Students' Perception of the E-Module's Practicality in Reading Activity for Junior High School

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Abstract:
Background: This study explores the practicality of e-modules in Junior High School reading classes, focusing on students' perceptions. E-module is a digital learning tool designed to enhance engagement and comprehension through interactive features such as multimedia content, quizzes, and self-paced learning options.
Materials and Methods: The research employs a mixed-method approach, combining quantitative and qualitative data collection techniques. The questionnaire measured students' attitudes toward the e-module, while interviews provided more profound insights into their experiences.
Result: The findings reveal that students perceive e-modules as practical and effective in improving their reading skills, citing their accessibility, interactivity, and ability to accommodate diverse learning needs. However, challenges such as technical issues and reduced teacher-student interaction were identified, suggesting areas for improvement.
Conclusion: This study concludes that e-module holds significant potential for enhancing literacy outcomes in junior high schools, particularly when paired with strategies to address technical barriers and optimise content design. Future research should investigate the long-term impacts of e-module usage on student engagement and performance in various educational contexts.
Key Word:

I.   Introduction

English is a language used by almost a billion individuals globally. According to (Rao, 2019)English is spoken by nearly 360 million native speakers and 500 million people who speak it as a second language, and it is spoken in all countries in the world, irrespective of their mother tongue. Furthermore, Eberhard (2024) mentioned that English has 1.5 billion speakers globally, but only about 25% are native speakers.

In Indonesia, English is spoken as a foreign language and used as a compulsory subject in state and private schools. English teaching has changed over time based on the curriculum applied. English teaching focuses on four basic skills: listening, speaking, reading, and writing.

English language teaching in Indonesia faces ongoing challenges due to cultural diversity, traditional teaching methods, and a non-supportive language environment, (Marcellino, 2015). Despite curriculum reforms like competency-based learning, improvements are limited because of cultural resistance and inadequate teacher training. To enhance English learning outcomes in Indonesia, overcoming cultural and professional barriers is crucial by equipping teachers with modern, interactive teaching skills, (Bachtiar & Puspitasari, 2024). Research shows that interactive learning methods, such as role-play, technology integration, and collaborative activities, significantly increase student motivation, engagement, and language proficiency across various educational levels, (Anggaira et al., 2022; Novita & Paragae, 2023). Additionally, (Aisy & Rohaedi, 2025; Purwanti, 2025) state that incorporating digital tools and authentic materials into lessons helps create a more dynamic and effective learning environment that addresses diverse learner needs and supports communicative competence development.

In reading, students acquire skills to interpret and react to known and unknown texts, pinpoint the central concept, draw conclusions, and utilize vocabulary, Fauziah & Dania (2024). In general, they understand how to recognize the intent of the text and enhance their comprehension of different types of texts (www.kemdikbud.go.id)

According to Klimova (2020) Reading is among the most essential activities a person can engage in. It aids individuals in growing up and staying updated with the extensive information available. Furthermore, Wagstaff (2020), Schmidtke, D., Rahmanian, S., & Moro (2024), and Hicks & Hicks (2023) state that Reading is crucial for students since it significantly contributes to their cognitive, academic, and personal growth. It aids in boosting focus, broadening vocabulary, and refining language abilities, leading to more effective communication.

Reading also promotes critical thinking and problem-solving skills by motivating students to examine and comprehend information thoroughly. It ignites creativity and imagination, enabling students to go beyond the text and cultivate original ideas, Finissha et al. (2022; Rachuri (2024), Ramdani et al. (2021). Furthermore, (Marhayani, 2024) stated that reading enhances self-confidence as learners acquire new skills and information. It also fosters empathy by engaging them with various viewpoints and experiences, (Alatawi & Harshan, 2023; Stansfield & Bunce, 2014). Moreover, (Levine et al., 2022) states that reading can alleviate stress by providing a pleasurable diversion from everyday demands.

The issue is especially challenging in Indonesia due to the nation's low literacy level. As per the 2022 Program for International Student Assessment (PISA), Indonesia's literacy statistics indicate that students face significant challenges in reading. Indonesian students' average reading literacy score was 359, significantly below the global average of 476. This score shows that students struggle more with understanding complex texts, as it fell below 371 in 2018. OECD (2023).

Reading activities are vital in junior high school education in Indonesia since they enhance comprehension, critical thinking, motivation, and interaction with texts, (Azmi & Achadiyah, 2023; Kurnia, 2018). Despite obstacles like constrained resources and differing skill levels among learners, studies show that interactive and comprehensive methods effectively improve literacy results, (Mustika & Harahap, 2025; Susanti & Hikmat, 2024). By tackling these issues through teacher education, resource creation, and innovative approaches, instructors can nurture a lasting passion for reading in Indonesian learners while providing them with vital academic abilities.

Engaging and thorough reading methods are highly suggested for junior high school students. Interactive reading encompasses editing, scanning, organizing tasks, and examining text structures and specifics.

Comprehensive reading entails skimming exercises and summarizing activities that help students understand the general essence of texts.

These techniques impart micro skills in identifying grammatical structures, analyzing patterns of word arrangement, and comprehending cohesive elements within discourse.

Macro skills emphasize recognizing rhetorical structures, differentiating between explicit and implicit meanings, and creating techniques such as scanning and skimming to analyze texts efficiently.

Obstacles in Teaching Reading

Though these strategies are effective, teachers in Indonesia encounter substantial difficulties. Studies show that merely 25% of Indonesian students achieve the basic international literacy standards after finishing their education.

Frequent issues include inadequate prior knowledge, minimal interest in reading, difficulty decoding texts, poor vocabulary skills, and unproductive literacy teaching. Learners frequently find it challenging to comprehend inquiries connected to texts or to stay actively involved during reading exercises, Muslim & Borneo (2020).

Another obstacle is the scarcity of quality storybooks and teaching resources. Organisations like Room to Read and Taman Bacaan Pelangi have tackled this problem by establishing digital libraries of children's literature and training educators in eastern Indonesia to enhance literacy teaching.

Numerous studies have emphasized the significance of engaging and comprehensive reading strategies in enhancing literacy. An SMP Negeri 1 Pematangsiantar research project revealed a significant link between students' reading literacy skills and their capability to create visual texts. The study highlighted the importance of integrated methods that merge reading with writing activities to improve understanding (Shara & Hasibuan).

