# Development of Oral Reading Interactive Supplementary Material for Grade 7 Struggling Readers

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*Abstract*— This study aimed to develop and evaluate an interactive oral reading supplementary material designed to enhance the reading performance of Grade 7 struggling readers in a public school in Banga, Aklan. Using a design-based research approach guided by the ADDIE (Analysis, Design, Development, Implementation, Evaluation) model, the study addressed gaps in oral reading proficiency and comprehension identified through the Philippine Informal Reading Inventory (Phil-IRI). Thirty-one students classified at frustration and instructional reading levels participated in the three-week intervention. The supplementary material, created in an electronic format for mobile access, integrated five essential components of reading: phonemic awareness, word recognition, vocabulary, fluency, and comprehension. Its design emphasized interactive activities, multimedia integration, and learner-centered features. Pre- and post-test results analyzed using the Wilcoxon Signed Rank Test demonstrated significant improvement in both oral reading ($Z = 4.860$, $p < 0.05$) and comprehension ($Z = 4.863$, $p < 0.05$). Furthermore, assessments by English teachers, experts, and students rated the material "acceptable" in content, language, layout, and instructional quality, meeting Department of Education standards. Findings highlight the potential of interactive supplementary materials to address persistent reading challenges and motivate learner engagement, particularly among students at risk of reading difficulties. The study concludes that early, technology-based interventions can foster essential literacy skills and support inclusive learning goals. Recommendations include regular reading performance monitoring, faculty training, and the adoption of similar materials to strengthen remedial reading programs. This research contributes practical insights for educators, instructional designers, and policymakers in improving literacy outcomes at the secondary level.

*Keywords*— Interactive Supplementary Material, Oral Reading Development, Struggling Grade 7 Readers.

## I. INTRODUCTION

Reading is a number of interactive processes between the reader and the text, in which readers use their knowledge to build, to create, and to construct meaning, in which readers respond to and make sense of a text being read, connected to their prior knowledge (Spratt, Pulverness, and William, 2005). Making sense of a text is done by understanding the meaning of words, sentences, and even the text. The Programme for International Student Assessment (PISA) 2022 results showed in reading that the country ranked 79th. The OECD average is at Level 2 or a score of 476, but the Philippines is at Level 1a or a score of 347. The Philippines shared a significant rate of low performers among all PISA-participating countries and economies. The dismal ranking in the 2022 PISA for the second time was a clear indication that the education system is in its worst state, and much work needs to be done. "Every child is a reader" is the main aim of the Department of Education; however, there is an underlying reality that there are still learners who are struggling in reading. Thus, the DepEd has launched the Hamon: Bawat Bata Bumabasa (3Bs Initiatives), in order to intensify the advocacy for reading and by pledging commitment to make every learner a reader at his/her grade level. There are numerous reading programs in all school divisions for both public and private schools. However, the programs are not enough to develop students' optimal reading skills. In school year 2018-19, the DepEd used the Philippine Informal Reading Inventory tool to measure the reading of public-school learners in English, pre-testing 3.6 million learners and conducting post-tests on 3.9 million learners. In the pre-tests conducted, 40% of learners were frustrated readers while 3% were identified as non-readers. In this age where technology has become part of everyday living, learning through media can be used as an intermediary in teaching students in the form of text, audio, or video between the giver (the teacher) and the recipient (the student) of the information in the learning activities. The use of learning media is essential to improve and simplify the reading process in the most convenient way that they develop their skill in reading and at the same time enjoy browsing their phone. Thus, this study focused on the development of an oral reading interactive supplementary learning materials for Grade

7 struggling readers. Interactive supplementary material is an interactive resource designed to teach a specific learning outcome. This may comprise of a single or multiple page that can contain any combination of text, images, audio, video, and other interactive activities. The supplementary materials developed include oral reading skills development materials and collections of communicative activities which may be beneficial for the learners. The said materials utilized by the learners on a self-paced modality is presented in an electronic format that includes video, audio and easy navigation which makes users more interactive in learning.

