

# Improving the Reading Skills of Grade 5 Struggling Readers Through the Use of Interactive Learning Resources

Rhea Sotelo<sup>1\*</sup>

<sup>1</sup> Baquioen Elementary School, Sual Pangasinan, Philippines

*Journal of Research and Investigation in Education is licensed under a Creative Commons 4.0 International License.*



## ARTICLE HISTORY

Received: 12 August 24  
Final Revision: 23 August 24  
Accepted: 01 September 24  
Online Publication: 31 December 24

## KEYWORDS

Digital Learning Objects, Interactive Learning Resources, New Normal, Reading Skills, Struggling Readers.

## KATA KUNCI

Objek Pembelajaran Digital, Sumber Daya Pembelajaran Interaktif, *New Normal*, Keterampilan Membaca, Kesulitan Pembaca.

## CORRESPONDING AUTHOR

[rhea.sotelo@deped.gov.ph](mailto:rhea.sotelo@deped.gov.ph)

## DOI

10.37034/residu.v2i3.178

## ABSTRACT

Notably, the use of technology in teaching and reading instruction was found to have various effects on learners' attitudes towards engagement with the text and meaning-making. As a result, online sources as authentic materials can be an ideal resource for reading instruction. Given the context in which instruction is carried out in the new normal and the kind of intervention needed for the different learner groups where their reading skills is concerned, learning resources in interactive formats are optimized for maximum results. Specifically, the use of interactive learning resources such as the digital learning objects has become a valuable for teachers with regards to reading instruction. Its use in the different phases of instruction proved to be a valuable tool in addressing the reading difficulties of the elementary learners. Using the content-validated test as research instruments, results of the study showed how the Grade 5 struggling readers of Baquioen Elementary School benefitted from the use of interactive learning resources in reading instruction during the school year 2021-2022. Moreover, the results of the study reveal that there was significant difference in the levels of reading skills of the Grade 5 struggling readers after they were taught in English using digital learning objects. Thus, teachers are recommended to scaffold the reading instruction with the use of tools that target the best ways in which the students learn best.

## ABSTRAK

Khususnya, penggunaan teknologi dalam pengajaran dan instruksi membaca ditemukan memiliki berbagai efek pada sikap peserta didik terhadap keterlibatan dengan teks dan pembuatan makna. Hasilnya, sumber daring sebagai materi autentik dapat menjadi sumber yang ideal untuk instruksi membaca. Mengingat konteks di mana instruksi dilakukan dalam normal baru dan jenis intervensi yang diperlukan untuk berbagai kelompok peserta didik yang terkait dengan keterampilan membaca mereka, sumber belajar dalam format interaktif dioptimalkan untuk hasil yang maksimal. Secara khusus, penggunaan sumber belajar interaktif seperti objek pembelajaran digital telah menjadi hal yang berharga bagi guru dalam kaitannya dengan instruksi membaca. Penggunaannya dalam berbagai fase instruksi terbukti menjadi alat yang berharga dalam mengatasi kesulitan membaca peserta didik sekolah dasar. Dengan menggunakan tes yang divalidasi konten sebagai instrumen penelitian, hasil penelitian menunjukkan bagaimana pembaca Kelas 5 yang kesulitan membaca di Sekolah Dasar Baquioen mendapat manfaat dari penggunaan sumber belajar interaktif dalam instruksi membaca selama tahun ajaran 2021-2022. Selain itu, hasil penelitian mengungkapkan bahwa terdapat perbedaan yang signifikan dalam tingkat keterampilan membaca pada siswa kelas 5 yang mengalami kesulitan membaca setelah mereka diajar dalam bahasa Inggris menggunakan objek pembelajaran digital. Oleh karena itu, guru disarankan untuk menyusun instruksi membaca dengan menggunakan alat yang menargetkan cara terbaik agar siswa dapat belajar dengan baik.

## 1. Introduction

Undeniably, reading is a major pillar upon which the teaching/learning process is built [1]. Relative to this, the reading ability plays a central role in the teaching/learning success at all educational stages [2]. Research explains that having any difficulty in this skill will result in variety of consequences on all subjects of study, since reading includes a variety of sub-skills [3]. Equally, another research cites what former DepEd Secretary, Bro. Armin Luistro maintains

that reading is the foundation of all learning [4]. This makes it imperative that the reading ability of all learners are duly attended to and addressed.

