Development of a Linktree-Based E-Module for Enhancing Fifth Graders' Reading Skills in Narrative Texts

Ernisa Fariha*, Nugraheti Sismulyasih, Panca Dewi Purwati
Department of Primary Teacher Education, Universitas Negeri Semarang, Semarang, 50229, Indonesia

Abstract: The use of teaching materials plays a crucial role in improving learning quality. Uninteresting materials can lead to a lack of enthusiasm and difficulty in understanding the content. This research aims to develop a Linktree-based E-Module for Indonesian language learning to help students extract important information from narrative texts and improve their reading skills at SD Negeri Batealit 01. The study employs the Research and Development (R&D) method using the Borg and Gall development model. The subjects of this research were fifth-grade teachers and students at SD Negeri Batealit 01. Data collection methods included interviews, documentation, field observations, and questionnaires on teacher and student needs. Data analysis techniques involved feasibility and effectiveness tests of the E-Module. Results from the feasibility tests by material and media experts showed scores of 87.5% and 90%, respectively, both in the very feasible category. The N-Gain test results before and after learning showed a result of 0.6217, categorized as medium, indicating effective use as a learning medium. The conclusion of this research is that the Linktree-based E-Module is both feasible and effective for use in the learning process. It enhances understanding of extracting important information from narrative texts. It is hoped that using Linktree-based E-Modules can increase students' motivation and critical thinking skills.

INTRODUCTION

Education is the cornerstone of understanding everything that happens in life, as it improves and develops human quality in various aspects. It is essential for helping individuals grow in knowledge, skills, and personality through the learning process or other recognized methods (Herawati & Muhtadi, 2020). Enhancing the quality of education in Indonesia involves improving the quality of learning in schools, with a primary focus on enhancing students' language skills (Zuhdi et al., 2018). Language skills, including listening, speaking, reading, and writing, collectively enhance students' overall abilities.

One critical skill that students need to focus on is reading (Zuhdi et al., 2018). Reading involves the collaboration of several skills, such as observing, understanding, and thinking, as well as comprehending the meaning behind the text (Anggraini et al., 2021). A key aspect of reading is reading comprehension, which involves understanding the content of the text and addressing questions like what, how, why, and where, as well as drawing conclusions based on the text (Dalman, 2014; Riani et al., 2021). Reading comprehension is an
interconnected process that links an individual's ability to construct the message in the text with their knowledge and experience, enabling them to understand the content and essence of the text. Based on several experts' opinions, reading comprehension is the ability to obtain explicit and implicit meanings and apply information from the text by linking it with prior knowledge and experience. This ability aims to enable students to understand, interpret, and deepen the content of a text.

This research focuses on SD Negeri Batealit 01, chosen because it faces a specific problem suitable for study: the lack of learning media and teaching materials used by teachers. Fifth-grade students at SD Negeri Batealit 01 struggle with extracting important information from narrative texts. Narrative texts tell events arranged chronologically or stories based on structured sequences according to the events experienced by the characters (Maslakhah et al., 2024; Najuah et al., 2022; Rohmawati et al., 2022; Alimah & Indihadi, 2022; Astutik, 2021; Sistiara et al., 2022; Tarigan et al., 2022). Narrative texts narrate and sequence human behavior in events to entertain readers with compelling stories.

Based on observation and interview data from the fifth grade of SD Negeri Batealit 01 in Jepara Regency, several issues in the learning process have been identified. Students show low understanding of how to extract important information from narrative texts and exhibit low interest in learning. These issues are attributed to several factors, including a lack of variety in the teaching materials used by teachers and a teacher-centered approach, which makes the learning process monotonous and causes students to feel bored. Additionally, classroom instruction primarily relies on whiteboards and PowerPoint presentations. This lack of student engagement results in many students not understanding the material presented by the teacher, indicating that learning objectives have not been optimally achieved and highlighting the need for improvements in the learning process.

