Color Coded Vowel Sound: Towards Automaticity in Reading

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ABSTRACT

Color-aided instruction plays a vital role in children's learning. This action research aimed to improve the reading level of 19 Grade 1 pupil of Ozamiz Elementary School (OES) during the school year 2018 – 2019 by using Color-Coded Vowel Sound (CodeVS) as an intervention. This study employed the pretest and posttest design, and the data were gathered using an oral passage in Early Grades Reading Assessment in grade one, a standardized test as an instrument of the study. In the data analysis, counts and percents of pupils' reading status and universal themes of interview responses were noted. After the intervention period, 19 pupils became readers. The teachers observed that along with the significant improvement of their reading ability and reading level, class attendance, pupils enjoyment, interest and engagement and training effectiveness also improved. The intervention showed improved decoding skills, reading level, and reading ability of the pupils. It also provides further evidence that pseudowords/invented words can make pupils learn quickly than real names.

Keywords: colors, level, intervention, pupils, reading,

INTRODUCTION

Reading is a dynamic process involving feeling, perception, awareness, implementation, and integration. It is the method of creating and bringing a sense of written words and symbols. Reading, as a whole, is a means of communication and information and ideas (Estermera, 2018). Although it is an essential and generative skill, it remains controversial how reading skills and reading difficulties develop (Brooke & Stone, n.d; Al Dahhan et al., 2016). Reading is a cultural invention, and a knowledgeable skill learned only through years of training and practice. (Rastle, 2015). Fluent word reading is hypothesized to promote reading comprehension by enhancing automatic word reading, thereby freeing cognitive resources for the reader to concentrate on meaning (Stevens, Walker & Vaughn, 2017).

Reading in the Philippines is a standard key issue in education. Many high school graduates enter the workforce and are admitted to college without adequate reading skills. It is even worse in elementary grades since a grade three student reading level could still be categorized in grade one or even in kindergarten (Hall, 2017). The majority also fell on frustration level, and few were classified as independent readers (Estermera, 2018).

Reading problems are common and are associated with long-term poor academic achievement. It is pointed out that the problem with reading skills emerges very early in a given child's development, and if not address first becomes challenging to remediate. It tends to fall on wordlists, passage readings, and miscue analysis, word recognition, decoding, and lack of efficient word identification, which can seriously interfere with comprehension ((Pavilario, 2018).

Students commonly have reading problems such as not caring about reading comprehension, lack of expectation against reading, get bored from the reading process, tiredness from reading, distraction, skipping reading, making a habit of reading problems, not knowing punctuation, mixing letters (Sönmez, 2019). Reading materials, improper teaching methodology, and insufficient English language development negatively affected their reading, and it was indicated that decoding phonemic awareness, word recognition skill and comprehension hamper the reading proficiency (Gizaw, 2019).

When it comes to silent reading and oral reading, most of the students fell on the frustration level. Only a few were classified on independent readers (Estremera, 2018) while The majority of students belonged to the level of disappointment of reading proficiency of silent reading and at the level of instruction in oral reading, of which the majority of males are less experienced in reading relative to females in both quiet and oral reading(Cabardo, 2015). The students' lack of ability in essential reading and comprehension resulted in poor performance of the pupils' assessment test and low scores in English, Mathematics, and Science (Dumlao, A. 2019).

Students spend too little time studying reading. In addition, they never learn new vocabulary, nor are they exposed to reading content, internet news, stories, or comics in English. Besides, they do not know how to apply reading strategies in handling reading texts. Regarding contextual factors, teaching methods and extra reading materials are too hard for learners to understand. As a consequence, the students show their rebellious behavior. These factors make reading periods ineffective and lead to a lot of troubles for students in learning reading skills (Nguyễn, 2019).

Parents should provide books and stimulating reading environments for their children and help them cultivate the habit of using their leisure to read for pleasure. Also, teachers must acknowledge the indispensability of reading skills and, as such, plan an active program of reading instruction that should focus on promoting reading culture among children in their schools (Akubuilo et al., 2015).