Notably, reading on grade level is important to the success of a student. According to different research, reading opens the door for continuous learning and helps students achieve success at higher academic levels [5]. Inability to read may lead to stunted academic growth, which means the student remains at the same reading and/or grade level [6]. Consequently,

this attributed the reading ability of the students to their standing or performance in reading assessments across all disciplines [7].

Specifically, the dismal performance of Filipino learners in the 2018 Programme for International Student Assessment (PISA) brought to the fore the pressing concern that the educational system of the country has to reckon with where reading proficiency of the said learners is concerned. Without a doubt, reading proficiency is essential for a wide variety of human activities. As Andreas Schleicher, Division Head and Coordinator of the Organization for Economic Cooperation and Development (OECD) reiterated, reading proficiency ensures an individual is able to follow following instructions and communicate with other people for a specific purpose or transaction. Notably, the global survey of reading comprehension conducted by the PISA of the Organization for Economic Cooperation and Development (OECD) last 2018 showed that Filipino learners ranked last among 79 countries with a rating of 340 points compared to the average 487 points. Moreover, results indicated that the country placed 79th in reading, with the majority of Filipino students who took part in the assessment being in Grade 9. Implemented by OECD, the PISA results are deemed able to provide relevant insights on student performance and inform policy decisions by the Department of Education (DepEd).

From the forecited data, it is apparent how the basic education in the Philippines faces a huge problem relative to poor reading comprehension skills of Filipino learners. Reading is the foundation of all learning as stressed by the Former DepEd Secretary Bro. Armin Luistro [8]. This implies that the learners' mastery of concepts is significantly hinged on how well they understood these concepts. Someone points out how the implementation of effective reading instruction can help learners with reading difficulties become more effective readers [9]. While DepEd and the SDO1 Pangasinan in particular has put up reading programs to address the reading difficulties of the learners in both elementary and secondary levels such as Every Child A Reader Program (ECARP) and Project DREAMS (Division Reading Enhancement Assessment through Meal Serving) and Project DARE (Division Assessment on Reading Enhancement), it is apparent that more is needed to fully address it based on the yearly results of the Philippine Informal Reading Inventory.

The researcher teaches Grade 5 learners in Baquioen Elementary School (BES) under the Sual District. Based on the results of the reading inventory conducted by their previous adviser last March 2020, there were 13 who were categorized as struggling readers. Results indicated how these number of Grade 5 learners were delegated under "frustration level". Similarly, results of the diagnostic tests administered by the English teacher

also showed the various reading miscues they committed in the course of reading the selection. The abrupt halt of the school year 2019-2020 due to the COVID-19 stalled the reading program of BES. This means that the reading difficulties of the struggling readers were not fully addressed.

Undeniably, the learning delivery modalities under the new normal in education calls for the placement of mechanisms that shall address different learner groups. As indicated in the Learning Delivery Modality Course for Teachers, interventions or a strategy shall be put in place to address the concerns that different learner groups might encounter in the continuity of education under the new normal. Specifically, the LDM course for teachers cited the struggling readers and beginning readers. With limited face to face if not having none at all of this kind of learning delivery, teachers have to come up with a strategy that shall address the said learner groups. The problem lies on how learners can be taught how to read or ensure that they read within their grade level. It entails providing the instructional support the materials and the guidance they need as partners in the education of their children in the new normal. It was in this context that this study was conducted. It looked into the influence of utilizing interactive learning resources in improving the reading skills of the Grade 5 struggling readers at Baquioen Elementary School during the school year 2021-2022.

Notably, the use of technology in teaching and reading instruction was found to have various effects on learners' attitudes towards engagement with the text and meaning-making [10]. As a result, online sources as authentic materials can be an ideal resource for reading instruction. While online sources can be good, the challenges that the teachers encountered alongside it in terms of accessibility posed a problem to its optimum use [11]. Relative to this, the school year 2019-2020 saw to the orientation and capacity building of teachers along DepEd's Digital Rise Program. Specifically, the program acquaints and trains teachers on the use and curation of open educational resources (OER). In detail, open educational resources offer teachers a wide array of learning resources which they can customize to their classes.

