

**E-Module Based on Flipbook to Improve Student Learning Outcomes
in Junior High School**

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Abstract

The low achievement of students in learning about colonialism and imperialism in social studies highlights the need for innovative, technology-based teaching materials that align with the learning characteristics of the digital generation. This study aimed to develop and evaluate the effectiveness of a flipbook-based e-module as an interactive medium for social studies learning within the *Merdeka Curriculum* framework. This research employed a research and development design using the 4D model, conducted up to the *Develop* stage. The study used a single-group pretest–posttest experimental design involving 120 eighth-grade students from SMP Negeri 34 Padang, selected through purposive sampling. Data were collected through expert validation sheets, pretests, and posttests, and analyzed using descriptive statistics, normality tests, paired sample t-tests, and N-Gain analysis with SPSS to determine the module’s feasibility and learning effectiveness. The results showed a significant improvement in students’ learning outcomes, with average scores increasing from 62.40 (pretest) to 80.92 (posttest), $p = 0.000 (< 0.05)$, and an N-Gain value of 0.4957 (moderate category). Validation from material and media experts indicated high feasibility, confirming the module’s quality and suitability for classroom use. The study concludes that the flipbook-based E-Module effectively enhances students’ conceptual understanding and promotes flexible, interactive, and independent learning aligned with the *Merdeka Curriculum*, offering a practical model for technology-based learning innovation in 21st-century education.

Keywords: e-module, flipbook, interactive learning, social studies

INTRODUCTION

Social studies at the junior high school level encompass various topics that require students to develop a deep understanding of historical concepts and processes. One of the complex materials in social studies at the junior high school level is the material on colonialism and imperialism of Western nations in Indonesia (Kloos, 2021; Manse, 2023). This material requires students to not only understand the historical aspects but also analyze the social, economic, and political impacts of colonialism on the lives of Indonesian people from the past to the present (Halse, 2023; Ofianto et al., 2024; Sandahl, 2020). Understanding this material is important because it is the foundation for strengthening historical awareness, national identity, and critical thinking skills in interpreting historical dynamics that are relevant to the present context (Andrews & Aydin, 2020).

However, learning about colonialism and imperialism in the classroom still faces a number of challenges. Based on the summative assessment results in one school, only 43% of students reached the Minimum Completion Criteria (KKM), indicating students' low understanding of the material. One of the main causes is the use of conventional teaching materials that tend to be textual and do not involve students actively (Hidayati et al., 2020; Lucero et al., 2024). Findings from the learning needs questionnaire also show that more than 80% of students want digital teaching materials that are more interactive, flexible, and accessible at any time. This reflects a shift in learning preferences in line with the characteristics of the digital generation (Maricar et al., 2023; Núñez et al., 2021).

In response to these problems, the development of flipbook-based E-modules can be an effective solution in improving the quality of social studies learning (Putra, 2020; Haniah et al., 2023). This e-module allows students to access the material anytime and anywhere, which provides greater flexibility compared to traditional textbooks (Sakinah et al., 2023; Syahri et al., 2024). In addition, these e-modules are equipped with various elements such as animated videos and student worksheets (Malysheva et al., 2022; Sari & Qohar, 2023), which can help clarify students' understanding of difficult-to-understand concepts. Numerous studies have demonstrated that using interactive e-modules can enhance student learning outcomes and increase their comprehension of the material (Delita et al., 2022; Elmunsyah et al., 2023).

E-modules based on flipbooks for social studies classes on colonialism and imperialism have the potential to overcome the limitations of conventional teaching materials (Talan & Widayati, 2023). This module is designed not only as a medium for delivering material but also as a means of self-learning that allows students to access information at their own pace and according to their own needs (Safitri et al., 2021; Ningrum and Ambarwati, 2022). Elements in the e-module include concept mapping, material description, introduction to historical figures, impact of colonialism, learning videos, and evaluation based on Learner Worksheets (LKPD). The design is systematically organized and aligned with the learning outcomes in the Merdeka Curriculum (González-pérez & Ramírez-montoya, 2022; Mulyani & Marhum, 2025).

Although there have been many studies on e-module development, most of them are still focused on technical aspects or limited to the field of science. In particular, this study looks at how well flipbook-based e-modules work for social studies instruction, especially the material on colonialism and imperialism, which is still limited. In addition, the lack of integration of digital teaching materials in independent curriculum social

studies learning is an important gap that needs to be filled in the realm of developing innovative learning materials.