The learning outcomes of fifth-grade students at SD Negeri Batealit 01 in the Indonesian language subject reveal that "students are expected to identify the main ideas of descriptive, narrative, and exposition texts, as well as the values in literary texts (prose, rhymes, and poetry) from text and/or audiovisual sources." This expectation is measured by the students' end-semester summative assessment results. The Learning Goal Achievement Criteria for the Indonesian language lesson is set at a score of 70. In the fifth grade, consisting of 34 students (20 boys and 14 girls), the summative assessment results revealed that only 14 students (41.17%) scored above the Learning Goal Achievement Criteria, while the remaining 20 students (58.82%) scored below it. These results indicate that the learning process in achieving the objective of identifying main ideas and values in descriptive, narrative, and exposition texts, as well as in literary texts from various sources, did not go well. The majority of students did not meet the expected learning outcomes, suggesting that improvements in the teaching and learning process are necessary.

In Indonesian language subjects, achieving learning objectives requires engaging teaching materials. Therefore, there is a need for E-Modules, which can help students better understand the material. E-Modules are technologically-enhanced teaching materials organized in a structured manner to facilitate learning (Alti et al., 2022; Indah & Dafit, 2022; Sudjana & Rivai, 2015; Ulfa & Sucahyo, 2022). They are digital teaching materials that are both effective and efficient, prioritizing students' independence in their learning activities (Imansari & Sunaryantiningsih, 2017; Kustini et al., 2022; Triwahyuningtyas et al., 2020; Wirganata et al., 2018). The Linktree-
based E-Module includes concept maps, material descriptions, questions, independent assignments, and learning videos. These components are designed to align with the learning outcomes and objectives that must be achieved.

Previous research shows that using E-Modules can improve students' reading skills in Indonesian language lessons (Herawati & Muhtadi, 2020; Kinaningtyas & Istianah, 2023; Sistiara et al., 2022). In this study, the researcher focused on Linktree-based E-Modules for Indonesian language subjects, specifically on extracting important information from narrative texts. Linktree is a learning platform that consolidates multiple links into one website, making them accessible anytime and anywhere (Anggraini & Rozi, 2022; Afriyose et al., 2022; Syafii et al., 2023). Using Linktree-based E-Modules can make it easier for students to access materials and videos anywhere and anytime, simplifying the learning process for both students and teachers.

Based on this background, researchers will develop a Linktree-based E-Module. The problem identified by researchers is the lack of innovation in the teaching materials used by teachers. It is hoped that with the Linktree-based E-Module, students will find it easier to understand the presentation of learning material, making classroom learning more effective, increasing student motivation, and improving student learning outcomes.

METHOD

This research adopts the Research and Development (R&D) method utilizing the Borg and Gall development model. The researchers selected the Borg and Gall development model due to its suitability for media development. This model offers comprehensive and detailed steps, comprising ten stages, which can be condensed into eight stages without compromising the essence of the developmental research. The R&D method is employed to create specific products and assess their effectiveness. R&D methods typically unfold longitudinally, progressing through stages over several years (Gustiani, 2019; Hanafi, 2017; Sugiyono, 2015). This method is used to produce certain products and test the effectiveness of the products developed (Basuki & Ummah, 2020; Okpatroka, 2023). The researchers have condensed the Borg and Gall development model's original ten steps into eight steps, as depicted in Figure 1.

![Figure 1. Stages of Borg and Gall Development Model.](image)

The data collection process involved interviews, documentation review, field observations, and administering questionnaires to assess the needs of both teachers and students. The research subjects comprised all fifth-grade students at SD Negeri Batealit 01, totaling 34 students. Additionally, a small-scale product trial was conducted involving 6 students. The purpose of the product trial was to evaluate the effectiveness of using Linktree-based E-Modules in learning. For this trial, the researcher selected 2 students from the highest ranking group, 2 from the middle ranking group, and 2 from the lowest ranking group based on
cognitive aspects. This sampling strategy aimed to ensure evenness and balance by including samples from the top, middle, and bottom ranks (Kinaningtyas & Istianah, 2023; Rahardjanto, 2022).

The product trial involved 28 fifth-grade students from SD Negeri Batealit 01, selected from a sample of 34 students, as 6 students had already participated in the small-scale product trial. This trial aimed to assess the use of Linktree-based E-Modules in teaching Indonesian language, specifically focusing on exploring important information from narrative texts. The research variables included the independent variable, the Linktree-Based E-Module, and the dependent variable, the ability to explore important information from narrative texts among fifth-grade students at SD Negeri Batealit 01.

