

# Effectiveness of Diverse Opportunities in Reading Access for School Children (DORAS) Bookpack in the Reading Performance of Grade I Pupils

JACQUILINE A. ONDE

Teacher I

Western Leyte College

Master of Arts in Education

Major in School Administration and Supervision

jacquiline.onde@deped.gov.ph

*Abstract* —The study evaluates the effectiveness of Diverse Opportunities in Reading Access for School Children (DORAS) bookpack in the reading performance of Grade I pupils. Utilizing the quasi-experimental research design for an in-depth analysis of the study, the researcher used the researcher-made reading test questions based on the 2<sup>nd</sup> quarter Most Essential Learning Competencies (MELCs) and for the intervention, pupils were provided a researcher-made digitized story from the DORAS bookpack. Simple Percentage, Weighted Mean and t-test of mean difference were the statistical tools used. Results of the study revealed a significant difference in the pre-test and post-test performances of the Grade I pupils in Reading. Thus, digitized story from the Diverse Opportunities in Reading Access for School Children (DORAS) bookpack is an effective supplementary learning material in improving the performance of the Grade I pupils in Reading. The animation and narration in the story of DORAs bookpack aid pupils learn to read.

*Keywords* — *Effectiveness, Diverse Opportunities, Reading Access, School Children, Book Pack, Reading Performance, Grade I Pupils*

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## I. Introduction

Today's wide availability of digital reading devices and the rich tradition of children's paper books beg the question of which reading format is better suited for young readers' learning. While for readers with conventional reading skills, a systematic review and meta-analysis found that reading performance is greater with paper-based reading (Clinton, 2019), there is no such cumulative evidence for readers between 1 and 8 years with emergent reading skills and reading routines that differ from those of conventional readers. Given that young children cannot decipher words independently, the question emerges whether digital books can provide the support emergent readers need to understand books on their own, without reliance on adults. A substantial body of experimental research focuses on comparing children's reading of digital books with print books, with evidence of both positive and negative effects on children's story comprehension and

vocabulary learning. In previous studies, the difference in impact has been linked to the medium (paper vs. on-screen; e.g., Hoel & Tønnessen, 2019), the design of digital books (e.g., Christ, Wang, Chiu, & Strekalova-Hughes, 2019), and adults' support (e.g., Strouse et al., 2019).

Traditionally built books and educational television programs are rapidly giving way to digital content on electronic devices, shifting the early learning environment at home and in school for very young children. Considering the low costs and accessibility, digital books supplement or fully provide the reading materials in low-income families (Picton, 2014) or developing countries (Jere-Folotiya et al., 2014). Reading on-screen has significant practical advantages for adults and children who cannot read together in person (e.g., in the case of pandemic lock-downs, displacement of families for work, war conflict, or health reasons). Thus, the question is not whether digital books are better than paper books but rather whether digital books open up new opportunities for book reading and how digital books could be optimized to increase children's learning. In other words, the focus on digital design effects is not on the overall difference a reading medium makes but on what is contributed by the specific enhancements in digital books.

Especially promising are the so-called digital story-telling enhancements that focus children's attention on the storyline, ranging from synchronizing visualizations with the narration that facilitate the integration of visual and verbal information to using techniques that encourage children's curiosity about new story events, which facilitate the processing of narration (Eng et al., 2019; Sarı et al., 2019; Verhallen et al., 2006).

Most digital books include voice narration that "reads" the book to the child, making adults' direct reading of the text unnecessary. However, there is likely to be a difference in relation to the type of voiceover provided by automated recordings and the dramatization provided by real adults. These audio enhancements afford a new kind of book reading experience to children that in various ways may qualitatively differ from a reading experience of sharing paper books with an adult. For instance, in a recent study, parents of 2- and 3-year-old children were provided with access to a reading platform that included film-like digital books with a voiceover (Bus & Anstadt, 2020). The analytics that registered which days children were logged in and which books were read each session showed that children read more books in one session and repeated the same books more often than reported for regular book reading sessions.