Another study in Aceh Besar investigated the effectiveness of interactive approaches in teaching English reading comprehension. After implementing these methods, the results significantly improved students' understanding of texts. Students responded positively to interactive techniques that involved active participation during lessons, Muslim & Borneo (2020).

Extensive reading has also been shown to foster long-term engagement with texts. Research on Indonesian EFL learners revealed that authentic, extensive reading materials significantly improved vocabulary knowledge, reading interest, and proactive attitudes toward learning English. Shara & Hasibuan (2022).

Suggestions for Successful Execution

To tackle difficulties and enhance the influence of reading initiatives:

a) Educator Training: Teachers should be trained in interactive teaching strategies for varying literacy levels.
b) Resource Availability: Educational institutions should focus on offering top-notch storybooks and digital collections to enhance broad reading initiatives.
c) Innovative Methods: Utilizing storytelling, project-oriented learning, and gamification can enhance lesson engagement.
d) Integrated Literacy Programs: Merging reading with writing activities can improve understanding while fostering critical thinking abilities.

Upon assessing the students' reading task requirements, the author discovered that the issues encompassed a deficiency in English vocabulary, dull reading materials used in the activities, the instructional methods employed by the educators, the resources available during the lessons, the classroom environment, and the support from the surroundings, (Dewi et al., 2024).

To boost students' engagement in reading classes, the author introduced an E-module as an interactive educational tool during the lessons. According to Evenddy & Gailea (2024) The benefits of e-modules in education are that they help students improve skills, creativity, and engagement, are efficient, easy to use, and paperless, making learning more accessible.

E-modules have turned into an essential part of modern education, particularly in the field of digital learning, (Sidiq et al., 2021). These digital educational resources are carefully crafted to encourage independent, interactive, and multimedia-oriented learning experiences. In contrast to traditional textbooks, e-modules integrate textual, visual, audio, and audiovisual components to foster a more captivating and enhanced learning experience, (Erwin Talan & Widayati, 2023). They are independent, flexible, and user-friendly, with interactive elements like quizzes, animations, videos, and summaries to engage students actively in the learning experience.

The benefits of e-modules are numerous. They improve the effectiveness of lesson presentations by utilizing multimedia tools, enabling teachers to engage vast numbers of students at once, Holisoh et al. (2023); Marlena et al. (2022). Furthermore, they lower expenses by removing the necessity for physical infrastructure and transport. E-modules provide flexibility by allowing students to download and access materials offline, guaranteeing that learning can persist without needing a continuous internet connection. Their interactive elements—like annotations, zoom options, and read-aloud features—enhance the studying experience. Studies have shown that e-modules greatly enhance students' motivation and self-assurance in autonomous learning while promoting a feeling of self-efficacy, Nurhikmah et al. (2021).

Nevertheless, applying e-modules can be difficult. Technical challenges, like restricted compatibility with mobile devices or inconsistent internet connections, can hinder their usage, (Al-Fraihat et al., 2020). Educators must be trained to create effective e-modules that meet students' needs. Sustained student interest can be challenging when the modules lack enough interactive elements or gamification.

Studies have highlighted the positive impact of e-modules on learning outcomes. For example, research conducted at Universitas Riau developed interactive e-modules for English structure courses. The modules received high validation scores for clarity (3.57) and ease of use (3.60), demonstrating their effectiveness in improving language skills. Similarly, other studies have shown that e-modules enhance self-efficacy and

motivation when used collaboratively or independently compared to traditional teaching methods, Daud et al., (2024).

The adoption of e-modules accelerated during the COVID-19 pandemic as they became essential tools for online learning. They provided teachers and students the flexibility to adapt to remote education environments. Teachers incorporated multimedia elements like videos and animations to sustain student engagement while minimizing physical interaction, Banji et al. (2021), Shams et al. (2022).

In Southeast Asia, the use of e-modules is growing in English as a Foreign Language (EFL) education. They have proven particularly effective in English for Specific Purposes (ESP) courses by integrating augmented reality and blended learning approaches to improve comprehension Alimi et al. (2021); Alsaqqaf et al. (2024); Evenddy & Gailea, (2024); Auji et al., (2024).

Several steps are recommended to fully realize the potential of e-modules in education. Teachers should be trained in creating interactive content tailored to students' needs, Apriliani (2025; Maksum & Purwanto (2022). Developers should work on optimizing e-modules for mobile devices to improve accessibility. Additionally, educational institutions should invest in advanced technologies like augmented reality to further enhance the functionality of e-modules, Bass et al. (2019). In conclusion, e-modules are vital in modern education due to their flexibility, interactivity, and accessibility. Their ability to improve motivation, self-efficacy, and learning outcomes makes them indispensable for 21st-century education. However, addressing technical limitations and ensuring teacher readiness is essential for their successful implementation across diverse educational settings.

II. Material And Methods

The research methodology for this study focuses on assessing the practicality of e-modules in junior high school reading classes through students' perceptions. It employs a mixed-method approach, combining quantitative and qualitative techniques to provide a comprehensive understanding of the effectiveness and usability of e-modules in this context.

Research Design

This study adopts a mixed-method approach, integrating quantitative and qualitative data collection methods. Quantitative data will be collected through structured questionnaires to measure students' perceptions and learning outcomes, (Caspersen et al., 2017). Qualitative data will be gathered using interviews to explore deeper insights into students' experiences with e-modules, (Holland & Ciachir, 2024). Mixed-method designs effectively address complex research questions, combining numerical data with thematic analysis to provide a holistic view of the subject matter, (Sammons & Davis, 2017; Zhao & Xu, 2024; Zhou et al., 2024).

Participants

The participants will be junior high school students in grade 7. A stratified sampling method will select 65 students, ensuring representation across different literacy levels and backgrounds. Stratified sampling is particularly useful in educational research as it accounts for variability within the population.

Data Collection Instruments

Questionnaires: Structured questionnaires with Likert-scale items will assess students' perceptions of the module's practicality, focusing on usability, accessibility, interactivity, and engagement.

Interviews: Selected participants will participate in one-on-one interviews to provide detailed feedback on specific aspects of the e-modules, such as technical challenges or interactivity features.

