

Needs Analysis of the Development of Interactive Multimedia Containing the Character of Pancasila Students Profile in Pancasila Education Subjects in Elementary Schools

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A B S T R A C T

This research aims to explore the need for the development of interactive multimedia containing the character of Pancasila Student Profiles in Pancasila Education subjects in elementary schools. The method used is a qualitative descriptive approach with a *need assessment*, involving teachers, students, principals, and supervisors. The results show that the majority of teachers still use conventional methods and are less familiar with interactive technology. Meanwhile, the questionnaire to students indicated the level of difficulty in understanding the material, as well as the need for interesting and effective learning media. This study concludes that there is an urgent need to develop interactive multimedia that can support relevant and enjoyable learning experiences, in order to increase the understanding and internalization of Pancasila values in students' daily lives.

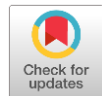
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INTRODUCTION

In the midst of rapid technological developments, education in Indonesia is required to adapt to meet the needs of the digital generation. The education system not only aims to prepare students in terms of academics, but also to form a strong character in accordance with the values of Pancasila. The character of the Pancasila Student Profile is expected to be a pillar for the formation of a young generation that is not only intelligent, but also has noble character and is dedicated to the nation (Ministry of Education and Culture, 2021). This process is very important, especially at the primary education stage, where the foundation of character is built.

However, the implementation of Pancasila Education subjects in elementary schools often faces various challenges, including less interesting and interactive teaching methods. According to the search and evaluation of teaching methods conducted by Setiawan (2020), many teachers still use conventional strategies that reduce student involvement in the learning process. This has the potential to cause a low understanding of students to the values of Pancasila, which is crucial in the formation of their character. Therefore, a new, more innovative and interesting approach is needed to improve the understanding and internalization of these values.

The development of interactive multimedia has emerged as a promising alternative. A study by Prasetyo and Nugroho (2021) shows that the use of multimedia in learning can increase students' motivation as well as their involvement in the material being taught. By utilizing multimedia technology, students not only become recipients of information, but also active actors in the learning process, which is in accordance with the principles of

constructivist education (Fadel & Lemke, 2008). In addition, this approach allows the integration of Pancasila values in a more real and relatable context for students.

Analysis of the need for the development of interactive multimedia with the character of the Pancasila Student Profile is very important to be carried out. This aims to understand the needs and expectations of both students and teachers in the implementation of more effective learning. With this understanding, it is hoped that the development of learning media can be more targeted and able to increase the understanding and internalization of Pancasila values in students' daily lives.

This research aims to explore the need for interactive multimedia containing the character of Pancasila Student Profiles in Pancasila subjects in elementary schools. The novelty in this research lies in the integration of Pancasila values into an interactive multimedia platform, which has not been widely explored in the context of basic education in Indonesia. Previously, several studies have identified the importance of integrating technology in education. For example, research by Huang and Liu (2020) shows that interactive multimedia contributes to increased student motivation to learn. In addition, a study by Arifin and Riawan (2021) revealed that the use of multimedia-based educational applications can increase students' understanding of the subject matter being taught. Another study by Nuraini et al. (2022) emphasizes that interaction in technology-based learning can strengthen the internalization of character values in students. Thus, the urgency of this research is very high, considering the need to develop innovative and effective learning media to support the formation of student character in accordance with the values of Pancasila in this digital era.

METHOD

This research method uses a qualitative descriptive approach with *need assessment* to describe in depth the actual conditions of learning and identify the gap between ideal needs and reality that occurs in the context of the development of interactive multimedia containing the character of Pancasila Student Profiles in the subject of Pancasila Education in Elementary Schools. The research subjects consisted of class V teachers, class V students as end users of the media, and school principals and school supervisors as *purposively selected supporting informants*. Data was collected through questionnaires and interviews. Data analysis was carried out quantitatively for questionnaires and qualitatively for interview results. In addition, this study complies with ethical principles by obtaining approval from relevant institutions and maintaining the confidentiality of the data of the research subjects (Miftahul Jannah et al., 2023; Widodo, 2019). Research on this needs analysis is important in ensuring the effectiveness and relevance of learning media developed to meet the needs of character in education (Sari et al., 2021).

