VISUAL CLUES: A STRATEGY TO IMPROVE STUDENTS' WORD RECOGNITION

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ABSTRACT

Visual clues can aid in making a concept more concrete for the readers. While learners may have vivid imaginations, they may require assistance in visualizing some concepts as part of their learning. As such, this paper is interested to determine if visual clues are effective in improving students' word recognition. This study aimed to determine: the pre-test scores between the experimental group; significant difference of the pre-test scores between the control and experimental group; post-test scores between the control and experimental group and; significant difference of the post-test scores between the control and experimental group. This research is a quasi-experimental research and was conducted to the twenty-one (21) Grade 2 learners as the respondents from Sta. Felomina Elementary School. Moreover, the researcher used a pre-test and post-test as well as a researcher-created questionnaire that underwent validity and reliability testing. The results of the study shows that both the pre-test scores between the control and experimental group failed to achieve the expectations, implying that the respondents' ability to recognize words needs to be improved. In terms of their mean comparison, it turns out that while neither met the expectation, they nevertheless differ significantly. Meanwhile, with the post-test scores between the control and experimental group, the findings shows that the respondents from the control group did not meet the expectation however, the experimental group's respondents did, which implies that, the word recognition of the respondents in experimental group improved than with the respondents from control group. As a result, the paper discovered that the traditional method of teaching students to read is no longer successful. Teachers may use new changing interventions in increasing the learners' word recognition, such as visual clues, in their everyday reading habit sessions in order for the learners to gain the skill, word recognition, in becoming a skilled reader.

Keywords*: visual clues, word recognition, phonemic awareness, phonological awareness, decoding, and blending*

1. INTRODUCTION

Visual clues are tangible objects, pictures, symbols, or written phrases that instruct a youngster on how to do a task, activity, behavior, or skill. Visual signals can assist a youngster in learning a new skill or becoming more self-sufficient in a current one. Visual clues are also a fantastic way for kids to learn how to spell. For some youngsters, simply seeing the words and letters is insufficient to help them fully comprehend and recall the spellings of words (Garnett, 2011). Visual clues according to Snow (2018) can also aid in making a concept more concrete for young students. While they may have vivid imaginations, they may require assistance in visualizing some concepts as part of their schooling. Bright, eye-catching, and, most importantly, engaging visual signals are also possible. It might be tough to get children interested in a topic or class, but visual cues can help.

Visual clues pique children's interest, especially if they have an intriguing image or a vibrant color. Some students are visual learners, which means they interpret and comprehend information more effectively when visual aids like colors, pictures, and diagrams are used (Stanback, 2012). For learners who aren't visual learners, being able to comprehend images can help them increase word recognition and reading comprehension. Children must develop these skills in order to become competent readers (Twinkle, 2021).

Reading's primary objective is to improve comprehension. However, comprehension will not be achieved unless word recognition will be improved. If reading will be done without word recognition, it is nothing more than a decoding exercise. In this light, reading with visual clues should provide readers with important information extracted from the clues with the help of pictures and illustrations. The perspectives of readers can be influenced by the outcomes of reading.

2. REVIEW OF RELATED LITERATURE

This chapter discusses the review of related literature of the topics of this action research. The discussion includes nature of word recognition, problem in word recognition, relevance of visual clue to word recognition. Since this is a review of related literature, the researcher of this paper will include in the discussion the topics from various reliable sources such as books, articles, journals, and other researches.

2.1 Nature of Word Recognition

The aims of reading education are several, but they always contain the following: children will read confidently, understand what they read, and enjoy reading to be a source of knowledge and pleasure (Guthrie, et al., 2017). According to Chard and Osborn (2022), an effective classroom program of beginning reading teaching must give children with a wide variety of experiences that connect to a number of important characteristics of reading in order to fulfill these goals with all children and some of these encounters are centered on meaning.

Children, for example, participate in oral language activities that focus on idea and vocabulary development; they listen to wonderful stories and instructive texts read aloud; and they read and discuss what they read with other children, frequently with the help of their teachers (Bruner & Tally, 2019). Other exercises include print awareness, letter identification, writing, and spelling, all of which rely on word recognition of written words (Boone & Higgins, 2011). Phonics and word-recognition strategy lessons are taught to the kids. With this, according to Murray (2014), they learn that the sounds in spoken words have predictable and frequently generalizable relationships with the patterns of letters in written words. Children as asserted by Spires and Estes (2012), learn to blend their understanding of print and sounds with their knowledge of language to read with meaning and enjoyment when they read books and other print materials and goes without saying that no one part of a beginner's program should take up all of the instructional time.

The National Reading Panel (2020) stated that the best reading instruction incorporates explicit instruction in five areas (phonemic awareness, phonics, fluency, vocabulary, and comprehension), its purpose was to review hundreds of research studies in order to inform instructors about the most effective evidence-based methods for teaching each. These five domains are highlighted in the Simple View of Reading so that we can see how the subskills ultimately lead to two key components of effective reading comprehension (Keene & Zimmermann, 2017). To learn to recognize words, children need a variety of abilities and elements (e.g., phoneme awareness, phonics), as well as a variety of skills and elements to learn to understand language (e.g., vocabulary) (Murray, 2014). In the end, the capacity to read words (word recognition) and understand them (language comprehension) leads to proficient reading comprehension (Gee, 2011).

Phonological Awareness. It is one of the most important needs for decoding and, ultimately, word recognition (Snow, et al., 2018). Robb (2020) defines phonological awareness is a broad phrase that refers to being aware of different-sized units of sound in spoken words, such as rhymes (whole words), syllables (big portions of words), and phonemes (small parts of words) (individual sounds). Additionally, Sarrob and Pearson (2018) discussed that hearing the words "cat" and "mat" and realizing that they rhyme is phonological awareness, and rhyming is usually the easiest and earliest form that toddlers learn. Similarly, being able to separate the spoken word "teacher" into two syllables is a more complex sort of phonological awareness (Murray, 2014). Moreover, the National Reading Panel (2020) asserted that the ability to perceive and manipulate units of sounds in spoken language is referred to as phonological awareness. Within a word, there is a sound unit. Consider the word apple. You may hear the words /ap/ and /ple/. We hear two different syllables. These are sound units. You have phonological awareness if you can hear the two sounds (syllables) in the word (Pressley, 2012).

