able to make letter-sound correspondences and spelling patterns lead to a student not being able to apply the alphabetic principle to knowledge of reading. Huxford (1995) discusses how the development of phonemic ability and acquisition of letter knowledge is side by side with the stages of reading. Nicholas (2011) agrees that students need to have a sound foundation of phonemic awareness and letter knowledge to be able to have success in their reading instruction.
Dodd and Carr (2003) describe literacy as the key to learning in school since it allows them access to the curriculum. O’Leary et. al. (2010) agrees with Dodd and Carr (2003) in certain ways when stating that “phonological awareness and vocabulary knowledge are among the key early childhood precursors of later reading competence (p. 187). Dodd and Carr (2003) agree with Dilorenzo et. al. (2011) about the correlation between early literacy since in their research they found that “children who find reading and writing difficult in the early stages of education often perform poorly on academic measures” (128).

That leads to the importance of developing a solid foundation of letter-sound acquisition in the early years since research has linked the difficulty with reading and writing to difficulty and delay in acquiring letter-sound knowledge (Dodd & Carr, 2003). Whole-class phonological and phonics training was able to have a significant impact on the reading development of children that had poor phonological skills which was able to reduce the proportion of students that experiences reading difficulties (Shapiro and Solity, 2008, p. 617). Students need to develop the knowledge of letter-sound relationships as early as possible to set a foundation reading instruction and to be able to make progress on independent reading and writing activities (Nicholas, 2011, p. 20). Students need to develop the knowledge of letter-sound relationships as early as possible to set a foundation reading instruction and to be able to make progress on independent reading and writing activities (Nicholas, 2011, p. 20).

Beverly, Giles, and Buck (2009) found the following:

Throughout all the research found there has been a concise viewpoint that “Reading is a complex interaction that cannot be easily broken into a few components. Instead, a balanced literacy program-consisting of an effective
combination of skills instruction with meaning-making authentic reading experiences in a highly engaging environment is recommended. (p. 202).

The alphabetic principle is a key player in the literacy success of the students since it includes the building blocks to later literacy experiences. There needs to be a strong foundation of letter-sound acquisition knowledge and phonological awareness to be able to carry over those skills when starting to read and write. There was a high correlation found between when a child has difficulty with the foundation of letter-sound relationships and the amount they will struggle with reading, writing, and spelling. The use of phonics strategies it not to find one strategy that will work with all the students but to find the strategy that the individual student needs to improve their alphabetic principle knowledge. Phonics strategies are support tools that teachers can use to aid their students when developing their letter-sound knowledge.

**Method**

**Context**

Tons of Fun (pseudonym) is an early childhood center located on the west side of a large city in western New York. The community that the early childhood center is located in is by a hospital, a university, and borders a suburban school district. Tons of Fun has gone through the voluntary process of becoming NAEYC-Accredited. Tons of Fun provides childcare mainly for employees of the hospital and university as well as students of the university. There are a small amount of children who attend Tons of Fun that have both parents working at other locations, and there are staff members that have their children there. There are eleven classrooms in the building, which has a capacity of 124 children. Tons of Fun has a kindergarten classroom that follows a supplemental curriculum that prepares the children for going into first grade the following year.
The community that Tons of Fun is located in has an approximate size of 28,094 residents with an average household size of 2.0 persons (Private School Review, 2011). The average age of the population is 32 years old with 46% of the population who are 25 years and older with a college degree. The population of the community that surrounds Tons of Fun has a younger average age compared to the New York State average population age of 36 years old. There is a higher percentage of the population in the community surrounding Tons of Fun that are 25 years and older that have college degrees compared to the New York State average of only 32% of the population 25 (Private School Review, 2011). The median household income of the community is $30,776 compared to the New York State average of $46,766 (Private School Review, 2011). The students that attend Tons of Fun live in all different areas since it is an early childhood center, but all the parents have an income that supports their children being able to attend. Breakfast, lunch, and snacks are provided to all the students since it is part of the tuition.

The classroom that the participants were selected from was a kindergarten classroom that has a teacher to student ratio that is 1:9. The kindergarten class currently has 13 students enrolled and two teachers throughout the day. The early childhood center has a high amount of diversity as a whole due to the cliental it draws in from the nearby hospital and university. Although the center has a high diversity rate, the classroom demographics consist of six students (46.1%) who are white, three students (23.1%) who are Asian, two students (15.4%) who are Black or African American, and two students (15.4%) who are Hispanic or Latino. One of the teachers in the classroom is of Turkish descent and the other teacher is white.
Participants

I worked with five students between the ages of four and five who have just started their kindergarten year at the early childhood center. The students that participated in the research study were four boys and one girl.

Jon (pseudonym) is a four almost five year old, white, male student. He is an active boy that displays some difficulty of attending to instruction for a great deal of time. He joined the kindergarten class in October after switching from another school in the surrounding area. He did not attend any form of formal schooling before attending kindergarten since he was taken care of by his grandmother. He lives primarily with his mother but lives with his father on the weekends since he lives a few hours away. Jon is excited about learning but he is still adapting to the new environment of school which has been a challenge at times. On the initial Letter and Sound Identification Assessment given he was only able to recognize two uppercase and lowercase letters which were “O” and “X” with being able to identify the sound for the letter “O.” Jon has difficulty with writing due to his lack of letter knowledge but he is able to write his name even though he does not know the names or sounds of those letters.

Jack (pseudonym) is a five year old, Asian, male student. He is dedicated to his work and strives for his best work all the time. He is very conversational and focuses on what is being discussed. Jack has been attending the early childhood center for 3 years now which gave him a preschool background that allowed him to receive formal education on learning letters. He has learned English as a second language which sometimes gives him difficulty with pronunciation but he will correct himself to get it correct. Jack lives with his mother, father, and his two year old sister. Jack’s family is very supportive of his education which is reflected through the results on the Letter and Sound Identification Assessment. He knows all of his uppercase letters and
only does not know the lowercase letter “b” at the time of the assessment. He did have trouble with the sound of “n” and the short vowel sounds of “u,” “o,” and “e” when taking the assessment.

Sammy (pseudonym) is a five year old, African American, female student. Sammy lives with her mother, her mother’s fiancé, and her baby brother. She goes to her father’s house during the summer for a total of 4 weeks. Sammy’s mother and father as well as her mother’s fiancé value education as the way to become successful in today’s society. She is a very active girl and has a thriving imagination which sometimes gets in the way of instructional time. Sammy has been attending the early childhood center for two years which allowed her to go through preschool before kindergarten which gave her exposure to a formal setting. Sammy had difficulty completing the Letter and Sound Identification Assessment but she was able to push herself through it because she wanted to show how many letters she knew. She had trouble with the uppercase letters “W” and “Q” but she knows all the rest of the 24 uppercase letters. She also missed the letters “t,” “d,” “l,” “b,” and “c” in lowercase form. She had trouble with the “g,” “d,” “I,” “u,” “o,” and “e” sounds.

Ryan (pseudonym) is a five year old, white, male student. He is a hard worker during instructional time and is a very considerate young man. When the teachers need someone to be a helper in the classroom or to another student in the classroom he always volunteers. Ryan lives with his mother, father, and three year old sister. His parents want the best education possible for him and have always provided opportunities for him to increase his knowledge. He has been attending the early childhood center for four years which has given him the experience of going through a form of formal education for three years when the preschool programs start. On the Letter and Sound Identification Assessment he was able to correctly identify all 26 uppercase
letters and only missed the letter “b” on the lowercase section. He was able to get all of the sounds correct for both the uppercase and lowercase letters except for the letter “e” sound. He did hesitate on the sound for the letter “y” and said the wrong sound at first but he was able to quickly correct himself.