The teachers' teaching technique also influences the reading interest of the child (Anggraini, 2017). Teachers who are known to be teachers of the abilities of the students, in particular the ability to read, have to provide a lot of reading materials to the pupils (Cabalo & Cabalo, 2019). Also, teachers must acknowledge the indispensability of reading skills and, as such, plan an active program of reading instruction or reading intervention, which should focus on promoting reading culture among children in their schools (Akubuilo et al., 2015).

Conducting interventions to remediate the pupils' reading problem is essential (Hennebry, Rogers, Macaro, & Murphy, 2017). These include teaching vocabulary intentionally, teaching independent word-learning strategies (morphological analysis), increasing opportunities to use new words in discussion and writing, and providing a motivating and language-rich learning environment like colorful reading materials (Elleman, Oslund, Griffin, & Myers, 2019).

Ozamiz Elementary School is one of the oldest schools in the Tudela District situated in a coastal area with a school-aged population of 320. Having established such a good reputation, beautiful traditions, and outstanding performance of the school to mention have achieved numerous prizes won in competitions, especially in Math Challenge and Journalism. However, every year the teachers are burdened with the presence of non-readers and slow readers, quite a number of average readers and a few fast readers.

The preceding discussions support that there is a need to provide an intervention to address the reading problem among the Grade 1 pupils of Ozamiz Elementary School. Thus Color Coded Vowel Sounds (CODEVS) was conducted.

Innovation, Intervention, and Strategy

The use of colors in teaching has proven to play an essential part in making pupils learn quickly. Colors can capture learners' attention and motivate learners to learn. The color will reduce visual search time as a graphical tool, and support learners quickly access information. It can enhance the organization and presentation of data (Kumi, Conway, Limayen, and Goyal, 2013) It is also a clue which helps learners retrieve data, while color-coded information visualizations better support knowledge acquisition (Keller and Grimm, 2005)

Teaching should be supported with colorful instructional material to make reading more comfortable (IMAIZUMI, HIBINO & KOYAMA, 2016). Using colored texts influences pupils' reading ability (Uccula, Enna & Mulatti, 2014). Beginning learners become more interested in reading through the use of colorful texts or pictures (Mansourzadeh, 2014). Struggling readers also were able to read, understand, and solve complex learning using scenario-based learning (Sabatini, O'Reilly, Halderman, & Bruce, 2014).

Pupils blend sounds effortlessly and automatically to become fluent decoders with the use of colorful materials. The use of pseudowords in CODEVS is one of the many keys that helps in reading with automaticity. Pupils who received phonics instruction with pseudowords/invented words demonstrated more significant improvement in decoding than pupils who received phonics instruction using only real words. Also, the pseudowords group showed a higher rate of change than the actual word group even after returning to real-word phonics instruction (Cardenas (2009).

Color-Coded Vowel sound (CodeVS), the intervention used in the study. It is a revised strategy from the concept of Reading Key.com, which is an English language way of reading words. This innovation was named by the lead researcher who skillfully designed the strategy wherein phonemic awareness is strengthened and mastered using only one essential picture for easy memorization of the letter sound. The vowels are color-coded for easy identification.

The colors being used were the first five colors of the rainbow Red, Orange, Yellow, Green, and Blue; /a/ sound is red, /i/ sound is orange, /u/ sound is yellow, /o/ sound is green and /e/ sound is blue. The first vowel sound to be blended with the consonants is /a/ sound after the pupils have mastered the blending of the two sounds together add another consonant sound and making them read CVC words. When they can read CVC words, decoding was made accessible to the rest of the attached letters. After reading CVC with /, a/ sound, let them read CVC with another vowel sound.

Since teaching reading in Grade 1 is done using sinugbuanong Bisaya language the sequence of introducing the vowel sounds is /a/, /i/, /u/, /o/ and lastly /e/. It's done this way because, according to a language study in sinugbuanong binisaya, most of the words in our language are using the vowels a, i, and u, and rarely it is composing of /o/ and /e/ sound. In making a word list, only five words on a page are shown so as not to cause frustration as too many words they see.

