

Effectiveness of the Contextualized Reading Puzzles in the Reading Performance of the Kindergarten Pupils

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Abstract —The development of literacy skills is dependent on the learning materials used by the teacher in the teaching-learning process. Teachers should use relevant, interactive, and manipulative learning resources to achieve positive learning outcomes. In improving the reading performance of the pupils, especially in the kindergarten, teachers must be creative and resourceful in crafting interactive, manipulative, colorful and relevant instructional materials. Contextualizing of materials also counts because pupils are familiar, and this will aid them in understanding the concept and meaning of such words for they experience and see the materials available in the community. Contextualized reading puzzles are the intervention provided by the researcher as learning support materials in teaching literacy skills. And based on the result of the pre-test and post-test conducted before and after the utilization of contextualized reading puzzles, it was found out that it is effective. Thus, this study revealed a significant difference in the pre-test and posttest performances of the kindergarten pupils before and after the utilization of contextualized reading puzzles in teaching literacy skills. Hence, it is relevant to provide the necessary instructional materials to the pupils to make learning happen in the class. Kindergarten pupils can best learn the lessons if the materials used in teaching ang interactive, manipulative, colorful and relevant to the topic or lesson conveyed.

Keywords — Effectiveness, Contextualized Reading Puzzles, Reading Performance, Kindergarten Pupils

I. Introduction

Success in reading is critical to success in school and reading problems will influence every facet of a child's academic achievement. Therefore, early reading is so important. Children who learn to read at an early age go on to develop exceptional reading skills and achieve greater academic success in school (Quimbo, 2021). When kids fall behind in reading, they also lag in other subject areas, and will struggle with schoolwork. They become discouraged, lose motivation, fall further behind, and it becomes a vicious cycle downwards. That is why during this stage of



learning, teachers should be innovative in preparing lessons and instructional materials and activities so that children will be able to achieve the desired educational goals.

DepEd has presented programs to affect the reading needs of learners. It issued DepEd Order No. 45 s. 2002 or Every Child A Reader Program (ECARP) as a national program with a goal that every child will be a reader by the time, they finish grade three. Numerous intervention and remediation programs had been conducted by teachers to address the call of DepEd. However, data showed that most of the learners reaching grades four and above still have difficulties in their reading proficiency level. With this, educational goals failed.

The goals of reading instruction are many, but certainly include that children will read with confidence, that they will understand what they read, and that they will find reading a source of knowledge and pleasure. To achieve these goals with all children, an effective classroom program of beginning reading instruction must provide children with a wide variety of experiences that relate to a number of important aspects of reading.

Some of the phonics and word-recognition instruction are integrated in large basal reading programs and others are in supplemental programs narrowly focused to address one aspect of instruction. Many teachers teach phonics and word recognition by using the districts commercially published basal reading program, typically a program of instruction that includes grade-level materials for teaching reading with a teacher's guide and student reading materials as well as ancillary materials that support the primary components. These programs often contain phonics and word-recognition activities embedded in a sequence of instruction that includes shared reading from children's literature, guided reading in predictable stories, and writing activities. This has been very important in teaching early childhood pupils.

Therefore, literacy and numeracy skills development are one of the basic goals of elementary education. The development of these skills is influenced by the availability of teaching materials (Dowd & Pisani, 2013). Teaching materials are one aspect that helps determine the success of learning, in addition to other aspects of learning such as syllabi, methods, learning activities, and evaluation (Salam, 2017). All materials and resources used to develop knowledge, skills, attitudes, and desired values in students are the scope of teaching materials (Simsek in Saglam, 2011). Based on this, it is important to develop teaching materials to help the development of student reading.

The choice of developing a teaching material model to overcome students' problems in literacy skills is motivated by the following points. First, the use of teaching materials can make the learning process easier and last longer (Saglam, 2011). Second, teaching materials contribute to the success of learning, teaching materials also help the class become more enjoyable, better time management and increase the level of productivity in the classroom (Koşar in Koparan, 2017). Third, teaching materials can make it easier for teachers to convey messages to students accurately, precisely, clearly, and understandably; in making abstract knowledge concrete and allowing



students to understand complex ideas to be simple (Saglam, 2011). Fourth, the instructional material developed can contain models/approaches/methods that are in accordance with the text learned (Pribadi & Sjarif, 2016). These materials are useful in assisting the teachers in teaching literacy. In fact, there are teachers nowadays who formulated and crafted supplementary reading materials which are contextualized to support their teaching to improve the literacy performance of the pupils of which the education system is now facing. These learning gaps in literacy will be addressed if all the school personnel work hand in hand in providing the appropriate learning to the pupils. Appropriate instructional materials must also be considered as it is one of the factors which contribute to a successful teaching-learning process.