Joel (pseudonym) is a five year old, Asian, male student. He joined the early childhood center over the summer since his parents wanted him to start in the kindergarten class. He is the only child in his family and lives with his mother and father. He has learned English as a second language and has shown some difficulty in being bilingual. His parents are very supportive of him and participate in as many activities as possible occur in the kindergarten room. He has had a great start learning his uppercase and lowercase letters with only a few unknown. He does have a greater difficulty with the sounds which is shown on the Letter and Sound Identification Assessment. He was able to identify all of the uppercase letters correctly and only missed the letters “b,” “u,” and “q,” in lowercase. He had trouble identifying the “b,” “o,” “a,” “h,” “l,” “d,” “n,” “x,” “i,” “p,” and “e” sounds for both uppercase and lowercase letters. He only had trouble with the “q” and “r” sounds for the lowercase letters.

**Researcher Stance**

During this study I took on the privileged, active observer role (Mills, 2011). According to Mills (2011), taking on the privileged, active observer role “provide opportunities for teachers to work as “teacher’s aide,” while at the same time allowing them to withdraw, stand back, and watch what is happening during a particular teaching episode…” (Mills, 2011, p. 75). When the students participated in the action research study I passively watched them while they were engaged in the phonics strategies. While I watched them, I was able to move in and out of the teacher role and observer role as the students worked on the strategies as they developed.
questions and problems. I was not there to guide them through the strategy since I wanted to observe them using it on their own to see how the strategy might contribute to their learning.

My role as an observer might have impacted the effectiveness of the strategies since I was not there acting as a teacher that the students could get a lot of help from. I used the phonics strategies as part of a Study for my Master’s Program which did not allow me to use the strategies exactly as they would be in a school setting. The phonics strategies were not completed as often or for as long of a time period as they would be completed in a school setting which could impact the results.

I hold my initial teaching certification in Childhood Education and Special Education grades Birth-Grade 6. I am working on completing my Master’s in Literacy Education Birth-Grade 6 and Grades 5-12. I am currently working at The Children’s School @University of Rochester Medical Center. I work primarily with infants that are between three and nine months of age. I also get the opportunity to work with children who are between the ages of nine months and five years old.

Method

The issue of students struggling with letter recognition was addressed through looking at how phonics strategies can contribute to literacy acquisition. Three phonics strategies were used to complete the study to determine the impact on letter-sound acquisition. I observed the students using the three different types of phonics strategies at three different times. Each observation took place during one-on-one conferences and lasted as long as the time it took for each student to complete the activity. The first step to completing this study was to find out what letter names and sounds for both uppercase and lowercase letters the students already know. After the first letter and sound assessment was complete each student completed one phonics
strategy. The students went through a second letter and sound assessment before completing a second phonics strategy. The letter and sound assessment was completed for a third time before the students completed last phonics strategy. There was a final letter and sound assessment done with each student in order to see the overall growth of each student. The results of this study were able to clearly show that the use of phonics strategies does contribute to letter acquisition knowledge.

**Quality and Credibility of Research**

My research method followed the criteria for validity of qualitative research that is included in Mills (2011) that touches on how the trustworthiness of a study could be established by addressing the characteristics of credibility, transferability, dependability, and confirmability. I included the characteristic of credibility by taking “into account the complexities that present themselves in a study” (Mills, 2011, p.104) so that I was able to interpret patterns and results that may not be easily explained. I followed the characteristic of transferability by keeping to the goal of not trying to find a truth statement since everything in my study is context bound and only pertains to what I did (Mills, 2011, p.104). I collected as much descriptive data as possible and have a detailed description of the context so that this study might be compared to other settings. I selected three different phonics strategies to use with five students which allowed my study to fit into what Mills (2011) describes as the dependability characteristic. All of the students that I worked with did the same three phonics strategies in the same location and around the same time in order to keep as many things constant as possible. Completing the study under the same circumstances as possible with all the participants lead to confirmability as discussed by Mills (2011) since the data was collected neutrally and objectively.

**Informed Consent and Protecting the Rights of the Participants**
The first thing I did before starting any research was to get informed consent from the parents. I presented the parents with a form that explained the study and what the purpose was. I included a description of the tasks that the students would be participating in and how long the study would last. I included that all the information would remain anonymous and that any identifying marks will be removed from artifacts collected. Before I start working with the students I asked them if they would like to be apart of my study.

**Data Collection**

The first thing that I did to collect information on the students’ knowledge of letters and sounds was by completing an interview focus group. I collected data through letter and sound knowledge assessments that were completed four different times. There was an initial assessment and an assessment done after each strategy completed. I needed to know what letters and sounds they did not know in order to see if they were able to make any improvements after completing the three phonics strategies. I collected artifacts from each strategy which includes a worksheet as well as pictures of the other strategies. I developed a questionnaire that was completed by the teachers to allow me to gain insight into how the teachers assess letter and sound knowledge as well as how they teach it to the students.

**Data Analysis**

I compared the teacher questionnaires by using Venn diagrams to see similarities and differences between their answers to each other. I did a separate Venn diagram for each question. I made charts for each student using the Letter and Sound Identification Assessment scores. I looked at the charts to see how all the students did with identifying the letters and sounds overall. I broke down the sections of each assess score to see how each student improved after completing each phonics strategy. I looked at my observation notes to give me an overview of
how each student reacted to each strategy and to make observations on each strategy itself. I separated my observation notes into categories by using each strategy being the heading. I used this information to see the process the student went through to complete the activity. I was able to see if the student struggled, made correction or realizations, and what their interest level was.

Findings and Discussion

There are many students who attend school that are found to have difficulty with letter-sound acquisition through observations and assessments. This research aimed to discover how phonics strategies contribute to letter-sound acquisition knowledge by comparing three different types of strategies. Phonics strategies are used to help students increase their abilities in phonics such as letter-sound acquisition. This study looked at the scores from each letter-sound assessment that was given to the students to evaluate if there was growth after each phonics strategy. In addition to the assessments and participating in the strategies, the students were observed (See Appendix A) while engaged in the activities and participated in interview focus groups (See Appendix B) in order to demonstrate their background knowledge of letters and sounds. The following findings from this research are presented through three themes: initial understanding of letters and sounds, achievement from phonics strategies, and impact of classroom instruction. The discussion of these themes explores the improvement in letter-sound knowledge of the students and what contributed to their improvement.

Initial Understanding of Letters and Sounds

The students’ background knowledge of letters and sounds was demonstrated through their answers during the focus group interviews as well as the scores on the letter and sound assessment that was given after the focus group interview was completed. The initial background knowledge of letters and sounds have been found as a key factor in having phonics
strategies contribute to further letter and sound acquisition. Kim, Petscher, Foorman, & Zhou (2010) describe alphabet knowledge and phonological awareness as essential building blocks of early literacy acquisition. The understandings that the student demonstrated through their answers to the questions of the focus group interview were strongly related to how many letters and sounds the students missed when being assessed. Through recent research Dodd and Carr (2003) have found that there is a correlation between a delay in the foundation of literacy skills and the ability for students to acquire letter-sound knowledge. Even though the answers to the focus group interview questions and the assessment show that there is a correlation between their understanding of the foundation of literacy skills and their performance, all the students were able to demonstrate an understanding of what letters are used for. Mesmer and Griffith (2005) refer to the importance of teaching students the relationship between letter and sounds so that they will eventually be able to use this system to recognize words.

