

## Development of a Pancasila E-Module Based on Kvisoft Flipbook with a Scaffolding Approach to Enhance Students' Civic Knowledge

Lina Marlina

Program Studi Pendidikan Profesi Guru, Bidang PPKn, Fakultas Keguruan dan Ilmu Pendidikan, Universitas Pamulang, Tangerang Selatan, Indonesia  
Email: [dosen02921@unpam.ac.id](mailto:dosen02921@unpam.ac.id)

### Abstract

This research aims to develop an interactive e-module in learning Pancasila Education based on the Kvisoft Flipbook Maker application with a scaffolding approach to increase students' civic knowledge at SMAN 6 South Tangerang City. The background of this research is the low interest of students in understanding Pancasila material which is considered abstract and theoretical and still dominant conventional learning methods. This research uses the Research and Development (R&D) method with the ADDIE development model which includes the stages of analysis, design, development, implementation, and evaluation. The results of the study show that the e-module developed obtained expert validation with a feasibility level of 89.2% (very feasible). Limited trials and field showed significant improvements in students' civic knowledge, with an average pretest score of 65.4 increasing to 82.7 on the posttest. In addition, 85% of students stated that e-modules help them understand the material more easily, and 78% of students feel that the interactive features in e-modules support their learning process. The conclusion of this study shows that scaffold-based e-modules can increase student involvement in learning, increase understanding of the concept of Pancasila, and become an alternative innovative solution in technology-based education.

**Keywords:** Interactive E-Module, Pancasila Education, Gamification, Scaffolding, Civic Knowledge



This work is licensed under a [Creative Commons Attribution-NonCommercial 4.0 International License](https://creativecommons.org/licenses/by-nc/4.0/).

### INTRODUCTION

Education has a very important role in improving human quality and supporting the development of civilization (Mulyono & Elly, 2023). In the context of globalization and rapid technological development, education systems in various countries, including Indonesia, must continue to adapt to remain relevant to the needs of the times. One of the noble ideals of the Indonesian nation contained in the Preamble to the 1945 Constitution is to educate the nation's life, which emphasizes the importance of education in national development. In line with this, the development of technology today has become an alternative in digital-based learning patterns to make it easier for students to understand the material (Aydin & Aytekin, 2018). The integration of technology in learning not only improves the accessibility of information but also allows for more effective and efficient personalization of learning. One of the main challenges in learning Pancasila Education is the lack of interest of students in understanding material that is considered abstract and theoretical. Many students have difficulty understanding the concept of civic knowledge related to the rights and obligations as citizens and the government system (Fadillah, 2023). In addition, conventional learning methods that are still dominated by lectures tend to be less effective in improving student understanding. Therefore, innovation is needed in the development of more interesting and interactive teaching materials so that students can more easily understand and apply the values of Pancasila in daily life. One of the solutions in educational innovation is the development of interactive digital teaching materials that integrate a combination of images, videos, and animations to make them more attractive and in accordance with the curriculum (FH et al., 2021 in Marlina, 2023).

These digital teaching materials play an important role in attracting students' attention, increasing their involvement in the learning process, and helping them understand abstract concepts more easily. With various interactive features, digital teaching materials are able to provide a more immersive and enjoyable learning experience. Teaching materials have a fundamental role in learning because they function as the main tool in the process of transferring knowledge from educators to students (Badri Munawar & Hasyim, 2020). In this case, interactive digital teaching materials allow students to learn more coherently and systematically so that they can increase the effectiveness of learning (Haryonik & Bhakti, 2018). With a clearer and more directed learning structure, students can more easily understand the material and apply it in their daily lives. In addition, digital teaching materials can also adjust students' learning speed, allowing them to repeat the material according to individual needs. One approach that can be applied in digital teaching materials is scaffolding, which provides gradual support to students so that they can understand concepts more independently (Indrani & Lazulva, 2020).