According to Snow, Burns, and Griffin (2015), phonemes are spoken phonological units that have different meanings. Furthermore, for Goldstone (2011), phonemic awareness refers to the ability to focus on and manage phonemes in spoken words. Phonemic awareness is the recognition that every spoken word may be broken down into a series of phonemes. Understanding the alphabetic logic necessitates knowledge of phonemes, which are the sound units represented by the letters of the alphabet (Delany & Landow, 2011). National Reading Panel (2020) defines phonemes are the smallest units that make up spoken language. In English, there are roughly 41 phonemes. Phonemes combine to generate syllables and words. Only one phoneme exists in a few words, such as a and oh (Roosenblatt, 2013). The majority of words are made up of a mixture of phonemes, such as go (two phonemes), check (three phonemes), and stop (four phonemes). Phonemes are distinct from graphemes, which are written language units that represent phonemes in word spellings. Graphemes can be made up of a single letter, such as P, T, K, A, or N, or a series of letters, such as CH, SH, -CK, EA, -IGH, which each indicate a single phoneme (Dofge, 2017).

As previously stated, phoneme awareness is the most sophisticated level of phonological awareness; it is the understanding of the smallest individual units of sound in a spoken word—its phonemes (RAND Reading Study Group, 2002). Despite the fact that they may have no idea what the word "sleigh" looks like in print and would certainly have problems reading it, youngsters will recognize three distinct speech sounds—/s/ /l/ /—when they hear it (Eagleton & Guinee, 2012). However, as asserted by Murray (2014), phonological awareness is frequently confused with phoneme awareness since the phrases sound similar. Teachers should be aware of the distinction since bigger units of sound, such as rhymes and syllables, develop before individual phoneme awareness, and instructional methods designed to foster one awareness may not be appropriate for the other (Tovani, 2020). Teachers should also be aware that phonological awareness, as well as its more sophisticated version, phoneme awareness, has nothing to do with print or letters (Reinking & McKenna, 2017).

A slew of studies appeared demonstrating the importance of phoneme awareness, the most advanced form of phonological awareness, in learning to read and write (International Reading Association, 2016). If this awareness of sounds in spoken words is not developed, learning the relationship between speech and print, which is important for learning to read, will be difficult (Snow, et al., 2018). This issue can sometimes be traced back to specific underlying factors, such as a lack of instructional experiences to assist children in developing phoneme awareness, or neurobiological abnormalities that make developing phoneme awareness

more challenging for some children (Rayner, et al., 2021). Phoneme awareness makes it easier to make the crucial connection that is "reading": the sequences of individual sounds in spoken words correspond to the sequences of printed letters on a page (Bird, et al., 2019).

Decoding. The ability to decode words is another important aspect of word recognition. When teaching learners to decode words correctly, they must first learn the alphabetic principle and letter-sound correspondences (Rack, John, Hulme, Charles, Snowling, Margaret and Joanne, 2014). When students grasp the aim of the alphabetic code, or the "alphabetic principle," they are said to understand the purpose of the alphabetic code (Adams, 2020). Letter-sound correspondences are understood when students can supply the correct sound for letters and letter combinations (Bruck and Treiman, 2020). Students according to Ehri and Robbins (2012), can then be taught to decode, which is the process of combining letter sounds to read words. Decoding is a conscious and purposeful act in which readers consciously and actively utilize their knowledge of the mapping system to construct a convincing pronunciation of a word they do not quickly identify (Beck & Juel, 2015). Moreover, Glass and Burton, (2013) asserted that neither knowing the alphabetic concept nor knowledge of letter-sound correspondences come easily, similar to phonological awareness. While some children may learn about the relationships between speech and print on their own through exposure and good literacy experiences, others require training, and word recognition improves dramatically as a result of such education (Boyer & Ehri, 2011).

Hence, through the use of phonological awareness and letter-sound education, students who grasp the alphabetic principle and have been taught letter-sound correspondences are well-prepared to begin decoding simple words such as "cat" and "large" accurately and independently (Goswami, 2018). These students will have high initial decoding accuracy, which is essential in and of itself since it enhances the possibility that children will want to read and, as a result, word recognition will improve (Levy and Lysynchuk, 2017). It's also critical to give children adequate education in letter-sound correspondences and how to use those correspondences to decode since improved word recognition leads to improved reading comprehension (Brady, 2011).

2.2 Problems in Word Recognition

Reading difficulties among English language learners according to Moustafa (2015) have emerged as one of the most pressing concerns in educational policy and practice. The Longman Dictionary of Contemporary English (2009) defines "reading" as "looking at written words and understanding what they mean." The cognitive process of comprehending a written language message is known as reading. Reading abilities allow readers to make sense of what they're reading and attain their reading objectives (Raven, Raven, and Court 2015). The process of comprehending and building meaning from a piece of text is known as reading comprehension. The pressures placed on pupils in upper elementary school classrooms during reading instruction are significant (Muter, et al., 2014). Learning to read, on the other hand, is the most difficult endeavor in those early years of school (Peterson and Haines, 2012).

Moreover, when children are reading and come across an unfamiliar word, they may employ context clues, or information from visuals or words surrounding the new word (Stanovich, 2012). The amount to which children should be encouraged to rely on context signals in reading is one of the most misunderstood themes in reading education (Wang and Gaffney, 2018). This misunderstanding derives in part from the widespread use in education of theoretical reading models that do not represent scientific findings on how children learn to read (Woodcock, 2017). The failure to separate the use of context signals in word identification from the use of context in comprehension is another source of difficulty (Twinkle, 2021).

