

Enhancing Reading Comprehension for Underprivileged Malaysian ESL Secondary School Students: A Module Development

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Abstract. This research aims to develop a reading comprehension module to enhance the reading skills of underprivileged Malaysian ESL secondary school students. The study employs a quantitative approach consisting of a needs analysis, module development, expert evaluation, and field testing. The needs analysis phase involves identifying the specific requirements of students in terms of reading comprehension. The developed modules integrate six diverse reading comprehension activities, including reading aloud, answering comprehension questions, matching activities, filling in the blanks, categorising materials and solving puzzles based on reading texts. The materials used for module development are sourced from Malaysian English school textbooks. The expert evaluation stage involves the participation of four experienced teachers who complete a module content evaluation questionnaire and a module design validity assessment questionnaire. Their valuable insights and feedback contribute to refining and improving the modules. Adjustments and revisions are made based on the received feedback. The final phase of the research involves testing the developed modules with a sample of 30 underprivileged students from a secondary school in Klang, Selangor, Malaysia. Pre and post-tests are administered to measure the student's reading comprehension skills before and after module implementation. This research seeks to address the educational needs of underprivileged Malaysian secondary school students by providing them with targeted reading comprehension modules. The findings from this study have the potential to inform educational practices and contribute to the development of tailored interventions aimed at improving reading comprehension skills among underprivileged students in Malaysia.

1 Introduction

Malaysia has made significant strides in improving access to education in recent years, but students from underprivileged backgrounds continue to face challenges [1]. Many of these students lack the resources and support necessary to develop their reading skills. The Malaysian government has recognised this issue and has taken steps to address it, but more work needs to be done to ensure that all students have access to quality education [2].

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The process of reading comprehension involves communication between the reader and the text. Effective reading comprehension strategies are used during the reading process to help the reader obtain meaning from the text by drawing on prior knowledge [3]. Therefore, particular indicators created to use efficient reading strategies and guidelines can improve the reading comprehension performance of weak readers [3]. According to the Malaysian Education Act of 1966, English is taught as a second language in all Malaysian schools [2]. In order to accomplish both domestic and international objectives, English is therefore given a high priority in the Malaysian educational system [1].

In order to improve students' English language proficiency, particularly their reading comprehension, the Malaysian Ministry of Education urges the involved parties [2]. The Form Four and Form Five Malaysian English Language Syllabus provide a large amount of reading comprehension instruction that aids students in developing a range of reading skills. The Curriculum Specifications place a strong focus on the requirement for curriculum materials to be customised to the varying reading needs and skills of ESL students [4].

Reading is the most crucial ability when it comes to teaching the English language [5]. Even though many attempts have been made to improve ESL students' reading comprehension, this skill still needs to be developed [6]. The chosen reading textual material with local contexts helps ESL teachers improve their reading comprehension skills in relation to improving the student's reading competency [5]. Additionally, according to categories of reading ability, the comprehension questions should be designed [7].

Reading is an essential skill that is necessary for academic and personal success [3]. However, underprivileged secondary school students in Malaysia often lack the necessary resources and support to develop their reading skills [2]. As a result, they struggle to comprehend texts and fall behind in their academic pursuits. Hence, this research aims to develop a complete reading module that is tailored to the needs of underprivileged secondary school students in Malaysia.

On the other hand, reading comprehension is a crucial skill for students to succeed academically and beyond [7]. However, underprivileged Malaysian secondary school students often face challenges in developing effective reading comprehension abilities [8]. In order to address this issue, the research aims to develop reading comprehension modules specifically designed to facilitate reading among underprivileged Malaysian secondary school students.

The research begins with a needs analysis to identify the specific requirements and challenges that underprivileged students encounter in reading comprehension. By understanding their needs, the research can tailor the modules to address their specific difficulties and enhance their reading comprehension skills [9].

The modules will be developed based on materials from the Malaysian English school textbook, ensuring alignment with the curriculum and educational standards. Six reading comprehension activities will be included in the modules to provide a diverse range of engagement opportunities for students. Among the activities are reading aloud, answering comprehension questions, and solving puzzles based on reading text.

To ensure the effectiveness and quality of the modules, four experienced teachers will evaluate the module content by answering both the module content evaluation questionnaires. Their valuable insights and feedback will contribute to refining and improving the modules, ensuring they are well-suited to the needs of underprivileged students [9].

Additionally, a module design validity assessment questionnaire will be completed by the teachers to assess the appropriateness and suitability of the module design. Based on their feedback, necessary changes and adjustments will be made to enhance the modules' effectiveness further [9].

The setting for this research is a special government school in Klang, Selangor, Malaysia. The school consists of preschool, primary school and secondary school. The students are

grouped in mixed-age classes, and they share the same DSKP as other schools. Meanwhile, the teachers have to use their own creativity by selecting the right topics to cater to the student's needs. The background of this school will be elaborated further in Chapter 3 under the 'Research Sample' section.

The research will then implement the module on 30 underprivileged students from the special government school in Klang, Selangor, Malaysia. The pre-and post-tests will be conducted to measure the student's reading comprehension abilities before and after the intervention. The students' pre-and post-test scores will be recorded and analysed in order to provide quantitative data that will address the impact and effectiveness of the module.

By developing and implementing these reading comprehension modules, the research aims to provide underprivileged Malaysian secondary school students with the necessary tools and strategies to improve their reading comprehension skills. Ultimately, the research strives to contribute to narrowing the educational gap and empowering underprivileged students to achieve better academic outcomes.