The charts in Table A, B, C, D, E show the letters and sounds that the students’ missed during the initial Letter and Sound Identification Assessment. The Letter and Sound Identification Assessment involves the students looking at a sheet of paper that has the alphabet listed out in a random order, first in uppercase and then in lowercase below it. The students are to read the letters to the assessor while saying the sound as well if they have that knowledge. The initial assessment was critical to focus on because it demonstrated their background knowledge on the identification of letters and sounds before any of the phonics strategies were introduced. The initial scores were used as the base to any improvement or changes in the assessment results in the later assessments after completing each phonics strategy.

Jon demonstrated the least amount of letter-sound acquisition knowledge throughout the focus group interview. While participating in the focus group Jon came up with silly answers or
no answers for most of the questions. When Jon was asked what letters are he came up with the answer of “Dragons” which I repeated to make sure I heard him correctly and he restated “Dragons that are (pause) just appear when I go to sleep” (Focus group interview, October 19, 2011). His low knowledge of letter-sound acquisition knowledge relates to his low initial scores on the Letter and Sound Identification Assessment. When asked what letters are used for he referred to letters as the ABC’s and then started to sing the alphabet. When Jon was asked “what are sounds?” he replied that “Dragons make noises” which shows that he was able to relate the word sound to noises that he hears (Focus group interview, October 19, 2011).

Table A- Jon’s Initial Letter and Sound Identification Assessment Scores

<table>
<thead>
<tr>
<th>Name</th>
<th>Missed uppercase letters</th>
<th>Missed uppercase sounds</th>
<th>Missed lowercase letters</th>
<th>Missed lowercase sounds</th>
</tr>
</thead>
<tbody>
<tr>
<td>Jon</td>
<td>A, B, C, D, E, F, G, H, I, J, K, L, M, N, P, Q, R, S, T, U, V, W, Y, Z (2/26)</td>
<td>A, B, C, D, E, F, G, H, I, J, K, L, M, N, P, Q, R, S, T, U, V, W, X, Y, Z (1/26)</td>
<td>a, b, c, d, e, f, g, h, i, j, k, l, m, n, p, q, r, s, t, u, v, w, y, z (2/26)</td>
<td>a, b, c, d, e, f, g, h, i, j, k, l, m, n, p, q, r, s, t, u, v, w, x, y, z (1/26)</td>
</tr>
</tbody>
</table>

In reference to Table A, Jon was only able to identify two out of the 26 uppercase letters and two out of the lowercase letters. The two letters that he was able to identify were “o” and “x” on both of the uppercase and lowercase letter lists. As he was going through the uppercase and lowercase letters, he was only able to identify the sound of the letter “o” on both lists. With Jon’s limited knowledge of what letters and sounds are and how they are used it is no surprise that he was not able to identify a great quantity of letters and sounds. His performance during the interview as well as on the assessment relates back to the correlation that Dodd and Carr (2003) found that when there is a delay in the foundation of literacy skills the student does not have as great of an ability to acquire letter-sound knowledge. In reference to this finding,
students need to develop their foundation of literacy skills early in order to use their background knowledge during the use of phonics strategies to acquire letter-sound knowledge.

Sammy has a developing level of letter-sound acquisition knowledge and is about in the middle between Jon who was the lowest performing student and Ryan who was the highest performing student. Joel had a very similar skill level to what she demonstrated on the focus group questions and the results of the letter and sound assessment. The answers that she provided during the focus group were concrete and but limited. When asked what letters are, her response was “MOT, there are a lot of letters” which demonstrates her previous experience with letters (Focus group interview, October 18, 2011). Sammy was also able to provide the answer “And like a (pause) um (pause) in. There is a castle in my bed.” after being asked what sounds are used for (Focus group interview, October 18, 2011). The answer that she provided shows her background knowledge that people use sounds to speak words. This background knowledge carried over to the results on the Letter and Sound Identification Assessment. Throughout the focus group interview Sammy was able to provide more information for the questions about letters than sounds such as when being asked “how are letters and sounds learned” since her answer was “sing the alphabet and play alphabet puzzle” without including anything about learning sounds (Focus group interview, October 18, 2011). These answers that are focused on letters are reflected throughout the results of the initial assessment on letters and sounds.

Table B: Sammy’s Initial Letter and Sound Identification Assessment Scores

<table>
<thead>
<tr>
<th>Name</th>
<th>Missed uppercase letters</th>
<th>Missed uppercase sounds</th>
<th>Missed lowercase letters</th>
<th>Missed lowercase sounds</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sammy</td>
<td>A, W, I (23/26)</td>
<td>O, A, W, U, C, D, X, I, E, G, R (15/26)</td>
<td>b, a, w, c, l, q, d, g, t (17/26)</td>
<td>b, o, a, w, u, c, l, q, d, x, i, e, g, t (12/26)</td>
</tr>
</tbody>
</table>
Table B reflects that Sammy was able to identify more uppercase and lowercase letters than she was able to identify the sounds for both letter lists. She was able to identify 23 out of the 26 uppercase letters and 17 out of the 26 lowercase letters. The letter knowledge she possess compared to her sound knowledge resulted in her knowing only 15 out of the 26 letter sounds for the uppercase letters and 12 out of the 26 letter sounds for the lowercase letters. Since Sammy’s results demonstrated that she knew more uppercase letters than lowercase letters the results correlated to show that she knew more uppercase sounds than lowercase sounds. Sammy’s ability to identify more sounds for the uppercase letters than the lowercase letters could be the possible outcome of an instructional method that uses known letters to teach the speech sounds. The “letter-to-speech sound generalizations are called phonics rules” and these rules show that Sammy is on the right track to gaining mastery of letter-sound acquisition (Groff, 2001, p.291).

Joel also demonstrates a developing level of letter-sound and is about in the middle between Jon the lowest performing student and Ryan the highest performing student. The answers that he was able to provide to the focus group interview questions demonstrated that he has a solid understanding of what letters and sounds are as well as how people use them, as well as including that “we practice” to learn them (Focus group interview, October 19, 2011). When the questions “what are letters” and “what are letters used for” were asked Joel’s answers respectively were “like the ABC’s” and “to spell” (Focus group interview, October 19, 2011). These answers were brief but they are correct for the purpose of what the question intended to discover. Joel was able to provide the answer “like to talk” and “to talk” for the questions “what are sounds” and “what are sounds used for” respectively (Focus group interview, October 19, 2011). He did have a stronger background on letters than sounds which was demonstrated
through the variety of answers he had for the letter questions and the basic similar answers he had for the sound questions.

Table C- Joel’s Initial Letter and Sound Identification Assessment Scores

<table>
<thead>
<tr>
<th>Name</th>
<th>Missed uppercase letters</th>
<th>Missed uppercase sounds</th>
<th>Missed lowercase letters</th>
<th>Missed lowercase sounds</th>
</tr>
</thead>
<tbody>
<tr>
<td>Joel</td>
<td>(26/26)</td>
<td>B, O, A, H, U, L, D, N, X, I, P, E (14/26)</td>
<td>b, u, q (23/26)</td>
<td>b, o, a, h, u, l, q, d, n, x, i, p, e, r (12/26)</td>
</tr>
</tbody>
</table>

Joel’s background knowledge of letters and sounds was also demonstrated on the Letter and Sound Identification Assessment of uppercase and lowercase letters. Due to his sufficient background knowledge of letters he has mastered 26 out of the 26 uppercase letters and was able to get 23 out of the 26 lowercase letters correct. Joel has more difficulty with the sounds for both uppercase and lowercase letters, he knows that sounds are used for talking (Focus group interview, October 19, 2011). Joel is still developing the knowledge of about half of the sounds for both uppercase and lowercase letters. He was able to identify 14 out of the 26 sounds for the uppercase letters and 12 out of the 26 lowercase letters. A contributor to this difficulty could be that he is learning English as a second language and that the sounds are tougher to remember. With having the background knowledge of letters Joel should use that knowledge according to Treiman’s et. al. (1998) because there are many letters that correspond to their speech sound.