The study focused on enhancing the reading skills of the students by using an interactive supplementary material designed on oral reading. It sought to answer the following:

1. What is the oral reading level of Grade 7 students in terms of:
   a) Oral Reading;
   b) Reading Comprehension?
2. What interactive supplementary material can be developed to address the reading deficiency of students?
3. Is there a significant difference in the reading performance of students before and after using the oral reading interactive supplementary material?
4. What is the level of acceptability of the developed interactive supplementary material according to experts, English Teachers and students in terms of:
   a) Content
   b) Language
   c) Lay Out

## II. METHODOLOGY

This research adapted the design-based research using Robert Maribe Branch's ADDIE (Analysis-Design-Development-Implementation-Evaluation) model as its research design. Design-based research involves problem identification, assessment, and analysis in an applied educational setting, along with the implementation and evaluation of some type of change or intervention to address a problem (Anderson & Shattuck, 2012; Lewis, 2015; McKenney & Reeves, 2014; Plomp, 2013). The ADDIE model can be used to create any type of learning experience for any audience (Branch, 2009). The model is meant to be completed in sequential order, from Analysis to Evaluation. However, ADDIE is designed to be a flexible, continuous process of improvements and

iterations. For this reason, this study aimed to develop learning products that can be used in schools.

In this research method, the researcher created an intervention based on the existing problem in education to address the educational needs of the learners. Indeed, this was the most appropriate method in conducting the study because it aims to design, develop and test the acceptability of the oral reading interactive supplementary materials for students who struggled in reading. Relevant data to actualize the research analyses were gathered using three (3) sets of instruments.

***Phil-IRI.*** The Philippine Informal Reading Inventory followed a certain step to administer, first was the initial screening through Group Screening Test (GST). It is a 20-item comprehension test which was used to determine a whole class reading level and identify particular students who may need more assistance in performing reading tasks. Next was the administration of Oral Reading Test in English using Phil-IRI Graded Passages. Each passage has the computed scores in Word Reading and Comprehension to identify students' oral reading levels as independent level, instructional level and frustration level. Both teacher and the student need to have a copy of the passage, while the student was reading a passage orally, the teacher records every miscue committed.

***Learning Resource (LR) Quality Assurance Tool.*** The developed oral reading interactive supplementary material for Grade 7 struggling readers was measured in terms of content, language, layout and format. A scale aligned with DepEd criteria was used with the options YES or NO. In addition, feedbacks and suggestions of participants and evaluators served as the basis for any revisions. Acceptability Testing Tool.

This was prescribed by DepEd and was used to validate the developed supplementary material. The acceptability of the material was carefully examined by validators who are English teachers and students.

It consisted of a list of criteria or indicators to check if the developed learning material met the standards and would be beneficial to students in improving their skills, specifically in reading and comprehension. The instruments were administered personally by the researcher.

## III. RESULTS AND DISCUSSION

***Oral Reading and Comprehension Levels of Grade 7***
***Oral Reading.*** It was revealed that 11 or 35.50% of the participants were on the frustration level, 20 or 64.50% instructional level, and none from the Grade 7 students were on the independent level in oral reading. The Phil-IRI scale enables the classification of students into different levels first is the frustration level, students under this level tend to withdraw from or refuse to read. Second is the instructional level in this reading level, students can only read under a teacher's guidance. Third is the independent level, in this level students can read alone with ease even without the guidance of the teacher. According to UNICEF, less than 15% of school children in the Philippines can read simple texts — about three children out of every 20. Reading is the cornerstone of all academic learning. Furthermore, the acquisition of reading literacy skills is important for every learner because this will help in almost every aspect of our lives (Keyser, n.d.).

***Reading Comprehension.*** The results shows that the reading comprehension of all the participants were on frustration reading level. This means that the participants had low performance in reading comprehension. The same result was found by Vertucio (2019) who revealed that that the lack of background knowledge and inability to comprehend the texts were the foremost problem being encountered by Grade 7 students.

***Oral Reading Interactive Supplementary Material for Grade 7 Struggling Readers***
The Oral Reading Interactive Supplementary Material for Struggling Readers was developed by the researcher based on the result of the Grade 7 students' pre-test using Phil-IRI during the second quarter of school year 2022-2023.

The Oral Reading Interactive Supplementary Material for Struggling Readers was designed using Microsoft Word 2013 and converted into Adobe PDF file for the final output.

The supplementary material was divided into five essential lessons: Lesson 1 - Phonemic Awareness; Lesson 2 - Word Recognition; Lesson 3 – Vocabulary; Lesson 4 – Fluency; and Lesson 5 - - Reading Comprehension. It was implemented in a face to face discussion for 21 school days during the third quarter of school year 2022-2023.