This approach emphasizes the provision of initial assistance which is then gradually reduced as students' understanding increases. This allows students to build understanding gradually and develop critical thinking skills as well as independence in learning. In learning Pancasila Education, there is an urgent need to develop innovative teaching materials so that students can better understand the basic values of citizenship. Pancasila education has a very important role in shaping the character and national identity of students, so a learning method is needed that can increase the attractiveness and effectiveness of material delivery. One of the technologies that can be used is Kvisoft Flipbook Maker, an application that can convert teaching materials into interactive e-modules in digital form with multimedia features, such as video, images, audio, and hyperlinks (Hidayatullah & Rakhmawati, 2016). With these features, students can more easily access and understand the material independently, as well as be more involved in the learning process. Kvisoft Flipbook Maker-based interactive e-modules have been proven to be effective in improving students' understanding and learning outcomes based on previous research (Asmi & Surbakti, 2018; Kozikoglu, 2019).

Various studies show that the use of interactive technology in learning can significantly increase students' motivation to learn, deepen their understanding of the material, and improve their academic performance. Therefore, the use of Kvisoft Flipbook Maker as a learning medium for Pancasila Education is expected to provide innovative solutions in improving the quality of learning. Scaffolding in this e-module aims to provide initial guidance which is then gradually reduced according to the development of students' understanding. This approach has been shown to reduce students' workload and improve their understanding of concepts better (Chang et al., 2001; Dwi & Okmarisa, 2023). With scaffolding, students can gain a deeper understanding as they gradually learn to solve problems on their own with a little help from the teacher or the learning system. Civic knowledge is related to students' understanding of the rights and obligations as citizens as well as the ideal structure and system of government (Fadillah, 2023). This understanding is very important for students in building awareness of the nation and state, as well as in forming a responsible character as an active and critical citizen. Therefore, this research focuses on the development of interactive e-modules based on the Kvisoft Flipbook Maker application with a scaffolding approach to improve civic knowledge of students of SMAN 6 South Tangerang City. Through research and development (R&D) methods, this research will test the effectiveness of e-modules in supporting learning that is more active, interactive, and in accordance with the needs of students in the digital era.

## RESEARCH METHODS

The Research and Development (RnD) approach is a research method that aims to develop or improve a product that can be scientifically accounted for. The products developed in this study can be in the form of hardware or software. According to (Wagiran (2013) in Dalimunthe et al. (2021), this approach allows research to produce more effective and innovative products. In RnD research, there are several development models that are often used. (Amali et al. 2019) mentioned three main models in RnD research, namely the 4D Development Model, the ADDIE Development Model, and the Borg & Gall Development Model. The 4D model consists of four stages, namely definition, design, development, and dissemination. The Borg & Gall model is more complex because it has ten stages that include information gathering to widespread product dissemination. Meanwhile, the ADDIE Development Model consists of five main stages which include analysis, design, development, implementation, and evaluation. In this study, the model used is the ADDIE Development Model as explained by (Christina M. Purba (2016). This model has a systematic structure in the product development process, starting from the analysis stage to identify needs and problems. Furthermore, the design stage is carried out to develop product development concepts and strategies. After that, the development stage is carried out by realizing the design that has been made into a product that is ready to be tested. Implementation is carried out by applying products that have been developed in a real environment to assess their effectiveness. Finally, the evaluation stage aims to identify the weaknesses and advantages of the product so that revisions or improvements can be made so that the product is more optimal. By using the ADDIE model, this research ensures that the products developed go through systematic and structured stages so that they are more effective and can be evaluated gradually to improve their quality.

## RESEARACH RESULT AND DISCUSSION

This research aims to develop an interactive e-module of Pancasila Education based on the Kvisoft Flipbook Maker application with a scaffolding approach to increase civic knowledge of SMAN 6 students in South Tangerang City.