The detailed steps are explained hereafter:

Step 1. Teach and drill consonant sounds. Teaching the consonant sound with key pictures familiar to them. Starting with 1st day m,t,y,s,k; 2nd day n,l,p,b,g; 3rd day h,w,r,ng.

Step 2. In each word, teach the color-coded vowel sound. Each word has its own vowel sound, which gives the repetition needed to accelerate the learning of the vowel sound. Vowel sounds are color-coded for easy identification.

Step 3. Stop at Vowel Sound. In this step, the teacher shows the pupils how to read up to the colored vowel sound in each word.

Step 4. Read the words slowly—the teacher models in reading slowly. When the pupils can read up to the vowel sound, the teacher then adds the final consonant sound. Then the pupils are guided to repeat the same process in each word in the list from left to right and from top to bottom. Left to right in reading is emphasized so that the blending of sounds will be done faster and later on in reading of words.

Step 5. Timed Reading. After learning to decode the three-letter pseudowords/invented words, pupils

then read each word in the word list at 3 seconds to ignite them to decode faster. The same steps are followed for all the pupils.

In this study, the researcher used CodeVS to improve the reading ability of 19 Grade 1 pupils of Ozamiz Elementary School (OES) during the school year 2018 – 2019. The study
answered the following specific questions:

1. What is the pupils' reading level before and after the use of CodeVS?
2. Is there a significant improvement in the learners' reading level before and after the use of CodeVS?
3. What are other improvements observed among the pupils after the use of CodeVS?

METHODS

Research Design. This study is action research by design. Action researches are initiated to solve an immediate problem or a reflective process of progressive problem solving (Chamundeswari, 2013). As a method of organizational development and improvement, action research is often used in educational settings with significant special needs (Sandoval-Lucero, Maes & Pappas, 2013). In this innovation, automaticity in reading among Grade 1 pupils are addressed through Color Coded Vowel Sound.

Site. The study was conducted at the Ozamiz Elementary School (OES), located at Cabol-anonan, Tudela, Misamis Occidental. OES is a complete elementary school with a total school population of 320 pupils.

Subjects. A total of 19 non-readers in Grade 1 in Ozamiz Elementary School during the School Year 2018-2019 were the participants of the study. These pupils were identified as "Non-reader" (n=19), "Frustration" (n=0), "Instructional" and Independent (n=0), as reflected in the baseline District Reading Assessment and EGRA report with a mean of 18.46 in all areas of EGRA as to school result.

Data Collection. Seeing that this is an intervention activity, permission from the school head was sought after by the researchers prior to the conduct of the study. Parents and pupils were also informed of these two months' activity to refrain pupils from making absences.

After the administration of the pretest, the results were analyzed to determine the pupils' performance in reading using an Oral Passage, which is a component of EGRA, then CODEVS was used by the researchers. Every day from Monday to Friday from 8:00 a.m. to 9:00 a.m. and 2:30-3:30 in the afternoon (Philipines time), the researchers conducted the intervention. In a 1-month duration, word lists presented were pseudowords or invented the three-letter word after that those able decoders were given another word list to read, and that time word list with sense or meaning was presented with the corresponding picture. Those who were not able to perform decoding practice were given remedial sessions, and those who were still not able to do it pseudowords presented again, but that instance, one word at a time was given. Ample exercises were given to the participants done after lunchtime and, at times, brought at home for practice those who were not able to perform. After the teaching period, the posttest was given, which was the same passage during the pretest was administered, and this time CodeVS was no longer used. The results were tabulated and analyzed and interpreted. An interview was conducted to the pupils, and responses were then translated into English to suit the language used in this action research. Focus Group Discussion followed to validate the results.