Procedure

The study followed these steps: 1) Preparation Phase, developed an interactive e-module tailored for reading classes, incorporating multimedia elements like videos, animations, quizzes, and summaries; 2) Implementation Phase, administered questionnaires after module usage to collect quantitative data on perceptions 3) Qualitative Data Collection, conducted interviews with selected students for personalized feedback.

Data Analysis

1. Quantitative Analysis: Descriptive statistics was be used to analyze questionnaire responses (e.g., mean scores for usability and engagement).

2. Qualitative Analysis: Conducted interviews to measure students' deeper perceptions of the developed e-module.

1. Ethical Considerations

Ethical standards were strictly adhered to throughout the study. All participants were given informed consent, ensuring they understood their rights and voluntary participation. Responses were maintained confidentially and anonymously, and participants could withdraw without consequences.

2. Expected Outcomes

The study aimed to provide evidence on the practicality of e-modules in junior high school reading classes by evaluating their usability, effectiveness in improving comprehension skills, and overall student engagement. Findings are expected to highlight strengths (e.g., accessibility, interactivity) and areas needing improvement (e.g., technical challenges), contributing valuable insights for educators seeking to integrate digital tools into literacy instruction.

This methodology aligns with established practices in educational research while adapting them specifically for junior high school reading classes in Indonesia's unique learning environment.

III. Result

The study on the practicality of e-modules in junior high school reading classes revealed several key insights regarding students' perceptions of these digital tools. Quantitative data collected through questionnaires indicated that most students found e-modules highly practical and effective for improving reading comprehension. Specifically, students appreciated the interactive features, such as quizzes, multimedia content, and summaries, which made learning more engaging and accessible.

Here is the final result of the e-module practicality by using the following formula, Van Velzen (2013):

$$M = \frac{\sum FX}{N}$$

M: Average score

FX: Obtained score

N: Number of practicality components

Practicality analysis used a Likert scale with the following steps, Chen & Liu (2020):

a. Giving a score for each answer item: Very Good (4), Good (3), Fair (2), and Poor (1).

Table number 1, Categories of Assessment by Respondents in the Questionnaire

Score	Category
4	Very Good
3	Good
2	Not Good
1	Poor

b. Summing up the total score of each practitioner for each indicator, giving practicality value through the following formula, while the practicality category can be seen in the following table, Milala et al. (2021)

Table number 2, Practicality Criteria

No	Average score interval	Category
1	81 < x ≤ 100	Very Practical
2	61 < x ≤ 80	Practical
3	41 < x ≤ 60	Quite Practical
4	21 < x ≤ 40	Less Practical
5	0 < x ≤ 20	Not Practical

The following table discusses the questionnaire distributed to the students to determine the practical value of the product.

Table number 3, The questionnaire distribution

No	Statements	Score
	Effectiveness of E-modules	
1	E-modules help me understand the lesson material better.	235
3	I feel more motivated to study using the e-module lesson.	224
4	The e-module provides relevant and useful information.	236
5	I can easily find the materials I need in the e-module.	226
7	I prefer using e-modules compared to traditional textbooks.	222
14	I feel that the e-module enhances the understanding of the concepts being taught	222
18	I feel that the use of e-modules reduces boredom while studying.	226
Total Score		1591
Average		3,50
Conversion into %		87,50
Category		Very Practical
	Design and Usability	
2	The e-module's appearance is attractive and easy to understand.	240
8	The e-module facilitates self-directed learning well.	231
12	E-modules are easily accessible on my device (computer/smartphone).	230
13	The material in the e-module is well-organized and systematic.	229
Total Score		930
Average		3,58
Conversion into %		89,50
Category		Very Practical
	Student Feedback and Engagement	
6	The use of e-modules makes learning more interactive.	228
9	I feel comfortable using e-modules in daily learning.	225
16	I feel that the e-module covers all the important topics in this lesson	221
19	The e-module has features that support learning, such as videos or interactive quizzes	238
Total Score		912
Average		3,51
Conversion into %		87,75
Category		Very Practical
	Efficiency and Accessibility	
10	The e-module increases my engagement in the learning process.	221
11	I received a significant quantity of feedback from the e-module that was used.	219
Total Score		440
Average		3,38
Conversion into %		84,50

Category	Very Practical
Future Perspectives	
15 E-modules allow me to learn at my own pace.	218
Total Score	218
Average	3,35
Conversion into %	83,85
Category	Very Practical
Assessment and understanding	
17 The e-module provides sufficient exercises to test my understanding.	222
Total Score	222
Average	3,42
Conversion into %	85,38
Category	Very Practical
Overall Satisfaction	
20 Overall, I am satisfied with using the e-module in this learning.	234
Total Score	234
Average	3,60
Conversion into %	90,00
Category	Very Practical

Modified from Dian Kusuma Dewi et al. (2023)

The practicality score of the e-modules was consistently very high (89,61), with students reporting ease of use and flexibility in accessing materials both in class and independently. These findings align with similar studies that emphasize the role of e-modules in enhancing learning outcomes by providing innovative and interactive learning methods.

Qualitative data from interviews further highlighted students' positive experiences with e-modules. Many participants noted that the multimedia elements helped them better understand complex texts, while the self-paced nature of e-modules allowed them to revisit challenging sections without time pressure.

However, some students mentioned technical challenges, such as compatibility issues with certain devices or difficulty navigating specific features. Additionally, a small percentage of students preferred traditional printed materials due to familiarity and ease of annotation.

Here are the students' perceptions regarding the e-module during the interview session:

Student 1

My name is Afifa Vanesya Fadli, and I am from class seven one. The module's appearance is attractive because it displays bright colours and a modern design. This visual aspect motivates me to study enthusiastically. Its aesthetic appearance gives a positive vibe and helps me avoid stress while studying. Furthermore, it has a simple design so that the users will get focused easily and will not be distracted by overly decorative elements.

Student 2

My name is Mhd Aliff Habibie Siregar, and I am from class seven one. I think the e-module is well organized and includes important topics. In addition, it provides understandable explanations and clear descriptions for users to learn. However, some parts need to be explained in detail, with examples or case studies, to strengthen the discussed material.

Student 3

Hello. I am Andre Syahputra Gultom from class seven two. I want to say that the e-module is flexible and can be accessed anytime and anywhere as long as an internet connection is available. It helps a lot to have the material learned outside the classroom, especially when I am on the way somewhere or at home. However, the e-module access via smartphone should be improved. Sometimes, I find it difficult to access the module, so studying at home is unaffordable.