2 Statements of The Problem

In Malaysia, language ability, particularly in reading, has been a significant concern affecting students' academic success and overall development, as reflected in the results of the Program for International Student Assessment (PISA) [10]. Underprivileged secondary school students, in particular, face substantial challenges in developing proficient reading comprehension skills, leading to disparities in language proficiency compared to their more privileged counterparts, which directly impacts their educational outcomes [11].

Despite efforts to address these disparities, there remains a pressing need for effective and engaging reading comprehension modules specifically designed to cater to the unique needs of underprivileged students in Malaysian secondary schools. The existing educational materials and teaching approaches may not fully address the diverse learning styles and backgrounds of underprivileged students, further hindering their reading comprehension abilities [4]. The lack of tailored instructional modules designed to address their unique challenges further exacerbates the problem. This is where the novelty value of this research is being advocated.

This study effort seeks to provide an extensive collection of reading comprehension modules to fill this gap and improve reading comprehension abilities among underprivileged pupils. These modules will integrate various theoretical frameworks, including whole language theory, cognitive load theory, constructivism theory, gamification theory, socio-constructivism theory, and schema theory, to provide a well-rounded and student-centred learning experience.

The study will begin with a needs analysis to identify specific areas of difficulty faced by underprivileged students in reading comprehension. Following that, the development of the modules will be centred around the top-down approach, bottom-up approach, and interactive reading model, emphasising a holistic and dynamic learning process [9].

Qualified and experienced teachers will evaluate the content and design of the modules, ensuring their effectiveness and appropriateness for the target student group. The module will then be implemented and assessed among 30 underprivileged students from a school in Klang, one of the districts in Selangor, Malaysia, in order to measure the effectiveness of the modules before and after their implementation.

By addressing the language needs of underprivileged secondary school students through the development of tailored reading comprehension modules, this research seeks to provide a more inclusive and supportive learning environment, ultimately empowering students to overcome their reading comprehension challenges and succeed academically.

3 Reviews of Literature

3.1 Reading and Reading Comprehension

Reading is an intricate cognitive process in which a reader converts written symbols or messages into sounds [12]; in contrast, reading comprehension is an active process of creating meaning from a text and comprehending it fully and effusively [13]. A dynamic, energetic, and robust approach to teaching reading comprehension that incorporates reading materials for deriving meanings from the text helps ESL teachers improve the academic performance of ESL students [14]. To improve the reading comprehension of ESL students, the reading component of textbooks typically consists of a story, essay, or argument followed by some comprehension questions.

Barrett's taxonomy of reading comprehension identified five different skill categories for reading comprehension, including literal, reconstruction, inference, assessment, and appreciation [15]. The taxonomies suggest that rearrangement comprehension requires the ability to synthesise, analyse, and integrate the information that is openly presented in the text as opposed to literal comprehension, which refers to the information that is explicitly mentioned in the text [16]. As opposed to this, inferential understanding refers to locating information that is implied in the text by formulating hypotheses and assumptions. These three skill categories are often used terminology in the field of reading comprehension and have similar taxonomies in terms of concepts and meanings [17].

In light of the foregoing discussion, the three abilities listed in the aforementioned taxonomies were taken into account when developing the learning module for ESL teachers in order to support reading abilities among ESL students in Forms 1 through 5. This is because these abilities are useful for choosing texts and creating comprehension questions. Additionally, compared to the other abilities, these three are suitable for teaching language skills, whereas the other skills are useful for teaching the English language [14].

Reading and reading comprehension are fundamental skills that play a crucial role in academic achievement and lifelong learning [10]. The ability to comprehend written text is essential for students to acquire knowledge, develop critical thinking skills, and participate actively in educational activities. However, underprivileged Malaysian secondary school students often face challenges in reading comprehension due to various factors such as limited access to educational resources, low proficiency in the English language, and unfamiliarity with effective reading strategies [10].

Research has consistently shown that reading comprehension is a complex cognitive process that involves the interaction of various skills and strategies. Reading comprehension is a product of two primary components: decoding skills and language comprehension. Decoding refers to the ability to recognise and decode printed words accurately, while language comprehension involves understanding the meaning and making sense of the text [18].

To develop effective reading comprehension skills, students need to employ a range of strategies. These strategies include activating prior knowledge, making predictions, visualising, asking questions, making inferences, and monitoring comprehension [6]. In other words, skilled readers are adept at using these strategies flexibly and purposefully, which enhances their understanding of the text.

Previous research has highlighted the importance of explicit instruction in reading comprehension strategies. Effective instructional approaches, such as the use of graphic organisers, reciprocal teaching, and explicit strategy instruction, have been shown to improve students' reading comprehension abilities [8]. Additionally, incorporating engaging and authentic reading materials can enhance students' motivation and interest in reading, leading to improved comprehension outcomes [7].

In the Malaysian context, the English school textbook serves as a primary resource for language learning. However, there is a need to supplement the textbook materials with additional resources and activities that specifically target reading comprehension skills [3]. By developing reading comprehension modules based on the materials from the Malaysian English school textbook, this research aims to provide underprivileged Malaysian secondary school students with targeted and scaffolded support to enhance their reading comprehension abilities.