Instruments

The study employed the following tools in gathering the data:

A. Oral Passage in Early Grade Reading Assessment (EGRA) (Appendix B). This Early Grade Reading Assessment (EGRA) is an oral student assessment designed to test the most basic knowledge of early grade literacy skills: orientation, letter name recognition, letter-sound recognition, initial sound identification, familiar

word reading, invented words recognition, oral passage reading, reading comprehension, listening comprehension, and dictation. Since this is a Standardized instrument, it does not require validation. However, only the Oral Passage reading skill was administered for the purpose of the study, which employed this revised mechanics in a 60-word Oral Passage; the participants were to read in 60 seconds. The result of the Oral Passage Reading was interpreted using the scale below:

Score Interpretation
41 – 60 Fast
21 – 40 Average
1 – 20 Slow

B. Focus Group Discussion (FGD) of Teachers. The researchers used these questions to teachers who were part of the conduct of the study, as stated below:
1. What is your observation of the reading ability of your pupils?
2. How did CodeVS help improve the reading ability of the pupils?

Ethical Considerations. In this particular study, the issues on authority to conduct research, safety, and well-being of the participants who were all minors, research integrity and originality, and data confidentiality was resolved. Pupils' participation in this research project is voluntary. Parents' and pupils' consent were sought, and they were all made to sign the consent forms. Consent forms specified the nature of the pupils' participation and that they can discontinue their involvement in the project at any rate.

Confidentiality and anonymity were also observed in the study by not mentioning the school and participant identity in any part of the paper. Copyright issues were resolved by citing the works of the original authors in the final report. Finally, the final report is subjected to a plagiarism test prior to submission and publication of the output. The researchers considered a 90 percent originality level of the paper before release.

Data Analysis

Frequency, percentage, mean and standard deviation were the statistical tools used to describe the reading ability of the pupils before and after the conduct of the intervention.

T-test was used to compare the significant difference in the pupils' reading ability before and after the conduct of the intervention.

Thematic Analysis was used to report the common themes from the interview transcripts and the teachers' and parents' observation of their children's reading ability.

RESULTS AND DISCUSSION

Pupil's Reading Ability Before and after the Use of CODEVS

The pupils' reading ability is shown in Table 1. Before the use of the intervention-
Color-Coded Vowel Sound, all of the pupils were non-readers (100 percent). However, after conducting the intervention to the learners, there were no longer non-readers. The majority of the learners were average readers (68 percent), while few were still slow readers (32 percent).

Data indicate that the pupils' reading ability improved after the use of the intervention. Pupils were all non-readers before they were exposed to the intervention- Color Coded Vowel Sound (Coode VS). They were unable to read letter sounds or even words. However, after the introduction of the intervention, the pupils' reading ability reached average. It means that all of the pupils became readers after the use of the intervention. There was an improvement in the reading ability of the pupils after the conduct of the intervention.

If teachers use a variety of instructional techniques, learners are exposed to many ways of learning that provide both comfort and joy during the process, ultimately giving learners multiple ways to excel (Kamboj & Singh, 2015). Using colorful materials in teaching has an impact on learning. Using colors in instructional materials has a vital role in capturing learners' attention. Colors help learners increase their attention levels in particular information, which allows such information to be transferred to short-term and long-term memories thus increasing their chance of memorizing such information (Dzulkifli & Mustafar, 2013)

Pupils blend sounds effortlessly and automatically to become fluent decoders with the use of colorful materials. The use of pseudowords in CODEVS is one of the many keys that helps in reading with automaticity. Pupils who received phonics instruction with pseudowords/invented words demonstrated more significant improvement in decoding than pupils who received phonics instruction using only real words. Also, the pseudowords group showed a higher rate of change than the actual words group even after returning to real-word phonics instruction (Cardenas (2009).

Teachers need to provide the pupils with appropriate materials or activities in helping them in their difficulties, especially reading. Equipping students with unusual activities that fit their level may help them become interested in reading. Instructional strategies, activities, and materials have to be carefully matched with the difficulty or problem existed thus, using Color-Coded Vowel Sound (CodeVS) is a useful strategy in improving pupils' ability in reading.