There are plenty of materials which can be adapted by teachers in teaching the word formation which leads them to knowing the word and its meaning. Example of this material is the word puzzle. Puzzles are a popular and challenging activity for young children and adults alike. At any age, puzzles offer the chance to work toward a goal and literally piece together a story or narrative. With fun shapes and bright colors, large-piece puzzles are a favorite among small children, but they also offer an array of developmental benefits so children can learn new skills while they play. Playing with these puzzles encourages children to look at pictures more carefully, going over them from top to bottom and from left to right. Through doing this, children may notice visual similarities and differences. Puzzles develop memory skills, as well as an ability to plan, test ideas and solve problems. While completing a puzzle, children need to remember shapes, colors, positions, and strategies to complete them. The experience of completing a puzzle can also help your child to learn to accept challenges, overcome problems and deal with frustrations.

Playing puzzles has always been used by the kindergarten to introduce letter names and sounds to the pupils. The researcher as kindergarten teacher has come across a material like puzzle which she used in one of her lessons in the development of letter sounds. It was then that her pupils got interested into it. With that, she decided to come up with a quasi-experimental research study to evaluate the effectiveness of the contextualized reading puzzles in the reading performance of the kindergarten pupils. A proposed improvement plan was formulated based on the findings of the study. Moreso, it is also in the above rationale that the researcher who is currently a kindergarten teacher in the above mentioned local, would like to delve worthy research undertaking that will benefit herself, the school she is currently teaching and that of her Graduate Program she is enrolled at.

This study evaluates the effectiveness of contextualized reading puzzles in the reading performance of the kindergarten pupils in Casilda Elementary School of Merida District, Leyte Division for School Year 2022-2023. The findings of the study were the basis for the proposed improvement plan.



Specifically, this study sought to answer the following questions:

- 1. What is the reading performance of the kindergarten pupils before the utilization of contextualized reading puzzles in teaching and learning literacy skills?
- 2. What is the reading performance of the kindergarten pupils after the utilization of contextualized reading puzzles in teaching and learning literacy skills?
- 3. Is there a significant difference in the reading performance of the kindergarten pupils before and after the utilization of contextualized reading puzzles in teaching and learning literacy skills?
- 4. What improvement plan can be proposed based on the findings of this study?

II. Methodology

Design. This study employed the quasi-experimental research design utilizing the test conducted before and after the intervention to evaluate the effectiveness of contextualized reading puzzles in the reading performance of kindergarten pupils for School Year 2022-2023. Casilda Elementary School, Merida District, Leyte Division is the main locale of the study. There are 28 kindergarten pupils involved in this study. They are enrolled in the said locale for School Year 2022-2023. They underwent a series of evaluations prior to the implementation of the intervention. A researcher-made literacy test was formulated and administered to the pupil-respondents. The competencies used in the formulation of literacy test were taken from the Most Essential Learning Competencies (MELCs) for kindergarten in Work Period 2. This material was checked and validated by the District Kindergarten Coordinator and School Heads. Further, lesson plans were crafted by the researcher highlighting the utilization of contextualized reading puzzles as learning resources in teaching literacy. The competencies used in the formulation of the lesson plans were taken from the Most Essential Learning Competencies (MELCs) for kindergarten. Finally, contextualized reading puzzles were crafted and provided to the kindergarten pupils as intervention for 4 weeks. These contextualized reading puzzles were included in the lesson plan for Work Period 2 time of the teacher. These are the learning resources used by the teacher in teaching literacy skills. These are differentiated, varied and colorful contextualized reading puzzles based on the 2nd quarter competencies. These materials were submitted to the District Quality Assurance Team for validation and adjustments if there is any before it will be given to the kindergarten pupils. All activities underwent by the researcher in the duration of data gathering procedures were recorded and followed in the Matrix of Activities prepared by the researcher. This matrix was the basis for monitoring by the school head and adviser of the researcher on the progress of the paper and that of the respondents and guide by the researcher on the flow of her study. After a series of interventions provided to the kindergarten pupils, a post-test was given. This research is focused on evaluating the effectiveness of contextualized reading puzzles in the reading performance of kindergarten pupils. A Proposed Improvement Plan based on the findings of the study is the output.