To properly detect words and gain meaning from written text, children must employ all of their linguistic, decoding, phonetic, and visual skills. Unfortunately, almost 40% of school-aged learners struggle to read (Foluso, 2014). Some of these children have difficulty with vocabulary development, concept building, organizing information and facts, and selecting ancillary reading and related source materials, to name a few issues (Wylie and Durrell, 2020). However, a huge percentage of learners who are experiencing trouble reading have issues with phonetic awareness and language processing (Deluxe, 2014). In fact, according to Stahl and Murray (2014), for some young readers, noticing and being aware of specific sounds in spoken words (phoneme awareness) is one of the most difficult intellectual challenges they will ever face. In addition to this, phoneme awareness, as well as exposure to other fundamentals like how to hold a book, the concept of a word or phrase, and alphabet knowledge, may be taught before formal schooling begins for certain children (Stanback, 2012). Rubeck (2017) asserted that oral activities such as being talked to and read to in a literacy rich setting, in addition to visual and print experiences, serve to prepare children for reading. Children who have never had these literacy experiences before beginning school must rely significantly on their teachers to supply them (Gough and Runmer, 2016).

According to Swerling (2016), scientific research strongly suggests that the development of skilled reading skills includes improving word identification skills and not using "many cueing systems" to read texts. Because skilled readers can read most words naturally and have the phonics abilities to quickly decode infrequent unexpected words, they don't need to rely on visuals or sentence context for word identification (Greaney, Tunmer, and Chapman, 2017). Unskilled readers, on the other hand, are more likely to rely on context to compensate for poor word recognition (Greaney and Tunmer, 2016). Furthermore, Goswami (2016) affirmed that even when learners can utilize context to figure out what word to use, relying on context to compensate for erroneous or nonautomatic word reading reduces understanding. As learners are required to read more hard texts with few or no

illustrations, sophisticated vocabulary, and grammatically complicated sentences, this type of compensation becomes increasingly troublesome (Brady, 2011).

To put it another way, there are two keys to unlocking text comprehension: being able to read the words on the page and comprehending what the words and language mean within the texts children are reading (Foorman, et al., 2018). Fluency and, as a result, reading comprehension will suffer if a pupil is unable to recognize words on the page accurately and automatically. Reading comprehension will suffer as well if a pupil does not understand the meaning of the words (Davis, 2006).

2.3 Relevance of Visual Clue in Addressing Problems of Word Recognition

For beginning readers, detecting, or exploiting pictorial clues, is an important method. When learners are reading and come across an unfamiliar word, they may employ context clues, or information from visuals or words surrounding the new word (Hardy, et al., 2013). The amount to which children should be encouraged to rely on context signals in reading is one of the most misunderstood themes in reading education. This misunderstanding derives in part from the widespread use in education of theoretical reading models that do not represent scientific findings on how children learn to read (Barr, 2014).

The failure to separate the use of context signals in word identification from the use of context in comprehension is another source of difficulty (Swerling, 2016). Swerling (2016) added that a reader will not be able to comprehend a work unless they are familiar with the majority of the words. Students learn the bulk of words indirectly via their daily encounters with speech, written language and visual clues. Reading failure can thus be avoided by efficiently organizing education, carefully selecting and adjusting reading material, and delivering the subject correctly (Curtis, 2020). Decoding tactics such as sounding out and blending can be bridged with pictorial clues, which can also compensate for inadequate decoding skills in struggling readers (Fries, 2013). In addition to improving recollection and retention, pictures can help comprehension by offering elaboration for a text explanation (Freedman and Calfee, 2014). As kids learn to read fluently and accurately, teaching them to apply the detecting approach will aid in the development of other reading methods (ASTUTE, 2015). Moreover, according to Danks (2015), when reading, good readers employ appropriate decoding skills to recognize unfamiliar words. When your child encounters an unfamiliar term, he or she can benefit from the use of visuals.

Snow (2018) compelled that visual clues might also help young children understand a subject more clearly. While they may have powerful imaginations, kids may need help visualizing some topics as part of their education. Visual signals that are bright, eye-catching, and, most importantly, engaging are also conceivable (Gates, 2019). It can be difficult to pique a child's interest in a subject or class, but visual cues can help for they capture children's curiosity, particularly if they contain an appealing image or a vibrant color (Glushko, 2019).

As a result, both younger and older pupils benefit from using visual clues in the classroom, while they may not be as entranced by bright colors and images as a primary school student would be, you may still use them to boost the effectiveness of your teaching (Gough, 2013). These can also aid in the recall of important information. When students are learning to draw and make the shapes of letters for the first time, some teachers may choose to construct a picture out of each letter to help them remember how to write them (Gough, 2014). Alternatively, as asserted by Rawe (2021), they may select an object or thing that begins with a specific letter to aid in the learning of consonant and vowel sounds. Visual clues are also an excellent approach for children to learn how to spell and for some learners, it's a game (Henderson, 2012). Alternatively, they may select an object or thing that begins with a specific letter to aid in the learning of consonant and vowel sounds (Jackson and McClelland, 2019). Visual cues are also an excellent approach for children to learn how to spell (Jorm and Share, 2013). For some youngsters, simply seeing the words and letters is insufficient to help them fully comprehend and recall the spellings of words (Beck, 2015).

3. METHODOLOGY

3.1 Research Design

This paper utilized a quantitative quasi-experimental research design. The researcher utilized this particular design since studies like this that aim to evaluate interventions but do not use randomization. Are referred to as quasi-experiments. Quasi-experiments, like randomized trials, aim to demonstrate causality between an intervention and an outcome. Pre and post- intervention measurements, as well as no randomly selected control groups, can be used in quasi-experimental studies. .

3.2 Research Instrument

The research instrument is a researcher made questionnaire which underwent validity and reliability testing. Its validity was established using the content validity as certified by expert in the field after matching the content of the questionnaire to the curriculum guide (See Appendix A). On the other hand, the reliability of the questionnaire was established using the Spearman-Brown Coefficient of 0.717 which means that the questionnaire is highly reliable.