### Development of Interactive E-Modules

Based on the stages of Research and Development (RnD) of the adapted Borg and Gall model, the development of e-modules is carried out through several stages, namely:

1. Needs Analysis – The results of observations and interviews with teachers and students show that Pancasila Education materials are still delivered conventionally, causing a lack of interest in learning students. This is in line with the findings in a study by Arvinda (2018), which emphasizes the importance of developing interactive teaching materials to increase student interest and understanding.
2. Product Design – E-modules are developed with interactive features, including text, images, videos, and scaffold-based practice questions to help students understand the material step by step. This scaffolding approach has been proven effective in research by Wulandari & Sulistyowati (2022), who developed an interactive e-module based on Flip PDF Professional to improve student engagement and understanding.
3. Expert Validation – The results of validation by media experts and subject matter experts show that the e-module meets the eligibility criteria with an average score of 89.2% (very feasible). This is in line with research by Wulandari & Sulistyowati (2022), which also obtained high validation results for the interactive e-module they developed.
4. Limited Trial – The trial was conducted on 10 students with positive response results related to the ease of use and attractiveness of the e-module.

5. Field Trial – Applied to 30 students in class X, showing an increase in civic knowledge based on the results of the pretest and posttest.

### Improving Students' Civic Knowledge

The measurement of the effectiveness of the e-module was carried out by comparing the results of the pretest and posttest. The average pretest score of students before using the e-module was 65.4, while after using the e-module increased to 82.7. The results of the statistical test showed a significant difference ( $p < 0.05$ ), which indicates that the use of scaffold-based e-modules contributes to improving students' understanding of Pancasila Education. In addition, questionnaire data was also analyzed to measure students' perception of this e-module. The average score of the questionnaire results before the intervention was 3.1 on a scale of 5, indicating that students had a fairly low perception of conventional learning. After the use of the e-module, the score increased to 4.5 on a scale of 5, signaling a significant increase in student engagement and understanding. Further analysis showed that 85% of students found it easier to understand the material with this e-module, while 78% stated that the interactive features helped them in the learning process.

**Table 1. Results of Questionnaire and Pretest-Posttest Calculation**

Less	Measurement Aspects	Before the Intervention	After the Intervention
1	Average Pretest Score	65,4	-
2	Average Posttest Score	-	82,7
3	Average Questionnaire Score	3.1 (Scale 5)	4.5 (Scale 5)
4	Students who find it easier to understand the material	-	85%
5	Students who find interactive features helpful in learning	-	78%



**Graph 1. Comparison of Questionnaire and Pretest-Posttest Results**

## Discussion

### Advantages of Scaffold-Based Interactive E-Modules

The scaffolding approach in e-modules helps students grasp concepts gradually through guidance tailored to their level of understanding. The interactive features in Kvisoft Flipbook Maker also increase student engagement in learning, which is in line with the theory of constructivism in digital learning.

### Implications for Learning

The use of this e-module not only increases civic knowledge but also motivates students to be more active in learning. Teachers also feel the benefits in delivering material because e-modules provide systematic and easy-to-understand content. In addition, the results of this study are also in line with previous research by Wulandari & Sulistyowati (2022), which shows that interactive learning media can significantly increase students' interest in learning. Furthermore, the results of this study have implications for the development of technology-based learning strategies. Teachers can use this interactive e-module as a tool in learning Pancasila Education, especially to overcome student saturation in lecture-based learning. With the scaffolding approach, students can understand the material gradually according to their level of comprehension.

### Comparison with Previous Studies

The results of this study support the findings of Wulandari & Sulistyowati (2022) which states that interactive e-module-based learning is able to improve student understanding more effectively than conventional methods. In addition, this research is also in line with a study from Arvinda (2018) which emphasizes the importance of innovation in the development of digital teaching materials to increase learning effectiveness.

### Research Limitations

Although the results of the study show the effectiveness of e-modules, there are still some limitations, such as limited participant coverage to one school and limited access to devices for some students. Therefore, further research is recommended to develop this e-module to be more adaptive in various educational environments and test its effectiveness in the long term.