As an alternative learning resource offline, OER delivers lessons customized to the learners and as contextualized in the curriculum. DepEd advocates the use of OER as there as ready-made learning materials developed and innovated by the teachers in public schools to alleviate and innovate the learning materials there are in the field. Utilizing these offline educational resources and/or developing one's offline educational sources with consideration of the digital natives we have for learners in our classrooms today will beef up our very own educational sources at DepEd were reading programs and reading instruction is concerned.

Learning materials will not be limited to what is in the textbook or downloaded in the Internet where contextualization and localization become an issue or problem [12]. Through offline educational resources in teaching reading, learners are provided with opportunities to be part of interactive learning in reading. By increasing or enhancing student engagement in the teaching of reading and addressing learners' reading difficulties, increased or improved engagement and literacy are also gained [13].

Certainly, the advent of technology has enabled educators to have more access to learning resources online [14]. As Education Undersecretary for Administration Alain Del Pascua reiterated, learning materials that are available for free for anyone to use, modify or share are very potent tools for enhancing the quality of and access to education. Relative to this, DepEd's Open Educational Resources (OER) is an innovative pathway to support the requirements of the K-12 Curriculum as it focuses on the ICT Assisted Teaching and ICT Assisted Learning. Through OER the customization of localized materials is made possible to deliver quality, accessible, relevant and liberating education for all even for schools without strong internet facilities. Similarly, the OERs are designed in such a way to cater the needs for interactivity, digitization and delivery of 21st Century Skills to make learners future ready. Specifically, the new normal in education vis-à-vis the learning modalities offered by DepEd for learning to continue this school year 2020-2021 saw to the intensified capacity building to make use of offline educational resources in the development of learning materials and lesson presentation as well as innovative assessment strategies.

Anchored on the principles of DepEd's Digital Rise Program, this proposed innovation made use of offline educational resources applications and/or software. It targeted increasing learners' engagement and improving their reading ability making use of tools that were accessed anytime even without Internet connection. Applications and/or software were used in the production of lesson content, assessments, and exercises in reading. Specifically, the researcher made use open educational resources in the form of digital learning objects. Since the study targeted the improvement of the reading skills of the Grade 5 learners at BES, digital learning objects were actually learning package inclusive of a lesson, an activity, and an assessment. Hence, the researcher used learning package in reading with corresponding lessons, activities and assessments to better guide and help the learning facilitators as reading partners for the learners who were enrolled under the printed modular.

In using the digital learning objects via the literacy learning package, the researcher first conducted a reading assessment. Next, she classified the Grade 5

learners according to their reading ability. Then, she oriented or informed the parents of the intervention she adopted or implemented to address the reading difficulties of the Grade 5 learners. Afterwards, she utilized the digital learning objects in the preparation of the materials that were used in the reading intervention.

This study looked into the influence of utilizing interactive learning resources in improving the reading skills of the Grade 5 struggling readers in Baquioen Elementary School during the school year 2021-2022. Specifically, the study sought to answer the following questions:

- a. What is the level of reading skills of the struggling readers before the intervention?
- b. What is the level of reading skills of the struggling readers after the intervention?
- c. Is there a significant difference on the level of reading skills of the struggling readers before and after using offline educational resources?

## **2. Research Method**

This study shall employ the quasi design. An experimental design, supports or refutes a hypothesis using statistical analysis [15]. The said design is appropriate for this study as it shall establish whether there is a significant difference in the reading ability of the Grade 5 struggling readers after the utilization of offline educational resources. A content-validated test questions shall be used as the primary tool in gathering the data needed.

The Grade 5 struggling readers (N = 13) of Baquioen Elementary School will serve as the subjects of this study. They are chosen as participants of the study as they belong in the class handled by the researcher. After the data are gathered, these shall be subjected to the corresponding statistical treatment to arrive at answers to the specific problems.