The questionnaire (See Appendix B) includes two test types that was labeled as Alphabet Knowledge (Test 1)— in here, the learners were given two groups of alphabet letters that were scrambled meaning they were not in order. The upper case letters was grouped separately from the lower case letters. The learners were asked to organize the letters and pair the lower case letters to its

corresponding upper case letters. This test stand as early reading screening indicator for the researcher to determine their level of basic alphabet knowledge; and Multiple choice test (Test 2)—the learners were asked to shade the word that corresponds to the correct answer in each item. Also, each questions in here stands for a corresponding skill for word recognition: (1&6) phoneme deletion, (2&7) distinguishing rhyming words for non-rhyming words, (3&8) sound isolation, (4&9) odd word out, and (5&10) blending.

3.3 Respondents of the Study

The respondents of this research were the Grade 2 learners of Santa Felomina Elementary School school year 2021-2022. The respondents were officially enrolled in the said grade level, and because the limited face-to-face learning modality is already being observed, and they have two different sessions, morning and afternoon sessions, this research was conducted in morning (Set A) with 10 respondents and afternoon (Set B) with 11 respondents. The researcher tossed a coin to determine which groups were the control and which were the experimental. As a result, set A was designated as the control group and set B as the experimental group.

4. RESULTS AND DISCUSSION

This chapter presents the results and discussion of the study and the discussion pertains to the results analyzed and interpreted. The discussion is arranged in order of the statements of the problem: level of pre-test scores; difference of the pre-test scores of control and experimental group; level of post-test scores and; difference of the post-test scores.

4.1 Level of Pre-test Scores

In this paper, pre-test was conducted in order to gather the data in obtaining the pre-test scores of the learners from both control and experimental groups. Moreover, the purpose of the pre-test aside from obtaining the pre-test scores, was to be able to determine what knowledge and skills they already have in terms of word recognition. Table 1 presents the level of pre-test scores between the control and experimental group.

Table 1. Level of pre-test scores between the control and experimental group

Group	Total Score	Standard Deviation	Mean	Grade Percentage	Remarks
Control	36	1.60	3.10	54.30	Did Not Meet Expectation
Experimental	36	2.40	4.82	56.69	Did Not Meet Expectation

Based on the findings, it can be observed that the learners from both groups did not meet the expectation which entails that the learners still lack the skills in recognizing words which can be also implied that these learners are still cannot move to a more complex reading sessions and exercises. Hence, it can be seen that before conducting the intervention of this research, the students were not able to have the skills particularly in their alphabet knowledge since this is the primary requirement for the learners to become skilled in word recognition as according to Anderson (2020), all readings begin with recognition of words.

This result aligns to the findings of Jocson (2019), which indicated that the pupils have difficulties in recognizing words. In like manner, the respondents were poor readers for most of the pupils have reading levels lower than their present grade where they are enrolled and have poor comprehension skills.

Moreover, the results coincide with Karademir and Ulucinar's (2017) step-by-step procedure that starts by decoding that resulted to poor level of word recognition on the pre-test. Additionally, Maximo (cited in Mofareh, 2015), Harmon and Wood (2018), and Rosado and Caro (2018) stated in their study, that since the learners have poor pre-test scores, then it indicates that their respondents still lack in their word recognition and still needs more attention. These findings also, matched to the conclusions of Gunobgunob-Mirasol, (2019); Kieffer & Lesaux (2012); Laufer & Ravenhorst-Kalovski, (2010); Shahar-Yames & Prior, (2018); Snow (2012) indicating that learners from their studies got poor result in terms of their pre-test scores on their word recognition.

4.2 Difference on the Level of Pre-test Scores

After conducting the pre-test and obtaining the scores of both the control and experimental group, it was then compared. Table 2 presents the mean comparison between the pre-test scores of control and experimental group.

Table 2. Mean comparison between pre-test scores of control and experimental group

Group	Mean	Standard Deviation	t-value	p-value	Interpretation

Control	3.10	1.60	-1.91	0.071	Pre-test scores between the two groups differ significantly.
Experimental	4.82	2.40			

The findings imply that although the pre-test scores both (control and experimental group) did not meet the expectation (presented in table 1), the pre-test scores between the two groups still differ significantly. This also implies that, clearly, learners have varying background knowledge about the activity conducted to them.

The results align to the findings of Kelly and Campbell (2014) where both the control and experimental group did not meet the expectation, but both still differ which also implies that learners can be given individual attention in order to determine their growth and word recognition skills level. However, this result did not coincide with results to the research of Müller, Richter, Karageorgos, Krawietz and Ennemose (2017) indicating that the control and experimental group that received the same pre-tests did not differ significantly on their scores, unlike with the result of this research.

Moreover, like the results of Müller, Richter, Karageorgos, Krawietz and Ennemose (2017), the result of this paper did not agree to the findings of Suggate, (2010); Heikkilä, Bertram, and Hyönä, (2013); Galuschka, Ise, Krick and Schulte-Körne, (2014), where the pre-test scores of the in their respondents turn out to be nod significantly different and has poor pre-test scores, indicating that learners need attention in terms of their word recognition.

4.3 Level of Post-test Scores

The post-test scores of the respondents were determined after the intervention was being conducted. Visual Clues was conducted to the respondents from the experimental group, however, the respondents from control group was taught without the intervention or the strategy and they were taught with the use of the traditional teaching approach. Table 3 presents the level of post test scores between the control and experimental group.

Table 3. Level of post-test scores between the control and experimental groups

Group	Total Score	Standard Deviation	Mean	Grade Percentage	Remarks
Control	36	1.50	4.30	55.97	Did Not Meet Expectation
Experimental	36	2.00	34.40	97.78	Outstanding

Based on the results, it can be determined that the level of the post-test scores of the respondents from the control group still did not meet the expectation, which implies that learners from this group still lack the skill for word recognition. Also, with the presented results, this specifies that visual clues as an intervention affected the test scores of the respondents from the control and experimental group. This also implies that, the word recognition of the respondents (experimental group) which taught to recognize words through visual clues improved in terms of their word recognition positively than with the respondents from control group.