Sampling. There are 28 kindergarten pupils involved in this study. Universal sampling technique is used in choosing the respondents of the study. Hence, face-to-face classes has already been implemented during the data gathering process, the research instruments were administered face-to-face with consent from the parents and Local IATF and strictly following the prescribed Health Protocol during the limited face-to-face classes.

Research Procedure. The researcher prepared the research design and tools utilized in the study. Approval and recommendation from the Panel of Examiner of the Graduate Studies was sought. A letter request to conduct this study was forwarded to the Office of the Schools Division Superintendent. Upon approval, permission from the District Supervisor and School Head was secured before the actual gathering of data. Orientation of the participants and administration of the pre-test was done face-to-face after the approval of the permit from the parents of the respondents. The tools used in the study were contextualized reading puzzles, lesson plans, researcher-made reading tests and matrix of activities. These tools underwent a series of validation by the experts like the District Kindergarten Coordinator, School and District Head before it was given to the pupils. After the approval of the tools, these were reproduced as to the number of pupil-respondents. In the conduct of the pre-test, the researcher requested her fellow kindergarten teacher to do the administration of the pre-test. After accomplishing the pre-test, intervention was given within four weeks. The implementation of the approved and checked lesson plans highlighting the utilization of contextualized reading puzzles was done in the duration of the data gathering process. After the four-week intervention, the post-test was administered. Results of the tests were collected. Data were tallied and submitted for statistical treatment. Analysis and Interpretation of Data. Making of Proposed Improvement Plan followed.

Ethical Issues. The researcher properly secured the permission to conduct the study from the authorities through written communication. In the formulation of the intervention materials that was used in the study, the use of offensive, discriminatory or other unacceptable language was avoided. The respondents' names and other personal data were not included in this study to protect their privacy. Participation of the respondents was also voluntary. Orientation was conducted for the respondents with their parents. In the orientation, issues and concerns were addressed and consent to be included in the study were signed. The researcher-maintained objectivity in analyzing and discussing the results. All authors whose works were mentioned in this study were properly quoted and was acknowledge in the reference.

Treatment of Data. The Simple Percentage was employed to evaluate result of the test conducted before and after the utilization of contextualized reading puzzles in teaching literacy skills. **t-Test of Mean Difference** was used to determine the significant difference in the tests conducted to the kindergarten pupils before and after the utilization of contextualized reading puzzles in teaching literacy skills.



III. Results and Discussion

Table 1
Pre-Test Performance of the Kindergarten Pupils in Reading

Score Range	Description	PRETEST		
		Frequency	%	
17-20	Excellent 0		0	
13-16	Very Good	0	0	
9-12	Good	17	61	
5-8	Fair	11	39	
0-4	Poor	0	0	
Total		28	100	
Weighted Mean		8.71	Good	

Table 1 presents the pre-test performance of the kindergarten pupils before the utilization of contextualized reading puzzles in teaching literacy skills. It was revealed on the table that among the 28 kindergarten pupils tested, 17 or 61% got a score of 9-12 which is interpreted as good. This means that these pupils got almost one-half of the total number of items correct. This implies that there is a need for learning assistance because most of them have found out to have difficulty in learning the literacy skills using the usual instructional materials used by the teacher in the development of the lesson. Moreover, it was also revealed on the table that there are 11 kindergarten pupils or 39% got a score of 5-8 which is interpreted as fair. This means that these pupils need special attention because this grade is the foundation grade in elementary. Meaning focus on learning literacy skills should be emphasized and no one should be left behind. This implies that intervention should be given evidently to awaken the interest of the pupils in learning to love reading.

Finally, the table shows the test performance of the kindergarten pupils before the utilization of contextualized reading puzzles in teaching literacy, and it was shown that it has an average weighted mean of 8.71 which is interpreted as good. This means that these pupils really need interventions and additional instructional materials which will boost their interest to participate in the lesson and be attentive to the discussion of the teacher most especially in the production of sounds. This implies that the teacher should think of alternative or additional learning support materials which are manipulative and can be grasped by the pupils. Since these learners are still in their foundation years of learning, it is best to provide colorful, glossy, and interactive learning support materials. Utilizing the contextualized reading puzzles with colorful illustrations and attractive materials best suits this kind of learners to easily understand and lessons will be retained in their mind. When children play puzzles, they learn the power of choice and strategy and they begin to recognize and thoroughly understand how pieces fit together to complete a large picture which aided them in understanding the concepts conveyed in the puzzle.