Thus, the purpose of this project is to create and evaluate flipbook-based E-modules for social studies instruction on colonialism and imperialism at the junior high school level. This module was created to assist and promote learning outcomes in the Merdeka Curriculum for students. Therefore, the creation of this flipbook-based E-module provides more thorough social studies teaching materials to support meaningful social studies learning at the junior high school level in addition to meeting the requirement for more contextual and digitally friendly learning.

METHOD

Research Design

This research employed the Research and Development (R&D) methodology using the 4D development model (Define, Design, Develop, and Disseminate). The model was chosen because it provides a systematic and structured process for designing, developing, and validating educational products, particularly digital learning media (Gopalan, Rosinger and Ahn, 2020; Yuliana et al., 2023; Lawa et al., 2025). In this study, the process was carried out up to the Develop stage, which focused on the validation and effectiveness testing of the flipbook-based e-module.

Participants and Research Setting

The research was conducted at SMP Negeri 34 Padang, involving 120 eighth-grade students selected from 4 classes out of a total of 7 classes in the academic year 2024. The sampling technique used was purposive sampling, based on accessibility and the active participation of students in social studies learning.

The needs analysis revealed that both teachers and students required dynamic, interactive, and easily accessible learning materials. Most teachers still relied on printed textbooks and LKS (student worksheets), which limited opportunities for independent and engaging learning. Students expressed a preference for digital media that could be accessed via smartphones and laptops, allowing flexible learning aligned with the Merdeka Curriculum.

Development Stage

The structure and prototype of the flipbook-based E-module were developed. The E-Module included concept maps, material descriptions, historical figures, learning videos, and evaluation questions (LKPD) designed to strengthen students' understanding of *colonialism and imperialism*. The layout was designed using visual illustrations, animations, and navigation tools to enhance interactivity. The design process also included setting learning objectives, selecting appropriate multimedia components, and integrating features for independent learning.

The Develop stage included expert validation and product trials to test the feasibility and effectiveness of the developed E-Module. First, expert validation. Two experts, one in social studies content and one in interactive media design, validated the product using structured questionnaires based on a 4-point Likert scale (Alabi & Jelili, 2023; Mumu et al., 2022). Validation assessed aspects of content accuracy, design quality, usability, and curriculum relevance. The results indicated a 91.67% feasibility score from the material expert and 78.33% from the media expert, both categorized as very feasible. These results confirm that the flipbook-based e-module met quality standards and was

suitable for classroom implementation. Second, product testing. After expert validation, the module underwent two testing stages: 1) Limited Trial: Conducted with 30 students to identify initial weaknesses and gather feedback for revisions; 2) Large-Scale Trial: Conducted with 90 students after revision to evaluate the module's effectiveness. Students completed pretests before using the E-Module and posttests afterward. Students completed pretests before using the E-Module and posttests afterward. The results were used to measure the impact of the E-Module on students' learning outcomes.

Data Analysis

Data was analyzed using both descriptive and inferential statistics through SPSS version 25.0. The following steps were conducted: 1) Normality test (Shapiro-Wilk) to check data distribution; 2) Paired sample t-test to determine the significance of learning outcome improvement; 3) N-Gain test to measure learning effectiveness. The N-Gain test was used to measure the effectiveness of the improvement achieved by students, categorized in low, medium, or high levels.

Table 1. N-Gain category

N-Gain Value	Category
$g \geq 0,7$	High
$g \geq 0,3 \geq 0,7$	Medium
$g \leq 0,3$	Low

RESULT AND DISCUSSION

Findings

Define

The development of Flipbook-based E-Module design begins with a needs analysis through interviews and distributing questionnaires to students. Based on the results of the analysis, one of the main problems found is the lack of utilization of technology in the learning process, especially in the form of digital teaching materials such as e-modules. Many teachers still rely on textbooks and Student Worksheets (LKS) as the main media in learning. In fact, these media tend to be less interactive and non-contextual, which has an impact on students' limitations in understanding the material in depth.

This condition is reinforced by the results of interviews conducted by researchers with three social studies teachers at one of the public junior high schools in Padang City. The teachers stated that the use of e-modules is still very limited. This is due to the limited time in developing teaching materials and the unavailability of e-modules that suit learning needs. Therefore, teachers prefer to use LKS from MGMP Padang City and government textbooks as the main sources in teaching and learning activities.