The findings agrees to the result of Abdullah (2018) where the post-test score results showed that the respondents from the experimental group improved and the intervention largely impacted the improvement. Also, the findings in this study were similar to the findings of D'Ardenne, Barnes, Hightower, Lamason, Mason, Patterson, and Erikson (2013) concluding that the respondents taught to improve the word recognition with the intervention, showed improvement than the learners who were not in accordance to the high post-test scores. Hence, the results showed that students in the experimental group which utilized the intervention showed growth on their statewide word recognition assessments.

Similar to the study of Compton-Lilly (2018) the findings of this research suggests that the learners underwent sessions with the intervention, improved largely on their word recognitio. Moreover, Biggart, Kerr, O'Hare, and Connolly (2013) studies also showed improvement on students' word recognition after the learners from the experimental group was taught with their intervention.

4.4 Difference Post-test Scores

Following the intervention, the respondents' post-test scores were calculated and compared. Table 4 compares the mean post-test scores of the control and experimental groups.

Table 4. Mean comparison between post-test scores of control and experimental group

Group	Mean	Standard Deviation	F-value	p-value	Interpretation

Control	4.30	1.50	1587.98	0.000	Post test scores between the two groups differ significantly.
Experimental	34.40	2.00			

The findings implies that the post-test scores between the two groups, differ significantly which means that through the use of visual clues, the word recognition of learners from the experimental group improved and the control group learners, unfortunately, still needs attention. Similarly, the findings of Compton-Lilly (2018) showed that the post-test scores of the respondents from control and experimental group significantly differ.

This finding coincides to the research of Basbagill (2010) and Narr (2010) wherein the learners from experimental group showed in their post-test scores the large improvement compared to their pre-test and the learners from control group remained poor with regards to their scores. Moreover, the findings of this research is similar to the findings of Kart (2017); Smith & Ye Wang (2010); Ye Wang et al., (2013) which demonstrates that according to the results of the post-test scores of the respondents from experimental group improved than the respondents from the control group, and it stand as substantial evidence for the effectiveness of visual clues as an intervention tool or a strategy for students to improve their word recognition.

With this, based on the post-test scores of the respondents, visual clues is effective as a strategy and an intervention as well. This can be seen clearly on the results and this finding coincide with Hayes and Flanigan (2014) which implies that learners need visual clues to build accurate word recognition skills, which entails automatic and effortless recognition of words. This assertion suggests that the in order for the learners to develop and improve their word recognition, strategies and intervention like visual clues can be utilized and good enough and evident as according to the scores of the learners in this papers for learners to fully develop their word recognition skills. Moreover, according to McPherson (2015), the more that visual clues can be utilized, the more words learners recognize and understand, and the more proficient they will become in reading comprehensions.

Furthermore, based on the findings, this paper agrees with Murray (2016)'s conclusion that the patterns of letters in written words and pictorial clues have predictable and often generalizable links with the sounds in spoken words. As a result, when children read books and other print materials, they learn to integrate their knowledge of print and sounds with their knowledge of language in order to read with meaning and enjoyment. However, the finding of this research disagrees to the claim of Swerling (2016), which implies that scientific evidence recommends that developing good reading skills entails strengthening word recognition skills and not reading texts with visual clues. Swerling (2016), added that skilled readers do not need to rely on visuals or sentence context for word identification because they can read most words effortlessly and have the phonics abilities to quickly decode words. In contrast, unskilled readers are more prone to rely on context to compensate for poor word recognition.

Clearly, with the help of visual clues in this study which includes print texts and pictures, the respondents from the experimental group were able to develop skills on their phonological awareness and decoding skills which means that their word recognition improved compared to the control group where visual clues was not applied and traditional instruction in teaching learners was utilized.

4.5 Implications to English Education

Visual clues highlight and point out key information that learners require for word recognition, which can have a significant impact on their reading abilities. Visual cues assist learners in understanding a subject. While they may have vivid imaginations, they may require assistance in visualizing certain topics as part of their education. According to ASTUTE (2015), if learners are taught to recognize words with visual cues, they can learn to read fluently and accurately, which can aid in the development of other reading methods. In addition, good readers use appropriate decoding skills to recognize unfamiliar words when reading, and when the child encounters an unfamiliar term, he or she can benefit from the use of visuals (Johnson and Baumann, 2014).

Based on the findings, we can observe that the learners from the control group were behind to the development of the other group's word recognition. This clearly implies that traditional teaching to improve the learning on reading is no longer effective and this proves that the Department of Education can urge the teachers to employ the intervention (visual clues) to address the existing problem found in the word recognition of the learners. As a result, this can assist learners who find it difficult to comprehend information orally or by reading and prefer to learn through visual means. As the word recognition of the learners, spelling, blending, decoding, sight word recognition and other reading basic skills will improve as well. According to Beck (2015), visual clues are excellent approach for children to learn how to spell. For some readers, simply seeing the words and letters is insufficient, to help them fully comprehend and recall the spellings of words, visual clues can be applied.

In this sense, since the findings of this study was evident that visual clues is effective, and so, teachers can employ the same material or similar to it to help achieve the learning competencies in teaching learners to recognize words.

5. CONCLUSION

Based on the findings, this research concludes that:

1. The pre-test scores of the two groups did not meet the expectation. This means that the learners do not have enough skills in recognizing words particularly, alphabetic knowledge, phonological awareness, decoding, and blending.
2. Pre-test scores of the two groups did not meet the expectation, however both ` still differ significantly. This implies that the learners have varying background knowledge in terms of recognizing words.
3. The post-test score of the control group did not meet the expectation, while the scores of the experimental group did. This implies that the learners from the control still lack word recognition skills, while the experimental group showed improvement.
4. The post-test scores differ significantly. The control group were not able to meet the expectation, while the experimental group did. This finding implies visual clues is effective.