As the COVID-19 Pandemic runs its course, many governments are implementing measures that limit the number of people congregating in public places. Such measures have disrupted the normal functioning of schools and universities. Because the duration of such measures has been extensive – and is likely to continue in some countries for a certain time until a vaccine becomes available – leaders of public and private education institutions have put in place alternative methods for students and teachers to continue with their lessons when attending school is not possible and are working on methods that will make schools fit for working in a safe environment.

After a year of implementing modular distance learning in most of the schools, it was found out that most of the schools have discovered low reading performance among the K to Grade III pupils. It was also revealed in the result of the modules that most of the answered activities are not done by the pupils but by their learning facilitators. With these, the goal of DepEd was not met. Thus, making some innovations are the resorts of some of the schools to help the Key Stage 1 pupils attain the basic knowledge in reading. It is in this result that the Department of Education Leyte Division had come up with innovations through providing an offline reading packages which focus on learning the sounds of the letters of the alphabet through a digitized story with audio and video presentation. The proponent of the innovation and the teachers hoped that through this bookpack pupils will be able to learn the basic skills in reading.

In line with the K to 12 Program and the goal of making every child should be a reader, the Department of Education (DepEd) is strengthening its reading program through the implementation of the Early Language, Literacy and Numeracy Program (DO No. 8, s. 2017). This program aims to develop in Filipino children the literacy and numeracy skills, and attitudes, which will contribute to lifelong learning. With this, it is the goal of the Department to improve the literacy and numeracy skills of learners from Kindergarten to Grade III following the K to 12 Basic Education Curriculum by establishing a sustainable and cost-effective professional development system for teachers.

With the implementation of this Diverse Opportunities in Reading Access for School Children (DORAS) Bookpack for Interactive Blended Learning, the researcher believes that through this, learning the basic reading skills will be achieve by the Key Stage 1 pupils. Thus, the researcher formulated this study to evaluate the effectiveness of DORAS bookpack in the reading performance of Grade I pupils. A proposed improvement plan formulated based on the result of the study.

It is in the rationale that the researcher who is currently teaching in the above mentioned local, would like to delve worthy research undertaking that would benefit the school she is currently teaching and that of her Graduate Program.

This study evaluates the effectiveness of Diverse Opportunities in Reading Access for School Children (DORAS) bookpack in the reading performance of Grade I pupils of Tagaytay Elementary School, Kananga II District, Leyte Division for School Year 2021-2022. The findings of the study were bases for the proposed improvement plan.

Specifically, this study sought to answer the following questions:

1. What is the performance of the Grade I pupils in Reading before the integration of Diverse Opportunities in Reading Access for School Children (DORAS) Bookpack?
2. What is the performance of Grade I pupils in Reading after the utilization of Diverse Opportunities in Reading Access for School Children (DORAS) Bookpack?

3. Is there a significant difference in the pre-test and post-test performance of Grade I pupils in Reading after the utilization of Diverse Opportunities in Reading Access for School Children (DORAS) Backpack?
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 employing the pre-test and post-test to evaluate the effectiveness of Diverse Opportunities in Reading Access for School Children (DORAS) backpack in the reading performance of Grade I pupils. Tagaytay Elementary School, Kananga II District, Leyte Division is the main locale of the study. The 19 Grade I pupils enrolled in the said locale for School Year 2021-2022 are the main respondents of the study and a researcher-made reading test questions based on the 2<sup>nd</sup> quarter Most Essential Learning Competencies (MELCs) is used and for the intervention, pupils were provided a researcher-made digitized story from the DORAS backpack. This research is focused in evaluating the effectiveness of Diverse Opportunities in Reading Access for School Children (DORAS) backpack and performance of the Grade I pupils in Reading and its relationship. A Proposed Improvement Plan based on the findings of the study is the output.