Jack was able to demonstrate a solid understanding of what letters and sounds are as well as how we learn letters and sounds. He was able to say that letters are “like the ABC’s” in response to “what are letters” and he believes that letters are used “for to learn” (Focus group interview, October 18, 2011). His answer to “what are sounds” was “a as in apple” which focuses on a soft letter sound and demonstrates his knowledge of the different types of sounds
that are included in words. Jack stated that sounds are used for speaking and “to say words” and knows that letters and sounds are learned because we “practice sounds and say the soft or hard sound” (Focus group interview, October 18, 2011). This background knowledge of letters and sounds carries over into his identification skills.

Table D- Jack’s Initial Letter and Sound Identification Assessment Scores

<table>
<thead>
<tr>
<th>Name</th>
<th>Missed uppercase letters</th>
<th>Missed uppercase sounds</th>
<th>Missed lowercase letters</th>
<th>Missed lowercase sounds</th>
</tr>
</thead>
<tbody>
<tr>
<td>Jack</td>
<td>1 (25/26)</td>
<td>0, U, I, E (22/26)</td>
<td>b, q (24/26)</td>
<td>b, o, u, q, e (21/26)</td>
</tr>
</tbody>
</table>

The letter and sound assessment gathered that Jack has almost mastered the literary knowledge of letters and sounds. He knows 25 out of the 26 uppercase letters and 24 out of the 26 lowercase letters. The knowledge of letters has carried over to sounds since he knows 22 out of the 26 sounds for the uppercase letters and 21 out of the 26 sounds for the lowercase letters. Without the initial background knowledge of letters and sounds he would not have such an understanding to connect the sounds he is learning to the letters he already knows. Treiman’s et. al. (1998) research found that it is important to all the students to use their knowledge of letter names when learning the letter sounds.

Ryan demonstrated the highest level of letter-sound acquisition knowledge as well as scored the highest on the assessment over all. The outcome of Ryan’s results relates to how he was able to provide solid answers for the questions during the focus group and elaborated on two of them which show that his foundation of letters and sounds has been fully created. Ryan’s answer to the question “what are letters” was “they’re the alphabet” which was simple and short but to the point. Another answer he developed was “used for reading” in response to a question about “what are letters used for” (Focus group interview, October 19, 2011). Ryan’s answers to
what sounds are, was “sounds are like when you hum” and his answer to “what are sounds used for” was “they’re used for people to know where somebody is (pause) like they can follow a sound” (Focus group interview, October 19, 2011). Ryan also was able to give the answer “you can learn them by school, you can learn them by your mom and bad” in response to the question of how we learn letters and sounds (Focus group interview, October 19, 2011).

Table E- Ryan’s Initial Letter and Sound Identification Assessment Scores

<table>
<thead>
<tr>
<th>Name</th>
<th>Missed uppercase letters</th>
<th>Missed uppercase sounds</th>
<th>Missed lowercase letters</th>
<th>Missed lowercase sounds</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ryan</td>
<td>(26/26)</td>
<td>E (25/26)</td>
<td>b (25/26)</td>
<td>b, e (24/26)</td>
</tr>
</tbody>
</table>

Ryan received almost a perfect score on the Letter and Sound Identification Assessment that tested his knowledge of uppercase letters, lowercase letters, and the sounds of each category. Ryan was able to identify 26 out of the 26 uppercase letters correctly and was able to provide the speech sounds for 25 out of the 26 letters. He was able to identify 25 out of the 26 lowercase letters correctly and was able to provide the speech sounds for 24 out of the 26 letters. Ryan’s performance of the Letter and Sound assessment is supported by the view of Treiman et. al., (1998) due to the fact that the more letters he was able to identify the more sounds he was able to connect to letters. Ryan was able to use his background knowledge of letters (which he knows more of) to identify speech sounds that are associated to each letter. This process of learning the letters and sounds correlates with the findings of O’Leary et. al. (2010) which stated that phonological awareness is taught explicitly through connections to letters of the alphabet. Ryan was privileged with the extensive background knowledge of letters and phonological skills. According to Treiman et. al. (1998) there are many sounds that can be learned through knowing the letter and that “students must have some phonological skill to be able to use clues that are
provided by many English letter names about the sounds the letters represent (p.1537) which allowed him this greater ability.

The students’ results of the focus group interview and the Letter and Sound Identification Assessment support the finding that “letter-sound knowledge and phonological awareness, rather than being two separate foundations of literacy, are intimately related” (Treiman et. al., 1998, p. 1537). The connections that these students made between their answers and the results of the assessment on letters and sounds demonstrate that they are acquiring alphabetic knowledge and phonological awareness but they are all at different stages in this development. Cardoso-Martins et. al. (2011) supports the idea of phonemic awareness and letter-sound knowledge since “enabling letter names to contribute is that they help children to acquire letter sound knowledge regarded as a foundational for the acquisition of word reading skill” (p. 26). When students are able to develop the skill of connecting letter names to sounds they will be able to start mastering letter-sound acquisition knowledge. The range in background knowledge and identification scores all of the previous mentioned students demonstrated the difference of having a well developed knowledge of literacy skills and only developing their literacy skills. According to Kim, Petscher, Foorman, & Zhou (2010) alphabetic knowledge and phonological awareness are essential building blocks needed for understanding the alphabetic principle which will lead to acquiring reading and writing skills.

**Achievement from Phonics Strategies**

There were three phonics strategies that were part of this study and they were chosen based on the type of strategy they were. The strategies needed to be different types in order to see how each type would contribute to letter-sound acquisition. One phonics strategy chosen
was four worksheets (See Appendix C) that included pictures and then required the student to write down the initial letter for each pictures name. The second phonics strategy was a domino activity (See Appendix D) that had the students match pictures with the initial letter in a certain order starting with a card that had the word “start” on it and ending with a card that had the word “end” on it. The third phonics strategy was an online activity called phoneme pop (See Appendix E) that had the students hear the sound to a letter that was being shown. The student was then to click on the correct letter that matched the letter shown and the sound heard.

The phonics strategies assessed their initial knowledge of the letters and sounds that were involved during the activity. The worksheets included certain letters on each page such as the worksheet that is titled A Visit to the Zoo (See Appendix C) assess the letters D, M, T, and G instead of assessing all 26 letters of the alphabet. The domino activity assessed whether a student was able to correctly match all the letters of the alphabet with the picture that belonged to it (See Appendix D) to complete the whole domino train. The activity also assessed if the student was able to self-correct if they placed the wrong picture with a letter. The online phoneme pop assessed if the student was able to connect the letter shown with the letter sound that was being demonstrated by the computer voice.