Moreover, the PDF File copy of the material was shared via bluetooth, share it and messenger for the students to practice and grasp thoroughly at home through the assistance of their parents or guardians. Encouraging the use of reading materials that can be accessed by using technology helps in improving the reading skills of students (Toyong and Toyong, 2021).

The outline, format, and lay-out were aligned with the Standard and Guidelines prescribed by the Department of Education Bureau of Learning Resources. The illustrations in cover page and lessons were taken from the learners with appropriate consent from the parents.

The developed Oral Reading Interactive Supplementary Learning Materials were an additional or alternative non-printed materials used for both distance learning and face-to-face class to promote motivation and to help the students to master their reading and comprehension skills.

Discussed were the necessary parts of the developed Oral Reading Interactive Supplementary Material for Grade 7 Struggling Readers.

***Cover Page.*** The cover page contains the subject, the grade level, the title of the learning material and images of learners reading various learning materials.

***Content.*** This part of the supplementary material is where the five essential lessons which are: Phonemic Awareness (Lesson 1), Word Recognition (Lesson 2), Vocabulary (Lesson 3), Fluency (Lesson 4), and Reading Comprehension (Lesson 5), were discussed. Each lesson consisted of lesson objectives, image, discussion of the lesson and the activity.

Lesson 1 on phonemic awareness aimed to help students to discriminate between different phonemes and enable to blend sounds and produce sound change which were addressed by the various activities that the e-module offered.

Lesson 2 on word recognition encouraged students to recognized words and pronounced it immediately.

Lesson 3 on vocabulary guided students to access unfamiliar words and provide comprehension to the text being read.

Lesson 4 on fluency helped students to learn reading easier leading to successful comprehension.

Lesson 5 on reading comprehension helped students think, analyze and understand the text in order for them to become active reader.

*Answer Key.* This part of the supplementary material is the key to correction for the comprehension question and the references.

*References.* This includes the list of references used by the researcher in developing the supplementary material.

The lessons on the developed Oral Reading Interactive Supplementary Material for Struggling Readers include the essential components of reading identified by The National Reading Panel Report (National Institute of Child Health and Human Development [NICHD], 2000) which summarized several decades of scientific research that clearly shows effective reading instruction addresses five critical areas: Phonemic awareness, Phonics, Fluency, Vocabulary and Comprehension. These five areas were incorporated into the No Child Left Behind Act and the Reading First initiative as essential components of effective reading instruction.

Meanwhile, in line with word recognition, according to Garnett (2011), when word recognition becomes effortless and automatic, conscious effort is no longer needed to read the words, and instead it can be devoted to comprehension of the text. Accuracy and effortlessness, or fluency, in reading words serves to clear the way for successful reading comprehension. In addition, the use of e-module as a supplementary material helps boost the language skills of learners who needed support for their academic achievement and as a remediation material for the school institution to enable students further enhance their reading skills. The use of supplementary learning materials in the learning process would foster the creativity and productive thinking abilities and would create an active, innovative and positive impact in the learning process (Astalini et al., 2020).

To stretch its full support, the Department of Education bid a DepEd Memo No. 626, s. 2021 an online write shops relative to primal content area reading this aim to develop, revise and finalize supplementary reading materials in English from Grade 7 to 10 to be used for strengthening content area/disciplinary literacy.

*Differences in the Reading Performance of the Students Before and After Using the Oral Reading Interactive Supplementary Material*

Oral Reading. The results shows that there is a significant difference in the oral reading performance of the Grade 7 students before and after the oral reading interactive supplementary material was given to them as shown by the Z-value of 4.860 and the p-value of 0.000. This result implied that the use of the interactive supplementary material had significantly increased the oral reading performance of the Grade 7 students. Supplementary materials often deal more intensively with skills that the course book does not develop or address in detail. Prilini et al. (2017) claimed that supplementary materials in reading are very useful in developing oral reading, and learners were also able to develop their passion in reading (Cordova, 2019).