Table 2
Post-Test Performance of the Kindergarten Pupils in Reading

Score Range	Description	POST-TEST		
		Frequency	%	
17-20	Excellent	11	39	
13-16	Very Good	17	61	
9-12	Good	0	0	
5-8	Fair	0	0	
0-4	Poor	0	0	
Total		28	100	
Weighted Mean		16.32	Very Good	

Table 2 presents the post-test performance of the kindergarten pupils after the utilization of contextualized reading puzzles in teaching literacy skills. It was revealed on the table that after the utilization of contextualized reading puzzles in teaching literacy skills, 11 kindergarten pupils out of 35 or 39% got a score of 17-20 which is interpreted as excellent. This means that the contextualized reading puzzles have helped them improve their performance. This implies that the reading performance of the kindergarten pupils has improved taking into consideration the learning support materials provided to them which are interactive and helped them understand the concepts conveyed in the activity. Moreover, it was shown on the table that among the 35 kindergarten pupils, 17 or 61% got a score of 13-16 which is interpreted as very good. This means that after the utilization of contextualized reading puzzles in teaching literacy skills, the reading performance of the kindergarten pupils has improved and mastery of the lessons was attained. This implies effectiveness on the utilization of contextualized reading puzzles in teaching literacy. Why effective? Because the materials used in the puzzles were all attractive, interactive and colorful. Kindergarten pupils are motivated to participate and cooperate in all the activities provided by the teacher. Previous lessons were retained, and it is connected to the next lesson. When working to complete a puzzle, children have to rely heavily on their ability to remember which shapes work together to complete the picture. If a piece doesn't fit, the child will set it aside, but will still need to remember its shape and color in relation to the rest of the puzzle.



Table 3
Test of Difference Between the Scores in the Pre-Test and Post-Test of the Kindergarten Pupils in Reading

Aspects	Test Scores		Computed T	Critical T	Decision	Interpretation
Kindergarten Pupils	Pre Post	8.71 16.32	3.992	1.015	Reject H _o	Significant

Table 3 presents the test of difference between the scores in the pre-test and post-test of the kindergarten pupils before and after the utilization of contextualized reading puzzles in teaching literacy skills. It was revealed on the table that the computed value of t of 3.992 is greater than the critical value of t of 1.015, so null hypothesis is rejected. This means that there is a significant difference in the pre-test and post-test performances of the kindergarten pupils before and after the utilization of contextualized reading puzzles in teaching literacy skills. This implies that through the utilization of the contextualized reading puzzles, kindergarten pupils had mastered the literacy skills and they were able to comprehend and respond effectively to the lessons given to them. Further, the contextualized reading puzzles had helped the kindergarten pupils develop their cognitive and fine motor skills making them able to grasp the materials because cognitive learning is characterized by comprehension, organizing ideas and applying knowledge through choice and evaluation. When children play with puzzles, they learn the power of choice and strategy as they begin to recognize and thoughtfully understand how pieces fit together to complete the large picture, children's puzzles display themes and colorful pictures such as zoo animals, vehicles, numbers or alphabet letters. Playing with puzzles helps them to better understand how themes work together and fit into the world around them. Playing with puzzles requires children to grasp pieces of all shapes and sizes and manipulate them to fit exactly into a cutout shape or slot. This process can involve sorting and testing of various shapes until the right one is found. Through this task, children develop muscle movements and dexterity in their hands and fingers. Thus, contextualized reading puzzles are effective in improving the reading performance of the kindergarten pupils.



IV. Conclusion

Based on the result of the pre-test and post-test conducted before and after the utilization of contextualized reading puzzles, it was found out that it is effective. Thus, this study revealed a significant difference in the pre-test and post-test performances of the kindergarten pupils before and after the utilization of contextualized reading puzzles in teaching literacy skills. Hence, it is relevant to provide the necessary instructional materials to the pupils to make learning happen in the class. Kindergarten pupils can best learn the lessons if the materials used in teaching are interactive, manipulative, colorful and relevant to the topic or lesson conveyed.

V. Recommendations

- 1. The proposed improvement plan formulated should be utilized by the teachers to further test whether the intervention is effective to improve the reading performance of the kindergarten pupils.
- 2. In order to find the usability of the materials as well as to maintain or increase the performance of the pupils, teachers should utilize the contextualized reading puzzles in teaching literacy skills to help the pupils improve their reading performance.
- 3. Teachers should implement the utilization of contextualized reading puzzles in their teaching for it has proven to be effective.
- 4. Teachers should learn to craft differentiated and varied contextualized reading puzzles to be utilized by the pupils during the teaching-learning process.
- 5. Teachers should implement play or games using the contextualized reading puzzles to help them understand the concept correctly and be able to apply the knowledge gained.
- 6. Teachers must attend training or LAC sessions on the production of contextualized reading puzzles and their utilization in the classroom.
- 7. Teachers must attend training on the formulation of technology-based activities in beginning reading.
- 8. School Heads should spearhead in the crafting of training design and LAC plan for trainings and LAC sessions for the improvement of teaching-learning process of teachers most especially in the improvement of learning resource materials.
- 9. School Heads should conduct LAC sessions on the importance of conducting and providing intervention activities to the pupils to address the learning gaps that school children and experiencing right now.

