SHR Offline Multimedia: Its Effectiveness in Improving Reading Performance of Grades I-III Struggling Readers in the New Normal

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Abstract
Reading is an important skill to develop in every learner. The ability to read is one of the factors that affect the learning process. The study aims to improve the reading performance of the pupils through the use of SHR (See it... Hear it... Read it) offline multimedia. This action research investigated the reading performance of Grades 1-3 in Balide Elementary School. It covered the 26 pupils from Grades 1-3 as the respondents whose reading performance is low as reflected in the Individual Reading Progress Monitoring Checklist of the teacher. In this study, the reading levels of the respondents were categorized as can read, few sentence/phrases reader, CVC reader, syllable, and alphabet knowledge reader. Utilizing both quantitative and qualitative research methods, findings revealed that after the intervention there is an improvement of the reading performance of the respondents with respect to their reading level Interviews were used as the second gathering tool and the results showed that the pupils were becoming interested and motivated to read using the SHR offline multimedia. The results further showed that there is a significant difference between the respondents' reading performance after exposure to the SHR offline multimedia before and after they used the intervention. This implied that the intervention applied is effective in improving the reading performance of the pupils as they were more engaged and motivated to read.

Keywords: struggling readers, offline multimedia, effectiveness, SHR offline, reading performance

1. Context and Rationale
Reading is the most vital part of the learning method and social interaction because reading is one of the most effective communication tools in a civilized society. Reading is the window of the world. It is also one of the most necessary skills in English that gives many benefits to us. Through reading, people can gain more knowledge and information from the web, books, newspapers, and others. The Department of Education (DepEd) continues to develop its various reading programs and activities to further improve the reading performance of every Filipino learner. Despite all efforts exerted by the teachers in their desire to help their pupils read and comprehend, many pupils just cannot cope

and can hardly decode the printed words (Pineda, 2016). Owing to the outbreak of coronavirus disease (COVID-19), the academic performance of the learners may be at stake, including their reading abilities. Even the World Health Organization (WHO) has been declared a Public Health Emergency (WHO, 2020). As a result, many schools have closed and even postponed the opening of classes which reflects the difficulties the education sector is encountering. However, this has s not prevented the DepEd from continuing to achieve quality education. According to the DepEd Secretary, Leonor M. Briones, "Education of children must continue." (*Manila Bulletin*, 2020). The re-opening of schools will not necessarily mean traditional face-to-face learning in the classroom setting (Teacher PH, 2020). Most schools in the Philippines, especially the public schools, adopted modular distance learning (MDL) where it is most applicable to young learners such as preschoolers. In this modality, children must stay at home and learn under the instructional supervision of their parents. Thus, their reading abilities may not be directly addressed, especially those of struggling readers. Therefore, staying at home may affect the reading performance of the pupils.

The pandemic has exposed the need to be further equipped with technology to adapt to a digital environment. Thus, the technology-infused lesson is a powerful tool to attract pupils' attention with skills needed, especially in reading. This intervention can be seen as an adaptive movement to equip the reading learning process. Nowadays, the demand for technology-infused lessons is increasing as it has been proven to help pupils learn better. The multimedia cognitive feature is targeted on the idea that learners decide to build meaningful connections between words and photos which they have learned more deeply than merely the use of words or photos in the reading text (Abdul Samat, 2020). The reading performance of pupils based on oral reading test results conducted in our school this year is indeed alarming to all of us because 26 pupils from Grades 1-3 are struggling readers; and it is about 52% of the whole population in the lower grades. This prompted the researchers to conduct action research on SHR (See it... Hear it... Read it) Offline Multimedia as an intervention to improve the reading performance of the struggling readers in Grades 1-3 as they yield the most numbers of struggling readers in the entire school based on the LTR Tool Assessment. Hence, this study explores SHR (See it, Hear it, Read it) offline multimedia as an intervention to teaching reading. This research implemented a reading intervention for the 26 pupils in Grades 1-3 of Balide Elementary School. Furthermore, this research shares the innovations with teachers that could help struggling readers.