Student 4

I am Novriansyah from class seven three. The e-module assists me in getting prepared for my exam because I can read the material anytime I want. This module also provides predictive questions similar to the real exam so that I can do the exam confidently. In addition, the e-module utilization trains me to be an independent learner. I can explore the important topics freely without waiting for directions from the teacher. So, I will be flexible in my learning process.

Student 5

My name is Edward Zevanya Rafael Sinaga, and I am in class seven three. The e-module provides interactive features like quizzes and questions, making learning more interesting and fun. These features help me stay engaged in the learning process.

Student 6

Good morning, sir. I am Keylin Elisaveta Sihaloho from class Seven Three. My experience using the e-module is about the feedback after finishing the embedded quizzes. I am really happy to see my progress in learning English. It helps me fix my mistakes quickly.

Student 7

Good morning. My name is M. Zikri Rafael, and I am from class seven. The additional materials embedded in the e-module, such as articles, videos, and external links, provide new knowledge that enriches my English learning activity.

Student 8

Hi, I am Aldy Pasaribu from class seven five. I want to say that technical support was given when I used the module. It helps me greatly by giving responsive assistance and solving my problem as soon as possible.

Student 9

My name is Try Ghani Alfarizi, and I am from class seven four. The gamification elements in the e-module engage me a lot in the learning process. The challenges that I faced during the game motivated me to learn harder.

Student 10

I am Alvino Lumban Toruan from class seven four. The language used in the e-module is simple and appropriate for the student's level of understanding, making the learning process easier. However, I have some unfamiliar words, so it would be better to have a glossary section in the e-module.

Student 11

I am Anas Rahmat Santoso from class seven four. The time allocation in the e-module is very flexible because I can manage my own time in learning by using it based on my needs. Time flexibility becomes a kind of challenge since the teacher provides no supervision.

Student 12

Hello, I am Nazwa Aqila from class Seven five. I think e-module makes online collaboration easier. I can collaborate with my friends to discuss my feelings and interpretations of the material provided to have a deeper understanding among the e-module users.

Student 13

I am Zahra Nur Asyifa from class seven five. I think using e-modules increases my motivation to learn English because of the interactive features like quizzes and virtual awards after completing certain assignments.

Student 14

Hi, I am Nazriel Ilham Syahputra Lubis from class seven two. The e-module presented for the learning media is very clear and well-organized. I do not have any difficulties understanding the new concepts because they use simple and understandable language and focus directly on the main material. However, some parts need to be explained in detail, especially for the complex topics.

Student 15

I am Yabes Christian Sirait. I want to tell you about my experience using an English e-module. I think the e-module helps me improve my English skills independently. However, for an optimal learning experience in the future, e-module usage should be improved regarding interactivity and accessibility.

The results also presented that e-modules successfully tackled typical issues in reading classes, including low motivation and involvement. Because of the modules' interactive design, students expressed increased motivation to engage in reading activities. Additionally, the capacity to integrate videos and animations into reading lessons greatly aided visual learners, improving their understanding and memory of the material.

IV. Conclusion

This study sought to assess the practicality of e-modules in junior high school reading classes by exploring students' perceptions. The results show that e-modules can significantly improve the learning experience by offering interactive, engaging, and accessible resources that meet varied learning needs. Students expressed heightened motivation and assurance in their reading skills when utilizing e-modules, underlining the effectiveness of these digital tools in nurturing a positive outlook on reading.

Furthermore, the mixed-method approach used in this research thoroughly understood students' experiences. Quantitative data indicated advancements in reading comprehension scores, while qualitative feedback from focus group discussions and interviews highlighted important insights regarding the usability and interactivity of the e-modules. Students valued multimedia content, quizzes, and the ability to learn at their own pace. Nevertheless, issues related to technical problems and differing levels of digital literacy were also noted, indicating areas for enhancement in future implementations.

In summary, e-modules signify a promising advancement in the educational framework of junior high schools, especially in improving reading instruction. As educators and institutions persist in incorporating technology into their teaching approaches, it is crucial to tackle the challenges highlighted in this study to optimize the advantages of e-modules. By enhancing these digital resources in response to student feedback and ensuring sufficient support for educators and learners, e-modules can significantly contribute to better literacy outcomes and nurturing a lifelong passion for reading among students. Future research should examine the long-term effects of e-module usage on student learning and engagement and explore strategies for refining their design and application in various educational settings.

References

[1]. Aisy, G. R., & Rohaedi, T. (2025). *Interactive Teaching Strategies for Online English Speaking Classes : Engaging Primary Students*. *6*(1), 193–203.
[2]. Al-Fraihat, D., Joy, M., Masa'deh, R., & Sinclair, J. (2020). Evaluating E-learning systems success: An empirical study. *Computers in Human Behavior*, *102*, 67–86. https://doi.org/10.1016/j.chb.2019.08.004
[3]. Alatawi, M., & Harshan, F. (2023). Mutual Identities: Fostering Empathy between Readers and Characters in Reading a Work of Fiction. *World Journal of English Language*, *13*(8), 52–62. https://doi.org/10.5430/wjel.v13n8p52
[4]. Alimi, K. F., Ayob, A. H., Abdullah, A. R., Sultan, F. M. M., & Karuppannan, G. (2021). Effectiveness of English Language E-learning among Tertiary Education Students during the COVID-19 Pandemic. *3L: Language, Linguistics, Literature*, *27*(4), 56–71. https://doi.org/10.17576/3L-2021-2704-05
[5]. Alsaqqaf, A., Yang, Y., & Hu, K. (2024). The Effectiveness of the Incentive Autonomous Learning Strategies (IALS) Module to Improve Chinese Non-English Major Undergraduates' EFL Speaking Proficiency. *Journal of Language Teaching and Research*,

15(3), 843–852. https://doi.org/10.17507/jltr.1503.17

[6].   Anggaira, A. S., Suhono, S., Sari, Y. A., Aryanti, N., & Putra, A. P. (2022). Interactive English Teaching Materials Based on Digital Literacy of Millennial Muslims. *AL-ISHLAH: Jurnal Pendidikan*, *14*(4), 5969–5978. https://doi.org/10.35445/alishlah.v14i4.2156

[7].   Apriliani, V. (2025). *Implementation of E-Modules to Support the Teaching and Learning Process at PKBM Sarana Maju , Tegal City*. *4*(2).