The first stage of the study involved analyzing the level of teacher and student needs for Linktree-based E-Modules using a questionnaire to ascertain the requirements of teachers and students in developing teaching materials. Subsequently, the product underwent feasibility testing by material experts and media experts to assess its suitability. Multiple-choice question instruments were also tested to determine validity, reliability, level of difficulty, and differentiability. The trial instruments were analyzed using Microsoft Excel 2013. Following this, the researcher conducted final data analysis, including a normality test, a paired sample t-test, and an N-Gain test, utilizing the SPSS application.

**RESULT AND DISCUSSION**

This research focuses on developing teaching materials, specifically Linktree-based E-Modules for fifth-grade Indonesian language subjects, with an emphasis on extracting important information from narrative texts. The use of E-Modules is instrumental in creating learning motivation and interest among students in understanding the subject matter. The E-Module comprises three main components: 1) Introduction, which includes the title, foreword, concept map, instructions for use, table of contents, SK and KD; 2) Learning, which consists of learning objectives, description of learning material, summary, and assignments; 3) Evaluation, which includes a student assessment sheet assessing students' knowledge, attitudes, and skills in studying the material arranged in the module (Anggraini & Rozi, 2022; Syafii et al., 2023).

The subjects of this research were fifth-grade students at SD Negeri Batealit 01. The research aimed to identify issues within teaching and learning activities and propose solutions to address these challenges for students. Data collection involved observing students in collaboration with fifth-grade teachers at SD Negeri Batealit 01, gathering information to inform product planning.

Previous research has shown that the use of E-Modules can improve students' reading skills in Indonesian language lessons (Herawati & Muhtadi, 2020; Kinaningtyas & Istianah, 2023; Sistiara et al., 2022). In this study, the researcher concentrated on developing Linktree-based E-Modules specifically for Indonesian language subjects, with a particular emphasis on extracting important information from narrative texts. The implementation of the Linktree-based E-Module is expected to enhance students' comprehension of learning materials, thus fostering more effective classroom learning experiences. Furthermore, this approach is anticipated to boost student motivation and ultimately lead to improved learning outcomes. Several factors need to be considered in the development of this E-Module to ensure its effectiveness and applicability in the classroom.
Product Design
The researcher initiated the product design process by first analyzing the learning challenges faced by students. Data collection involved conducting interviews with fifth-grade teachers at SD Negeri Batealit 01 in Jepara Regency. Subsequently, an analysis of teacher and student needs for the E-Module was conducted using a questionnaire.

The results of the analysis indicated that Linktree-based E-Modules could effectively address various learning needs. Teachers expressed that these modules could assist students in understanding the material, extracting important information from narrative texts, and fostering enthusiasm for learning. Additionally, incorporating technology into the learning process could introduce variety in classroom activities. The accessibility of Linktree-based E-Modules from any location and at any time was highlighted as a significant advantage, facilitating the dissemination of materials and assignments to students.

Data collection on user needs involved distributing questionnaires to one teacher and 34 fifth-grade students at SD Negeri Batealit 01. The analysis revealed that 29 out of 34 students expressed a need for Linktree-based E-Modules in their learning. They emphasized the independence and flexibility offered by these modules, allowing them to access the content at their convenience. Furthermore, the presence of learning videos within the modules was seen as beneficial in enhancing students' comprehension of the material.

Linktree-based E-Modules are utilized to explore important information from narrative texts in fifth-grade elementary school materials. These modules serve as teaching aids intended to assist teachers and students in comprehending the material and extracting crucial information from narrative texts. It is hoped that this E-Module will inspire students to engage in learning and grasp the material easily. The Linktree-based E-Module is designed to be visually appealing, with bright colors intended to attract students' attention.

![Figure 2. Design of Linktree-Based E-Modul.](image-url)
The Linktree-based E-Module includes several menus: introduction, material, student activity sheets, and evaluation questions. The introduction menu features learning outcomes, indicators, learning objectives, and instructions on accessing the E-Modules. The material menu contains explanations on exploring important information from narrative texts, accompanied by learning videos. In the student activity sheet menu, students analyze the arrival of Western nations to Indonesia in groups and create holiday-themed narrative texts individually. The final menu, evaluation questions, prompts students to complete ten questions presented in a Google Form within ten minutes. Figure 2 shows a Linktree-based E-Module display for reference.