**Sampling.** There are 19 Grade I pupils involved in this study. The research was conducted personally by the researcher with consent from the Local IATF and strictly following the prescribed Health Protocol.

**Research Procedure.** The researcher prepared the research design and tools to be 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, District Reading Coordinator and School Head was secured before the actual gathering of data. Validation of the instruments through the School Head, District Reading Coordinator and District Supervisor was sought. Orientation of the participants and administration of the pre-test and post-test was done through face-to-face during home visitation. Permission from the Barangay and Local IATF was secured. After answering the pre-test, pupils were given a digitized story in the DORAS backpack. Learning facilitators were instructed to assist and guide the child while viewing the digitized stories from the DORAS backpack and answer the activities found in the modules which is line with the stories viewed. After the 6-week conduct of intervention, 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 Intervention Plan followed.

**Ethical Issues.** The right to conduct the study was strictly adhered through the approval of the Schools Division Superintendent of the Division, District Supervisor, and School Head.

Orientation of the respondents was done using face to face modality. In the orientation, issues and concerns were addressed and consent to be included in the study were signed.

**Treatment of Data.** The Simple Percentage and Weighted Mean was employed to determine the pre-test and post-test performances of the Grade I pupils in Reading. t-Test of Mean Difference was used to determine the significant difference in the pre-test and post-test performances.

### III. Results and Discussion

**Table 1**  
**Pre-Test Performance of Grade I Pupils in Reading**

Score Range	Description	PRETEST	
		Frequency	%
17-20	Excellent	0	0
13-16	Very Good	4	21
9-12	Good	13	68
5-8	Fair	2	11
1-4	Poor	0	0
Total		19	100
<b>Weighted Mean</b>		<b>11.21</b>	<b>Good</b>

Table 1 presents the pre-test performance of Grade I pupils in Reading. It was revealed on the table that among the 19 pupils, 4 or 21% got 13-16 which is very good while 13 or 68% got the score of 9-12 and 2 or 11% got the score of 5-8 which is fair. The weighted of 11.21 shows a good pre-test performance of the Grade I pupils in Reading before the utilization of the digitized stories in the DORAS backpack. This means that Grade I pupils need an intervention to improve their performance. This implies that the Grade I pupils need supplementary reading materials which will teach them the basic knowledge in reading like the oral language, fluency and many more. They need learning materials which will help them develop their listening and viewing skills like the digitize story and other audio-video material.

**Table 2**  
**Post-Test Performance of Grade I Pupils in Reading**

Score Range	Description	POST TEST	
		Frequency	%
17-20	Excellent	15	79
13-16	Very Good	4	21
9-12	Good	0	0
5-8	Fair	0	0
1-4	Poor	0	0
<b>Total</b>		<b>19</b>	<b>100</b>
<b>Weighted Mean</b>		<b>18.16</b>	<b>Excellent</b>

Table 2 presents the post-test performance of Grade I pupils in Reading. It was revealed on the table that among the 19 Grade I pupils, 15 or 79% got a score of 17-20 which is excellent and 4 or 21% got the score of 13-16 which is very good. The weighted mean of 18.16 shows an excellent post-test performance in Reading after the utilization of digitized stories in the DORAS bookpack. This means that after the utilization of digitized story from DORAS bookpack, the performance of the pupils has increased. This implies that digitize story from DORAS bookpack is an effective supplementary material which helps improve the Reading performance of the Grade I pupils. This implies further that since the digitize story has audio which narrates or reads the story, the child is able to familiarize the words used in the story and at the same time they are start to recognize such. Constant practice and exposure of pupils to these materials help in improving their performance in Reading.