Reading Comprehension. The results also revealed that there is a significant difference in the reading comprehension of the Grade 7 students (Z-value = 4.863, p- value = 0.000). The result implies that there was a significant improvement in the reading comprehension of the Grade 7 students after being given an interactive reading material. This further implies that the oral reading interactive supplementary material is an effective tool in enhancing students' reading comprehension. Monarisa & Aleti (2015) proved that through the interactive reading material, students' reading comprehension can improve. Mena Luz (2021) mentioned that real-life experiences, words, images that are an important aid to comprehension for students who are just beginning to learn English. This only means that the developed supplementary material constituted a source for students' engagement in learning, due to the appropriate innovative and illustrative materials that captured their attention and fostered accomplishment of learning activities and vocabulary learning.

*Acceptability of the Interactive Supplementary Material*

The acceptability of the interactive supplementary material as evaluated by students, teachers, and experts.

*Students.* The students evaluated the developed interactive supplementary material for grade 7 struggling readers as acceptable. The results indicate that Grade 7 students find the interactive supplementary material through an e-module was suitable in improving their oral reading and comprehension. As revealed in the study of Pasion (2019) the supplementary learning

materials enhanced student's interest, retention of the lessons, increases the performance in the test, deemed instructional materials in upgrading students' retention of the content of the subject as well as sustaining their interest to learn and integrating the lessons in their real-life experiences. Supplementary materials help motivate the learners (Dodd, 2015) by creating interests in learning and encouraging them to use the language in the class.

***Teachers.*** Similarly, the teachers evaluated the developed e-module, interactive supplementary material for grade 7 struggling readers as acceptable in all the indicators. This implied that the interactive supplementary material to improve the reading performance of Grade 7 students met the standards required by the Department of Education. Creation of supplementary materials gave opportunities to teachers to be motivated to become a writer, illustrator and layout artist to their own developed materials (Jimenez, 2020). Ambayon (2020) mentioned that modules must be developed and presented in the context of excellent content and relevance aligned to students' different needs. The teachers should see to that learning units in developed e-module are organized around related sets of objectives with clearly defined instructional activities (Larawan, 2013).

***Experts.*** As reflected in Table 4, the experts evaluated the interactive supplementary material as "Acceptable" with a mean of 2.00. Likewise, the evaluators rated the Content (mean = 2.00), Language (mean = 2.00), and Layout and Format (mean = 2.00) as "Acceptable". The results implied that the interactive supplementary material had complied the criteria and had passed the standard set by Department of Education for a learning resource to be used with the students. It was revealed in the study of Risda Amini and Usmeldi (2022) that the interactive e-module is designed based on the need's analysis, and the cover is equipped with images and attractive colors so that it can attract student reading interest. The interactive e-module is designed with colors so that it is attractive to students and can strongly motivate them in learning. The colored interactive e-module can provide visualization for students in understanding learning material. Reading is one of the language skills which is very important to be learned by students (Handyani et al., 2020; Dhilon et al., 2020; Martina et al., 2020). Through this interactive material student reading language and experience improved.

## IV. CONCLUSIONS

***Based on the findings, the following conclusions were drawn:***

Learners were left behind in terms of oral reading and reading comprehension, the conduct of Phil-IRI pre-reading test that measured the oral reading level of Grade 7 students revealed the numbers of struggling readers. Based on students reading level it can be concluded that the competencies in each lesson needed in mastering oral reading and reading comprehension were not achieved when they were in their elementary grades which resulted to vast negative effect in reading performance. The developed interactive supplementary material helped struggling readers to overcome reading difficulties such as phonemic awareness, word recognition, vocabulary, fluency and reading comprehension. The language used, layout, content and format correspond to the learners' need.

The Interactive Oral Reading Supplementary Material for Grade 7 Struggling Readers understand the learner's context, establish and respond to the learner's existing level of knowledge and provide adequate and appropriate activities that best enhanced their reading skill for the reason that it illuminates a significant difference to the students' reading level.

## V. RECOMMENDATIONS

1. Students are encouraged to use the Interactive Supplementary Material for Struggling Readers to help improve their skills both in oral reading and reading comprehension.
2. English teachers may religiously do assessment of students' reading performance quarterly to track the progress of students in reading and to create actions for those who failed to advance.
3. The school as an institution should regularly conduct monitoring and evaluation among students to achieve specific goals and objectives and to create an effective remedial program for the identified students who struggled in reading.
4. School leaders and program specialists should develop faculty and student support programs ideally to uplift the student's literacy.
5. Curriculum planners and designers should encourage all Philippine English teachers to innovate, contextualize and indigenize reading materials for the benefit of those who struggled in reading.

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