To answer sub-problem number 1, on the reading ability of the Grade 5 struggling readers before and after the utilization of offline educational resources, the mean will be computed. The t-test will be used as a statistical tool to determine the significant difference on the mean scores of the respondents before and after the utilization of offline educational resources in improving the reading ability of the Grade 5 struggling readers at Baquioen Elementary School. The researcher will use Microsoft Excel Data analysis and electronic calculator to ensure the accuracy in the analysis of the data gathered.

## **3. Result and Discussion**

This section presents the level of reading skills of the Grade 5 struggling readers of Baquioen Elementary School before and after the intervention as well as the difference between their levels of reading skills before

and after the intervention., utilization of interactive learning resources. The results of the pretest and posttest are presented on the foregoing Table 1.

Table 1. Level of Reading Skills of the Grade 5 Struggling Readers Before and After the Utilization of Interactive Learning Resources

| Score              | Frequency |          | Descriptive Equivalent |          | Percentage |          |
|--------------------|-----------|----------|------------------------|----------|------------|----------|
|                    | Pretest   | Posttest | Pretest                | Posttest | Pretest    | Posttest |
| 0-10               | 9         | 0        | Poor                   |          | 69.2       | 0.0      |
| 11-20              | 4         | 7        | Satisfactory           |          | 30.8       | 53.8     |
| 21-30              | 0         | 6        | Outstanding            |          | 10.0       | 46.2     |
| Total              | 13        | 13       |                        |          | 100.0      | 100.0    |
| Mean               |           |          | 8.0000                 | 18.0700  |            |          |
| Standard Deviation |           |          | 3.8028                 | 4.4455   |            |          |

The level of reading skills of the majority of the Grade 5 struggling readers (9 or 69.2%) turned out to be poor per their performance or results in the given multiple-choice test prior to the utilization of interactive learning resources. Likewise, the data reveal that there were 4 students (30.8%) whose reading skills based on their performance in the test was found satisfactorily. No one proved to be outstanding in terms of their reading skills before the exposure to the intervention. Anent this, research emphasized how reading is important as the foundation of all learning [16]. Then, a statement echoed by another researcher when he points out how the implementation of effective reading instruction can help learners with reading difficulties become more effective readers [9].

Meanwhile, results of the 30-item multiple choice test administered to the Grade 5 struggling readers after the utilization of interactive learning resources turned out favorably as evidenced by the data in the table. The results of the posttest show that of the 13 total number of struggling readers in the said grade level, the reading skills of 7 or 53.8% were found satisfactory while 6 or 46.2% proved to be outstanding. The noteworthy performance of the students in the test which equated to their improved level of reading skills. affirmed the good there was to the utilization of interactive learning resources. The increase in the mean (8.0 to 18.07) equates to an increase in the level of performance vis-à-vis the level of reading skills of the Grade 5 struggling readers. The results uphold what a researcher stressed of how the use of interactive learning resources was found to have various effects on learners' attitudes towards engagement with the text and meaning-making which consequently improved learners' reading skills [10]. Meanwhile, the difference of the intervention is presented on Table 2.

Table 2. Difference on the Level of Reading Skills of the Grade 5 Struggling Readers Before and After the Utilization of Interactive Learning Resources

| N  | Mean  | Std. Deviation | T        | Sig.   |
|----|-------|----------------|----------|--------|
| 13 | 8.0   | 3.8028         |          |        |
| 13 | 18.07 | 4.4455         |          |        |
|    |       |                | -5.96689 | .00001 |

The data in Table 2 calculated the difference between the observed means (8.0 and 18.07 respectively)

representative of the pretest and posttest results of the Grade 5 learners or struggling readers in English. A significance value (P-value) and 95% Confidence Interval (CI) of the difference is shown, too. In the procedure, the P-value is the probability of obtaining the observed difference between the means if the null hypothesis was true. The null hypothesis is the hypothesis that the difference is 0.

As shown in the tabular data, the t-value is -5.96689 while the p-value. is .00001. The decision is significant. This means that the difference between the level of reading skills of the Grade 5 struggling readers in English before and after they were taught using interactive learning resources are significant.

