

Development of Interactive Educational Songs to Enhance Students' Motivation in Reading and Writing

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ABSTRACT

This study explores the development of interactive educational songs using digital technology and a Design Thinking approach to enhance reading and writing motivation among students at Wahid Hasyim University (Unwahas). Low literacy motivation remains a critical issue in higher education, prompting the need for innovative solutions. Music, as an engaging medium, was utilized to create interactive songs tailored to student preferences. The Design Thinking process ensured user-centered development, beginning with empathy to understand student challenges, followed by prototyping and testing for constructive feedback. The songs feature relevant educational themes, memorable melodies, and meaningful lyrics. Expert evaluations rated the media and content quality at 96% and 90%, respectively, indicating "very good" results. Large group trials with 25 students demonstrated a 41.7% increase in literacy motivation, with improved engagement and interest in reading and writing activities. This research highlights the potential of digital tools in fostering innovative learning methods and contributes to advancing educational practices at Unwahas.

Keywords: Educational song, interactive, reading motivation, writing motivation, students

INTRODUCTION

Education is one of the key pillars in the development of high-quality human resources. In the current digital era, innovation in learning methods is essential to enhance the effectiveness and appeal of the teaching and learning process. One of the challenges faced by educational institutions, including Wahid Hasyim University (Unwahas), is the low motivation among students to read and write. This low motivation can negatively impact academic achievement and the development of literacy skills, which are essential for students. In the context of Islam, the importance of reading and writing has been emphasized since the first revelation, specifically in Surah Al-'Alaq, which contains the command to read, and in Surah Al-Qalam, which stresses the importance of writing. However, despite these values being taught, their implementation in modern educational practices still faces challenges, especially among the younger generation, who are more familiar with digital technology than traditional learning methods. Therefore, the main issue in this research is how to increase the motivation of Unwahas students in reading and writing activities through an approach that aligns with their needs in the digital era.

To address this issue, a promising solution is through the use of interactive media, such as educational songs based on digital technology. Music has universal appeal and can create a pleasant learning atmosphere. Through songs, learning concepts can be conveyed creatively, making them easier to remember and more engaging for students. This research uses a Design Thinking approach, which places students at the center of the development process. This approach involves the stages of empathy, problem definition, ideation, prototyping, and testing, allowing for continuous iteration based on user feedback. By understanding the needs, desires, and challenges faced by students, we can design interactive educational songs that are not only engaging but also effective in supporting learning. These songs are designed to include educational themes relevant to the Unwahas curriculum, with characteristics such as memorable melodies, simple yet meaningful lyrics, and interactive elements that encourage active student participation.

This research aims to develop interactive educational songs based on digital technology as an attractive and effective learning media and to evaluate their effectiveness in increasing the reading and writing motivation of Unwahas students. Through trials and data analysis, we hope to make a significant contribution to the development of innovative learning methods that meet the needs of students in the digital era. This research focuses not only on theoretical aspects but also on practical implementation that can enhance the quality of education at Unwahas. The expectation is that interactive educational songs can be an innovative solution to improve student motivation in reading and writing and inspire other educational institutions to adopt digital technology in learning.

Relevant theoretical studies for this research cover several key aspects. First, the development of interactive learning media has become a focus of research in education. A study by Lingge et al. (2022) shows that interactive multimedia can enhance students' understanding of learning material, with a high level of validity, reaching 81.3% from content experts and 89.6% from media experts. Second, the Design Thinking approach has been proven effective in designing mobile applications for cultural arts learning (Sari, 2021). The Design Thinking stages allow for the development of relevant solutions centered on user needs. Third, learning motivation, including reading and writing, is highly influenced by how the material is presented. Studies show that innovative learning methods, such as using educational songs, can increase students' interest and engagement in literacy activities (Roffiq et al., 2017). Fourth, technology in music learning, such as the Muscores application, allows users to create, listen to, and save sheet music with WYSIWYG features, making interaction with music easier (Pandu, 2018). Lastly, research by Aeni et al. (2022) shows that Islamic educational songs can improve cognitive development, spiritual intelligence, and students' interest in learning, emphasizing that songs are not just entertainment, but also effective educational tools.