6. REFERENCES

[1]. Abdullah, M. (2018). Reading speed and comprehension enhancement in hybrid learning delivery mode. Advances in Language and Literary Studies, 9(3), 25-33.

[2]. Adams, M. J. (2020). Beginning to Read: Thinking and Learning about Print. Cambridge, Massachusetts: MIT Press.

[3]. Anderson, R.C. (2020). On becoming a nation ofreaders. Washington, D.C. : National Institute of Education.

[4]. ASTUTE (2015). Use Picture Clues to Support Decoding & Comprehension. Retrieved on March 21, 2022 from https://www.astutehoot.com/using-picture-clues-to-support-decoding-and-comprehension/

[5]. Barr, R. (2014). Beginning reading instruction: From debate to reformation. In P. Pearson (ed.), Handbook of reading research (pp. 545–581). New York: Longman.

[6]. Beck, I. L., & Juel, C. (2015). The role of decoding in learning to read. American Educator, 19, 8-25. Retrieved from http://www.scholastic.com/Dodea/Module_2/resources/dodea_m2_pa_roledecod

[7]. Bhandari, P. (2022). The Mean | What It Is and How to Find It. Retrieved in April 8, 2022 from https://www.scribbr.com/statistics/mean/#:~:text=The%20mean%20(aka%20the%20arithmetic,to%20as%20the%20%E2%80%9Caverage.%E2%80%9D

[8]. Bird, J., Bishop, D.V.M., and Freeman, N.H., (2015). Phonological Awareness and Literacy Development in Children with Expressive Phonological Impairments. *Journal of Speech, Language, and Hearing Research*. https://doi.org/10.1044/jshr.3802.446

[9]. Biggart, A., Kerr, K., O'Hare, L., & Connolly, P. (2013). A randomised control trial evaluation of a literacy after-school programme for struggling beginning readers. International Journal of Educational Research, 62, 129-140. doi:10.1016/j.ijer.2013.07.005

[10]. Boyer, N., & Ehri, L. (2011). Contribution of phonemic segmentation instruction with letters and articulation pictures to word reading and spelling in beginners. Scientific Studies of Reading, 15, 440-470. Doi:10.1080/10888438.2010.520778

[11]. Boone, R.H., & Higgins, K. (2011). E-books and online text: Special education technology re search. Paper presented at the annual meeting of the Naional Reading Conference, San Antonio, TX.

[12]. Brady, S. (2011). Efficacy of phonics teaching for reading outcomes: Indicators from post-NRP research. In S. A. Brady, D. Braze, & C. A. Fowler (Eds.), Explaining individual differences in reading: Theory and evidence (pp. 69–96). New York, NY: Psychology Press.

[13]. Bruck, M., Treiman, R. (1992). Learning to pronounce words: The limitations of analogies. Reading Research Quarterly, 27, 375–389.

[14]. Brunner, C.B., & Tally, W. (2019). The new media literacy handbook: An educator's guide to bringing new media into the classroom. New York: Anchor Books

[15]. Byrne, J. P. (2012). Encyclopedia of the Black Death. Santa Barbara, CA: ABC-CLIO.

[16]. Compton-Lilly, C. (2018). Teaching struggling readers: Capitalizing on diversity for effective learning. Reading Teacher, 61(8), 668-672. doi:10.1598/RT.61.8.10

[17]. Curtis, M. (2020). Development of components of reading skill. Journal of Educational Psychology, 72, 656–669.

[18]. Davis, M. (2016). Reading instruction: The two keys. Charlottesville, VA: Core Knowledge Foundation.

[19]. Danks, J. (2015). Comprehension in listening and reading: Same or different? In F. Murray (ed.), Reading and understanding (pp. 1–39). Newark, DE: International Reading Association.

[20]. D'Ardenne, C., Barnes, D. G., Hightower, E. S., Lamason, P. R., Mason, M., Patterson, P. C., & Erickson, K. A. (2013). PLCs in action: Innovative teaching for struggling grade 3-5 readers. The Reader Teacher, 67 (2), 143-151. doi:10.1002/TRTR.1180

[21]. Delany, P., & Landow, G.P. (Eds.). (1991). Hypermedia and literary studies. Cambridge, MA: MIT Press.

[22]. Deluxe, A. M. (2004). Strategy for imparting Language skills into primary school Pupils. Retrieved on March 21, 2022, from http//:www.amstat.org/publications/jse/v 11n3/mvududu.html.

[23]. Dodge, B. (1997). Some thoughts about WebQuests. Retrieved from http://edweb. sdsu.edu/courses/edtec596/about_Web Ouests.html

[24]. Eagleton, M.B., & Guinee, K. (2012). Strategies for supporting student inquiry. New England Reading Association, 38(2). Retrieved May 18, 2022 from http://www.nereading.org/ inquiryarticle/abstract.htm

[25]. Ehri, L. C., Robbins, C. (2012). Beginners need some decoding skill to read words by analogy. Reading Research Quarterly, 27, 13–26.