Each student participated in all three the strategies in order to see which one they might have achieved the most from the most. Having the students participate in three strategies instead of one relates to what Wyse and Goswami (2008) conclude about how there is not one method of phonics instruction for teaching students to read that appears to be superior to any other method. The results in Tables F, G, and H show that there were gains made after completing the phonics strategies, however these gains were different among the students as well as the different among the phonics strategies.
Table F- Improvements on the letters and sounds identified after Worksheet phonics strategy

<table>
<thead>
<tr>
<th>Name</th>
<th>Uppercase letters learned</th>
<th>Uppercase sounds learned</th>
<th>Lowercase letters learned</th>
<th>Lowercase sounds learned</th>
</tr>
</thead>
<tbody>
<tr>
<td>Jon</td>
<td>None</td>
<td>None</td>
<td>None</td>
<td>None</td>
</tr>
<tr>
<td>Joel</td>
<td>N/A</td>
<td>H, N</td>
<td>None</td>
<td>n, e, r</td>
</tr>
<tr>
<td>Jack</td>
<td>None</td>
<td>O</td>
<td>None</td>
<td>o</td>
</tr>
<tr>
<td>Ryan</td>
<td>N/A</td>
<td>None</td>
<td>b</td>
<td>b</td>
</tr>
<tr>
<td>Sammy</td>
<td>None</td>
<td>D</td>
<td>c, g</td>
<td>c, t</td>
</tr>
</tbody>
</table>

The following improvements mentioned have used the information from Table F that includes any improvements that were made by the students after completing the worksheet phonics strategy. Jon did not make any improvement in letter or sound identification through the worksheet strategy. He was able to tell me the names of the pictures that were shown on the worksheet and then make the sound that the word started with (Worksheet observation, 2011). Although, Jon was unable to identify which letter connected to the sound that he said or write the letter after I told him what letter went with the sound (Worksheet observation, 2011). Joel increased his sound knowledge by being able to identify the uppercase sounds of H and N as well as the lowercase letters n, e, r after completing the worksheet activity. He was able to complete this activity with little help, which means that his gains could have been a combination of participating in the phonics strategy as well as outside practice in his classroom since the worksheets did not include the letters e and r (Worksheet observation, 2011). After Jack completed the worksheet phonics strategy he was tested again and was able to identify the sound for the letter o on both the uppercase letter list and the lowercase letter list. This improvement could not have been made from the worksheet phonics strategy since this strategy did not assess that letter. Ryan was able to improve his identification of the lowercase letter b and the sound of that letter after completing the worksheet phonics strategy. This improvement could have been
developed through the strategy since there was two of the letter b on two of the worksheets (See Appendix C) and he was able to correct use this letter on his own. Sammy was able to increase her knowledge of the uppercase letter D sound, lowercase letters c and g, and the c and t sounds for the lowercase letters. There were the letters d, c, and t included on the worksheets that could have increased her knowledge of the letters and sounds.

Table G- Improvements on the letters and sounds identified after Domino phonics strategy

<table>
<thead>
<tr>
<th>Name</th>
<th>Uppercase letters learned</th>
<th>Uppercase sounds learned</th>
<th>Lowercase letters learned</th>
<th>Lowercase sounds learned</th>
</tr>
</thead>
<tbody>
<tr>
<td>Jon</td>
<td>None</td>
<td>None</td>
<td>None</td>
<td>None</td>
</tr>
<tr>
<td>Joel</td>
<td>N/A</td>
<td>B, D, O, P, E</td>
<td>None</td>
<td>o</td>
</tr>
<tr>
<td>Jack</td>
<td>None</td>
<td>None</td>
<td>b</td>
<td>b</td>
</tr>
<tr>
<td>Ryan</td>
<td>N/A</td>
<td>None</td>
<td>N/A</td>
<td>None</td>
</tr>
<tr>
<td>Sammy</td>
<td>B, W, I</td>
<td>W, G, C, I</td>
<td>w, g</td>
<td>w, i, g</td>
</tr>
</tbody>
</table>

According to Table G, Jon was not able to make any improvements on his identification of and of the letters or sounds. He required help to complete this activity by having him say the picture name and then the letter was identified for him to hopefully help increase his letter knowledge (Domino observation, 2011). Joel was able to increase his knowledge of five uppercase letter sounds and one lowercase letter sound. Joel was able to complete the domino activity with minimal help and only asked for help on identifying some of the pictures. He did make a mistake halfway through completing the activity which required him to go back to the beginning and check over his work (Domino observation, 2011). Jack identified the letter b and the sound on the lowercase letter list after completing the domino phonics strategy. Having to place the letter with the picture that started with that sound could have helped him identify it later during the Letter and Sound Identification Assessment. Ryan did not make any
improvements after completing the activity, he was still not able to identify the letter e sound for both the uppercase and lowercase letters (Table E) but he was able to give a word that starts with that letter which could have been a result from participating in this phonics strategy. Ryan has mastered all of the 26 letters in uppercase and lowercase as well as 25 sounds for each which shows that he is having difficulty with the letter e sound and should spend more time practicing it through different activities that focus only on that letter. Sammy was able to improve on three uppercase letters, four uppercase sounds, two lowercase letters, and three lowercase sounds. The domino activity involves saying the word and then focusing on the letter while excluding other letters. It also allowed Sammy to check herself while completing the activity which allowed her to practice the letter-sound correspondence.

Table H- Improvements on the letters and sounds identified after Phoneme pop phonics strategy

<table>
<thead>
<tr>
<th>Name</th>
<th>Uppercase letters learned</th>
<th>Uppercase sounds learned</th>
<th>Lowercase letters learned</th>
<th>Lowercase sounds learned</th>
</tr>
</thead>
<tbody>
<tr>
<td>Jon</td>
<td>None</td>
<td>None</td>
<td>None</td>
<td>None</td>
</tr>
<tr>
<td>Joel</td>
<td>N/A</td>
<td>None</td>
<td>u</td>
<td>h, d, p</td>
</tr>
<tr>
<td>Jack</td>
<td>None</td>
<td>U</td>
<td>None</td>
<td>u</td>
</tr>
<tr>
<td>Ryan</td>
<td>N/A</td>
<td>None</td>
<td>N/A</td>
<td>None</td>
</tr>
<tr>
<td>Sammy</td>
<td>None</td>
<td>R</td>
<td>b</td>
<td>o</td>
</tr>
</tbody>
</table>

Jon was still unable to make any improvements on his letter and sound identification for uppercase and lowercase letters. Although, Jon was able to match the letter of the sound that needed to be found with the letters that were floating by on bubbles but this did not increase his letter knowledge since the computer only gave the sound (Phoneme pop observation, 2011). Joel was able to increase his knowledge of one lowercase letter and three lowercase sounds. The increase in the sound knowledge could have been increased by the activity since the computer
would say the sound often while the student clicked on the letter that the sound connected with. Jack increased his sound knowledge by indentifying the letter u correctly for both the uppercase and lowercase letters. Jack was able to find the letter on the computer that went with the sound that was being said by the computer and got excited when he would get the correct letter (Phoneme pop observation, 2011). Ryan did not increase his sound knowledge after completing the phoneme pop online activity. He only needs to master the letter e for both uppercase and lowercase letters to gain full mastery of letter and sound knowledge. This activity did not focus on the letter e when Ryan was working on it which led to him not gaining anymore experiences with the letter sound (Phoneme pop observation, 2011). Sammy was able to identify one more uppercase sound, one more lowercase letter, and one more lowercase sound. She was excited about playing the online phoneme pop phonics strategy but had some difficulty with keeping her attention focused on what she was supposed to be doing because there was a spaceship that would float around on the screen (See Appendix E) and every time you clicked on the correct letter you would get points which caused her to miss when the letter sound would change (Phoneme pop observation, 2011).