2. Innovation, Intervention and Strategy

The researchers implemented the use of SHR offline multimedia reading materials with pupils to practise reading through their cellphones, tablets, and television to improve their reading performance while at home. It was believed that this would also make pupils feel that reading is more enjoyable and comfortable. The researchers made video reading materials by episode and compiled some reading video materials from YouTube to reinforce the skills of struggling pupils. The researchers provide a soft copy in a flash drive to the pupils with television sets at home, while for those pupils who owned a laptop/desktop, the researchers allowed them to copy the files. In the case of pupils with smartphones/android phones, the researchers shared the files via Bluetooth/SHAREit, and for the pupils without any gadgets at home the researchers conducted home visitations and give one-on-one reading remediation using the intervention by viewing the video on a laptop. The researchers that the family could call their neighbours every time they viewed the reading video so that the respondent pupils could watch together in their respective homes.

3. Action Research Questions

This action research sought to determine the effectiveness of the SHR offline multimedia as an intervention to improve the reading performance of those Grades 1-3 readers of Balide Elementary School who were struggling. Specifically, this study sought to answer the following research questions:

- What is the reading performance of pupils before exposing to offline multimedia intervention?
- What is the reading performance of pupils after exposure to offline multimedia intervention?
- Is there a significant improvement in the reading performance of pupils before and after exposure to offline multimedia?
- How effective is offline multimedia in improving the reading performance of pupils?

Hypotheses:

$H0$: There is no significant difference in the pre-test and post-test reading performance of pupils.
Ha: There is a significant difference between the pre-test and post-test reading performance of pupils.

4. Action Research Methods
4.1 Participants and/or other Source of Data and Information

The population of interest for this study are the struggling readers in Grades 1-3 of Balide Elementary School, Aurora East District, Aurora, Zamboanga del Sur. They were identified using the Learning to Read Tool (LTR). The reading level of the pupils was analyze using the Individual Reading Progress Monitoring Checklist such as Can Read, Few Sentence/Phrases Reader, CVC Reader, Syllable, and Alphabet Knowledge which are documented as an Individual Reading Progress Monitoring Report in the school. The Learning to Read (LTR) Oral Reading Test gives quantitative information about the pupils' oral reading capabilities. Based on the record of the Individual Reading Progress Monitoring Report, the reading level of the target respondents was only 48% or 24 who can read while 52% are struggling readers, reflecting 26 pupils; 13 are few sentence readers, five are CVC readers, six are syllable readers and 2 are alphabet knowledge readers out of a total of 50 enrolments in Grades 1-3. This implies that the twenty-six (26) pupils or 52% are considered as struggling readers. These struggling readers were identified as the respondents of the study and were exposed to the SHR offline multimedia intervention.

Grade Level	Enrollment	Struggling Readers	Male	Female	6-7 years old	8-9 years old	10 years old & above
Grade 1	16	12	8	4	12	0	0
Grade 2	13	7	4	3	2	5	0
Grade 3	21	7	5	2	0	7	0
Total	**50**	**26**	**17**	**9**	**14**	**12**	**0**

4.2 Data Gathering Methods

In the conduct of the study the researchers asked permission from the school head of the school to administer the research. The researchers borrowed the Individual Reading Progress Monitoring Checklist from the adviser to identify the struggling readers. The investigators informed the parents and received their approval. As soon as the necessary permission had been obtained from the principal, the researchers distributed the SHR offline multimedia materials to the 26 struggling readers as identified. The parents and pupils were instructed on how to use it. The pupils should read the materials every day at their most convenient time using SHR offline multimedia with the assistance of the parents and other family members. Moreover, reinforcing the struggling readers using the SHR

offline multimedia reading materials is useful as the combination of multiple elements of media scaffold the process of word recognition. The researchers monitored the pupils' progress every Saturday through home visitation for feedback and other related problems encountered during the conduct of the intervention.