Table 1
Pupil's Reading Ability Before and after the Use of CODEVS

Reading Level	Before the Use of CODEVs (n=19)		After the Use of CODEVs (n=19)	
	Frequency	*Percentage*	*Frequency*	*Percentage*
Non-reader	19	100.00	-	-
Slow	-	-	6	32.00
Average	-	-	13	68.00
Fast	-	-	-	-
Mean Scores	**2.05**		**31.58**	

Comparison Between the Reading Ability of Pupils Before and After the Use of CODEVS

The comparison between the reading ability of pupils before and after the use of the intervention, CodeVS (Table 2), is highly significant (t=12.91; p=0.00). The test was composed of 60 words to be read in 1 minute.This indicates that the pupils' reading ability after the conduct of CodeVS (M = 36.58;SD= 10.66) differs significantly from their reading ability before the intervention was conducted (M = 0.00;SD= 0.00). At first, pupils were non-readers, however, after the use of the interventions, pupils; reading ability transformed into fairly satisfactory. The pupils' reading ability improved after using the intervention- Color Coded Vowel Sound (CodeVS). The intervention was a powerful strategy in teaching reading for grade 1 pupils.

Teachers need to use different techniques so that learners will be encouraged to read. They have to focus on letters and sounds and provide explicit practice with the decoding process when teaching reading for beginners. Instruction in decoding should emphasize common letter patterns (Templeton & Johnston, 2011). Then, it should be supported with Colorful instructional material to make reading more comfortable (IMAIZUMI, HIBINO & KOYAMA, 2016). Using colored texts influences pupils' reading ability (Uccula, Enna & Mulatti,

2014). Beginning learners become more interested in reading through the use of colorful texts or pictures (Mansourzadeh, 2014). Struggling readers also were able to read, understand, and solve complex learning using scenario-based learning (Sabatini, O'Reilly, Halderman, & Bruce, 2014).

Part of the teacher's everyday preparation is looking at what instructional strategy or technique could best serve pupils' needs and make them more active and participative as an indicator of high interest in reading. Therefore, Color Coded Vowel Sound can be used in teaching reading in the first grade to the activity more attractive and enjoyable to pupils.

Table 2
Comparison Between the Reading Ability of Pupils Before and After the Use of CODEVS

Variables	M	SD	t value	p-value
Before the Use of CODEVs	0.00	0.00		
After the Use of CODEVs	31.58	10.66	12.91	0.00**

Note: Mean Score Scale: 41-60 (Fast), 21-40 (Average), 1-20 (Slow),0 (Non reader)
*** means $p \leq 0.01$ – Highly Significant*

Other Notable Observations

Along with the progress of the reading level and reading ability, significant improvements in the pupil's attendance pupils' enjoyment, interest, and engagement and training effectiveness were observed by the teachers.

Improved Class Attendance. Since the start of the intervention, the teachers have observed that pupils attend classes regularly. The pupils' regular attendance makes them follow daily lessons and enables them to perform during discussions.

Better Pupils Enjoyment. Colors can produce an arousing emotional effect; thus, when they are being introduced to the sound attached to the colors, it gives arousal of values. Wilson thus stated that red was variously stimulating, exciting, awakening, attention-drawing, overpowering, and lively. Further, Keller & Grimm, 2005 strongly support that colors decrease the cognitive overload in the information-processing systems. This concept is also supported by Isen, Daubman, & Nowicki, 1987 when unanimously agreed that changing the hue can affect recall. Mehta and Zhu's (2009) strongly recommends that colors can affect performances on different types of cognitive task and can activate a promotion focus to promote people to achieve positive outcomes, thus enhancing creative assignments.

Improved Interest and Engagement. When pupils get used to the technique in blending one sound to another, there is significant evidence of an interplay in interest and engagement in reading by themselves with less of adults' supervision. According to a number of the parents who made reading follow up at home, the children find the materials an easy way to learn reading. Thus Dzulkifli & Mustafar, 2013 voted that colors help learners increase their attention levels on certain information to be transferred to short term and long term memories, thus increasing their chance of memorizing such information. It is then further proved by MacKeracher, 2004 as cited by Chang, Bo; Xu,t Renmei d Watt 2018 who said that attention is required when learners scan the information and select those parts that need further processing. "When we pay attention to certain information, we are selecting and focusing certain information to be processed in our cognitive system" (Dzulkifli & Mustafar, 2013, p4).

