

Analysis of Digital Teaching Material Needs Using Book Creator in ICT Subjects for Grade IX

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Abstract. This study aimed to determine the need for digital teaching materials using the Book Creator application in the Information and Communication Technology (ICT) subject in ninth grade. The study employed a qualitative descriptive approach to obtain an overview of the need for digital teaching materials in learning activities. Structured interviews involving ninth grade teachers and students served as data sources during the data collection stage. The interviews were used to gather information regarding the current use of teaching materials, obstacles encountered during the learning process, and the need for more engaging and interactive teaching materials. The study concluded that the learning resources used in ICT instruction are still dominated by printed textbooks and teacher explanations in class. This situation is considered not to fully support active and engaging learning for students. Both teachers and students expressed the need for digital teaching materials that can present material in various formats, such as text, images, audio, and video, to facilitate conceptual understanding and increase learning motivation. The Book Creator application is considered to have potential for use in the development of digital teaching materials due to its ability to integrate various multimedia elements and its ease of use. Therefore, the development of Book Creator-based digital teaching materials is considered crucial to support more effective ICT learning and align with developments in educational technology.

Keywords: Needs Analysis, Teaching Materials, Digital, Book Creator, ICT Subject Matter.

How to cite (in APA style):

Nantor, A., Koriaty, S., & Fatmawati, E. (2026). Analysis of Digital Teaching Material Needs Using Book Creator in ICT Subjects for Grade IX. *Proceeding of IJC-MaSTEd*, 1(1), 129-133.

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DOI: <https://doi.org/10.31571/ijcmasted.v1i1.1041>

1. Introduction

Developments in information and communication technology have had a significant impact on the education sector, particularly in the provision and utilization of learning materials (Hidayat & Khotimah, 2020). Digital-based learning materials have emerged as a breakthrough, helping to create more interactive, adaptable, and contextually relevant learning experiences. Munir (2017) stated that digital learning materials enable the integration of text, images, sound, and video, which can strengthen student participation and understanding.

However, this ideal situation has not been fully achieved in practice. Based on preliminary observations and interviews with ninth-grade Information and Communication Technology (ICT) teachers and students, it was found that the learning process is still dominated by the use of printed textbooks, which tend to be less engaging and less interactive. Students also experience difficulties in understanding abstract concepts due to the limited availability of supporting learning media. This condition indicates a gap between the ideal situation, namely the use of interactive digital learning materials, and the actual situation, which still relies on conventional learning materials. According to Kustandi and Sutjipto (2016), learning media play an important role in facilitating students' understanding and increasing learning effectiveness. Furthermore, Prastowo (2015) stated that teaching materials should be designed according to students' characteristics and learning needs to

support meaningful learning experiences. In the digital era, the integration of technology into learning has become increasingly important because digital technologies can enhance accessibility, engagement, and learning outcomes (Haleem et al., 2022).

Theoretically, the use of digital learning materials can improve students' motivation and learning outcomes (Arsyad, 2019). Furthermore, applications such as Book Creator enable teachers to develop more creative learning materials tailored to students' needs. However, not all schools have utilized this technology optimally, particularly in ICT learning at the junior high school level.

Several previous studies have demonstrated the positive impact of using Book Creator as a learning medium. A study conducted by Qomara et al. (2024) which concluded that digital teaching materials based on Book Creator succeeded in increasing the average student score from 70 in the pretest to 85 in the posttest and made the learning process more interesting and enjoyable. In addition, the positive student response also confirmed Fikrah's (2022) findings, which found a practicality percentage of 96.2% in a study of digital teaching materials development using Book Creator in thematic learning in elementary schools. These consistent results reinforce the conclusion that Book Creator is an effective platform and well-received by students of all levels as an interactive digital teaching material.

These findings suggest that Book Creator has considerable potential as a tool for developing engaging and interactive digital learning materials. Nevertheless, most previous studies were conducted in different subjects and educational levels. Therefore, this study seeks to adapt the successful implementation of Book Creator to the context of ICT learning in Grade IX of junior high school. By considering the characteristics of the subject matter and students' learning needs, the developed media is expected to enhance students' motivation, engagement, and understanding of the learning materials.

The gap identified in this study is the lack of a comprehensive needs analysis for developing digital teaching materials that are aligned with students' characteristics and learning conditions. Without such analysis, the resulting materials may not effectively meet learners' needs. Therefore, this study aims to analyze the need for Book Creator-based digital teaching materials in Grade IX ICT learning. The findings are expected to support the development of relevant and engaging learning materials that enhance students' motivation and understanding while providing guidance for teachers in integrating digital technology into the learning process.

2. Method

This study employed a descriptive qualitative approach to obtain an in-depth understanding of the need for digital teaching materials in ICT subjects. This approach was chosen because it enables researchers to explore participants' experiences and perceptions within their educational context, providing rich and meaningful information related to the research objectives (Muhtadi & Dewi, 2025). The research subjects consisted of ICT teachers and ninth-grade students. The study was conducted at SMP Negeri 10 Sekadau Hilir, a location relevant to the research focus.