Through a quantitative method research design, this study will begin with a needs analysis to identify the specific reading comprehension needs of underprivileged Malaysian secondary school students. The findings from the needs analysis will inform the development of the reading comprehension modules, ensuring that they address the specific challenges and requirements of the target population [19]. Two experienced teachers will provide valuable insights and feedback through a module content evaluation questionnaire and module design validity assessment questionnaire, which will contribute to refining and improving the modules.

To assess the effectiveness of the developed modules, a sample of 30 students from an underprivileged school in Kuala Lumpur will participate in the study. Their pre and post-test scores will be recorded, measuring their reading comprehension abilities before and after engaging with the modules. The data collected will be analysed using a Likert scale, providing quantitative insights into the impact of the modules on students' reading comprehension skills [20].

By addressing the research gap in providing targeted reading comprehension support to underprivileged Malaysian ESL secondary school students, this research aims to contribute to the enhancement of their reading comprehension abilities, academic performance, and overall educational opportunities.

3.2 Learning Modules Developed by Others

Specialised reading comprehension modules help ESL students improve their reading comprehension and fluency as well as ESL teachers' capacity to teach reading comprehension [21]. There are just a few reading modules now accessible for ESL teachers to use in teaching reading comprehension in relation to the reading modules. In order to teach reading comprehension to ESL students, Trilestari and Almunawaroh (2021) created a set of 14 instructional modules for college-level teachers. These modules include effective reading strategies and teaching recommendations [21].

'Middle School Reading Modules' for reading comprehension were created by the Virginia Department of Education, according to [22]. The New Zealand Ministry of Education also developed five distinct modules, according to Ashmore & Moriarty (2016), to enhance students' reading comprehension skills. The English language reading abilities that are being taught through these courses are effective. They do offer general recommendations for ESL teachers, but they are also quite general, rigid, and broad or linked to specific levels or settings [22]. As a result, the researchers made an effort to create RCMs for Malaysian ESL teachers in order to give them thorough instructions and useful reading techniques for teaching reading comprehension to ESL students.

In a similar vein, Aldabbus (2018) developed a module that integrated explicit instruction in reading strategies with the use of authentic reading materials [5]. The module incorporated activities such as predicting, summarising, and generating questions to enhance students' comprehension skills. Their findings revealed a positive impact on students' reading comprehension, highlighting the effectiveness of explicit strategy instruction. Furthermore, Hashim et al. (2019) designed a module that focused on developing inferential reading skills [4]. The module included activities that prompted students to make logical inferences, draw

conclusions, and analyse textual evidence. Their study indicated significant improvements in students' inferential reading abilities, underscoring the importance of targeted instruction in specific comprehension skills.

Although these reading modules were developed in different educational contexts, their underlying principles and strategies can inform the development of the proposed reading comprehension modules for underprivileged Malaysian ESL secondary school students [8]. By drawing on the successful approaches utilised in these modules, the current research aims to tailor the instructional materials to suit the specific needs and challenges faced by underprivileged students in Malaysia.

The module development process will involve adapting and integrating relevant strategies from these existing modules into the design of the reading comprehension activities [6]. Additionally, feedback from experienced teachers obtained through the module content evaluation questionnaire and module design validity assessment questionnaire will contribute to refining and enhancing the effectiveness of the modules. By building upon the insights and experiences gained from previous module development studies, this research seeks to contribute to the existing body of knowledge on effective reading instruction [18]. The ultimate goal is to develop reading comprehension modules that are relevant, engaging, and specifically designed to meet the needs of underprivileged Malaysian secondary school students, thereby fostering their reading comprehension abilities and promoting academic success.

3.3 Purpose of the Research

The purpose of this research is to develop a complete reading module that is tailored to the needs of underprivileged ESL secondary school students in Malaysia. This module aims to improve reading skills by ensuring that students are able to understand vocabulary through contextual clues from the text provided and answer questions based on the reading text [14].

This research seeks to address the need for effective reading comprehension instruction among underprivileged secondary school students in Malaysia as well. In other words, the goal of the study is to create and assess various reading comprehension modules that include a variety of exercises, including reading aloud, responding to comprehension questions, and working puzzles based on texts to be read.

Overall, the purpose of this research is to contribute to the field of education by providing evidence-based strategies to facilitate reading among underprivileged ESL Malaysian secondary school students. By developing and evaluating these modules, the research aims to improve the students' reading skills, enhance their comprehension abilities, and promote educational equity by addressing the specific needs of underprivileged learners [9].

3.4 Research Objective

The key objective of this research is to develop a reading module that is tailored to the needs of underprivileged students and to evaluate the effectiveness of the reading module in improving reading skills.

3.5 Research Questions

The main question this study intended to address was “How does the reading module affect students’ reading skills?”

4 Method

4.1 ADDIE Model

The conceptual framework design used in developing this module is the ADDIE Model of Instructional Design created by the Centre for Educational Technology at Florida State University for the military in the 1970s, as depicted in Figure 1. The ADDIE Model is a process used by instructional designers to create effective learning experiences for any audience. The ADDIE Model has also been proven in designing and developing materials in education [23]. The name of the model is the acronym for Analysis, Design, Development, Implementation and Evaluation.

The ADDIE model is an instructional design framework consisting of five stages: Analysis, Design, Development, Implementation, and Evaluation [23]. It provides a systematic approach to developing effective instructional materials. In this research, the ADDIE model is utilised as demonstrated in the following subsections.