[8].   Azmi, M. U., & Achadiyah, R. (2023). Narrative Text To Enhance Students ' Critical Thinking Through Collaborative Strategic Reading. *J-Langua*, *01*(01), 51–62.

[9].   Bachtiar, B., & Puspitasari, M. (2024). Barriers and Strategies in Implementing Innovative and Collaborative Learning: A Case of Indonesian English Language Teaching. *IJEE (Indonesian Journal of English Education)*, *11*(1), 61–76. https://doi.org/10.15408/ijee.v11i1.38434

[10].   Banji, G. T., Frempong, M., Okyere, S., & Raji, A. S. (2021). University Students' Readiness For E-Learning During The Covid-19 Pandemic: An Assessment Of The University Of Health And Allied Sciences, Ho In Ghana. *Library Philosophy and Practice*, *2021*(April).

[11].   Bass, R., Sparrow, J., & Cummings, K. (2019). WHAT WORKS CLEARINGHOUSE ᵀᴹ Using Technology to Support Postsecondary Student Learning : A Practice Guide for College and Using Technology to Support Postsecondary Student Learning. *National Center for ...*. https://www.voced.edu.au/content/ngv:84663

[12].   Caspersen, J., Smeby, J. C., & Olaf Aamodt, P. (2017). Measuring learning outcomes. *European Journal of Education*, *52*(1), 20–30. https://doi.org/10.1111/ejed.12205

[13].   Chen, L. T., & Liu, L. (2020). Methods to Analyze Likert-Type Data in Educational Technology Research. *Journal of Educational Technology Development and Exchange*, *13*(2), 39–60. https://doi.org/10.18785/jetde.1302.04

[14].   Daud, A., Linda, R., Harfal, Z., Nabila, O., Suryani, A., & Tahirah, Z. (2024). *Multimodal Text-Powered Interactive E-Module for Enhancing English Structure Learning*. *6*(1), 1–20.

[15].   Dewi, Y. N., Rozimela, Y., Zaim, M., & Masoud, H. M. (2024). *Assessing the Students ' Needs on the Use of E-Modules in Learning English at High Schools*. *8*(2), 365–378.

[16].   Dian Kusuma Dewi, Lucia Tri Pangesthi, Niken Purwidiani, & Andika Kuncoro Widagdo. (2023). Pengembangan E-Modul Berbasis Flip Pdf Professional Pada KD Menganalisis Sweet Bread Di SMKN 1 Lamongan. *PUSTAKA: Jurnal Bahasa Dan Pendidikan*, *3*(2), 162–179. https://doi.org/10.56910/pustaka.v3i2.507

[17].   Erwin Talan, D. F., & Widayati, A. (2023). Effectiveness of Implementing E-module Based on Contextual Teaching and Learning to Improve Learning Outcomes and Class XI IPS in SMA Negeri 1 Soe. *Asian Journal of Social and Humanities*, *1*(06), 279–287. https://doi.org/10.59888/ajosh.v1i06.23

[18].   Evenddy, S. S., & Gailea, N. (2024). Implementation of E-Module in Indonesia EFL Higher Education : A Literature Review. *International Journal of Recent Educational Research*, *5*(5), 1174–1185.

[19].   Fauziah, V., & Dania, R. (2024). An Analysis of Students' Difficulties in Reading Comprehension of Descriptive Text. *Journal of Research and Investigation in Education*, *7*(2), 103–108. https://doi.org/10.37034/residu.v2i3.183

[20].   Finissha, G. D., Arifani, Y., & Asmara, C. H. (2022). Investigating Critical Thinking In Solving Reading Problem. *Journal of English Teaching, Literature, and Applied Linguistics*, *5*(2), 109. https://doi.org/10.30587/jetlal.v5i2.3744

[21].   Hicks, T., & Hicks, T. (2023). *Effect of Reading Habits on Academic Success*.

[22].   Holisoh, A., Nurhalimah, N., & Hamda, N. (2023). Analysis of the benefits of using e-modules as distance learning media: can it help students improve cognitive and affective aspects of students? *Gema Wiralodra*, *14*(2), 592–597. https://doi.org/10.31943/gw.v14i2.313

[23].   Holland, A., & Ciachir, C. (2024). A qualitative study of students' lived experience and perceptions of using ChatGPT: immediacy, equity and integrity. *Interactive Learning Environments*, *4820*. https://doi.org/10.1080/10494820.2024.2350655

[24].   Klimova, B. & Z. (2020). Use of Mobile Application in Developing Reading Comprehension in Second Language Acquisition: A Review Study. *Education Sciences*, *10*, 1–11.

[25].   Kurnia, Y. R. (2018). *Teaching reading in junior high school*. *2*(2), 102–108.

[26].   Levine, S. L., Cherrier, S., Holding, A. C., & Koestner, R. (2022). For the love of reading: Recreational reading reduces psychological distress in college students and autonomous motivation is the key. *Journal of American College Health*, *70*(1), 158–164. https://doi.org/10.1080/07448481.2020.1728280

[27].   Liu, A., & Amelia, A. (2024). Using E-modules to Support EFL/ESL Learning in Asian Contexts: A Systematic Literature Review. *The English Teacher*, *53*(1), 57–72. https://doi.org/10.52696/nvtf8043

[28].   Maksum, H., & Purwanto, W. (2022). The Development of Electronic Teaching Module for Implementation of Project-Based Learning during the Pandemic. *International Journal of Education in Mathematics, Science and Technology*, *10*(2), 293–307. https://doi.org/10.46328/ijemst.2247

[29].   Marcellino, M. (2015). English Language Teaching in Indonesia: a Continuous Challenge in Education and Cultural Diversity. *TEFLIN Journal - A Publication on the Teaching and Learning of English*, *19*(1), 57. https://doi.org/10.15639/teflinjournal.v19i1/57-69

[30].   Marhayani, A. (2024). the Relationship of Reading Interest and Confidence in Elementary School Students' English Literacy Abilities. *Esteem Journal of English Education Study Programme*, *7*(1), 144–160. https://doi.org/10.31851/esteem.v7i1.14085