Data were collected using a questionnaire administered to ICT teachers and ninth-grade students to identify their needs for the development of digital teaching materials. To support and clarify the questionnaire results, interviews were conducted with selected respondents.

The questionnaire data were analyzed using descriptive statistics by calculating the percentage of responses for each need indicator, while the interview data were used to strengthen the interpretation of the research results (Creswell & Creswell, 2018).

$$P = \frac{f}{N} \times 100\% \quad (1)$$

Description:

P = Percentage of need

f = Frequency of respondents' responses

N = Total number of respondents

Equation (1) is used to measure the level of need for digital teaching materials based on the responses provided by teachers and students. The measurement covers several aspects, including the need for digital learning resources, the attractiveness of learning materials, ease of use, content suitability, and the integration of multimedia features. These aspects are represented through indicators such as students' learning difficulties, preferences for digital materials, accessibility of learning resources, and expectations regarding the features and design of the proposed digital teaching materials.

The research procedure includes several main stages, namely:

- (1) Problem identification was conducted through preliminary observations to identify learning conditions and challenges in ICT learning.
- (2) Research instruments in the form of questionnaires were developed based on the research objectives and indicators of digital teaching material needs.
- (3) Data were collected by administering questionnaires to ICT teachers and ninth-grade students to gather information regarding their needs for digital teaching materials.
- (4) The questionnaire data were analyzed using descriptive statistics by calculating the percentage of responses for each indicator.
- (5) Conclusions were drawn based on the results of the needs analysis as the foundation for developing Book Creator-based digital teaching materials.

3. Results and Discussion

Based on the results of processing the questionnaire data given to 15 students, the percentage of "Yes" answers to each question was obtained, which were then grouped into several needs analysis indicators.

Table 1. Student Questionnaire Results Based on Digital Teaching Material Needs Indicators

No	Aspects Assessed	Percentage (%)
1	Students experience difficulties in learning ICT	78%
2	Interest in textbooks is low	72%
3	The need for interactive teaching materials	85%
4	The need for digital-based media	88%
5	Support for using Book Creator	90%

The results showed that 80% of students experienced difficulties in learning ICT. This finding indicates that the teaching materials currently used have not fully supported students' understanding of the subject matter. One possible reason is that ICT concepts often involve abstract and procedural content that requires visual and practical explanations. The dominance of textbook-based learning may further contribute to these difficulties because students receive information mainly through text. Similar findings were reported by Islapirna et al. (2023), who found that limited use of interactive media can hinder students' understanding of technology-related subjects.

Students' interest in conventional textbooks was also relatively low. Although textbooks remain the primary learning resource, most students preferred learning materials that incorporate visual and interactive elements. This may be because printed textbooks are less engaging for students who are accustomed to digital content. As a result, students tend to lose interest and motivation when learning relies heavily on text-based materials.

The findings further revealed a very high demand for interactive learning materials, with more than 93% of students expressing interest in media that include images, videos, animations, and interactive exercises. Interactive materials can help students understand concepts more easily and increase their engagement in the learning process. This result is consistent with previous studies showing that interactive digital media can improve students' motivation and learning outcomes (Nursyahira et al., 2024).

In addition, students showed a strong need for digital teaching materials. This finding is supported by the fact that 93.33% of students own smartphones, indicating that digital learning resources can be easily accessed. Digital materials offer greater flexibility and can integrate various multimedia features that support learning. Similar findings have been reported in previous studies, which highlight the positive impact of digital learning media on student engagement and participation.

Finally, all respondents supported the development of Book Creator-based teaching materials. Book Creator allows the integration of text, images, audio, videos, and interactive activities into a single learning resource, making learning more engaging and meaningful. Previous studies have shown that Book Creator can improve learning outcomes and receive positive responses from students due to its interactive and user-friendly features (Putri & Hidayatullah, 2024).

4. Conclusion

Based on the research results and needs analysis, it can be concluded that the use of teaching materials in ICT subjects for ninth-grade students is still dominated by textbooks that lack interactive features, thus failing to optimally meet students' learning needs. Students still experience difficulty understanding the material, indicating a gap between current learning conditions and ideal conditions utilizing digital technology.

Questionnaire and interview results indicate that students have a high level of interest in digital teaching materials, particularly those containing interactive elements such as images, animations, and exercises. Furthermore, the availability of devices such as smartphones and support for the use of the Book Creator application provide strong potential for the development of digital teaching materials.

Therefore, the development of digital teaching materials using Book Creator is highly needed and relevant for application in ICT learning. These teaching materials are expected to increase learning interest, facilitate understanding of the material, and create more interactive and effective learning.

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