The observations that were done while the students were completing the phonics strategies (worksheets, domino activity, and phoneme pop) reflected how each student responded to each phonics strategy that were listed in tables F, G, and H. Between the three phonics strategies the students made the most improvements after completing the Domino phonics activity because the students were able to self check while they were completing the task, they were more focused, and would say the word and the letter sound out loud (Domino observation, 2011). The worksheet strategy had the second largest improvement in letter-sound acquisition knowledge due to the students focusing on the beginning letter sound of each picture word. The
phoneme pop online phonics strategy had the least improvement but there were still gains made. The lack in improvement from the phoneme pop phonics strategy was due to the lack of control that the teacher has over what letter sounds the student was working on. There were different lists that included several different letters but once the students started the activity they might go through the same letter twice before getting a letter that they have not worked on yet. The students demonstrated more interest in the phoneme pop online strategy and the domino strategy over the worksheets.

The students completed the worksheets as quickly as possible and were more focused on wanting to color the pictures (Worksheet observation, 2011). While completing the worksheet Ryan stated that he has seen these papers before and asked me if he was going to be writing the first letter of each word (Worksheet observation, 2011). After the directions were read to each student when they were going to be working on the sheets they looked at the sheets to complete the papers and only interacted if they did not know what a picture was (Worksheet observation, 2011). When the students were completing the domino activity they would explain how they were going to go about finishing the activity such as when Ryan stated “I am saying the words so I know the letter that goes with it” and by Jack telling me that he needed a lot of room to do this because he was laying all the cards out on the floor (Domino observation, 2011). The students were excited about doing an activity on the computer and found it fun that there were spaceships that were flying around on the screen with the letters as well as being excited about receiving points for the letters they got correct (Phoneme pop observation, 2011). The focus on the points stood out with Ryan since he stated “I want to get a lot of points” as he was working on letters that he knew.
The domino phonics strategy allowed the students to check their answers and make changes as necessary. The worksheets required the teacher to check the answers in order to allow the students fix any mistakes they might have made. The differences in the level of independence that each phonic strategy allowed could have influenced the outcome of letter-sound acquisition improvement. The knowledge of letters and sounds that each student possessed before completing each strategy could have impacted the benefit that certain phonics strategies had on each student. The students that had a more initial knowledge of letters and sounds had fun with the online activity but did not want to play very long (Phoneme pop observation, 2011). Jon who did not have a very strong initial knowledge of letters and sounds had the most ease with this activity since he was able to match up the letters that were being shown (Phoneme pop observation, 2011). The other activities required a lot of support since he does not have a foundation of letters and sounds created. Based on the observations of the students while participating in all three of the strategies the students were engaged and generally enjoyed themselves. Ryan stated that the “game is cool” and that he liked that it had spaceships in reference to the online phoneme pop phonics strategy (Phoneme pop observation, 2011).

**Impact of Classroom Instruction**

The improvements that the students demonstrated throughout the study could have also been influenced by classroom instruction based on the answers that the teachers included on the teacher questionnaire (See Appendix F) that they completed. There is also a phonics teacher that completed the teacher questionnaire as well who supports the classroom with letter-sound acquisition by pulling students out of the classroom to participate in the phonics program. These teacher questionnaires provided information of how they assess the students, what instruction of letters and sounds they do during instructional time, as well as their view on the importance of
letter-sound knowledge to the students’ education. The teachers do initial assessments of the students’ ability using an inventory for reading and writing by having the students “visually identify letters, then ask students sound of letter verbally” which helps the teachers gain insight into the students’ letter recognition and sound knowledge (Teacher questionnaire, 2011). The teachers do several activities and use different instructional methods to enhance the students’ letter-sound acquisition knowledge. The activities that the teachers provide for the students are “letter of the week,” “weekly letter books that work on printing,” and “create lists of words starting with letter of the week” as well as having a word wall and reading groups for direct instruction (Teacher Questionnaire, 2011).

These strategies and instructional methods are supported by the findings of Kim, Petscher, Foorman, and Zhou (2008) which is the idea that explicit instruction with young children is an effective way of teaching the names and sounds of letters. The type of direct teaching that occurs in the classroom according to the teacher is that we “do small reading groups where we work more on initial and vowel sounds” to increase their letter knowledge (Teacher questionnaire, 2011). The phonics teacher focuses more on games because they are “well liked with my age group”, whole language writing, and repetition to allow the students to develop mastery of the letters and sounds (Teacher Questionnaire, 2011). The methods of the teachers that participated in the teacher questionnaire are supported by Gates and Yale (2011) who state that teachers should start to teach emergent readers letter-sound relationships explicitly to get them aware and start applying basic relationships. The teachers in the classroom as well as the phonics teacher understand the importance of teaching the students letter-sound knowledge because the students will develop a foundation of skills that will lead them to success academically. When students have the foundation they need for reading and writing they will be
confident with their skill and be successful as reading becomes more difficult and reading for meaning is required (Teacher questionnaire, 2011).

With the work that the teachers do in the classrooms, the students could have gained knowledge of letters and sounds through classroom instruction and carried that new knowledge over to the Letter and Sound Identification Assessments done after each phonics strategy. The strategies were completed sporadically and spaced apart which could have also resulted in the knowledge gain during classroom instruction to carry over into the results of the Letter and Sound Identification Assessment. The combination of the classroom instruction with the support of the phonics strategies used for the study the students had tremendous growth in their letter-sound acquisition knowledge.

Implications and Conclusions

There are several key factors in choosing phonics strategies to use with students that are important to think about since the purpose of using phonics strategies is to benefit the student. There are a few findings from this study of how the students benefit from phonics strategies. The students will benefit more from phonics strategies if they already have background knowledge of literacy skills such as knowing about letters and sounds. The students need to have the opportunity to be exposed to letters and sound often to develop and enhance their background knowledge. The teachers need to use the phonics strategies as a tool to support their direct instruction.

Through assessment and observation of kindergarten students, it has been found that the students’ background knowledge of literacy and their skills for initial identification of letters and sounds will greatly influence the type of phonics strategy chosen to benefit each student. According to Gee (2001) the background knowledge the students need to gain is formed through
direct teaching as well as acquiring the knowledge through experiences. The importance of gaining background knowledge of literacy is so the students will develop a foundation of skills in order to reach mastery identification of letters and sounds. It was found through the research study, that the students who have a foundation of literacy skills were able to develop background knowledge of letters and sounds and in turn were able to increase their acquisition of letter and sound knowledge.

It is important for the teachers to know that in order for the students to create this foundation of literacy skills they need to provide the opportunity for multiple exposures to letters and sounds as well as provide direct instruction. Acquisition of letters and sounds begin at an early age but it is important for direct instruction to be introduced to refine their knowledge and improve upon the skills they have developed (Gee, 2001). When the students have not mastered their letter and sound knowledge or are having difficulty in their identification skills, it is important to include other forms of instruction such as the use of phonics strategies.

When deciding which phonics strategies to include throughout classroom instruction, it is important to keep in mind the finding of Wyse and Goswami (2008) who conclude that there is not one method of phonics instruction for teaching students that appears to be superior to any other method. Since there is not one superior method of phonics instruction it is necessary to develop a plethora of phonics activities that the students will be exposed to throughout instruction. If there are students who are not improving their letter and sound acquisition knowledge using the teacher selected phonics strategies, then the teacher needs to do more research in finding other strategies to try with those students. With this support of phonics instruction, there still needs to be a range of different teaching approaches so that there is at least one phonics strategy that could serve as a tool and be effective with each student. The use of
multiple teaching approaches is necessary since phonics strategies are only a tool for teachers to use to support instruction (Mesmer & Griffith, 2005). While the teachers need to use a range of phonics strategies, they need to be critical during their decision making process of which strategies to choose. Teachers need to look into the types of strategies they should choose to fit the learning styles of their students as well as look into what the phonics strategy focuses on and what it aims to assess. Since there are variables throughout the day that will affect the use of the strategies, teachers should make sure that the creators left enough room for flexibility of the use of the strategy without damaging the success of the strategy.