Through this research, it is hoped that interactive educational songs can become an innovative solution to increase student motivation in reading

and writing. In addition, the results of this study are expected to provide practical contributions to the development of learning methods at Unwahas and serve as a reference for other educational institutions in adopting digital technology to improve the quality of learning. Thus, this research not only focuses on theoretical aspects but also on practical implementation that can enhance the quality of education at Unwahas.

METHOD

This research was conducted by following systematic steps designed to address the problems that have been formulated previously. The research design used is a qualitative approach with a focus on the development of interactive educational songs based on digital technology. This approach was chosen because the research aims to understand students' needs in depth and produce relevant and effective solutions through an iterative process. The research population consists of students from Wahid Hasyim University (Unwahas), with the sample selected through purposive sampling, namely students who are active in academic activities and have an interest in learning innovation. This sample selection aims to ensure that the data collected is relevant to the research objectives.

Data collection techniques were carried out through in-depth interviews, participatory observation, and questionnaires to obtain information about students' motivation to read and write, as well as their preferences related to interactive learning media. Additionally, the development of research instruments involved designing a prototype of the interactive educational song, which was then tested on respondents to obtain feedback. The instruments used include semi-structured interview guidelines, observation sheets, and product validity questionnaires. For data analysis, this research used qualitative descriptive analysis with source and method triangulation to ensure the validity of the research results. The data obtained were analyzed thematically to identify the main patterns that emerged from students' responses.

In this study, the tools and materials used include digital music applications such as Musescore to create sheet music, as well as audio editing

software to improve sound quality. The specifications of the tools used include high-performance laptops to run these applications, as well as high-quality headphones to ensure sound accuracy during the development process. The materials used include song lyrics designed based on the results of the needs analysis of Unwahas students, as well as interactive elements such as text visualization and animations that support learning. The presence of the researcher in this study is crucial, as the researcher not only acts as a data collector but also as a facilitator in the process of developing the interactive educational song. The informants who assisted in the research include lecturers, learning media experts, and students as the main subjects of the study.

The research location was conducted in the Wahid Hasyim University environment, with a research duration of six months, covering the stages of development, testing, and evaluation. The validity of the research results was verified through data triangulation, discussions with experts, and field testing to ensure that the developed interactive educational song can genuinely improve students' motivation to read and write. With this approach, it is hoped that the research results can make a real contribution to the development of innovative learning methods that meet the needs of students in the digital era.

RESEARCH RESULTS

This research resulted in findings that demonstrate the effectiveness of developing interactive educational songs based on digital technology through the Design Thinking approach in increasing the motivation of students at Wahid Hasyim University (Unwahas) to read and write. In the Empathy phase, a survey of 10 respondents showed that 59% of students were less motivated to read and write due to monotonous materials and a lack of active involvement. In-depth interviews revealed that students were more interested in interactive and enjoyable learning methods, with Pop and Rock music genres being their favorites. Classroom observations also showed that students were more engaged when musical or audio-visual elements were used in learning.

In the Define phase, the main problem identified was the low motivation to read and write due to traditional learning methods that were less dynamic.

In the Ideate phase, brainstorming generated ideas such as using songs with lyrics related to writing techniques, incorporating interactive elements that allow students to sing and write lyrics, and utilizing the Musescore Studio Version 4.3.2 application to create interactive music notation.