Training Effectiveness. CoDeVS is a useful tool for decoding practice since the partial alphabetic phase is essential to decoding development because it is the point when phonemic awareness, letter knowledge, and

connections between letters and sounds begin to emerge. Further learning to decode requires phonemic awareness and understanding of the alphabetic principle based on the belief of Uhry, 2011, as cited by Lane Holly and Pullen Paige 2015. As pupils learn to decode words, they must blend sounds as they learn to spell words; they must segment sounds to represent them with letters. Thus, the teacher needs to have a variety of ways to provide practice in blending and segmenting phonemes.

Conclusion and Recommendation

The use of Color-Coded Vowel Sound (CODEVS) is an essential tool in automatically transforming non-readers to become readers. It is an initial practical phase in making learners read quickly. It helps pupils become more fluent in their word reading and their reading of connected texts or words in the long run. With the use of CODEVS, learners can quickly read with the aid of the color-coded vowel sound. Furthermore, the use of pseudowords in CODEVS in instruction plays a significant role in skimming the words before letting them read real terms because this will help in decoding practice.

Based on the findings and conclusion, the researcher recommends that teachers develop and design activities in the classrooms, like the use of CodeVS that would engage the pupils in reading and develop further their reading ability with fun and enjoyment. They may put up a reading corner with colorful texts and words in the classroom for the pupils to be exposed to every day. School administrators design school programs that involved teachers' training to enhance their capacity in teaching reading with the use of CodeVS. Future researchers may conduct the same research that looks at the impact of CodeVs on another group of pupils.

References

Akubuilo, F., Okorie, E. U., Onwuka, G., & Uloh-Bethels, A. C. (2015). Reading Readiness Deficiency in Children: Causes and Ways of Improvement. *Journal of Education and Practice*, *6*(24), 38-43. Retrieved on January 7, 2020 from https://eric.ed.gov/?id=EJ1078814

ANGGRAINI, D. (2017). *AN ANALYSIS OF STUDENTS'DIFFICULTIES IN READING NARRATIVE TEXT AT THE FISRT GRADE OF SENIOR HIGH SCHOOL 1 TAMBANG* (Doctoral dissertation, Universitas Islam Negeri Sultan Syarif Kasim Riau). Retrieved on January 2, 2020 from http://repository.uin-suska.ac.id/19489/

Brooke, E. & Stone, R. (n.d.). The Critical Role of Oral Language in Reading Instruction and Assessment. Retrieved on January 7, 2020 from https://www.lexialearning.com/sites/default/files/resources/Oral%20Language%20WP.pdf

Cabalo, J. P., & Cabalo, M. M. (2019). Factors Affecting Pupils' Reading Proficiency in Multi-grade Classes Among Rural Elementary Schools. *Int. J. Sci. Manag. Stud*, *2*(2), 108-124. Retrieved on January 9, 2020 from http://www.ijsmsjournal.org/2019/volume-2%20issue-2/ijsms-v2i2p114.pdf

Cabardo, J. R. (2015). Reading Proficiency Level of Students: Basis for Reading Intervention Program. *Available at SSRN 2712237*. Retrieved on January 10, 2020 from https://papers.ssrn.com/sol3/papers.cfm?abstract_id=2712237

Chang, Bo; Xu, Renmei; and Watt, Tiffany (2018). "The Impact of Colors on Learning,"

Adult Education Research Conference. http://newprairiepress.org/aerc/2018/papers/30

Chamundeswari, S. (2013). Job Satisfaction and Performance of school teachers.