The duration of the intervention last for five months. After the intervention, a post-reading oral test was administered by the researchers, and the data were collected and retrieved, tallied, tabulated, analyzed and interpreted. To meet the set objectives of the study, the data gathered was subjected to appropriate statistical analysis and interpretation. To answer the first and second question problem on the reading performance of pupils before and after exposing to offline multimedia, descriptive statistics were used such as frequency and percentage distribution. To determine the significant improvement on pupils' reading performance, the means of the pre-test and post-test were compared using the t-test. To determine the effectiveness of the SHR offline multimedia in improving the reading performance of pupils, both quantitative and qualitative analysis were used, while for the qualitative analysis of the reading performance of the pupils, face-to-face interviews were conducted using personal interview guide questions.

5. Discussion of Results and Reflection

During the week of pre-documentation, the researchers introduced the intervention to the struggling readers by viewing the SHR offline multimedia reading materials with them. The researchers observed the behavior of pupils when watching the videos. They were excited and eager to read the reading exercises presented in the videos of SHR because they enjoyed watching them Through proper guidance and motivation of the pupils with the help of the parents, the eagerness of the pupils to learn was stimulated as they recognized the letters, words, sentences and other reading exercises shown in the video. According to Ctdinstitute.org. (2014), Learning to Read with Multimedia materials research journal, multimedia reading materials and environments offer a variety of flexible support, including text-to-speech, voice recognition, animation, music and sound effects, embedded dictionaries, linked videos to boost background knowledge and vocabulary, study tools such as highlighters and annotation capabilities, and animated agent tutors. They have the capacity to support the choice of content and tools, adjustable challenge level, and adjustable practice and feedback considered the potential of multimedia materials and environments to support reading for struggling readers. This is one of the reasons why this research was conducted, namely to help struggling readers to be able to read while staying at home during the pandemic. This also helped the teachers who would find it easy to teach reading on their teaching journey. The SHR offline multimedia is easy to use and can also be used any time, in any learning environment, even when face-to-face classes resumed. The findings are based on the analysis of data and presented in accordance with the research questions of the study.

5.1 Reading Performance of the Pupils before Exposure to SHR offline Multimedia

Tables 1 and 2 present the results of the reading assessment test of the pupils before and after the intervention. These are in the form of explanations and tables:

Table 1: Pre-test result

Grade Level	Enrolment	CAN READ		FEW SENTENCE READER		CVC READER		SYLLABLE READER		ALPHABET KNOWLEDGE	
		F	%	F	%	F	%	F	%	F	%
I	16	4	25%	7	43.75%	2	12.5%	2	12.5%	1	6.25%
II	13	6	46.15%	2	15.38%	1	7.69%	4	30.76%	0	0%
III	21	14	66.66%	4	19.04%	2	9.52%	0	0%	1	4.76%
TOTAL	50	24	48%	13	26 %	5	10%	6	12%	2	4%
Readers- 48%				52% - Struggling Readers							

The results of the pre-test show that out of a total of 50 enrolments, only 48% or a frequency of 24 could read while 52% were struggling readers with a frequency of 26 pupils in the following categories: 13 are few sentence readers, five are CVC (consonant-vowel-consonant) readers, six are syllable readers and two are alphabet knowledge readers. These 26 pupils were exposed to the SHR offline multimedia reading intervention.

5.2 Reading Performance of the Pupils after Exposure to SHR Offline Multimedia

Table 2: Post-test result

Grade Level	Enrolment	CAN READ		FEW SENTENCE READER		CVC READER		SYLLABLE READER		ALPHABET KNOWLEDGE	
		F	%	F	%	F	%	F	%	F	%
I	16	10	62.5%	5	31.25%	1	6.25%	0	0%	0	0%
II	13	10	76.92%	3	23.08%	0	0%	0	0%	0	0%
III	21	18	85.71%	2	9.52%	1	4.76%	0	0%	0	0%
TOTAL	50	38		10		2		0		0	
Average Percentage			75.05%		21.28%		3.67%		0%		0%
Readers- 75.05%				24.95% - Struggling Readers							

The post-test result shown in Table 2 revealed that after the struggling readers had been exposed to the SHR offline multimedia reading intervention, the pupils who could read increased from 48% to 75.05% with a frequency of 38 out of 50 pupils, while the number of struggling readers was reduced from a frequency of 26 to 12 pupils or 24.95% struggling readers. This result implies the effectiveness of the intervention in improving the reading performance of struggling readers.

