



The Interactive E-Comic Development: Transforming English Language Learning that Encourages the Growth of Digital Literacy

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Abstract

The development of Interactive E-Comic aims to bring about a transformation in English language learning by encouraging the growth of digital literacy. The urgency lies in the need for innovative and attractive learning methods for today's digital generation, which can strengthen understanding of English while improving technology skills. This research uses a development method by applying the ADDIE design (analysis, design, development, implementation and evaluation). Through the use of interactive e-comics, it is hoped that there will be increased student engagement, better understanding of English, and growth in digital literacy. The result obtained is the creation of an interactive e-comic that is effective as a learning tool. Interactive e-comics are very effective as an English learning tool for many reasons. Interactive e-comics can be used in English language learning to improve reading skills, develop vocabulary, understand grammar, develop speaking skills, improve listening skills, develop writing skills, cultural context, motivation and engagement.



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INTRODUCTION

The digital era has brought significant changes to various aspects of life, including education (Anis et al., 2023). In the field of education, the transition to the digital era has caused a shift in learning methods and information consumption (Anggraeni, 2023). In this fast-paced and dynamic digital era, the education system faces a significant challenge in preparing the younger generation to have skills relevant to the demands of the times (Sunandari et al., 2023). One of the essential skills to master is proficiency in English as an international language. However, the methods of teaching English in Indonesia are often still conventional and lack appeal for students, particularly the millennial generation accustomed to an interactive and visual digital environment.

The results of the Program for International Student Assessment (PISA) 2022, recently announced on December 5, 2023, placed Indonesia in the 68th position. Observing Indonesia's PISA score achievements since it first participated in 2000 through 2022, the PISA 2022 scores are among the lowest, particularly in reading (359), which was the lowest in 2000 and 2018 (371). Similarly, the mathematics score (366) was the lowest in 2022 (360) (Syamsir, 2024). These research results indicate that Indonesian students' digital literacy skills are below the global average. This suggests that current learning approaches are not sufficiently effective in preparing students to face the challenges of the digital era. One potential solution is developing interactive e-comics as a medium for learning English that combines visual narratives, interactivity, and

multimedia elements. Interactive e-comics can create an immersive, enjoyable learning environment aligned with the learning style of the digital generation (Nurmayani et al., 2023). By presenting English material in the form of engaging and interactive picture stories, e-comics have the potential to enhance students' interest and engagement in the learning process. However, the development of interactive e-comics for learning English in Indonesia is still underexplored. Most of the existing teaching materials are still static and do not fully utilize the potential of interactive technology. Additionally, there is a gap in the integration of learning media with the national curriculum and a lack of attention to improving students' digital literacy (Arief et al., 2023). By developing interactive e-comics tailored to the local context and the needs of students in Central Kalimantan, it is hoped to create a more engaging, effective, and relevant learning environment for the current digital era. This will contribute to enhancing the English proficiency and digital literacy of the younger generation, particularly in Central Kalimantan, enabling them to become competitive human resources ready to face global challenges.

METHODOLOGY

The research flowchart plays a crucial role in supporting the development of interactive e-comics as a tool for transforming English learning to foster digital literacy growth. Below is the flowchart in Figure 1.

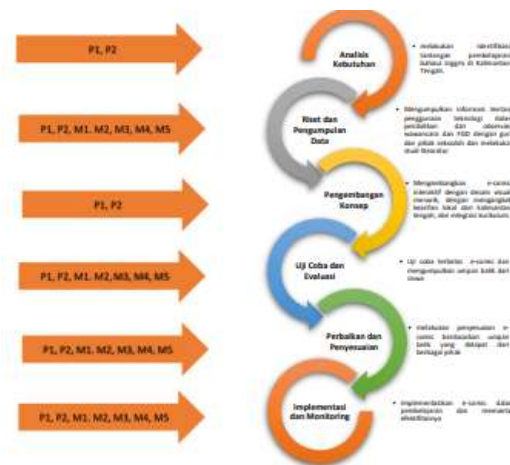


Figure 1. Research Flowchart

In this study, the ADDIE Model approach (Analysis, Design, Development, Implementation, Evaluation) is used as a guide to structure the research procedure.

RESULTS AND DISCUSSION

The results of the model evaluation instrument and the English learning evaluation instrument, as well as the FGD form for the e-comic model.