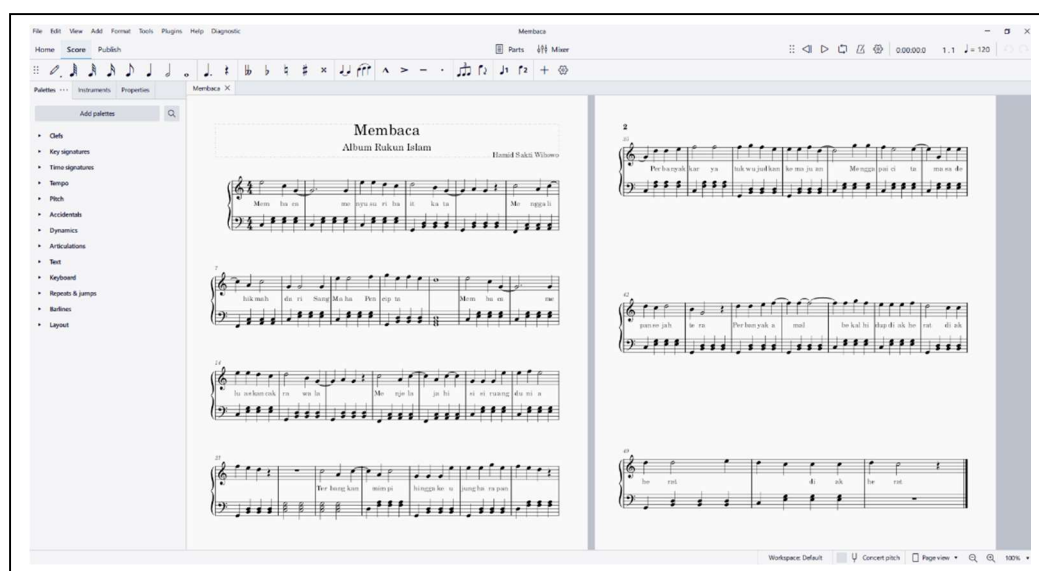


Figure 1. The use of Musescore Studio Version 4.3.2 in creating song sheet music.

The developed prototype includes three songs with a 4/4 time signature and a C major scale (Do=C): "Membaca" to encourage reading interest, and "Gerakan Pena" to encourage writing interest. Below are the sheet music for each song:

Membaca
Album Rukun Islam
Hamid Sakti Wibowo

Gerakkan Pena
Album Rukun Iman
Hamid Sakti Wibowo

Figure 2. Sheet music for the song Membaca Figure 3. Sheet music for the song Gerakkan Pena.

The results of the media expert validation test by Indah Mustanirroh, Music Teacher at SMP 9 Mataram Lombok, using a Likert scale of 1-5 are as follows:

Table 1. Media Expert Validation Test

No	Assessment Aspect	Score	Description
1	Relevance of Song Concept to Educational Material	5	Very relevant
2	Music Quality and Arrangement	4	Relevant
3	Song Interactivity (Use of Digital Technology)	5	Very relevant
4	Connection to Design Thinking Approach	5	Very relevant
5	Song's Ability to Increase Reading Motivation	5	Very relevant

6	Song's Ability to Increase Writing Motivation	5	Very relevant
7	Practicality of Use in Learning	4	Relevant
8	Kelayakan Media dan Teknologi yang Digunakan	5	Very relevant
9	Feasibility of Media and Technology Used	5	Very relevant
10	Clarity and Usefulness of Song Lyrics	5	Very relevant
	Total Score:	48	
	Average Score:	4,8	
	Percentage:	96%	

Based on the results of the media expert validation, it can be concluded that the learning media in the form of songs is highly suitable for use in the learning process. This is supported by the high average score across almost all assessment aspects. The improvements suggested by the media expert regarding the songs relate to tempo, time signature, refinement of song chords, and ensuring that all notes are natural to make it easier to perform the songs.