The purpose of this research study was to determine how phonics strategies contribute to students’ letter and sound acquisition knowledge. The results demonstrated that phonics strategies are indeed just a tool in aiding the students in the process of letter-sound acquisition knowledge since the students needed to have a basic understanding of literacy to gain the benefits of the strategy. The students were able to make achievements through all three phonics strategies that were selected for this research study; however the strategies were not the only method that aided their learning.

There were limitations and questions discovered based on the design of the research study. The data was gained through each student having one experience with each phonics strategy over a two week period. The Letter and Sound Identification Assessment results reflected knowledge that was gained through the strategies as well as classroom instruction. The phonics strategies were selected before knowing any of the students’ background knowledge or literacy skills, having this knowledge could have led to a different selection of strategies. Another limit to this study was the amount of time allowed to complete the study in order to meet the required deadlines. Without unlimited access to the students that were participating in
the study greatly limited the opportunity to see if completing the phonics strategies in a different manner would have created different results. Further action research could focus on if meeting with a student, every day focusing on one strategy for a week would show if the amount of contact time allowed would have caused the students to make more achievements. There are great benefits from using phonics strategies as a tool to support daily instruction but it is important to choose multiple ones as well as change them if the students are not achieving greater letter-sound acquisition knowledge. It is also important to remember that phonics strategies should not be a source of instruction but only a tool to reinforce instruction.

There are many types of phonics strategies available for use with students to enhance their learning. Finding the strategy that will benefit each individual the most is difficult but is a factor in whether a student will show improvement in their skills or not. This action research study demonstrated the diversity between the views and use of phonics instruction. Phonics strategies are specific in the skill they assess which makes it important for teachers to observe their students using the strategy to see if they are benefiting and if the strategy is meeting the goals of the teacher. Phonics strategies are a valuable tool to use in the classroom to support the teachers’ instruction and foster growth in the students’ letter-sound acquisition knowledge.
References


Beverly, B., Giles, R., & Buck, K. (2009). First-Grade reading gains following enrichment:
Phonics plus decodable texts compared to authentic literature read aloud. Reading Improvement, 46(4), 191-205.


Florida Center for Reading Research. (2008). Student Center Activities, Grades K-1 letter-sound dominos. (pp.8-14).


Student. (2011). Focus group interview.


Appendix A

Worksheets-Matching pictures beginning letter sounds to the letter

Sammy- She started the worksheets right after I explained how to do them. She started by filling in the beginning letter sounds of the pictures that she knew. When she got to pictures that were tough for her she would ask what the picture was and then was able to write the letter for that word. I did not help her after telling her the picture because I needed to see what she thought would be the correct letter to write down. After she finished all the pages we would make the necessary corrections so that she would start to learn the letter sounds that she got incorrect.

Joel- He displayed being very confident about completing the worksheets. He pointed to the monkey picture and said that he would write an “m” at the beginning of the words because that is the sound he hears at the beginning of the word monkey. He was able to do most all of the pictures without any help. He did need me to tell him what a few of the pictures were and then after he finished all the pages we went over 2 of the letters that needed to be changed.

Ryan- Ryan told me that he has seen these papers before. He asked me if he was going to be writing the beginning letter of the word for each picture. I confirmed that we would be listening to the sound of the first letter of every word to show me how many he knew. He did not ask for any help throughout the worksheets. After he was done there were two letters that were incorrect and a “j” that was reversed in the way it should be written.

Jon- Jon was able to tell me what the picture names were on the worksheets. He needed help with what a few of the pictures were. I had to help him hear the sound of the first letter in every word as well as tell him the name of the letter. I had a chart to show him what the letter looked like in both uppercase and lowercase so that he could start associating the letters.

Jack- He started by saying the name of the picture and then he would say the sound of the first letter. On one sheet that had the letters at the top in lowercase he was using uppercase to fill in the letter of the beginning sound. He was taking his time to fill in all of the letters. On the second sheet that has the letters on the top as well he asked for help on identifying two of the pictures. He used a combination of uppercase and lowercase letters.

Domino Activity-Matching pictures to the initial letter of the word in a certain order

Ryan- He started by spreading out the domino cards after I explained how to do the activity. He then matched the letter with the picture that started with that beginning sound. He then started to put all the domino pieces together in a row to finish the whole thing. As he was putting the domino string together he noticed that he did not match two of the cards correctly because different cards fit with those letters. It made him look over all of his cards to make sure that he had the correct matches. He did need help identifying one picture that was of a ruler with an inch shaded in because he thought that it went with the letter R, but then he found a picture of a robot and knew that it need to go with the letter R. After help with that one picture he was able to finish the whole domino string.

Joel- After I explained how to complete the activity, Joel put the start card away from the rest of the domino cards so he could start his string of cards. He went picture by picture to complete this activity. When he got to a picture he did not know the name of he would ask for my help. He would then say the name of the picture a few times to figure out which letter he needed to put
it with. He did make a mistake about half way through and knew this when he used the end piece and had more domino cards to use. He went through the rest of the cards to see what pictures he had left and found the robot card. He looked at the picture that he had with the letter R and asked me what it was a picture of and after I told him that it was pointing to an inch he was able to figure it out and fix the problem. He was able to put the letter I with the inch care and the letter R with the robot card and finished the string.

Sammy- When I explained how to do the activity she was still unclear as to how to complete it. I went through the first few domino cards with her so that I could demonstrate how to do it. I then confirmed the names of picture cards that she was unclear of exactly what it was. There were a few letters and pictures that we had to talk about so that she was able to pair them together and add to the domino string. She was able to complete the domino string and then she read over the whole domino string when she was done to tell me what letter each picture went with.

Jack- He started by laying all the cards out on the floor and stated that he needed a lot of room to do this. After he started to put the domino cards together he was concerned about the way that it was looking and he started to fix the cards so they looked better. To complete the activity he would say the pictures name and then say the letter he needed. If he was not able to decide on the letter quickly he would say the beginning sound of the word a few times and then he was able to pick the letter.

Ryan- As Ryan was completing the activity he told me “I am saying the words so I know the letter that goes with it” which allowed me to know that he understood what the purpose of the activity was. He took his time and only questioned what two of the questions were as well as what yak started with. After he asked me what yak started with he was able to hear the sound and decided it started with a y.

**Phoneme pop- Clicking on the matching phoneme**

Ryan- When he started the activity he had trouble clicking on the correct letter at first but after a little while he started to get them by paying close attention. He told me that the game is cool and that he liked that it had spaceships. Ryan was able to get the correct letter for the sound that the computer randomly picked. He told me “I want to get a lot of points” by getting as many letters correct as he could.

Jon- He was able to match the letters and say the sound of the letter after the computer would say it. Jon was not able to identify the letter names so I told him the name of the letter every time he would click on it.

Jack- He was very excited to play the phoneme pop activity on the computer. Jack was able to find the same letter as the one being shown as well as say the sound of the letter. A few times he did not pay attention to the letter being changed and it took a few times of getting an “X” to look at the box that had the letter that he should be clicking on at that point. He did get excited when he got the correct letter and was saying the sound as well.

Joel- When Joel was playing the phoneme pop activity he had trouble with “a,” “b,” and “d” but he knew that when he got an “X” on the screen that the letter he chose was not correct. When he found out that he was not clicking on the correct letter he said the letter and sound aloud to help him pick the correct letter.
Sammy- Sammy was able to understand how to play the activity and was very excited to get started. She was able to follow when the letter changed so that she would keep clicking on the correct letter. She would say the letter and sound as she was playing to make sure that she was getting points. She did sometimes had trouble clicking on the letter that she wanted because there were other letters floating around on the screen over the letters that she needed.