Table 1. Interview Grid Teacher Needs for Interactive Multimedia Development based on Pancasila Student Profiles

No.	Aspects	Indicator	No. Item
1.	User needs	Conventional learning media	1
		Technology-based learning media	2
2.	Relevance of the evaluation material	Interactive learning media	3
		Learning Skills According to Learning Competencies	4
3.	Interactive and aesthetic aspects	Visual elements in learning media	5
		Interactive features in learning media	6
4.	Influence on the learning process	Interactive learning media relationships With motivation	7
		Effectiveness of interactive learning media	8
5.	Implementation readiness	Facilities in implementation	9
		Readiness in implementation	10

In an effort to identify teachers' needs for the development of interactive multimedia based on the Pancasila Student Profile, interviews were conducted that focused on several

important aspects. The first aspect is the needs of users, which includes preferences between conventional learning media and technology-based learning media. Furthermore, the relevance of the evaluation material is the second aspect, where teachers are expected to provide insight into the effectiveness of interactive learning media and the suitability of the material with the competencies that must be achieved. The third aspect relates to interactive and aesthetic elements, including the assessment of visual elements and interactive features in learning media, which play an important role in attracting students' attention. In this case, the influence on the learning process is the fourth aspect explored, focusing on the relationship between interactive learning media and student motivation, as well as the effectiveness of its use in supporting the educational process. Finally, implementation readiness is the fifth aspect discussed, including the facilities available for the application of these media and teachers' readiness to carry out learning using interactive multimedia. By exploring these five aspects, it is hoped that the information obtained can provide a clear picture of the need for the development of learning media that is more effective and relevant to the Pancasila Learning Program in elementary schools.

Table 2. Questionnaire Questions on Student Needs for Interactive Multimedia Development based on Pancasila Student Profiles

No.	Aspects	Indicator	Number Question
1.	Material Requirements	Difficult material to understand	1
2.	Learning Media	Media that helps the learning process	2
3	Learning Motivation	Factors that motivate learning	3
4.	Learning Barriers	Barriers to learning	4

As part of this study, a questionnaire on students' needs for the development of interactive multimedia based on the Pancasila Student Profile is designed to collect in-depth information about students' conditions and expectations. The first question in this questionnaire examines the existence of computer labs in schools, which is important to ensure students' accessibility to the technologies required in interactive learning. In addition, the second question asks about the availability of projector facilities, which can support multimedia presentations and make learning materials more engaging and easy to understand.

In the third question, students are asked to provide views on the use of interactive learning media in the teaching and learning process, which will provide an overview of whether the media is often used or not. The fourth question touches on the challenges faced by students by stating whether they consider Pancasila to be a difficult subject, which can affect students' attitudes and motivation in learning. Furthermore, the fifth question explores the extent to which teachers' explanations help students in understanding Pancasila material, which is a key factor in learning success. Finally, the sixth question invites students to evaluate the attractiveness of interactive multimedia based on the Pancasila Student Profile as a learning medium that is expected to be more interesting and support their understanding of Pancasila material. Through this questionnaire, it is hoped that valuable insights will be obtained for the development of learning media that suits the needs of students and can improve their learning experience.

FINDINGS AND DISCUSSION

Findings

Table 3. Interview Results with Teachers

Yes	Aspects	Indicator	Interview Findings
1	User needs	Conventional learning media	Most teachers still rely on the use of textbooks and whiteboards as the main medium in learning activities
		Technology-based learning media	The use of digital media in learning Pancasila Education in elementary schools has not been running optimally because some