4.1.1 Analysis

Conduct a needs analysis to identify the specific reading comprehension needs of underprivileged Malaysian ESL secondary school students [23]. This stage involves collecting data through surveys, interviews, and observations to understand the challenges and requirements of the target population.

4.1.2 Design

Based on the needs analysis, design the reading comprehension module that consists of six activities, including reading aloud, answering comprehension questions, and solving puzzles. The design phase involves determining the learning objectives, selecting appropriate instructional strategies, and outlining the content and structure of the [23].

4.1.3 Development

Develop the reading comprehension module based on materials from the Malaysian English school textbook [23]. This stage involves creating the instructional materials, worksheets, and resources necessary for implementing the activities outlined in the module.

4.1.4 Implementation

Implement the developed module in the selected underprivileged school in Klang, Selangor, Malaysia. Administer the modules to the 30 students, guide them through the activities, and ensure their active participation and understanding.

4.1.5 Evaluation

Evaluate the effectiveness of the reading comprehension module by testing them with 30 students from an underprivileged school in Klang, Selangor, Malaysia. Collect pre and post-test scores from the students and analyse the data to assess the impact of the modules on their reading comprehension abilities.

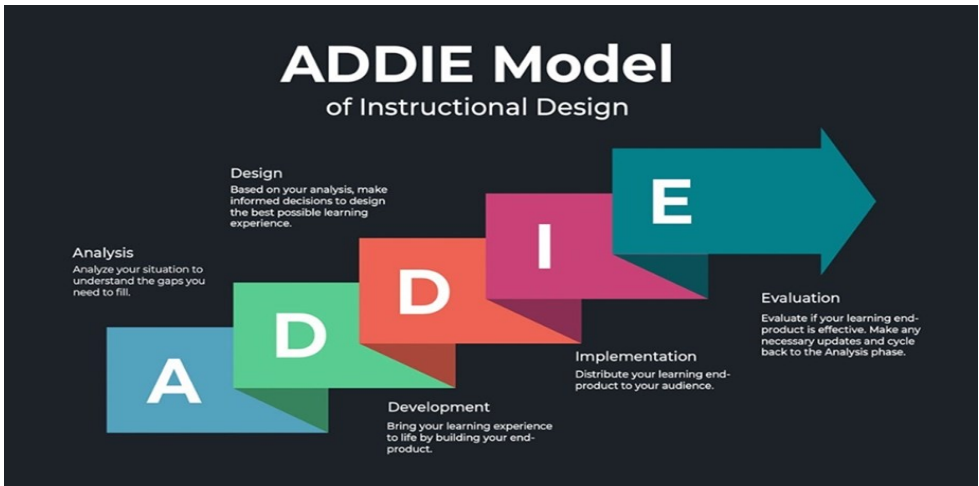


Fig. 1. ADDIE Framework

Based on this module, it started with the process of conducting a needs analysis (Analysis) to identify the needs of learners [23]. Besides, it seeks to identify specific problems faced by learners in writing, reading, or speaking. Then, they proceeded to design the desired learning module for learners (Design). At this stage, they are imploring sufficient learning theories in designing the learning module specifically to solve learners' problems. Following that, they entered the development stage (Development). Researchers were expected to utilise their experience as teachers in creating, developing and refining each element in the learning module [23]. Moving on, they immediately proceeded with the implementation stage where the module will be administered to learners (Implementation). This is when the learning module has been successfully created and is ready to be implemented by learners [23]. Finally, the evaluation stage is where researchers seek to uncover the results of the module implementation to learners (Evaluation). This is when the learning module implementation goes through in-depth review and testing in order to evaluate each element of it to ensure that learning outcomes are achieved [23].

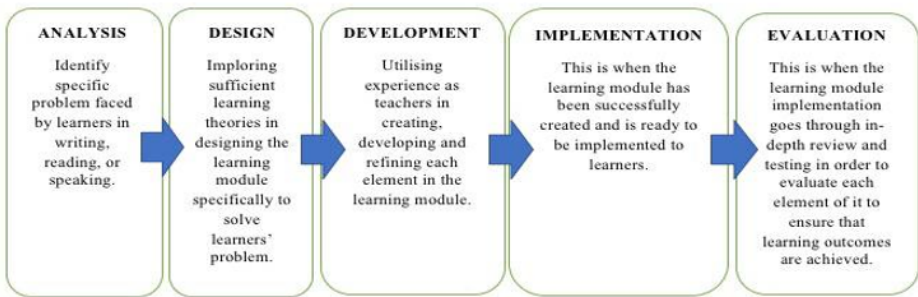


Fig. 2. Illustration of ADDIE Framework

From here, it is evident that this framework is suitable for the development of a reading comprehension module. All the in-depth stages of identifying learners' needs, designing, developing, implementing and evaluating the module would pave the way for the creation of a well-crafted learning module that would benefit learners learning the English language [24].

The module would serve as a useful aid to teachers in carrying out language lessons in the classrooms. As a result, all the necessary skills in learning English would be inculcated to learners accordingly.

4.2 Research Procedure

4.2.1 Phase 1: Analysis

Before developing this module, a needs analysis was conducted in order to understand the respondents' reading problems [19]. A set of questionnaires consisting of 14 items were distributed to 30 respondents for this purpose. Following that, the internal consistency and reliability of a set of items in a questionnaire were measured by calculating Cronbach's Alpha. Based on Figure 3, all of the data, including the items' scores, mean scores, variances, and covariances, were calculated in order to obtain the Cronbach's Alpha value of 0.762. Cronbach's alpha value of 0.762 suggests a good level of internal consistency and reliability for the questionnaire [19].