5.3 Comparison of Means of the Reading Performance of Pupils

Table 3: T-test results on the reading performance of pupils

Grade Level	Paired Test	Mean	Mean Difference	Std Deviation	t	Sig (2 tailed)
	Pretest	1.98	0.70	0.76	6.49	0.000
	Posttest	1.28				
Grade 1	Pretest	2.31	0.87	0.71	4.86	0.000
	Posttest	1.43				
Grade 2	Pretest	2.23	1.0	1.08	3.33	0.006
	Posttest	1.23				
Grade 3	Pretest	1.57	0.38	0.58	2.96	0.008
	Posttest	1.19				

Based on the data shown in Table 3, the results indicated that the mean difference between pre-test and post-test is 0.70 with standard deviation of 0.763. The computed t of their means resulted in 6.49 with a significant value of 0.000. Since the significant value of the computed t is less than the critical value of t at α= 0.05, this shows that there is a significant difference in the reading performance of the respondents after their exposure to the SHR offline multimedia. In addition, the result showed that there is a significant improvement of the reading performance among Grade 1 pupils having t = 4.86 with a significant value of 0.000 which is less than α=0.05 level of significance. It clearly indicates the reading performance of Grade 2 pupils has improved with the computed t value = 3.33 with a significance value of 0.006 which is less than the critical value α= 0.05. In Grade 3, the results shown in the table indicated the t value = 2.96 with significant value of 0.008. Since the significant value of the computed t is less than the critical value of α =0.05, these results imply that there is a significant improvement of the reading performance of pupils after the intervention had been given. Thus, the null hypothesis stating that there is no significant difference on the pre-test and post-test reading performance of pupils is rejected, while the alternative hypothesis stating that there is a significant difference between the pre-test and post=test reading performance of pupils is accepted.

5.4 Effectiveness of Offline Multimedia in Improving the Reading Performance of Pupils

Feedback during the interview indicated that pupils agreed that they enjoyed and were comfortable using the SHR offline multimedia as their reading intervention. The pupils had mentioned that they felt more comfortable in using the multimedia learning to optimize their text recognition. Excerpts below were quoted to support this claim:

Pupil 1 said; Nalipay kayo ko kay moapil man kougbasa. (I am very happy because I joined in reading.)

Pupil 2 said; Nalipayko kay nalingaw man kouglantaw.(I am happy because I enjoyed watching.)
Pupil 3 said; Kamaonakomobasanalipaykaayoko. (I know how to read that's why I amvery happy.)

Many of them said; Komprtablenamagbasana mag tan-aw sa video sabalay. (They are comfortable reading while watching video at home.)

As observed during home visitations, the pupils used the reading materials available in SHR offline multimedia effectively in associating the three elements of multimedia pictures, words, and audio. It was also observed that the pupils were able to recall the memorized words during the test. Hence, it has been proven that the proper stimulus used in multimedia learning can help the pupils to read and

recall the knowledge through memorization. In another response from an interview, a pupil easily recalled the words and the letter sounds. This indicated that the pupil was able to memorize and store the words in short- and long-term memory and recall them easily. Education nowadays demands fun and interactive lessons in the classroom to attract and hold pupils' attention. Without any doubt, SHR offline multimedia reading materials succeeded in ensuring the learning satisfaction and motivation of pupils. This study revealed that they enjoyed and were motivated to learn reading with SHR offline multimedia as it offers fun, exciting, and interactive learning experiences. Excerpts below were some of the pupils' responses during the interview when they were asked whether they liked the SHR offline multimedia:

Pupil 1 said; Ganahanko mag tan-aw ugsalida. (I liked watching movie)

Pupil 2 said; Sayonramaonaganahan kayo komagsoon-soon (It's easy that is why I liked to follow).

Pupil 3 said; Kabalonakomobasa kay balikbalik man ug tan-aw (I know how to read because I watch repeatedly).
Many of them said; Kay nindot man magbasana mag lantawdayonmalingaw pod. (Because it's very nice to read while watching and enjoyable.)