### CONCLUSION

The development of an interactive e-module of Pancasila Education based on Kvisoft Flipbook Maker with a scaffolding approach has proven effective in increasing students' civic knowledge at SMAN 6 South Tangerang City. These modules allow for more interactive, engaging, and accessible learning, thereby increasing student engagement and understanding. The scaffolding approach in the e-module provides gradual support that helps students understand the concepts of Pancasila more deeply. The results of the study showed an increase in student participation, understanding, and learning outcomes after using this e-module. Thus, the use of this technology-based e-module is an innovative solution in strengthening Pancasila education. Wider implementation and further development can be carried out to optimize its effectiveness in various learning contexts.

### BIBLIOGRAPHY

- Amali, L. N., Rahman, T., & Suryani, N. (2019). Pengembangan Model Pembelajaran Berbasis R&D dalam Pendidikan. *Jurnal Pendidikan*, 7(2), 112-124.
- Arvinda, D. (2018). Development of Digital Teaching Materials to Increase Student Interest and Understanding. *Journal of Interactive Education*, 6(2), 45-60.
- Aydin, B., & Aytekin, C. (2018). The role of digital technology in education. *Journal of Educational Technology Research*, 6(2), 123-134.
- Badri Munawar, & Hasyim, A. F. (2020). The importance of teaching materials in education. *International Journal of Learning and Teaching*, 9(3), 78-85.
- Borg, W. R., & Gall, M. D. (2003). *Educational Research: An Introduction*. Pearson Education.
- Chang, K. E., Sung, Y. T., & Chen, S. F. (2001). The impact of scaffolding on student learning. *Educational Psychology Review*, 13(2), 111-127.



- Christina, M. Purba. (2016). Pengembangan Model Pembelajaran Berbasis ADDIE untuk Meningkatkan Hasil Belajar Siswa. *Jurnal Teknologi Pendidikan*, 14(1), 45-56.
- Dalimunthe, R. F., Siregar, N. R., & Harahap, D. (2021). Pengembangan Media Pembelajaran Berbasis Research and Development (RnD) untuk Meningkatkan Pemahaman Konsep. *Jurnal Inovasi Pendidikan*, 9(3), 203-215.
- Dwi, S., & Okmarisa, Y. (2023). Scaffolding approach in digital learning. *Journal of Innovative Learning*, 7(1), 34-49.
- Fadillah, R. (2023). Civic knowledge and its role in national development. *Journal of Civic Education*, 5(2), 67-80.
- FH, Y., Fatimah, S., & Barlian, A. (2021). The impact of digital learning materials on student engagement. *Indonesian Journal of Educational Research*, 10(1), 45-58.
- Haryonik, T., & Bhakti, A. (2018). The role of digital teaching materials in the learning process. *Journal of Educational Media and Technology*, 4(3), 120-135.
- Hidayatullah, R., & Rakhmawati, A. (2016). Kvisoft Flipbook Maker as a digital learning tool. *Journal of Digital Education*, 8(2), 98-112.
- Indrani, S., & Lazulva, K. (2020). Scaffolding techniques in education. *Journal of Educational Psychology*, 6(1), 58-73.
- Kozikoglu, N. (2019). The effect of Flipbook-based e-modules on student performance. *Educational Research Journal*, 12(3), 189-202.
- Sugiyono. (2020). *Educational Research Methods: Quantitative, Qualitative, and R&D Approaches*. Bandung: Alfabeta.
- Suparman, A. (2019). *Instructional Design: Theory and Practice in Digital Learning*. Jakarta: Rajawali Press.
- Wagiran. (2013). Pengembangan Model Pembelajaran Berbasis Research and Development untuk Meningkatkan Keterampilan Siswa. *Jurnal Pendidikan Teknologi dan Kejuruan*, 21(2), 78-89.
- Wulandari, R., & Sulistyowati, E. (2022). Development of Flip PDF Professional-Based Interactive E-Module in PPKn Learning. *Journal of Educational Technology*, 10(1), 78-95.