International Journal of Academic Research in Business and Social Sciences, 3(5), 420-428. Retrieved on November 8, 2018 from http:www.hrmars.com/admin/pics/1859.pdf

Chua, S. M., Rickard Liow, S. J., & Yeong, S. H. (2016). Using spelling to screen bilingual kindergarteners at risk for reading difficulties. *Journal of learning disabilities*, *49*(3), 227-239. Retrieved on January 2, 2020 from https://journals.sagepub.com/doi/abs/10.1177/0022219414538519

Clemens, N. H., Ragan, K., & Widales-Benitez, O. (2016). Reading difficulties in young children: beyond basic early literacy skills. *Policy Insights from the Behavioral and Brain Sciences*, *3*(2), 177-184. Retrieved on January 2, 2020 from https://journals.sagepub.com/doi/abs/10.1177/2372732216656640

Corpuz, Brenda B and Salandanan, Gloria G. , Principles of Teaching 1' Lorimar Publishing Inc., Quezon City, 2013

Diuk, B., Barreyro, J. P., Ferroni, M., Mena, M., & Serrano, F. (2019). Reading Difficulties in Low-SES Children: A Study of Cognitive Profiles. *Journal of Cognition and Development*, *20*(1), 75-95. Retrieved on January 2, 2020 from https://www.tandfonline.com/doi/abs/10.1080/15248372.2018.1545656

Dumlao, A. (November 14, 2019). Growing number of non-readers alarming. The Philippines Star. Retrieved on January 10, 2020 from https://www.philstar.com/other-sections/education-and-home/2019/11/14/1968560/growing-number-non-readers-alarming

Duta, N. (2015).Ghe study on " IMPORTANCE OF THE MOTIVATION OF STUDENTS FOR LEARNING - PREMISE FOR ACADEMIC PERFORMANCES. INVENTORY OF REASONS FOR WHICH STUDENTS LEARN"

Elleman, A. M., Oslund, E. L., Griffin, N. M., & Myers, K. E. (2019). A review of middle school vocabulary interventions: Five research-based recommendations for practice. *Language, Speech & Hearing Services in Schools (Online), 50*(4), 477-492. doi:http://dx.doi.org/10.1044/2019_LSHSS-VOIA-18-0145

Estremera, I. (2018). Factors Affecting the Reading Comprehension of Grade Six Pupils in the City Division of Sorsogon. *Philippines as Basis for the Development of Instructional Material*. Retrieved on January 7, 2020 from http://apjeas.apjmr.com/wp-content/uploads/2018/11/APJEAS-2018.5.3.09.pdf

Gizaw, D. (2019). *English Reading Difficulties among Grade Six Students in Addis Ababa: Yeka Sub City* (Doctoral dissertation, Addis Ababa University). Retrieved on January 9, 2020 from http://213.55.95.56/handle/123456789/17892

Grabe, W., &Stoller, F. L. (2018). Teaching Vocabulary for Reading Success. *The TESOL Encyclopedia of English Language Teaching*, 1-7. Retrieved on December 18, 2019 from https://onlinelibrary.wiley.com/doi/abs/10.1002/9781118784235.eelt0773

Hennebry, M., Rogers, V., Macaro, E., & Murphy, V. (2017). Direct teaching of vocabulary after listening: is it worth the effort and what method is best?.*The Language Learning Journal*, *45*(3), 282-300. Retrieved on December 18, 2019 from https://www.tandfonline.com/doi/abs/10.1080/09571736.2013.849751

Hlalethwa, B. D. (2013). *Reading difficulties experienced by learners in the foundation phase in inclusive schools in Makapanstad* (Doctoral dissertation, University of South Africa). Retrieved on January 7, 2020 from https://core.ac.uk/download/pdf/43174080.pdf

Hutton, J. S., Horowitz-Kraus, T., Mendelsohn, A. L., DeWitt, T., Holland, S. K., & C-Mind Authorship Consortium. (2015). Home reading environment and brain activation in preschool children listening to stories. *Pediatrics*, *136*(3), 466-478. Retrieved on January 10, 2020 from https://bit.ly/2Lrc3o1

Keller, T., & Grimm, M. (2005). The impact of dimensionality and color coding information visualizations on knowledge acquisition. Knowledge and Information Visualization; Searching for Synergies, 3426, 167-182.