PARTICIPANT	ITEM 1	ITEM 2	ITEM 3	ITEM 4	ITEM 5	ITEM 6	ITEM 7	ITEM 8	ITEM 9	ITEM 10	ITEM 11	ITEM 12	ITEM 13	ITEM 14	TOTAL SCORE
1	3	4	3	3	2	2	3	2	4	4	3	3	3	3	42
2	3	4	3	3	2	2	3	2	4	4	3	3	4	3	43
3	3	4	3	3	2	2	3	2	4	4	3	3	3	4	43
4	3	4	3	3	2	2	3	2	4	4	3	3	3	3	42
5	3	4	3	3	2	2	3	2	4	4	3	3	3	3	42
6	3	4	3	3	2	2	3	2	4	4	3	3	3	3	42
7	3	4	3	3	2	2	3	2	4	4	3	3	3	3	42
8	3	4	3	3	2	2	3	2	4	4	3	3	3	3	42
9	3	4	3	3	2	2	3	2	4	4	3	3	3	3	42
10	3	4	3	3	2	2	3	2	4	4	3	3	3	3	42
11	3	4	3	3	2	2	3	2	4	4	3	3	4	3	43
12	3	4	3	3	2	2	3	2	4	4	3	3	4	3	43
13	3	4	3	3	2	2	3	2	4	4	3	3	4	3	43
14	3	4	3	3	2	2	3	2	4	4	3	3	4	3	43
15	3	4	3	3	2	2	3	2	4	4	3	3	4	3	43
16	3	4	3	3	2	2	3	2	4	4	3	3	4	3	43
17	3	4	3	3	2	2	3	2	4	4	3	3	4	3	43
18	3	4	3	3	2	2	3	2	4	4	3	3	4	3	43
19	3	4	3	3	2	2	3	2	4	4	3	3	4	3	43
20	3	4	3	3	2	2	3	2	4	4	3	3	4	3	43
21	3	4	3	3	2	2	3	2	4	4	3	3	3	4	43
22	3	4	3	3	2	2	3	2	4	4	3	3	3	4	43
23	3	4	3	3	2	2	3	2	4	4	3	3	3	4	43
24	3	4	3	3	2	2	3	2	4	4	3	3	3	4	43
25	3	4	3	3	2	2	3	2	4	4	3	3	3	4	43
26	3	4	3	3	2	2	3	2	4	4	3	3	3	4	43
27	3	4	3	3	2	2	3	2	4	4	3	3	3	4	43
28	3	4	3	3	2	2	3	2	4	4	3	3	3	4	43
29	3	4	3	3	2	2	3	2	4	4	3	3	3	4	43
30	3	4	3	3	2	2	3	2	4	4	3	3	3	4	43
MEAN	3.000	4.000	3.000	3.000	2.000	2.000	3.000	2.000	4.000	4.000	3.000	3.000	3.000	3.100	
VARIANCE	0.667	0.667	0.667	0.667	0.667	0.667	0.667	0.667	0.667	0.667	0.667	0.667	0.667	0.667	
COVARIANCE	0.867	0.867	0.867	0.867	0.867	0.867	0.867	0.867	0.867	0.867	0.867	0.867	0.867	0.867	
CRONBACH'S ALPHA															0.762

Fig. 3. Cronbach's Alpha Value Calculations

Apart from that, the results of the needs analysis were then summarised in the following figure (Figure 4). 15% of the respondents pronouncing some words correctly. This included some high-frequency words, such as bottle was read as /'bɒtəl/ instead of /'bɒtl/. Next, 20% of the respondents have problems understanding high-frequency words and have very limited vocabulary respectively. The highest percentage was reading comprehension, where 45% of the respondents had difficulty understanding the text and answering the related questions.