[31].   Marlena, N., Patrikha, F. D., & Dwijayanti, R. (2022). Electronic Modules in an Indonesian Higher Education: Conceptualisation, Development and Application. *AL-ISHLAH: Jurnal Pendidikan*, *14*(3), 3943–3954. https://doi.org/10.35445/alishlah.v14i3.1473

[32].   Milala, H. F., Endryansyah, E., Joko, J., & Agung, A. I. (2021). Keefektifan Dan Kepraktisan Media Pembelajaran Menggunakan Adobe Flash Player. *Jurnal Pendidikan Teknik Elektro*, *11*(02), 195–202. https://doi.org/10.26740/jpte.v11n02.p195-202

[33].   Muslim, B., & Borneo, S. (2020). *Students ' Problems in Reading Comprehension at Junior High School in Indonesia*. https://doi.org/10.4108/eai.23-11-2019.2298393

[34].   Mustika, I., & Harahap, W. (2025). *Effectiveness of Using Interactive Learning Media to Improve Students ' Learning Interests at State Elementary School 0406 Aek Tinga In Islamic Education Learning*. *2*(January).

[35].   Novita, I. G. A. P., & Paragae, S. (2023). Innovative Teaching Strategies in Teaching English as a Foreign Language. *English Teaching and Linguistics Journal (ETLiJ)*, *4*(1), 1–9. https://doi.org/10.30596/etlij.v4i1.12990

[36].   Nurhikmah, Hakim, A., & Wahid, M. S. (2021). Interactive E-Module Development in Multimedia Learning. *AL-ISHLAH: Jurnal Pendidikan*, *13*(3), 2293–2300. https://doi.org/10.35445/alishlah.v13i3.863

[37].   OECD. (2023). PISA 2022 Results Factsheets Indonesia. *OECD (Organisation for Economic Co-Operation and Development) Publication*, 1–9. https://www.oecd.org/en/publications/pisa-2022-results-volume-i-and-ii-country-notes_ed6fbcc5-en/indonesia_c2e1ae0e-en.html

[38].   Purwanti, S. (2025). *Interactive Approaches to Teaching Basic English in Elementary Schools; A Mixed-Method Analysis of*

Technology Integration and Collaborative Learning.

[39]. Rachuri, R. (2024). *Reading Books : Aa Effective Tool for Enhancing Critical Thinking Skills Among English Language Learners*. 5, 1909–1918. https://doi.org/10.29121/shodhkosh.v5.i6.2024.275

[40]. Ramdani, A. S., Linggar Bharati, D. A., & Mujiyanto, J. (2021). Developing A Reading Project Assessment to Stimulate Students' Critical Thinking and Creativity. *English Education Journal*, *11*(4), 558–565. https://doi.org/10.15294/eej.v11i1.46367

[41]. Rao, P. S. (2019). Research Journal Of English (RJOE). *Research Journal of English*, *845*(1), 65–79.

[42]. Sammons, P., & Davis, S. (2017). Mixed Methods Approaches and their Application in Educational Research. *The BERA/SAGE Handbook of Educational Research: Two Volume Set*, *1*, 477–504. https://doi.org/10.4135/9781473983953.n24

[43]. Schmidtke, D., Rahmanian, S., & Moro, A. L. (2024). Reading experience drives L2 reading speed development: A longitudinal study of EAL reading habits. *Frontiers in Education*, *9*. https://doi.org/10.3389/feduc.2024.1286132

[44]. Shams, M. S., Niazi, M. M., Gul, H., Mei, T. S., & Khan, K. U. (2022). E-Learning Adoption in Higher Education Institutions During the COVID-19 Pandemic: A Multigroup Analysis. *Frontiers in Education*, *6*(January), 1–16. https://doi.org/10.3389/feduc.2021.783087

[45]. Shara, A. M., & Hasibuan, M. T. (2022). *Reading and writing literacy in junior high school Pematangsiantar*. *14*(2), 1457–1470.

[46]. Sidiq, R., Najuah, & Suhendro, P. (2021). Utilization of Interactive E-Modules in Formation of Students's Independent Characters in the Era of Pandemic. *International Journal of Educational Research & Social Science*, *2*(6), 1651–1657. https://ijersc.org

[47]. Stansfield, J., & Bunce, L. (2014). The Relationship Between Empathy and Reading Fiction: Separate Roles for Cognitive and Affective Components. *Journal of European Psychology Students*, *5*(3), 9–18. https://doi.org/10.5334/jeps.ca

[48]. Susanti, E., & Hikmat, A. (2024). *Improving PGSD Students ' Digital Literacy Through Interactive Multimedia-Based PBL*. *8*(2), 73–83.

[49]. Van Velzen, J. H. (2013). Educational Researchers and Practicality. *American Educational Research Journal*, *50*(4), 789–811. http://www.jstor.org/stable/23526105

[50]. Wagstaff, J. V. (2020). *Marriott Student Review Benefits of the Habit of Reading Benefits of the Habit of Reading*. *3*(4).

[51]. Zhao, X., & Xu, R. (2024). Trends and Challenges in Mixed Methods Educational Research : A Comprehensive Analysis of Empirical Studies. *International Journal of Asian Education*, *5*(4), 262–273.

[52]. Zhou, Y., Zhou, Y., & Machtmes, K. (2024). Mixed methods integration strategies used in education: A systematic review. *Methodological Innovations*, *17*(1), 41–49. https://doi.org/10.1177/20597991231217937

[53]. Aisy, G. R., & Rohaedi, T. (2025). *Interactive Teaching Strategies for Online English Speaking Classes : Engaging Primary Students*. *6*(1), 193–203.