Yes	Aspects	Indicator	Interview Findings
			teachers are still not familiar with accessing and developing interactive multimedia.
2	Relevance of the Interactive evaluation material	learning media	There is no digital media that is specifically designed and interactive to facilitate the learning of the values in the Pancasila Student Profile in the subject of Pancasila Education in elementary schools.
		Media according to learning competencies	Interactive learning media that is in line with the achievement of Pancasila Education competencies and the character of the Pancasila Student Profile are not widely available at the elementary school level.
3	Interactive Aesthetic	& Visual elements in learning media	Teachers expect digital learning media equipped with attractive and colorful visual elements to be able to increase students' focus and interest in Pancasila Education materials.
		Interactive features in media	Interactive features in learning media are considered important to encourage student activeness in understanding Pancasila Education material
4	Influence on the learning process	Learning motivation	Teachers believe that the use of interactive visual media can increase students' learning motivation in understanding Pancasila Education materials
		Media effectiveness	According to the teacher's view, interactive media can accelerate students' understanding of the concepts in Pancasila Education, because it allows students to more actively participate and interact directly
5	Implementation readiness	Facilities implementation in	The school already has an adequate projector and internet network, which supports the application of interactive media in Pancasila Education learning. This facility allows teachers to present material more attractively and facilitates students in accessing learning resources directly.
		Implementation readiness	Teachers are ready to learn and use the media

The results of interviews conducted with a number of teachers provide an in-depth overview of the needs and challenges in the development of learning media in elementary schools, especially for Pancasila Education subjects. In terms of user needs, the majority of teachers still rely on textbooks and whiteboards as the main media, showing that the use of conventional learning media remains dominant. However, the use of digital media in the context of learning does not seem to be running optimally, where many teachers feel unfamiliar in accessing and developing interactive multimedia.

In terms of the relevance of the evaluation material, it was found that there was no digital media that was specifically designed and interactive to support the learning of values in the Pancasila Student Profile. In addition, the availability of interactive learning media that is in accordance with the competencies of Pancasila Education and the character of the Pancasila Student Profile is also relatively limited. In terms of interactive and aesthetics, teachers show expectations for digital learning media with attractive and colorful visual elements, which are expected to improve students' focus. In addition, interactive features in the media are considered important to encourage student activeness in understanding the material.

When discussing the influence in the learning process, teachers believe that interactive visual media can increase students' motivation to learn, as well as accelerate understanding of concepts in Pancasila Education, because it allows for direct participation and interaction. In terms of implementation readiness, schools are equipped with projectors and adequate internet networks, so as to support the application of interactive media in learning. Teachers also show readiness to learn and use these media, indicating a desire to adapt and improve the quality of learning. These findings provide valuable insights that can be used to develop more effective solutions in the teaching of Pancasila Education.

Table 4. Results of the Student Needs Analysis Questionnaire

No.	Aspects	Indicator	Findings of the Inquiry	Percentage
1.	Material Requirements	Difficult material to understand	20 found it difficult, 5 felt no	80%
2.	Learning Media	Media that helps learning process	the 17 thought it would help, 8 felt no	68%
3.	Learning Motivation	Factors that motivate learning	18 feel motivated , 7 do not	72%,
4.	Learning Barriers	Barriers to learning	19 feel that the obstacle will be solved, 6 feel that no	76%

The results of the analysis of student needs obtained through the questionnaire provide clear information about students' perceptions and experiences in the learning process. In terms of material needs, there were 20 students who stated that they felt difficult with the material taught, while 5 students felt the opposite, making the percentage of students who found it difficult reach 80%.

Furthermore, on the learning media indicator, 17 students felt that the use of media would help them in the learning process, while 8 students did not feel the same, with 68% indicating support for the importance of media for learning. In the aspect of learning motivation, 18 students said that they felt motivated if the media used was interesting, while 7 students did not feel the same influence, giving a percentage of 72%.

Finally, in the aspect of learning barriers, 19 students felt that the obstacles they experienced in learning would be resolved with the appropriate use of learning media, while 6 students did not believe so, which showed that 76% of students were optimistic about the potential solutions offered through media development. The results of this questionnaire are the first step to explore further about the needs of students and how learning media can be optimized to support their learning process.

Discussion

The results of interviews with teachers and analysis of student questionnaires provide a comprehensive view of the needs and challenges in developing learning media for Pancasila Education subjects at the elementary school level. These findings illustrate a condition that requires serious attention in an effort to improve the quality of teaching and learning in schools.