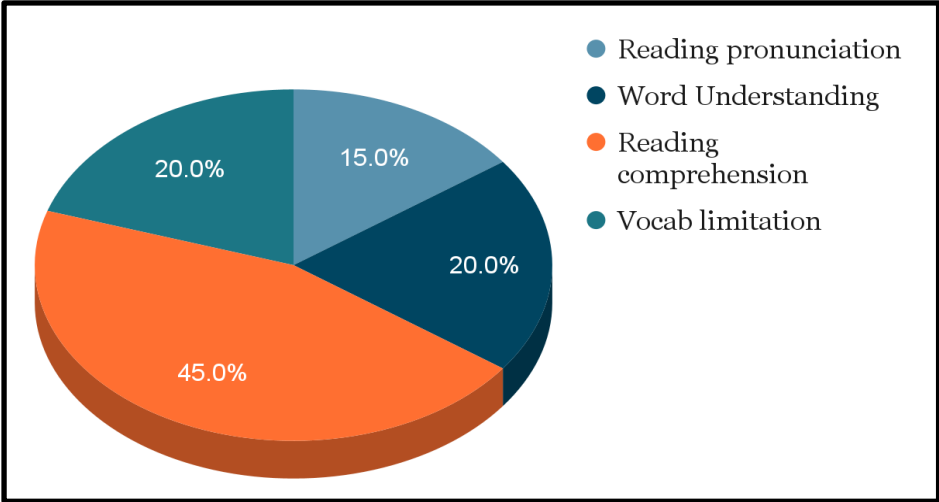


Fig. 4. Results of the Needs Analysis

4.2.2 Phase 2: Design

In this phase, the researchers started to design a suitable module based on the problems identified in the previous phase. First and foremost, a topic was selected from the Pulse 2 textbook. Unit 4 (Life on Earth) from Form 1 (Pulse 2) textbook was chosen as it contains passages that are suitable for conducting different reading activities. The vocabulary used in this topic is also suitable for students of different levels. Next, relevant passages and content were selected from this topic. Then, different reading activities were planned based on the chosen content. Each activity has its own aims and objectives. The reading activities in the module include reading comprehension, reading aloud, matching, grouping and playing tarsia puzzles. Other integrated skills were writing and speaking alongside reading as the focused skill. Finally, questions and items were constructed carefully for each activity. Adaptations were made to some content to cater to the respondents' backgrounds. A summary of the reading activities in the module is shown in Figure 5 below. The title of this module is “Just” - A Reading Module as each activity starts with the word “Just” to make it catchy to the respondents.

Activity	Title	Elaboration/Instruction	Theory
Pre-Test	Reading Comprehension: Family Wanted to Live on an Island (page 43)	Students are required to answer 5 multiple-choice questions and 5 structured questions.	Schema
Activity 1	“Just Read” Thula Thula Wildlife Reserve (page 46)	Read aloud with correct pronunciation where students do not focus on the meaning.	Whole Language
Activity 2	“Just Match” Thula Thula Wildlife Reserve (page 46)	Group work: Given 10 words and definitions. Students match the definitions to the words.	Socio-Constructivism
Activity 3	“Just Think” A Day as A Volunteer (Page 48)	Read the text of the website. Students think and identify the answers.	Socio-Constructivism
Activity 4	“Just Group” Endangered Animals (Page 45)	Students identify the endangered factors of the animals: humans or the environment.	Socio-Constructivism
Activity 5	“Just Tarsia” Family Wanted to Live on an Island	Read the text and solve the puzzles into the right shape.	Gamified Learning Socio-Constructivism
Post-Test	Reading Comprehension: Family Wanted to Live on an Island (page 43)	Students are required to answer 5 multiple-choice questions and 5 structured questions.	Schema

Fig. 5. Summary of the Reading Module

4.2.3 Phase 3: Development

The purpose of this phase is to generate the "Just"- A Reading Module. There were 4 stages in this development phase. Stage 1 was to decide on which platform to use to create the module. Design the module. Canva was chosen to develop this module. Its interactive features can attract students while presenting in the class. It is easy to convert into a booklet, too. During the second stage, the researchers constructed and developed the package with the

help of media software Canva and supporting documentation (Pulse 2 textbook). The images used in this module were all taken from the textbook to avoid copyright or intellectual property rights issues. The next stage was the conversion of the module into booklet format before being printed out. This is because it is easier for the students to use and keep the module in the form of a booklet.

The final stage is where validations take place. Four experts were invited to validate this module by answering the module content evaluation and module design validity assessment questionnaires. They were head of the English panels in two of the secondary schools, and the latter two are iconic English teachers who have received multiple awards in the past few years. Based on their responses from both sets of questionnaires, all four of the experts were inclined towards the notion that the module was an excellent teaching material to support reading lessons.

4.2.4 Phase 4: Implementation

“Just” - A Reading Module was implemented in a secondary school in Klang, Malaysia. The implementation was conducted in two days' time, aside from the first meet up, where needs analysis was conducted.

4.2.4.1 First meet up: Needs Analysis

During the first meet-up, the researchers introduced themselves to the respondents and went through some ice-breaking sessions. There was a total of 30 students (Form 1- Form 3). Teachers also interviewed the students. A need analysis was conducted. Identification and evaluation of needs are processes involved in requirements analysis. It is the initial step that needs to be taken to properly build a training programme that is effective [4]. From the needs analysis, it was concluded that the students were facing problems in reading skills. Teachers then decided to focus on reading and some writing skills.

4.2.4.2 Second meet up

On the second meet-up, the booklets of "Just" - A Reading module will be distributed to the respondents. This reading module comprises a pre-test, 5 reading activities and a post-test. This module is hoped to be a tool for the teachers to use in class as extra teaching aids to teach reading to lower-intermediate students. The main focus for these activities will be the reading skills. Writing and speaking skills were also integrated into the activities. Each activity took around 30-60 minutes to be carried out. Specific goals, objectives and values for each activity will be set to measure students' achievement at the end of the lesson. Answer keys and teaching materials will also be provided. All of the activities will be student-centred to provide students with sufficient opportunities to practise their reading abilities in interactive learning environments. Before conducting each activity, the researchers will explain the instructions on what the respondents need to do.

(i) Pre-Test

Respondents will be asked to sit for a pre-test. This activity aims to test their reading skills before going through the reading module. Respondents will read the text "Family Wanted to Live on an Island" (Unit 4: Life on Earth, page 43 of the textbook Pulse 2) and answer 5 structured questions and 5 multiple-choice questions. Their scores will be recorded.

(ii) Activity 1: “Just Read”

The first activity in this reading module is “Just Read”. This activity aims to develop respondents’ ability to read aloud a text before proceeding to the next activity. The text was adopted from Pulse 2, pg 46. The “Thula Thula Wildlife Reserve” was about a wildlife Reserve in South Africa. Respondents will be able to practise their pronunciation skills while reading the text.