In light of the above, it can be said multimedia learning is effective in enhancing pupils' learning, especially in reading. Hence, the struggling readers in Grades 1-3 of Balide Elementary School greatly improved their reading performance after they had been exposed to SHR offline multimedia reading materials. The children learn more if they really enjoy what they are doing. This research journey was rewarding for both the pupils and the researchers.

6. Research Reflection and Conclusions
The results of this action research showed how the given intervention improved the performance of the struggling readers of the school. As for the pupils, they improved their reading skills and overcame their struggling in reading with the help of this intervention, namely the SHR offline multimedia reading materials. As for the teachers, teaching reading using SHR offline multimedia reading materials has proved to be an extensive reading tool that is easy and convenient to use at any time, especially in this new normal of teaching, including face-to-face learning. As agreed by Messer (2017), computer-assisted intervention was effective, and this suggests that this medium can be used for reading interventions to support English-speaking pupils who are struggling to read and their effects can go beyond targeted abilities.

In addition, with the use of SHR offline multimedia reading videos embedded in reading instruction, pupils link their knowledge with moving pictures and words, activating both visual and auditory senses, which in turn enhances pupils' learning and memory. It is also supplement by reading instruction, particularly for those pupils who are struggling to read and need more individualized support. The researchers stressed the importance that SHR offline multimedia embedded in the teachers' lessons does not replace instruction, but rather supplements it as seen here. In order to continue to benefit pupils, teachers must engage with their 21st-century needs by implementing technology-based strategies that are engaging, beneficial, and research-based.

In conclusion, multimedia learning plays a vital role in supporting the pupils' learning in reading. Most reading problems lie in decoding word sounds and unfamiliar words. These difficulties can be solved with the help of SHR offline multimedia reading learning as it enables the pupils to visualize the

information presented in the text, which is useful for the pupils. Moreover, this study assists other researchers, such as teachers, to plan multimedia learning for pupils. Furthermore, from this study, it is evident that the visualization process in multimedia learning assists the pupils struggling with a reading text and is therefore essential and effective in improving the reading performance of pupils. Multimedia learning is thus effective in enhancing the pupils' reading performance as it helps them visualize the information quickly without relying much on their existing knowledge.

This action research was a productive experience. The researchers have seen the positive results of the SHR offline multimedia reading intervention in terms of its effectiveness in improving the reading performance of struggling readers. The researchers would like to continue using this intervention in school and share it with other schools. Much research has advocated using multimedia-assisted lessons when remediating the reading comprehension skills of struggling readers. When classroom instruction is not enough, interventions such as SHR offline multimedia reading materials are needed to supplement, but not replace, daily classroom instruction. Teachers must work to ensure that all pupils receive quality reading instruction and are provided with the necessary tools for effective reading practice.

7. Recommendations

The result of SHR Offline Multimedia reading intervention has helped the reading performance of Grades 1-3 to improve their reading level. Therefore, the following recommendations are considered:

- SHR Offline Multimedia reading intervention should be included in the LAC session of all schools in the district.
- A recognition or any form of reward should be given to pupils whose reading level is improving.
- Parents' involvement in the reading activity must be recognized because they have a significant influence on the learning outcome of their children.

8. Action Plan

Goals/ Objectives	Activities/ Strategies	Persons Involved	Resources Needed	Time Frame	Success Indicator
To determine the result of the assessment of the respondents, immediate school head and research coordinator	Submit the completed copy of the action research along with the data gathered	Researchers, respondents, School head, Research coordinator	Flash drives, Hard copies of LTR reading materials	January 2022 (after the completion of the study)	Submitted completed copy of the Action Research
To improve the reading performance of struggling readers	Conduct LAC session with all teachers in school	Researchers, teachers of Balide ES	Flash drives, Hard copies of LTR reading materials, TV, Laptops	January 2022	Attendance sheets, pictorials, accomplishment report

To share the innovations with teachers that could help struggling readers in their schools	Write a letter asking permission from the school head and district supervisor to distribute flash drives and hard copies of reading materials	Researchers, respondents, School head, Research coordinator, District supervisor	Flash drives, Hard copies of LTR reading materials	February-March 2022	Distributed flash drives/hard copies of LTR reading materials to other schools

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