**Product Validation**

The feasibility of this E-Module can be assessed through the evaluation results provided by material experts and media experts. The Linktree-based E-Module’s feasibility test is crucial for determining its suitability for instructional use. The assessment process involves the utilization of an evaluation questionnaire. Table 1 shows the assessment results.

<table>
<thead>
<tr>
<th>No</th>
<th>Assessment</th>
<th>Percentage</th>
<th>Category</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Material Expert</td>
<td>87.50</td>
<td>Very Feasible</td>
</tr>
<tr>
<td>2</td>
<td>Media Expert</td>
<td>90.00</td>
<td>Very Feasible</td>
</tr>
</tbody>
</table>

The assessment of the Linktree-based E-Module by content experts yielded a score of 35, equating to 87.5%, which falls within the "Very Feasible" category. Similarly, the media experts’ assessment resulted in a score of 54, translating to 90%, also categorized as "Very Feasible". In response to feedback from the media expert validators, the researcher added an author profile to the introductory menu of the E-Module.

**Product Trial**

Product trials were conducted in two phases: a small group trial and a large group trial. Before testing the product, students were administered 20 pretest questions to assess their ability to extract important information from narrative texts. Based on the pretest results, 4 students in the small-scale trial and 5 students in the large-scale trial, out of a total of 28 students, met the Learning Goal Achievement Criteria.

Following the pretest, the Linktree-based E-Module trial commenced. Researchers coordinated with the teacher prior to the trials. During the trial, students accessed the link provided by the researcher, which was displayed on the whiteboard. The researcher explained the learning objectives and indicators, focusing on extracting important information from narrative texts. Students were encouraged to refer to the explanations provided in the Linktree-based E-Module. Once the material was comprehended, students worked on the student activity sheets in groups and completed the evaluation questions independently.

After the learning session concluded, students were given posttest questions to evaluate differences in their learning outcomes before and after using the Linktree-based E-Module. Based on the posttest results, 6 students in the small-scale trial and 22 students in the large-scale trial, out of 28 students, met the Learning Goal Achievement Criteria. The assessment recap results are presented in Table 2.
Based on Table 2, the completion results in the small group reached 33.34%, and in the large group, it was 60.72%. The Learning Goal Achievement Criteria (KKTP) is set at 70, indicating that the students' posttest scores have exceeded this benchmark.

Normality Test Result of Pretest and Posttest

The pretest and posttest data will be analyzed using the normality test to determine whether they are normally distributed. This test is crucial for assessing the distribution of scores. The Shapiro-Wilk analysis, conducted using the SPSS version 25.0 application, was employed for this purpose. Below are the results of the normality test for the cognitive learning outcomes of students in the large group trial in class 5 of SD Negeri Batealit 01, Jepara Regency, as shown in Table 3.

Based on Table 3, only the Shapiro-Wilk normality test was utilized, with results presented for both pretest and posttest data. The Shapiro-Wilk column indicates a significance result of 0.068 for the pretest data and 0.196 for the posttest data. Since both results exhibit significance levels greater than 0.05, it can be concluded that the pretest and posttest data are normally distributed.

Since the data is normally distributed, further analysis using parametric tests, such as paired sample t-tests, can be conducted to determine the significance of differences in student learning outcomes before and after using the Linktree-based E-Module. This will help assess the effectiveness of the E-Module in enhancing students' ability to extract important information from narrative texts.

Average Difference Test Result of Pretest and Posttest

The t-test was employed to determine the difference in the average scores of the pretest and posttest, as well as to assess the effectiveness of the Linktree-based E-Module in teaching Indonesian language content, specifically on the material of extracting important information from narrative texts. The SPSS version 25.0 application was used to calculate the average differences. The data for the t-test comprised the pretest and posttest scores from large-scale trials of fifth-grade students at SD Negeri Batealit 01. The results of the t-test for large group product trials are presented in Table 4.
Table 4. T-test Result of Product Trial on Large Group.