[26]. Flemming, L (2014). How to Use Context to Determine the Meaning of Words. Reading for Results, 12th ed. Boston: Wadsworth, 2014. (pp 63-88)
[27]. Foluso, K. (2014). Children Emergent reading in English language from theory to practice. Literacy and Reading in Nigeria, 15, 8-19.
[28]. Fry, E., Kress, J., & Fountoukidis, D. (2020). The reading teacher's book of lists (4th ed.). Paramus, NJ: Prentice-Hall.
[29]. Fries, C. (2013). Linguistics and reading. New York: Holt, Rinehart & Winston.
[30]. Foorman, B. R., Francis, D. J., Fletcher, J. M., Schatschneider, C., Mehta, P. (2018). The role of instruction in learning to read: Preventing reading failure in at-risk children. Journal of Experimental Psychology, 90, 37–55.
[31]. Gallico, M. (2014). Level of Word Recognition and Reading Comprehension: A Basis for a Reading Program. Asia Pacific Journal of Education, Arts and Sciences. Vol. 1, No. 5. November 2014
[32]. Galuschka, K., Ise, E., Krick, K., and Schulte-Körne, G. (2014). Effectiveness of treatment approaches for children and adolescents with reading disabilities: a meta-analysis of randomized controlled trials. *PLOS ONE* 9:e89900. doi: 10.1371/journal.pone.0089900
[33]. Garnett, K. (2011). Fluency in learning to read: Conceptions, misconceptions, learning disabilities, and instructional moves. In J. R. Birsh (Ed.), Multisensory teaching of basic language skills (p. 293-320). Baltimore, MD: Brookes Publishing.
[34]. Gates, A. (2019). Character and purposes of the yearbook. In N. Henry (ed.), The forty-eighth yearbook of the National Society for the Study of Education: Part II. Reading in the elementary school (pp. 1–9). Chicago: University of Chicago Press.
[35]. Gee, J.P. (2011). Reading as situated language: A sociocognitive perspective. Journal of Adolescent & Adult Literacy, 44, 714-725.
[36]. Glushko, R. (2019). The organization and activation of orthographic knowledge in reading aloud. Journal of Experimental Psychology: Human Perception and Performance, 5 74–691.
[37]. Guthrie, J., McRae, A., & Klauda, S. L., (2017). Contributions of Concept-Oriented Reading Instruction to Knowledge About Interventions for Motivations in Reading
[38]. Goldstone, B.P. (2011). Whaz up with our books? Changing picture book codes and teaching implications. The Reading Teacher, 55,362-370.
[39]. Goswami, U. (2018). Orthographic analogies and reading development. Quarterly Journal of Experimental Psychology, 40A, 239–268.
[40]. Gough, P. (2013). Context, form, and interaction. In K. Rayner (ed.), Eye movements in reading: Perceptual and language processes (pp. 203–211). New York: Academic Press.
[41]. Gough, P. (2014). Word recognition. In P. Pearson (ed.), Handbook of reading research (pp. 225–253). New York: Longman
[42]. Gough, P. B., Tunmer, W. E. (2016). Decoding, reading, and reading disability. RASE: Remedial and Special Education, 7, 6–10.
[43]. Goswami, U. (2016). Children's use of analogy in learning to read: A developmental study. Journal of Experimental Child Psychology, 42, 73–83.
[44]. Greaney, K. T., Tunmer, W. E., Chapman, J. W. (2017). Effects of rime-based orthographic analogy training on the word recognition skills of children with reading disability. Journal of Educational Psychology, 4, 645–651.
[45]. Häikiö, T., Bertram, R., and Hyönä, J. (2016). The hyphen as a syllabification cue in reading bisyllabic and multisyllabic words among Finnish 1st and 2nd graders. *Read. Writ.* 29, 159–182. doi: 10.1007/s11145-015-9584-x
[46]. Hardy, M., Stennett, R. G., Smythe, P. C. (2013). Word attack: How do they "figure them out'? Elementary English, 50, 99–102.
[47]. Hayes, L., & Flanigan, K. (2014). Developing Word Recognition. New York: Guilford Publications
[48]. Henderson, L. (2012). Orthography and word recognition in reading. London: Academic Press.
[49]. International Reading Association. (2016). Phonemic awareness and the teaching of reading: A position statement from the board of directors of the International Reading Association. Retrieved from http://www.reading.org/Libraries/position-statements-and-resolutions/ps1025_phonemic.pdf
[50]. Jackson, M. and McClelland, J. (2019). Processing determinants of reading speed. Journal of Experimental Psychology: General, 108, 151–181.
[51]. Jocson, B. F. (2009). Reading habits, word recognition and comprehension skills of grade six pupils in Dumalag Central School, Dumalag, Capiz (Unpublished Master's thesis). Central Philippine University, Jaro, Iloilo City.
[52]. Johnson, D. and Baumann, J. (2014). Word identification. In P. Pearson (ed.), Handbook of reading research (pp. 583–608). New York: Longman.
[53]. Jorm, A. and Share, D. (2013). Phonological recoding and reading acquisition. Applied Psycholinguistics, 4, 103–147.
[54]. Karademir, E., & Ulucinar, U. (2017). Examining the relationship between middle school students' critical reading skills, science literacy skills and attitudes: A structural equation modeling. Journal of Education in Science, Environment and Health (JESEH), 3(1), 29-39. Retrieved from https://files.eric.ed.gov/fulltext/EJ1125758.pdf
[55]. Keene, E.O., & Zimmermann, S. (1997). Mosaic of thought: Teaching comprehension in a reader's workshop. Portsmouth, NH: Heinemann.
[56]. Kenton, W. (2021). Analysis of Variance (ANOVA). Retrieved on April 8, 2022 from https://www.investopedia.com/terms/a/anova.asp
[57]. Kieffer, M., & Lesaux, N. (2012). Direct and indirect roles of morphological awareness in the English reading comprehension of native English, Spanish, Filipino, and Vietnamese. Language Learning, 62(4), 1170-1204. https://doi.org/10.1111/j.1467-9922.2012.00722.x