User Needs and Learning Media

Most teachers still rely on conventional learning media such as textbooks and whiteboards. This is in line with research conducted by Hariyadi and Sari (2020) which shows that teachers in Indonesia often lack the use of technology in the classroom learning process. The use of technology in learning can enrich the learning experience and increase student engagement (Khan, 2021). However, the results of the interviews show that many teachers feel unfamiliar with the use of digital media and interactive multimedia. Therefore, training and capacity building for teachers in using technology is very important (Hassan & Dziuban, 2021).

Relevance of Materials and Availability of Interactive Media

On the other hand, the findings also show that there is no digital learning media specifically designed to support the values in the Pancasila Student Profile. Research by Sari and Hadiana (2019) emphasizes the importance of having relevant material that is in accordance with the expected competencies. Adapting materials with interactive media not only makes learning more interesting, but also provides an opportunity to explore the values of Pancasila in more depth. With the limitations of relevant interactive media, the development of innovative and responsive media to the needs of students must be prioritized.

Aesthetics and Interactivity in Learning Media

The results of interviews with teachers also highlight the importance of visual elements and interactive features in learning media. Visually appealing media has been shown to improve students' focus and grow their motivation (McLinden et al., 2020). Interactive features in learning allow students to actively participate and create a more immersive learning experience. Research by Hamari et al. (2016) shows that interactivity in learning media has a

positive impact on the level of student involvement. Therefore, investment in the development of visual and interactive elements becomes important in this context.

Learning Motivation and Obstacles in the Learning Process

From the analysis of the questionnaire of students, it was found that the majority of students admitted that there were difficulties in understanding the material, which reflected a fundamental need to improve the quality of learning. Research by Pintrich (2003) emphasizes the relationship between learning motivation and academic achievement. When students feel their motivation increases through the use of engaging media, this impacts their understanding of the material being taught. The availability of the right learning media can help students overcome learning barriers and increase their learning effectiveness (Fry et al., 2016).

Readiness for the Implementation of Learning Media

Schools that have been equipped with projectors and adequate internet networks show readiness to apply interactive media in learning. This is in line with the guidance from Johnson et al. (2016) which states that good technological infrastructure is a prerequisite for using digital media in education. Teachers' readiness to learn and use digital media is a determining factor for the success of implementing innovative learning methods (Hwang et al., 2020).

Overall, the results of interviews and questionnaires show the need to pay attention to the development of relevant and interactive learning media in learning Pancasila Education. The readiness of teachers and the existing infrastructure provide hope to improve the teaching and learning process. Therefore, training programs for teachers need to be developed, as well as increasing access to innovative digital learning media to support student needs. This will be a strategic step in welcoming the era of education that is more interactive and oriented to the needs of students.

CONCLUSIONS

The results of interviews with teachers and the analysis of questionnaires on students in this study show that although there is great potential in the use of interactive multimedia containing the character of the Pancasila Student Profile, many teachers still rely on conventional methods and feel unfamiliar with existing technology. The limitations in the use of this technology emphasize the need to develop innovative and tailored learning media in order to support Pancasila learning more effectively. Furthermore, the results of the questionnaire analysis indicated that students had difficulties in understanding the material taught using conventional media. This highlights the urgency of developing interactive multimedia that is not only interesting but also able to help students understand and internalize the values of Pancasila. However, this research also has some limitations. First, the analysis was only conducted in one elementary school, so the results may not be generalized to other schools with different contexts. Second, the measurement and evaluation of the effectiveness of the use of interactive multimedia in the learning process is still qualitative, so further deepening with a quantitative approach is needed to obtain more comprehensive data. For further research, it is recommended to conduct a broader study in several elementary schools in order to obtain a more diverse perspective on the development of interactive multimedia with the character of the Pancasila Student Profile. Research that investigates the direct impact of the implementation of interactive multimedia on student learning outcomes and how it can contribute to shaping students' character in the context of Pancasila Education will be very useful. Thus, the results of this research are expected to make a significant contribution to the development of more effective and relevant education in the digital era.

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