**Table 3**  
**Test of Difference Between the Scores in the Pre-Test and Post-Test Performances of Grade III Pupils in Science**

Aspects	Test Scores		Computed T	Critical T	Decision	Interpretation
	Pre	Post				
<b>Grade 3 Pupils in Science</b>	11.21	18.16	2.211	0.901	Reject H <sub>0</sub>	Significant

Table 3 presents the test of difference between the scores in the pre-test and post-test performances of Grade I pupils in Reading. It was revealed on the table that the computed t of 2.211 is greater than the critical value or t of 0.901 and .05 level of significance, so null hypothesis is rejected. This means that there is a significant difference between the pre-test and post-test



performances of Grade I pupils in Reading. The mean in the pre-test of 11.21 has increased to 18.16 in the post-test after exposing the pupils digitized short stories in DORAS bookpack. This implies that reading stories to pupils nowadays need to have animations and narration to make it an effective learning material to be utilized by the Grade I pupils to aid them in learning how to read and the intervention provided through the digitized story from DORAS bookpack help improve the performance of the pupils and considered as effective supplementary learning materials.

#### **IV. Conclusion**

Results of the study revealed a significant difference in the pre-test and post-test performances of the Grade I pupils in Reading. Thus, digitized story from the Diverse Opportunities in Reading Access for School Children (DORAS) bookpack is an effective supplementary learning material in improving the performance of the Grade I pupils in Reading. The animation and narration in the story of DORAS bookpack aid pupils learn to read.

#### **V. Recommendations**

1. The proposed improvement plan formulated should be utilized;
2. Teachers should formulate innovative learning materials to aid pupils to learn to read;
3. Teachers are encouraged to formulate stories and digitize it to supplement the materials to be provided to the pupils;
4. School heads must formulate training design to train teachers in the production of DORAS bookpack;
5. School heads should encourage teachers to submit their digitized stories for quality assurance in the division level;
6. Teachers should provide the pupils with soft copy of the digitized stories and encourage them to view and answer the activities found in the story;
7. Teachers and school heads should provide more supplementary reading materials to the pupils who are learning at home;
8. Teachers and school heads should conduct home visitation to the pupils to monitor the utilization of the digitized story in the DORAS bookpack;
9. Teachers and school heads should see to it that the materials were utilized properly through the contextualized monitoring tool; and
10. Future researchers should replicate this study to include different locale and include different variables aside from the mentioned in this study.

### ACKNOWLEDGMENT

This study is in partial fulfillment of the requirements for the Degree Master of Arts in Education major in School Administration and Supervision. Special thanks are extended: To Dr. Jasmine B. Misa, thesis adviser, for her competence, patience, insights, knowledge and consistent guidance in giving valuable comments and suggestions for the improvement of the manuscript; Dr. Bryant C. Acar, Dr. Annabelle A. Wenceslao, Dr. Elvin H. Wenceslao, panel of examiners; her parents, Cerilo E. Amores and Ofelia C. Amores and son, Jaazer Jethro A. Onde, for their love, prayers, care and sacrifices and all support they provided; Mr. Allison M. Junio, District Head, Mrs. Henrietta L. Bragat, School Head and teachers of Tagaytay Elementary School, pupils and parents and the whole community of Kananga II District; to Pastor Goody Cerillo, siblings, relatives, friends, and all people whom she asks for advices and prayers and To God, her deepest and sincerest gratitude.

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#### **AUTHOR'S PROFILE**



**MS. JACQUILINE A. ONDE**

The author is born on October 12, 1991 at Cantuhaon, Palompon, Leyte Philippines. She is presently residing at Poblacion, Kananga, Leyte. She finished her elementary education at Cantuhaon Elementary School, Cantuhaon Palompon Leyte in the year 2004 and continue her quest for education and able to finish her secondary education at Cantuhaon National High School, Cantuhaon, Palompon, Leyte in the year 2008. She enrolled and finished her Bachelor in Elementary School at Visayas State University Isabel-Campus in the year 2013. She took up Master of Arts in Education major in School Administration and Supervision with complete academic requirements at Western Leyte College of Ormoc.

Her current station is Tagaytay Elementary School, Kananga II District. She attended virtual trainings and seminars conducted in National, Division, District and school.