Table 1. FGD Form for the E-Comic Model

No	Aspect	Evaluation Score	Keterangan
1	Views and Experiences	85	Good
2	Expectations and Needs	90	Very Good
3	Perceptions about E-Comic	90	Very Good
4	Design and Content	85	Good

5	Usage and Integration	95	Very Good
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Table 2. Indicators for Model Feasibility Evaluation Form

No	Indicator	Descriptor
1	Effectiveness	This indicator measures how effective the model or method is in achieving learning objectives.
2	Participant Engagement	The extent to which participants are involved in the learning process.
3	Alignment with Curriculum	The extent to which the learning model or materials used align with the applicable curriculum.
4	Ease of Use	How easy the learning model or tools are to use in the learning process.
5	Readability and Comprehensibility	How clear and easy to understand the learning materials are for participants.
6	Availability of Resources	Evaluates the availability of resources needed to support learning, including books, texts, learning materials, technological devices, and human resources.
7	Impact on Learning	Measures the impact of the learning model or materials used on the student's learning process.
8	Content Relevance	Assesses the extent to which the content delivered in learning is relevant to the needs and interests.

Table 3. Indicators for Reading Skills Evaluation Instrument in English Subject

No	Indicator	Descriptor
1	Overall Understanding	Students can summarize and understand the main message or theme of the text as a whole.
2	Detail Understanding	Students can identify specific information or important details in the text.
3	Vocabulary	Students have a broad understanding of the vocabulary used in the text.
4	Context and Word Meaning	Students can use the context of the text to understand the meaning of the words used.
5	Inference and Conclusion	Students can make inferences or conclusions about the author's intent based on the information in the text.
6	Text Structure	Students have an understanding of the text's structure and how it helps them understand the content.

- a. The next stage is development, where the design concept is implemented in the form of an interactive e-comic prototype. Trials are conducted by involving students and teachers, and improvements are made based on user feedback.
- b. Subsequently, the implementation stage is carried out by preparing the necessary infrastructure and resources, as well as conducting socialization and training for teachers, followed by implementation in the classroom.
- c.

Table 4. Schedule of E-Comic Implementation Activities

Month	Interactive E-Comic (20 hours)	Evaluation (5 hours)	Reflection (5 hours)
1	Week 1 and Week 2	Week 3	Week 4

2	Week 1 and Week 2	Week 3	Week 4
3	Week 1 and Week 2	Week 3	Week 4

The evaluation stage is used to assess the effectiveness of the e-comic in enhancing learning. Data on the use of e-comics and students' learning outcomes are analyzed, and feedback from students and teachers is collected to determine the success of the e-comic.

Interactive e-comics are highly effective as a tool for English language learning for several reasons. Some ways in which interactive e-comics can be used in English learning are:

1. Improvement of Reading Skills:
 - a. Text and Images: The combination of text and images helps students understand the context and enhances their reading skills.
 - b. Engaging Stories: Engaging stories in e-comics can increase students' interest in reading English texts.
2. Vocabulary Development
 - a. Visual Context: Images help students understand the meaning of new words within the given context.
 - b. Repetition and Variation: New vocabulary frequently reappears in various story contexts, helping students remember and use the words.
3. Grammar Understanding:
 - a. Dialogue and Narration: E-comics often use dialogues and narrations that demonstrate the correct use of grammar in real-life contexts.
 - b. Interactivity: Some interactive e-comics allow students to choose the correct word or phrase, providing immediate feedback on their grammar use.
4. Development of Speaking Skills:
 - a. Interactive Dialogues: Students can engage in interactive dialogues, which can help them practice speaking in English.
 - b. Voice Recordings: Some interactive e-comics provide voice recordings that help students understand proper pronunciation and intonation.
5. Enhancing Listening Skills:
 - a. Audio Narration: Narrations and dialogues in e-comics are often accompanied by audio, helping students improve their listening skills.
 - b. Listening Quizzes: Some interactive e-comics include listening quizzes or tasks to test students' comprehension.
6. Writing Skills Development:
 - a. Writing Exercises: Interactive e-comics can include writing exercises where students must complete dialogues or write story continuations.
 - b. Instant Feedback: E-comics can provide immediate feedback on students' writing, helping them correct mistakes and improve their writing skills.
7. Cultural Context, Stories, and Characters: E-comics often include stories and characters that reflect the culture of native English speakers, helping students understand relevant cultural contexts.
8. Motivation and Engagement:

- a. Interactive and Fun: The interactive and fun aspects of e-comics make learning English more engaging and motivate students to keep learning.
- b. Self-Learning: E-comics can be accessed anytime, allowing students to learn independently and at their own pace.

CONCLUSION

Interactive e-comics are highly effective as a tool for learning English for several reasons. Interactive e-comics can be used in English learning to enhance reading skills, develop vocabulary, understand grammar, develop speaking skills, improve listening skills, develop writing skills, provide cultural context, and increase motivation and engagement. The development of interactive e-comics for learning English not only enhances language skills but also promotes digital literacy among students. With a creative approach and the right technology, interactive e-comics can be a highly effective tool in transforming English learning.

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