**Appendix B**

**Focus Group #1**

1) What are letters?
Jack: Like the ABC’s
Me: Sammy what do you think letters are.
Sammy: MOT, there are a lot of letters
2) What are letters used for?
Jack: For to learn
Sammy: For projects, glue them down on papers
3) What are sounds?
Jack: “a” as in apple
Sammy: And like a….um…in. There is a castle in my bed.=
4) What are the sounds used for?
Sammy: To speak
Me: Jack what do you think sounds are used for?
Jack: Same as Sammy, to say words
5) How are letters and sounds learned?
Sammy: Sing the alphabet and play alphabet puzzle
Jack: Practice sounds and say the soft or hard sound

**Focus Group #2**

1) What are letters?
Ryan: They’re the alphabet
Me: What else are letters?
Joel: Like the ABC’s
Me: Jon do you know what letters are?
Jon: Dragons
Me: Dragon?
Jon: Dragons that are… just appear when I go to sleep.
Me: Any other ideas of what letters are?
Ryan: They’re for stuff to read with, you can read
2) What are letters used for?
Joel: To spell
Ryan: Used for reading
Me: Jon, What do you think letters are used for?
Jon: ABC’s are like… (singing) a, b, c, d, e, f, g
3) What are sounds?
Ryan: sounds are like when you hum
Joel: Like to talk
Jon: Dragons make noises
4) What are sounds used for?
Joel: To talk
Ryan: They’re used for people to know where somebody is….like they can follow a sound like when it gets louder they can follow the sound like where they are.
Me: Can anyone think of any other things sounds are used for?
(No answer)
5) How are letters and sounds learned?
Ryan: You can learn them by school, you can learn them by your mom and dad, you learned them by games.
Joel: We practice
Me: Jon, do you have an idea of how we learn letters and sounds?
Jon: No
Appendix C

A Visit to the Zoo
Say the name of each picture out loud. Print the letter that makes the sound you hear at the end to finish the word.

- Donkey
- Monkey
- Tiger
- Giraffe

Snack Time!
Say the name of each picture out loud. Print the letter that makes the sound you hear at the beginning to finish the word.

- Banana
- Peach
- Cookie
- Milk

Say the name of each picture out loud. Print the letter that makes the sound you hear at the beginning of each word.

- F
- H
- K
- N
- T
- Y

- B
- D
- J
- M
- S
- W

- M
- N
- B
- D
- J
- L
A Visit to the Zoo

Say the name of each picture out loud. Print the letter that makes the sound you hear at the beginning of the word.

Donkey
Monkey
Tiger
Giraffe

Snack Time

Say the name of each picture out loud. Print the letter that makes the sound you hear at the beginning to finish the word.

Banana
Apple
Cookie
Milk

Say the name of each picture out loud. Print the letter that makes the sound you hear at the beginning of each word.

b d j m s w

f h k n t y
PHONICS STRATEGIES AND LETTER-SOUND ACQUISITION KNOWLEDGE

**Name:** Joel

**Snack Time!**
Say the name of each picture out loud. Print the letter that makes the sound you hear at the beginning of each word.

- **Banana**
- **Beach**
- **Cookie**
- **Milk**

**A Visit to the Zoo**
Say the name of each picture out loud. Print the letter that makes the sound you hear at the beginning of each word.

- **Donkey**
- **Monkey**
- **Tiger**
- **Giraffe**
PHONICS STRATEGIES AND LETTER-SOUND ACQUISITION KNOWLEDGE

Name: Jack

Say the name of each picture out loud. Print the letter that makes the sound you hear at the beginning of each word.

b d j m s w

A Visit to the Zoo

Say the name of each picture out loud. Print the letter that makes the sound you hear at the beginning of each word.

Donkey

Monkey

Tiger

Giraffe

Name: Jack

Snack Time!

Say the name of each picture out loud. Print the letter that makes the sound you hear at the beginning to finish the word.

Banana

Each

Cookie

Milk
PHONICS STRATEGIES AND LETTER-SOUND ACQUISITION KNOWLEDGE

Name: Ryan

**Snack Time**

Say the name of each picture out loud. Print the letter that makes the sound you hear at the beginning to finish the word.

- **Banana**
- **Peach**
- **Cookie**
- **Milk**

Say the name of each picture out loud. Print the letter that makes the sound you hear at the beginning of each word.

- **f**
- **h**
- **k**
- **n**
- **t**
- **y**

**A Visit to the Zoo**

Say the name of each picture out loud. Print the letter that makes the sound you hear at the beginning of each word.

- **Donkey**
- **Monkey**
- **Tiger**
- **Dinosaur**

Say the name of each picture out loud. Print the letter that makes the sound you hear at the beginning of each word.

- **b**
- **d**
- **j**
- **m**
- **s**
- **w**

**ONLINE RESOURCES**

- [www.kidzone.ws](http://www.kidzone.ws)
  - Learning Letters: Teaching Sight Word Sounds
  - [Image 1](http://www.kidzone.ws/images/Kindergarten/letters/begin13.gif)
  - [Image 2](http://www.kidzone.ws/images/Kindergarten/letters/begin12.gif)
Appendix D
Appendix E
1) How do you find out the letter and sound knowledge of all the students?

   Flash Cards

2) What strategies/instructional methods do you use to teach letter and sound knowledge?

   1. Whole language
   2. Games are well liked with my age group.
   3. Repetition

3) How do you monitor the progress of the students' letter and sound knowledge?

   My program progresses through blocks. When all letter sounds are mastered as well as writing both capital and lower case, early reading begins. Word families are

4) Why is letter-sound knowledge important to the students' education?

   1. With second language speakers, it helps with pronunciation.
   2. Puts children on the track for reading.
   3. Early reading sets the foundation for success academically.

(please write on the back for each answer if you need more space)
1) How do you find out the letter and sound knowledge of all the students?

- Have student visually id letters then ask student sound of letter verbally; using Inventory for reading/writing
- Ask word aloud ask child to id beginning and/or ending sound
- Ask to give rhyming words or create word families eg: cat

2) What strategies/instructional methods do you use to teach letter and sound knowledge?

- Weekly letter book use; create lists of words starting with letter of week
- Small group - reading groups
- Word wall in writing area

3) How do you monitor the progress of the students' letter and sound knowledge?

- Beginning/end of year Inventory
- Weekly letter books
- Regular teachable moments in circle time and/or small group times

4) Why is letter-sound knowledge important to the students' education?

- Enables children to gain confidence to sound out words leading to stronger reading capability
- Replicating reading ability all other learning becomes more difficult especially in higher grade levels where reading for meaning is needed

(please write on the back for each answer if you need more space)
1) How do you find out the letter and sound knowledge of all the students?
   In the beginning of the year we took reading and writing inventories of each student. We checked for letter recognition and sound knowledge.

2) What strategies/instructional methods do you use to teach letter and sound knowledge?
   We do a letter every week. We have letter books that work on printing and initial sounds. We also do small reading groups where we work more on initial and vowel sounds.

3) How do you monitor the progress of the students' letter and sound knowledge?
   Beginning of the year progress notes, and mid-year. Everyday work in small groups. Reading group times.

4) Why is letter-sound knowledge important to the students' education?
   It helps with the reading process. It gives them a great base to start and builds their confidence.

(please write on the back for each answer if you need more space)