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- 10. School Heads should provide technical assistance to teachers in terms of teaching literacy skills using differentiated and varied learning support materials and resources.
- 11. School Heads should regularly monitor the teaching-learning process of teachers.
- 12. School Heads should maximize the time in providing appropriate technical assistance based on the needs of the teachers in teaching literacy skills.
- 13. School Heads should encourage or require the teachers to submit the contextualized reading puzzles and other learning resources to the Quality Assurance Team for validation, evaluation and quality assurance of the materials before it will be used in the teaching-learning process.
- 14. School Heads should encourage and provide technical assistance for the crafting of innovations and research based on the intervention provided to improve the performance of the pupils; and
- 15. Future researchers should replicate this study to include different locales and include different variables aside from the mentioned in this study.

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REFERENCES

- [1] https://earlychildhood.qld.gov.au/early-years/activities-and-resources/resources-parents/read-and-count/learning-with-puzzles
- [2] https://penfieldbuildingblocks.org/early-education/how-puzzles-can-help-your-childs-development/
- [3] https://www.kindergartenworks.com/kindergarten-teaching-ideas/puzzles-have-on-hand/
- [4] https://www.researchgate.net/publication/356156914_Contextualized_English_Reading_Proficiency

 Toolkit CERPT Enhance Learners% 27 English Reading Proficiency
- [5] DepEd Order No. 45 s. 2002 or Every Child A Reader Program (ECARP)
- [6] Koparan, T. (2017). Analysis of teaching material developed by prospective mathematics teachers and their views on material development. Mojet, Vol 5(4), pp. 8—28.
- [7] Koşar, G. & Bedir, H. (2019). A comprehensive evaluation of practicum experience: From the view of preservice EFL teachers. International Online Journal of Education and Teaching (IOJET), 6(4). 1001-1016.
- [8] Njoroge, M., Ndung'u, R. & Gatambuki Gathigia, M. (2013). The Use of Crossword Puzzles as a Vocabulary Learning Strategy: A Case of English as Seconda Language in Kenya Secondary Schools. International Journal of Current Research, Vol. 5, Issue 1. https://irlibrary.ku.ac.ke/bitstream/handle/123456789/9968/theuseofcrosswordpuzzlesasavocabularyle arningstrategy....pdf?sequence=1
- [9] Panao, N. R. (2022). Effectiveness of Contextualized Reading Materials to the Performance of the Grade 7 Students in Filipino. International Journal of Advanced Multidisciplinary Studies. Volume II, Issue 10, eISSN: 2799-0664. https://www.ijams-bbp.net/wp-content/uploads/2022/11/IJAMS-WLC-235-247.pdf
- [10] Pribadi, B. A. & Sjarif, E. (2010). Pendekatan konstruktivisme dan pengembangan bahan ajar pada sistem pendidikan jarak jauh. Jurnal Pendidikan Terbuka dan Jarak Jauh, Vol. 11(2), pp. 117—128
- [11] Quimbo, I. (2021). Contextualized English Reading Proficiency Toolkit (CERPT): Enhance Learners' English Reading Proficiency. Chapter Matrix Overview. https://www.intechopen.com/chapters/78938
- [12] Saglam, H. I. (2011). An investigation on teaching materials used in social studies lesson. Tojet, Vol. 10(1), pp. 36—44.
- [13]Salam, S. (2017). Developing needs analysis based reading comprehension learning materials: A study on the Indonesian language study program students. Advences In language and Literacy Studies, Vol. 8(4), pp. 105—113.



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After she graduated her bachelor's degree she was teaching as pre-school teacher and grade 1 teacher at St. Therese Montessori School, Punta Ormoc City in the year 2008-2012. In the year 2013 she was hired in the DepEd and she was teaching for 2 years as multigrade teacher at Minesite Elementary School in the year 2013-2015, and currently teaching Kindergarten Casilda Elementary School. She also attended series of webinars/seminars and trainings to increase his professional growth as a teacher.