[54]. Al-Fraihat, D., Joy, M., Masa'deh, R., & Sinclair, J. (2020). Evaluating E-learning systems success: An empirical study. *Computers in Human Behavior*, *102*, 67–86. https://doi.org/10.1016/j.chb.2019.08.004

[55]. Alatawi, M., & Harshan, F. (2023). Mutual Identities: Fostering Empathy between Readers and Characters in Reading a Work of Fiction. *World Journal of English Language*, *13*(8), 52–62. https://doi.org/10.5430/wjel.v13n8p52

[56]. Alimi, K. F., Ayob, A. H., Abdullah, A. R., Sultan, F. M. M., & Karuppannan, G. (2021). Effectiveness of English Language E-learning among Tertiary Education Students during the COVID-19 Pandemic. *3L: Language, Linguistics, Literature*, *27*(4), 56–71. https://doi.org/10.17576/3L-2021-2704-05

[57]. Alsaqqaf, A., Yang, Y., & Hu, K. (2024). The Effectiveness of the Incentive Autonomous Learning Strategies (IALS) Module to Improve Chinese Non-English Major Undergraduates' EFL Speaking Proficiency. *Journal of Language Teaching and Research*, *15*(3), 843–852. https://doi.org/10.17507/jltr.1503.17

[58]. Anggaira, A. S., Suhono, S., Sari, Y. A., Aryanti, N., & Putra, A. P. (2022). Interactive English Teaching Materials Based on Digital Literacy of Millennial Muslims. *AL-ISHLAH: Jurnal Pendidikan*, *14*(4), 5969–5978. https://doi.org/10.35445/alishlah.v14i4.2156

[59]. Apriliani, V. (2025). *Implementation of E-Modules to Support the Teaching and Learning Process at PKBM Sarana Maju , Tegal City*. *4*(2).

[60]. Azmi, M. U., & Achadiyah, R. (2023). Narrative Text To Enhance Students ' Critical Thinking Through Collaborative Strategic Reading. *J-Langua*, *01*(01), 51–62.

[61]. Bachtiar, B., & Puspitasari, M. (2024). Barriers and Strategies in Implementing Innovative and Collaborative Learning: A Case of Indonesian English Language Teaching. *IJEE (Indonesian Journal of English Education)*, *11*(1), 61–76. https://doi.org/10.15408/ijee.v11i1.38434

[62]. Banji, G. T., Frempong, M., Okyere, S., & Raji, A. S. (2021). University Students' Readiness For E-Learning During The Covid-19 Pandemic: An Assessment Of The University Of Health And Allied Sciences, Ho In Ghana. *Library Philosophy and Practice*, *2021*(April).

[63]. Bass, R., Sparrow, J., & Cummings, K. (2019). WHAT WORKS CLEARINGHOUSE ™ Using Technology to Support Postsecondary Student Learning : A Practice Guide for College and Using Technology to Support Postsecondary Student Learning. *National Center for …*. https://www.voced.edu.au/content/ngv:84663

[64]. Caspersen, J., Smeby, J. C., & Olaf Aamodt, P. (2017). Measuring learning outcomes. *European Journal of Education*, *52*(1), 20–30. https://doi.org/10.1111/ejed.12205

[65]. Chen, L. T., & Liu, L. (2020). Methods to Analyze Likert-Type Data in Educational Technology Research. *Journal of Educational Technology Development and Exchange*, *13*(2), 39–60. https://doi.org/10.18785/jetde.1302.04

[66]. Daud, A., Linda, R., Harfal, Z., Nabila, O., Suryani, A., & Tahirah, Z. (2024). *Multimodal Text-Powered Interactive E-Module for Enhancing English Structure Learning*. *6*(1), 1–20.

[67]. Dewi, Y. N., Rozimela, Y., Zaim, M., & Masoud, H. M. (2024). *Assessing the Students ' Needs on the Use of E-Modules in Learning English at High Schools*. *8*(2), 365–378.

[68]. Dian Kusuma Dewi, Lucia Tri Pangesthi, Niken Purwidiani, & Andika Kuncoro Widagdo. (2023). Pengembangan E-Modul Berbasis Flip Pdf Professional Pada KD Menganalisis Sweet Bread Di SMKN 1 Lamongan. *PUSTAKA: Jurnal Bahasa Dan Pendidikan*, *3*(2), 162–179. https://doi.org/10.56910/pustaka.v3i2.507

[69]. Erwin Talan, D. F., & Widayati, A. (2023). Effectiveness of Implementing E-module Based on Contextual Teaching and Learning to Improve Learning Outcomes and Class XI IPS in SMA Negeri 1 Soe. *Asian Journal of Social and Humanities*, *1*(06), 279–287. https://doi.org/10.59888/ajosh.v1i06.23

[70]. Evenddy, S. S., & Gailea, N. (2024). Implementation of E-Module in Indonesia EFL Higher Education : A Literature Review. *International Journal of Recent Educational Research*, *5*(5), 1174–1185.

[71]. Fauziah, V., & Dania, R. (2024). An Analysis of Students' Difficulties in Reading Comprehension of Descriptive Text. *Journal of Research and Investigation in Education*, *7*(2), 103–108. https://doi.org/10.37034/residu.v2i3.183

[72]. Finissha, G. D., Arifani, Y., & Asmara, C. H. (2022). Investigating Critical Thinking In Solving Reading Problem. *Journal of English*

Teaching, Literature, and Applied Linguistics, *5*(2), 109. https://doi.org/10.30587/jetlal.v5i2.3744