<table>
<thead>
<tr>
<th>Paired Samples Test</th>
<th>Mean</th>
<th>Std. Deviation</th>
<th>Std. Error Mean</th>
<th>95% Confidence Interval of the Difference</th>
<th>T</th>
<th>df</th>
<th>Sig. (2-tailed)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Posttest</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Based on the "Paired Samples Test" output table, the t-value is -10.775. The t-value is negative because the pretest average is lower than the posttest average, indicating an improvement and can be interpreted positively. With a significance level of 5%, the critical t-value (t-table) is 2.056. Since the calculated t-value of 10.775 is greater than the critical t-value of 2.056, the alternative hypothesis (Ha) is accepted. Therefore, it can be concluded that there is a significant difference in students' cognitive learning outcomes before and after using the Linktree-based E-Module for extracting important information from narrative texts.

N-Gain Test Result

The N-Gain test is used in large groups to analyze the learning outcomes from pretest and posttest data in percentage terms and to measure the average increase in results. While the t-test determines the average difference between the pretest and posttest scores, the N-Gain test categorizes the improvement before and after using the Linktree-Based E-Module. Researchers used the normalized gain, calculated by comparing the average difference between pretest and posttest scores. Table 5 presents the results of the N-Gain test, along with the pretest and posttest scores.

Table 5. N-Gain Test Result.

<table>
<thead>
<tr>
<th>Average Pretest</th>
<th>Average Posttest</th>
<th>Average Difference</th>
<th>N-Gain</th>
<th>N-Gain (%)</th>
<th>Criteria</th>
</tr>
</thead>
<tbody>
<tr>
<td>56.78</td>
<td>75.17</td>
<td>18.39</td>
<td>0.6217</td>
<td>62.17%</td>
<td>Moderate</td>
</tr>
</tbody>
</table>

Based on Table 5, the average pretest score is 56.78 and the average posttest score is 75.17. The test results show an N-Gain of 62.17%, which falls into the medium category. This indicates that the use of Linktree-based E-Modules is quite effective for improving learning outcomes in Indonesian language subjects.

Student learning outcomes are used to determine the effectiveness of using E-Modules in teaching the material of extracting important information from narrative texts (Ramadhani & Amudi, 2020). The assessment of student learning outcomes aims to determine the effectiveness of learning activities, which can be measured by students' ability to achieve predetermined learning goals (Mutmainnah et al., 2021). E-Modules have been shown to positively impact student learning outcomes (Fujian et al., 2024). The use of E-Modules, particularly Linktree-based E-Modules, can significantly enhance student learning outcomes, especially in Indonesian language subjects. This is due to the interactive nature of Linktree-based E-Modules, which engage students creatively and foster their cognitive abilities, leading to improved learning outcomes. The results from using Linktree-based E-Modules demonstrate that these tools can address learning challenges and increase students' enthusiasm for learning.
CONCLUSION

Based on the findings, the average pretest score of 56.78 and posttest score of 75.17, with an N-Gain of 62.17% in the medium category, indicate that the use of Linktree-based E-Modules is quite effective for improving learning outcomes in Indonesian language subjects. The use of E-Modules, especially for exploring important information from narrative texts, significantly improves student learning outcomes. This improvement is attributed to the Linktree-based E-Modules' ability to engage students creatively, enhance their thinking abilities, and increase their motivation and enthusiasm for learning. The developed Linktree-based E-Module can be a valuable tool for teachers to explain material and boost student interest in learning. Future research should focus on creating more varied and engaging E-Modules to further enhance students' learning experiences and outcomes.

REFERENCES


http://jemst.ftk.uinjambi.ac.id


71.
https://doi.org/https://doi.org/10.24127/ajpm.v9i1.2443

https://doi.org/https://doi.org/10.20961/jkc.v9i2.50922

https://doi.org/http://dx.doi.org/10.31258/jta.v5i1.1-10

https://doi.org/https://doi.org/10.31004/anthor.v1i3.23


https://doi.org/10.36706/jisd.v10i1.18732

https://doi.org/10.26618/jed.v

https://doi.org/http://dx.doi.org/10.21831/jpe.v8i2.34446

https://doi.org/10.26618/jpf.v10i2.7411