[58]. Laufer, B., & Ravenhorst-Kalovski, G. (2010). Lexical threshold revisited: Lexical text coverage, learners' vocabulary size and reading comprehension. Reading in a Foreign Language, 22(1), 15-30. Retrieved from http://nflrc.hawaii.edu/rfl
[59]. Levy, B. A., Lysynchuk, L. (2017). Beginning word recognition: Benefits of training by segmentation and whole word methods. Scientific Studies of Reading, 1, 359–387.
[60]. Longman Dictionary of Contemporary English (2009). England: Pearson Education Limited
[61]. Lovett, M., Lacerenza, L., Borden, S. L., Frijters, J. C., Steinbach, K. A., De Palma, M. (2020). Components of effective remediation for developmental reading disabilities: Combining phonological and strategy-based instruction to improve outcomes. Journal of Educational Psychology, 92, 263–283.
[62]. McPherson, K. (2015). The Importance of Word Recognition in Improving Literacy. Retrieved on May 19, 2022 from https://keithmcpherson1blog.wordpress.com/author/chupsy13
[63]. Mofareh, A. (2015). The importance of vocabulary in language learning and how to be taught. International Journal of Teaching and Education, 3(3), 21-34. https://doi.org/10.20472/TE.2015.3.3.002
[64]. Moustafa, M. (1995). Children's productive phonological decoding. Reading Research Quarterly, 27, 29–53.
[65]. Müller, B., Richter, T., Karageorgos, P., Krawietz, S., and Ennemoser, M. (2017) Effects of a Syllable-Based Reading Intervention in Poor-Reading Fourth Graders. *Front. Psychol.* 8:1635. doi: 10.3389/fpsyg.2017.01635
[66]. Muter, V., Snowling, M., Taylor, S. (2014). Orthographic analogies and phonological awareness: Their role and significance in early reading development. Journal of Child Psychology and Psychiatry, 35, 293–310.
[67]. Murray, M. (2013). Word Recognition Skills: One of Two Essential Components of Reading Comprehension. Retrieved on March 21, 2022 from https://milnepublishing.geneseo.edu/steps-to-success/chapter/3-word-recognition-skills-one-of-two-essential-components-of-reading-comprehension/#:~:text=Word%20recognition%20is%20the%20act,of%20a%20text%20to%20occur.
[68]. Peterson, M. E., Haines, L. P. (1992). Orthographic analogy training with kindergarten children: Effects on analogy use, phonemic segmentation, and letter-sound knowledge. Journal of Reading Behavior, 24, 109–127
[69]. Pressley, M. (2012). Comprehension strategies instruction: A turn-of-the-century status re port. In C.C. Block & M. Pressley (Eds.), Comprehension instruction: Research-based best practices (pp. 11-27). New York: Guilford.
[70]. RAND Reading Study Group (2002). Reading for understanding: Towards an R&D program in reading comprehension. Retrieved on May 12, 2022 from http://www.rand.org/multi/ achievementforall/reading/readreport.html
[71]. Raven, J., Raven, J. C., Court, J. H. (2015). Manual for Raven's Progressive Matrices and Vocabulary Scales. Oxford: Oxford Psychologists Press.
[72]. Reinking, D., & ChanLin, L. (2017). Graphics aids in electronic texts. Reading Research and Instruction, 33, 207-232.
[73]. Rawe, J. (2022). What are sight words? Retrieved on March 21, 2022 from https://www.understood.org/articles/en/what-are-sight-words
[74]. Rayner, K., Foorman, B. R., Perfetti, C. A., Pesetsky, D., & Seidenberg, M. S. (2014). How psychological science informs the teaching of reading. Psychological Science in the Public Interest, 2, 31-74.
[75]. Robb, L. (2020). Teaching reading in the middle school. New York: Scholastic
[76]. Rosado, N., & Caro, K. (2018). The relationship between lexis and reading comprehension: A review. English Language Teaching, 11(11), 136.
[77]. Rosenblatt, L. (2013). Literature as exploration (4th ed.). New York: Modern Language Association of America.
[78]. Rubeck, P. (2017). Decoding procedures: Pupil self-analysis and observed behaviors. Reading Improvement, 14, 187–192.
[79]. Sarroub, L., & Pearson, P.D. (2018). Two steps forward, three steps back: The stormy history of reading comprehension assessment. The Clearing House, 72(2), 97-105
[80]. Shahar-Yames, D., & Prior, A. (2018). The challenge and the opportunity of lexical inferencing in language minority students. Reading and Writing, 31(5), 1109 1132.
[81]. Stahl, S. A., Murray, B. A. (2014). Defining phonological awareness and its relationship to early reading. Journal of Educational Psychology, 86, 221–234
[82]. Stanback, M. L. (2012). Syllable and rime patterns for teaching reading: Analysis of a frequency-based vocabulary of 17,602 words. Annals of Dyslexia, 42, 196–221.
[83]. Stanovich, K. E. (1982). Individual differences in the cognitive processes of reading: 1. Word Decoding. Journal of Learning Disabilities, 15, 485–493
[84]. Snow, C. E. (Chair). (2018). Reading for understanding: Toward an R & D program in reading comprehension. Santa Monica, CA: Rand. Retrieved from http://www.prgs.edu/content/dam/rand/pubs/monograph_reports/2005/MR1465.pdf
[85]. Snow, C. E., Burns, M. S., & Griffin, P. (Eds.). (2015). Preventing reading difficulties in young children. Washington, DC: National Academy Press.
[86]. Snow, C. (2002). Reading for understanding. Santa Monica: RAND Education.
[87]. Spires, H.A., & Estes, T.H. (2002). Reading in web-based learning environments. In C.C. Block & M. Pressley (Eds.), Comprehension instruction: Research-based best practices (pp. 115-125). New York: Guilford
[88]. Swerling, L. (2016). The Use of Context Cues in Reading. Retrieved on March 21, 2022 from https://www.readingrockets.org/article/use-context-cues-reading
[89]. Tovani, C. (2000). I read it, but I don't get it: Comprehension strategies for adolescent readers. Portland, ME: Stenhouse.
[90]. Tunmer, W. E., & Chapman, J. W. (2020). The relation of beginning readers' reported word identification strategies to reading achievement, reading-related skills, and academic self-perceptions. Reading and Writing: An Interdisciplinary Journal, 15, 341-358. Doi:10.1023/A:1015219229515
[91]. Wang, C. C., Gaffney, J. S. (2018) First graders' use of analogy in word reading. Journal of Literacy Research, 30, 389–403.

[92]. Woodcock, R. W. (2017). Woodcock Reading Mastery Tests - Revised. Circle Pines, MN: American Guidance Service.
[93]. Worsley, L. (2011). If walls could talk: An intimate history of the home. New York, NY: Bloomsbury.
[94]. Wylie, R. E., Durrell, D. D. (1970). Teaching vowels through phonograms. Elementary English, 47, 787–791