[73].   Hicks, T., & Hicks, T. (2023). *Effect of Reading Habits on Academic Success*.
[74].   Holisoh, A., Nurhalimah, N., & Hamda, N. (2023). Analysis of the benefits of using e-modules as distance learning media: can it help students improve cognitive and affective aspects of students? *Gema Wiralodra*, *14*(2), 592–597. https://doi.org/10.31943/gw.v14i2.313
[75].   Holland, A., & Ciachir, C. (2024). A qualitative study of students' lived experience and perceptions of using ChatGPT: immediacy, equity and integrity. *Interactive Learning Environments*, *4820*. https://doi.org/10.1080/10494820.2024.2350655
[76].   Klimova, B. & Z. (2020). Use of Mobile Application in Developing Reading Comprehension in Second Language Acquisition: A Review Study. *Education Sciences*, *10*, 1–11.
[77].   Kurnia, Y. R. (2018). *Teaching reading in junior high school*. *2*(2), 102–108.
[78].   Levine, S. L., Cherrier, S., Holding, A. C., & Koestner, R. (2022). For the love of reading: Recreational reading reduces psychological distress in college students and autonomous motivation is the key. *Journal of American College Health*, *70*(1), 158–164. https://doi.org/10.1080/07448481.2020.1728280
[79].   Liu, A., & Amelia, A. (2024). Using E-modules to Support EFL/ESL Learning in Asian Contexts: A Systematic Literature Review. *The English Teacher*, *53*(1), 57–72. https://doi.org/10.52696/nvtf8043
[80].   Maksum, H., & Purwanto, W. (2022). The Development of Electronic Teaching Module for Implementation of Project-Based Learning during the Pandemic. *International Journal of Education in Mathematics, Science and Technology*, *10*(2), 293–307. https://doi.org/10.46328/ijemst.2247
[81].   Marcellino, M. (2015). English Language Teaching in Indonesia: a Continuous Challenge in Education and Cultural Diversity. *TEFLIN Journal - A Publication on the Teaching and Learning of English*, *19*(1), 57. https://doi.org/10.15639/teflinjournal.v19i1/57-69
[82].   Marhayani, A. (2024). the Relationship of Reading Interest and Confidence in Elementary School Students' English Literacy Abilities. *Esteem Journal of English Education Study Programme*, *7*(1), 144–160. https://doi.org/10.31851/esteem.v7i1.14085
[83].   Marlena, N., Patrikha, F. D., & Dwijayanti, R. (2022). Electronic Modules in an Indonesian Higher Education: Conceptualisation, Development and Application. *AL-ISHLAH: Jurnal Pendidikan*, *14*(3), 3943–3954. https://doi.org/10.35445/alishlah.v14i3.1473
[84].   Milala, H. F., Endryansyah, E., Joko, J., & Agung, A. I. (2021). Keefektifan Dan Kepraktisan Media Pembelajaran Menggunakan Adobe Flash Player. *Jurnal Pendidikan Teknik Elektro*, *11*(02), 195–202. https://doi.org/10.26740/jpte.v11n02.p195-202
[85].   Muslim, B., & Borneo, S. (2020). *Students ' Problems in Reading Comprehension at Junior High School in Indonesia*. https://doi.org/10.4108/eai.23-11-2019.2298393
[86].   Mustika, I., & Harahap, W. (2025). *Effectiveness of Using Interactive Learning Media to Improve Students ' Learning Interests at State Elementary School 0406 Aek Tinga In Islamic Education Learning*. *2*(January).
[87].   Novita, I. G. A. P., & Paragae, S. (2023). Innovative Teaching Strategies in Teaching English as a Foreign Language. *English Teaching and Linguistics Journal (ETLiJ)*, *4*(1), 1–9. https://doi.org/10.30596/etlij.v4i1.12990
[88].   Nurhikmah, Hakim, A., & Wahid, M. S. (2021). Interactive E-Module Development in Multimedia Learning. *AL-ISHLAH: Jurnal Pendidikan*, *13*(3), 2293–2300. https://doi.org/10.35445/alishlah.v13i3.863
[89].   OECD. (2023). PISA 2022 Results Factsheets Indonesia. *OECD (Organisation for Economic Co-Operation and Development) Publication*, 1–9. https://www.oecd.org/en/publications/pisa-2022-results-volume-i-and-ii-country-notes_ed6fbcc5-en/indonesia_c2e1ae0e-en.html
[90].   Purwanti, S. (2025). *Interactive Approaches to Teaching Basic English in Elementary Schools; A Mixed-Method Analysis of Technology Integration and Collaborative Learning*.
[91].   Rachuri, R. (2024). *Reading Books : Aa Effective Tool for Enhancing Critical Thinking Skills Among English Language Learners*. *5*, 1909–1918. https://doi.org/10.29121/shodhkosh.v5.i6.2024.275
[92].   Ramdani, A. S., Linggar Bharati, D. A., & Mujiyanto, J. (2021). Developing A Reading Project Assessment to Stimulate Students' Critical Thinking and Creativity. *English Education Journal*, *11*(4), 558–565. https://doi.org/10.15294/eej.v11i1.46367
[93].   Rao, P. S. (2019). Research Journal Of English (RJOE). *Research Journal of English*, *845*(1), 65–79.
[94].   Sammons, P., & Davis, S. (2017). Mixed Methods Approaches and their Application in Educational Research. *The BERA/SAGE Handbook of Educational Research: Two Volume Set*, *1*, 477–504. https://doi.org/10.4135/9781473983953.n24
[95].   Schmidtke, D., Rahmanian, S., & Moro, A. L. (2024). Reading experience drives L2 reading speed development: A longitudinal study of EAL reading habits. *Frontiers in Education*, *9*. https://doi.org/10.3389/feduc.2024.1286132
[96].   Shams, M. S., Niazi, M. M., Gul, H., Mei, T. S., & Khan, K. U. (2022). E-Learning Adoption in Higher Education Institutions During the COVID-19 Pandemic: A Multigroup Analysis. *Frontiers in Education*, *6*(January), 1–16. https://doi.org/10.3389/feduc.2021.783087
[97].   Shara, A. M., & Hasibuan, M. T. (2022). *Reading and writing literacy in junior high school Pematangsiantar*. *14*(2), 1457–1470.
[98].   Sidiq, R., Najuah, & Suhendro, P. (2021). Utilization of Interactive E-Modules in Formation of Students's Independent Characters in the Era of Pandemic. *International Journal of Educational Research & Social Science*, *2*(6), 1651–1657. https://ijersc.org
[99].   Stansfield, J., & Bunce, L. (2014). The Relationship Between Empathy and Reading Fiction: Separate Roles for Cognitive and Affective Components. *Journal of European Psychology Students*, *5*(3), 9–18. https://doi.org/10.5334/jeps.ca
[100]. Susanti, E., & Hikmat, A. (2024). *Improving PGSD Students ' Digital Literacy Through Interactive Multimedia-Based PBL*. *8*(2), 73–83.
[101]. Van Velzen, J. H. (2013). Educational Researchers and Practicality. *American Educational Research Journal*, *50*(4), 789–811. http://www.jstor.org/stable/23526105
[102]. Wagstaff, J. V. (2020). *Marriott Student Review Benefits of the Habit of Reading Benefits of the Habit of Reading*. *3*(4).
[103]. Zhao, X., & Xu, R. (2024). Trends and Challenges in Mixed Methods Educational Research : A Comprehensive Analysis of Empirical Studies. *International Journal of Asian Education*, *5*(4), 262–273.
[104]. Zhou, Y., Zhou, Y., & Machtmes, K. (2024). Mixed methods integration strategies used in education: A systematic review. *Methodological Innovations*, *17*(1), 41–49. https://doi.org/10.1177/20597991231217937