(iii) Activity 2: “Just Match”

The second activity in this reading module is "Just Match". This activity aims to develop respondents' vocabulary skills in looking for contextual clues. The respondents have to match 10 words to their meanings. They then read the text a few times in order for them to understand the text and match the words with the definition of the words based on the contextual clues.

(iv) Activity 3: “Just Think”

The third activity in this reading module is "Just Think". This activity aims to develop students' critical thinking, to identify and to analyse. The respondents will read a text adopted from Pulse 2, page 48. The text was four selected websites that respondents had to read, analyse, identify the gist of, and critically think about before they came to a conclusion. They will then answer the questions that require them to identify the correct activities.

4.2.4.3 Third meet up: Activity 4-5 and Post Test

On the third meet-up, two more reading activities and a post-test will be conducted. The respondents would have shown interest in reading after the implementation of the reading module on the previous day.

(v) Activity 4: “Just Group”

The fourth activity in this reading module is "Just Group". This activity aims to develop respondents' ability to read and categorise the information. Upon completing this activity, learners would have read the statements and identified the factors that endangered the 10 species. In this activity, respondents will look at the pictures of the species and wonder whether it is human or environmental factors that endangered them. They will then tick the correct box.

(vi) Activity 5: “Just Tarsia”

The fifth activity is "Just Tarsia". This activity aims for the respondents to read the text and find the relevant information to solve the puzzle by matching the correct questions with the correct answers and getting the correct shape of the puzzle. A tarsia is a sort of jigsaw puzzle that is both remarkably simple and challenging at the same time. Instead of fitting little irregular shapes into each other, respondents would first have to match up pieces of information written on the sides of triangles with corresponding information on other triangles. Then, they will be built into a larger and recognisable shape.

(vii) Post-Test

In this final stage, the respondents will be asked to sit for a post-test. This activity aims to test students' reading skills after going through the reading module. Respondents will read the text "Family Wanted to Live on an Island" (Unit 4: Life on Earth, page 43 of the textbook Pulse 2) again and will answer 5 structured questions and 5 multiple-choice questions. Their post-test scores will be analysed and compared to the Pre-test scores.

4.2.5 Phase 5: Evaluation

In this phase, the results of both the pre-test and post-test responses by the respondents were analysed and compared. Figure 6 shows the comparison of the pre-test and post-test scores of the respondents before and after going through "Just" - A Reading Module. 100% of the respondents showed improvement. The highest improvement of the score was 10 marks, and the lowest was 2 marks. The mean pre-test score is 85.73, and the mean post-test score is 88.07. A higher mean for post-test indicates that the module has been effective in improving their comprehension abilities. It may be sufficed to note that this reading module shows significant improvement amongst the respondents in terms of their reading comprehension. Other reading skills were also improved, such as reading aloud and understanding vocabulary, as observed by the researchers.

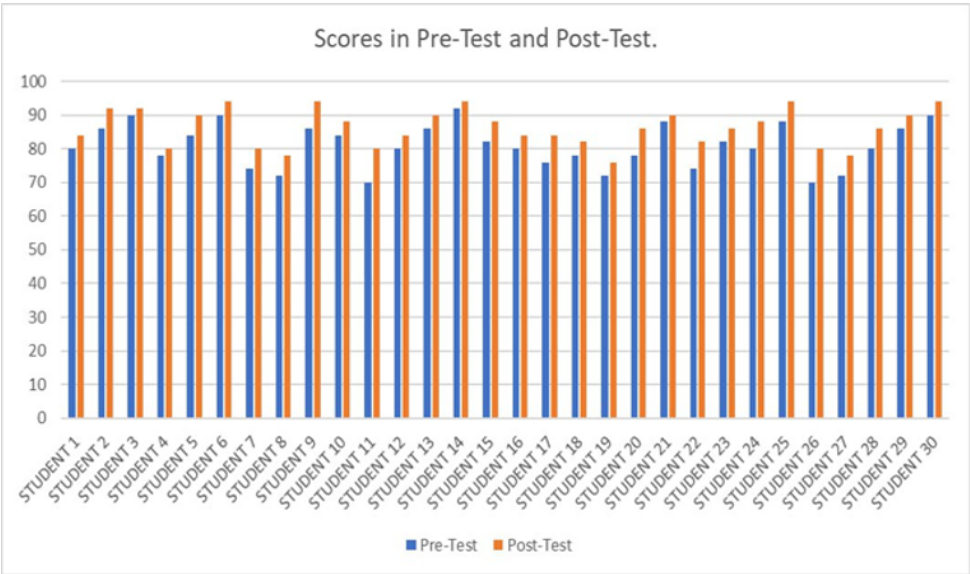


Fig. 6. Comparison of scores in pre-test and post-test.

4.3 Strengths

After using a teaching module, it is important to evaluate its effectiveness and make any necessary adjustments. Based on the analysis provided, "Just" - A Reading Module assisted students' learning process, particularly in mastering reading skills. The significant improvement in post-test results indicates that the "Just" - A Reading Module should be considered for use in ESL classrooms. The positive comments made by the students regarding the application of the 'Just a Reading Module' in the ESL classroom provided further evidence

that the writing module had successfully enhanced the students' reading abilities. The utilisation of reading modules among students studying at the lower secondary level should be the focus of research that will be conducted in the future. It is vital for teachers of English as a Second Language (ESL) to develop new ways to aid students and to implement these strategies in their ESL classes in order to enhance their students' learning experiences. Another point worth mentioning is "Just" - A Reading Module helps pupils learn, especially when it comes to developing reading skills. The post-test results showed a considerable improvement, indicating that the "Just a Reading Module" should be used in ESL classes. More proof that the writing module was helpful in improving the students' reading skills came from the favourable remarks the students made about the use of "Just a Reading Module" in the ESL classroom.