The validation test results from the subject matter expert, Achmad Munib, M.Pd, Lecturer at FAI Wahid Hasyim University, for the three songs are as follows:

Table 2: Subject Matter Expert Validation Test

No	Assessment Aspect	Score	Description
	<i>Evaluation of Interactive Educational Song Content</i>		
1	Relevance of Content to Educational Goals	5	Very relevant
2	Song Lyrics Composition	5	Very relevant
3	Diversity of Content in the Song	5	Very relevant
4	Alignment with Academic Curriculum	4	Relevant
	<i>Design Thinking Approach in Song Development</i>		
5	Empathize (Understand the Users)	5	Very relevant
6	Define (Identify the Problem)	5	Very relevant
7	Ideate (Develop Ideas)	5	Very relevant
8	Prototype (Create Prototype)	5	Very relevant
9	Test (Conduct Testing)	5	Very relevant
	<i>Impact of Digital Technology in Educational Songs</i>		
10	Integration of Digital Technology	5	Very relevant

11	Access and Use of Digital Media	5	Very relevant
12	Interactivity in the Song	4	Relevant
	<i>Impact on Student Motivation</i>		
13	Increased Interest in Reading	5	Very relevant
14	Improved Writing Skills	5	Very relevant
15	Overall Academic Motivation	4	Relevant
	Total Score:	72	
	Average Score:	4,5	
	Percentage:	90%	

The prototype trial with 25 students showed that 70% of the respondents stated that the songs increased their interest in reading, and 68% reported an increase in interest in writing. Students also provided feedback suggesting the addition of more interactive elements and a variety of music genres to cater to a broader range of preferences.

DISCUSSION

The findings of this study indicate that the development of interactive educational songs based on Musescore through the Design Thinking approach is effective in enhancing reading and writing motivation among Unwahas students. The Design Thinking approach allowed the researcher to gain an in-depth understanding of the users' needs, ensuring that the resulting product met students' expectations. Interactive media such as songs has universal appeal and can create an enjoyable learning atmosphere, which aligns with previous research by Rantina et al. (2019), showing that engaging learning media can increase students' learning motivation. Music is not only enjoyable but also facilitates the understanding of concepts in a more memorable way, as found in the research by Alwan Hafiz et al. (2022).

The increase in reading and writing motivation scores after using the interactive songs demonstrates the positive impact of music on the learning process. This finding is particularly relevant in the context of student learning, especially in Indonesian Language courses, as the lyrics and themes of the songs developed align with their academic needs. This is important to ensure

that learning media is not only engaging but also educational, as explained by Rantina et al. (2019). Students' involvement in the song development process also gives them a sense of ownership over the learning material, contributing to their intrinsic motivation. By involving students in content creation, they feel more responsible for their own learning process.

The positive feedback from students on the final product demonstrates the potential of using interactive songs as an alternative teaching method in higher education. This reflects the need for innovation in teaching methods to improve the quality of education. These findings also support previous theories emphasizing the importance of student-centered learning and the use of digital technology to enhance learning motivation. However, some modifications to these theories may be needed to accommodate students' preferences for various music genres and a broader range of interactive elements.

CONCLUSION

This research successfully developed an interactive educational song based on digital technology using a Design Thinking approach, aimed at enhancing the reading and writing motivation of students at Wahid Hasyim University (UNWAHAS) in Semarang. The results showed that the interactive educational song received high ratings from media and subject matter experts, categorizing it as very suitable or excellent, and had a positive impact on increasing students' motivation in both academic activities. The majority of students involved in the trial reported a 41.7% increase in motivation to read and write after listening to the two interactive songs.

The benefits of this research include the creation of an engaging, effective, and relevant learning medium for students in the digital era. The interactive educational song based on digital technology has proven to address the issue of low motivation in reading and writing, which students often face. Furthermore, this research contributes to the development of more innovative learning methods that are aligned with technological advancements.

Suggestions

As a recommendation, further development of this interactive educational song should include adding variations of material relevant to the curriculum across different faculties. The use of digital platforms and mobile applications could also be expanded to facilitate student access to this learning material. Additionally, future research could delve deeper into other factors that influence student learning motivation, as well as develop more adaptive and personalized learning models.

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