Lane Holly and Pullen Paige (2015). " Blending Wheels:Tools for Decoding Practice," Council for Exceptional Children. https://www.researchgate.net/publication/283851211

Lurija, A. R., & Luria, A. R. (1973). *The working brain: an introduction to neuropsychology* (p. 43). Basic Books. Retrieved on January 10, 2020 from https://books.google.com.ph/books/about/The_Working_Brain.html?id=jxyjJ4ppfBUC&redir_esc=y

Martirosyan, N. M., Hwang, E., & Wanjohi, R. (2015). Impact of English proficiency on academic performance of international students. *Journal of International Students*, *5*(1), 60-71. Retrieved on January 10, 2020 from https://www.ojed.org/index.php/jis/article/view/443

Marual-Gillaco, M. I. N. A. R. I. Z. A. (2014). Level of word recognition and reading comprehension: A basis for a reading program. *Asia Pacific Journal of Education, Arts, and Sciences*, *1*(5), 69-75. Retrieved on January 10, 2020 from http://www.academia.edu/download/51551597/APJEAS-2014-1-088.pdf

Nguyễn, T. H. N. (2019). *A study on the causes of difficulties in reading skill experienced by first-year English majors at Haiphong Private University and some suggested solutions* (Doctoral dissertation, Đại học Dân lập Hải Phòng). Retrieved on January 9, 2020 from https://lib.hpu.edu.vn/handle/123456789/32948

Olszak, I., & Curie-Sklodowska, M. (2015). The effect of online tools on reading habits among teenage students. Model of chances and dangers. *English for Specific Purposes*, *45*(16), 1-12.Retrieved on September 20, 2019 from http://www.esp-world.info/Articles_45/Docs/Olszak.pdf

Pavilario, M. C. (2018). Contextual Variables Affecting Frustration Level in Reading: An Integral Inquiry. *International Journal of Educational and Pedagogical Sciences*, *12*(5), 639-645. Retrieved on January 9, 2020 from https://pdfs.semanticscholar.org/ec55/8a4397833d02431f5be001e86ffee0bb921c.pdf

Sönmez, H. (2019). A CASE STUDY AND THE NEEDS ANALYSIS FOR DETERMINING SECONDARY SCHOOL STUDENTS'READING SKILLS. *European Journal of Education Studies*. Retrieved on January 10, 2020 from https://oapub.org/edu/index.php/ejes/article/view/2780

Stack-Cutler, H. L., Parrila, R. K., & Torppa, M. (2015). Using a multidimensional measure of resilience to explain life satisfaction and academic achievement of adults with reading difficulties. *Journal of learning disabilities*, *48*(6), 646-657. Retrieved on January 2, 2020 from https://journals.sagepub.com/doi/abs/10.1177/0022219414522705

IMAIZUMI, S., HIBINO, H., & KOYAMA, S. (2016). Effect of colored overlays on reading comfort in people with and without Meares-Irlen syndrome. *International Journal of Affective Engineering*, IJAE-D. Retrieved on March 12, 2020 from https://www.jstage.jst.go.jp/article/ijae/advpub/0/advpub_IJAE-D-15-00048/_article/-char/ja/

Mansourzadeh, N. (2014). A comparative study of teaching vocabulary through pictures and audio-visual aids to young Iranian EFL learners. *Journal of Elementary Education*, *24*(1), 47-59. Retrieved on march 12, 20202 from http://pu.edu.pk/images/journal/JEE/PDF-Files/3_Nurullah%20Mansourzadeh_24_1_2014.pdf

Uccula, A., Enna, M., & Mulatti, C. (2014). Colors, colored overlays, and reading skills. *Frontiers in psychology*, *5*, 833. Retrieved on march 12, 2020 from https://www.frontiersin.org/articles/10.3389/fpsyg.2014.00833/full