#### 4. Conclusion

The results of the study affirm the exploration of sound framework in the teaching and learning process that scaffolds the process in which the students read and do the corresponding tasks across the fundamentals of reading. Likewise, the results of the study indicate how the use of interactive learning resources which target the various ways in which the students learn best help the learners in improving their reading skills as well as their performance in their reading tasks and test in English. This makes it imperative that teachers scaffold the reading instruction with the utilization of tools that help learners process what they read and aid them to become better readers.

#### References

- [1] Paige, D. D., Young, C., Rasinski, T. V., Rupley, W. H., Nichols, W. D., & Valerio, M. (2021). Teaching reading is more than a science: It's also an art. *Reading Research Quarterly*, 56, S339-S350. <https://doi.org/10.1002/rrq.388>
- [2] Madani, H. (2016). Assessment of reading comprehension. *Revista Românească pentru Educație Multidimensională*, 8(1), 125-147.
- [3] Küçükoglu, H. (2013). Improving reading skills through effective reading strategies. *Procedia-Social and Behavioral Sciences*, 70, 709-714. <https://doi.org/10.1016/j.sbspro.2013.01.113>
- [4] Santa, C. M., & Høien, T. (1999). An assessment of Early Steps: A program for early intervention of reading problems. *Reading research quarterly*, 34(1), 54-79. <https://doi.org/10.1598/RRQ.34.1.4>

- [5] Iaquinta, A. (2006). Guided reading: A research-based response to the challenges of early reading instruction. *Early childhood education Journal*, 33, 413-418. <https://doi.org/10.1007/s10643-006-0074-2>
- [6] Etumnu, S. U. (2018). Effects of Guided Reading on Third-grade Students' Reading Ability.
- [7] Gambrell, L. B., Koskinen, P. S., & Kapinus, B. A. (1991). Retelling and the reading comprehension of proficient and less-proficient readers. *The Journal of Educational Research*, 84(6), 356-362. <https://doi.org/10.1080/00220671.1991.9941816>
- [8] Ronda, R. A. (2012, September 20). DepEd: National reading skills assessment to continue this year. *Philstar.com*. Retrieved from <https://www.philstar.com/other-sections/education-and-home/2012/09/20/850895/deped-national-reading-skills-assessment-continue-year>
- [9] Clay, M. M. (1993). *An observation survey of early literacy achievement*. Heinemann, 361 Hanover St., Portsmouth, NH 03801-3912.
- [10] Al-Jarf, R. (2017). What EFL teachers should know about online grammar tasks. In *Asian English Language Classrooms* (pp. 113-130). Routledge.
- [11] Ahmad, S. S., Seman, M. A. M., & Zakaria, A. (2021). The Challenges Faced By Educators in Online Teaching during the Covid-19 Pandemic Outbreak. *JET (Journal of English Teaching) Adi Buana*, 6(02), 125-133. <https://doi.org/10.36456/jet.v6.n02.2021.4355>
- [12] Bello, J., Concon, L., Polache, M. C. C., Ayaton, M. J., Manlicayan, R., Campomanes, J., & Saro, J. (2023). Contextualized and localized science teaching and learning materials and its characteristics to improve Students' learning performance. *Psychology and Education: A Multidisciplinary Journal*, 7(1), 77-84. <https://doi.org/10.5281/zenodo.7607686>
- [13] Connor, C. M., Lara J, J., Crowe, E. C., & Meadows, J. G. (2009). Instruction, student engagement, and reading skill growth in reading first classrooms. *The Elementary School Journal*, 109(3), 221-250.
- [14] Haleem, A., Javaid, M., Qadri, M. A., & Suman, R. (2022). Understanding the role of digital technologies in education: A review. *Sustainable operations and computers*, 3, 275-285. <https://doi.org/10.1016/j.susoc.2022.05.004>
- [15] Williams, H. (2012). *Quasi-experimental evaluations: Childtrends*, Heile and Heinle, Washington.
- [16] Prinsloo, C. (2009). Building a strong foundation: Learning to read; reading to learn. *South African Child Gauge (2008/2009). Part two: Meaningful access to basic education*.