4.4 Limitations

One of the limitations of conducting this reading module is insufficient time. The researchers were given only two days to carry out the reading module. The researchers would have more time to facilitate some weak students and guide them to complete the activities. Despite having only two days of using the reading module, the students showed significant improvement in their reading skills. There were also some students who were unable to understand the instructions in English. The researchers needed to translate the instructions into Malay language before conducting the activities. This is due to the diverse backgrounds of the students. However, during the post-test activity, all the students were able to understand what they were going to do. Towards the end, those students were able to understand the English commands given by the researchers and communicate in simple English, such as "Yes" and "I can".

5 Findings

5.1 Fulfilment of Research Objective

Objective: "To evaluate the effectiveness of the reading module in improving reading skills."

The research objective was to assess the effectiveness of the developed reading module in enhancing the reading skills of underprivileged Malaysian ESL secondary school students. This objective was rigorously met based on the results of the field test. The fact that all 30 participants demonstrated an improvement in their post-test scores indicates a clear positive impact of the reading module on their reading skills.

This outcome is significant as it validates the effectiveness of the module. It provides empirical evidence that the module successfully addressed the specific reading comprehension needs of underprivileged students. It also underscores the potential of tailored interventions in bridging educational disparities.

5.2 Fulfilment of Research Question

Question: "How does the reading module affect students' reading skills?"

The field test results provide a detailed answer to the research question. The positive shift in post-test scores directly demonstrates the positive impact of the reading module on students'

reading skills. This indicates that the activities incorporated into the module, such as reading aloud, answering comprehension questions, matching activities, filling in the blanks, categorising materials, and solving puzzles based on reading texts, were effective in enhancing the participants' comprehension abilities.

Additionally, this result affirms the theoretical foundations and strategies integrated into the module, such as whole language theory, cognitive load theory, constructivism theory, gamification theory, socio-constructivism theory, and schema theory, were appropriately selected and applied. It reinforces the idea that a multi-faceted approach, drawing from various theories, can lead to comprehensive and impactful educational interventions.

The successful outcome of the field test unequivocally supports the fulfilment of both the research objective and research question. It not only validates the effectiveness of the reading module but also highlights the potential for similarly tailored interventions to impact underprivileged students' educational outcomes positively. This research provides valuable insights for educational practices, particularly in the context of addressing disparities in reading comprehension skills among underprivileged students in Malaysia.

6 Implications

6.1 Educational Equity and Inclusivity

The research has far-reaching implications for promoting educational equity. By tailoring reading comprehension modules to the specific needs of underprivileged students, the study advocates for a more inclusive educational environment. It underscores the importance of recognising diverse learning styles and backgrounds and providing targeted interventions to bridge educational disparities.

6.2 Effective Pedagogical Strategies

The success of this research highlights the effectiveness of employing a multi-faceted approach drawing from various theoretical frameworks. The integration of whole language theory, cognitive load theory, constructivism theory, gamification theory, socio-constructivism theory, and schema theory showcases the potential of combining pedagogical strategies for a comprehensive learning experience.

6.3 Optimised Resource Utilisation

The utilisation of materials from Malaysian English school textbooks for module development is a resource-efficient strategy. It demonstrates the adaptability and relevance of existing educational resources when employed with a focused and purpose-driven approach. This implication is particularly important in resource-constrained educational settings.

6.4 Empowering Teachers as Evaluators

Involving experienced teachers in the evaluation process through content evaluation questionnaires and design validity assessments is a crucial aspect of this research. This approach recognises teachers as invaluable stakeholders in educational development. Their insights not only enhance the quality of modules but also empower them as active contributors to curriculum enhancement.

6.5 Applicability Beyond Malaysia

While this research was conducted in the context of Malaysian secondary schools, its findings have broader applicability. The tailored module development process and the integration of diverse theoretical frameworks can serve as a blueprint for similar initiatives in other countries facing comparable educational disparities.

7 Conclusion

This research marks a significant advancement in the field of ESL education, particularly in the context of underprivileged Malaysian secondary school students. The development and successful implementation of the reading comprehension module showcase the potential of tailored interventions to address specific educational needs.

The research has not only contributed to the academic literature but also provided practical insights for educators, policymakers, and curriculum developers. It highlights the importance of recognising and addressing the unique challenges faced by underprivileged students in their pursuit of academic success.

Moreover, this study emphasises the efficacy of a holistic approach that draws from a diverse range of theoretical frameworks. The successful integration of whole language theory, cognitive load theory, constructivism theory, gamification theory, socio-constructivism theory, and schema theory demonstrate the power of combining pedagogical strategies for a comprehensive learning experience.

In conclusion, this research lays a foundation for future endeavours aimed at enhancing educational opportunities for underprivileged students. It serves as a testament to the transformative potential of targeted interventions in narrowing educational disparities and promoting inclusive education. The findings and methodologies of this research offer valuable insights for educators and researchers striving to create positive and equitable learning environments for all students.

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