In addition to the results of interviews with teachers, researchers also conducted a needs analysis from the student side. Based on the results of the questionnaire, 82% of students agreed to the use of e-modules in learning social studies. They considered that e-modules provide easy access because they can be opened at any time through their cellphone devices. The results of interviews with several students reinforce this finding. Student P stated that "*this e-module seems good to use,*" while student GH mentioned, "*It seems fun; I really need it.*" Student MA even emphasized that "*the use of e-modules can facilitate the process of understanding learning.*" Other students also considered that the use of e-modules can make the delivery of material more optimal and not boring and can

be used as a *refreshing* media or *refreshing* after learning a lot of material in social studies lessons.

Product Design

After withstanding definition, the flipbook-based E-Module development design includes six components, namely concept mapping of colonialism and imperialism in Indonesia, presentation of core material, introduction of historical figures, description of the short-term and long-term impacts of colonialism and imperialism, learning videos, and evaluation in the form of Learner Worksheets (LKPD). This design is arranged systematically and in line with the learning outcomes set out in the Merdeka Curriculum.

The initial part of this E-Module contains an introductory menu that includes learning outcomes, indicators, learning objectives, and instructions for using the E-Module. These instructions are structured to help learners understand how to access, navigate, and use Flipbook, including steps to open pages, play videos, work on LKPD, and use self-learning strategies using digital devices such as smartphones or laptops. Furthermore, the material section is presented gradually and thematically, covering the background of colonialism and imperialism, the motives and strategies of colonization, as well as important figures who played a role in that period. The material is packaged in the form of concise narrative text and reinforced with visual illustrations, infographics, maps, and learning videos to improve students' overall understanding. The evaluation in this E-Module is realized in the form of LKPD. The evaluation instrument is arranged in the form of explanatory descriptions so that students are able to analyze questions that are in accordance with the predetermined learning indicators. Figure 1 shows the Flipbook-based E-Module product that has been developed.



Figure 1. Flipbook-based E-Module Design

This flipbook-based E-Module is designed with an attractive visual and audio display through a combination of bright colors and a simple but effective layout. With the support of Flipbook technology that allows accessibility via the internet, this module provides flexibility for students to learn anytime and anywhere. In addition to supporting independent learning, this E-Module is an effective interactive learning resource for improving students' understanding of colonialism and imperialism material in social studies subjects.

Product Validation

The validation test of E-Module products as teaching materials is carried out to ensure that this module is suitable for use in learning, both in terms of content and design of teaching materials. Validation was carried out by two experts, namely material experts and media experts, using an evaluation questionnaire that included aspects of relevance, depth of content, suitability to the curriculum, visualization, interactivity, and ease of use. Table 2 shows the results of the assessment of two expert validators.

Table 2. Assessment of Flipbook-based E-Module Product Validation Results

No.	Assessment	Percentage	Category
1	Material Expert	91.67%	Very Feasible
2	Media Expert	78.33%	Very Feasible

The results of product validation show that the Flipbook-based E-Module is considered very feasible based on the assessment of material experts and media experts. The material expert gave a score of 55 with an assessment percentage of 91.67%, which is in the Very Feasible category, confirming that the module content has met the criteria of relevance, depth of material, and conformity to the curriculum. Meanwhile, media experts gave a score of 47 with an assessment percentage of 78.33%, also in the Highly Appropriate category, indicating that the visual design, interactivity, and ease of use of the module have met the quality standards.

Product Trial

In this study, product trials were carried out to assess how well Flipbook-based E-Modules taught social subjects to eighth-grade students at State Junior High School in Padang. Table 3 displays the evaluation's findings.

Table 3. Product Trial

Group	Pretest Average	Posttest Average	Percentage Increase
Small scale	63.60	78,60	23.60%
Large scale	62.40	80.92	29.72%

According to Table 3, the average pretest score was 63.60, while the posttest score rose to 78.60, representing a 23.60% increase. The average pretest score in the large-scale trial was 62.40, while the posttest score rose to 80.92, representing a 29.72% rise. According to these findings, the flipbook-based E-Module is useful for raising student learning outcomes on both a little and big scale when it comes to colonialism and imperialism content in social studies classes. According to the notable improvement in grades, the majority of students were able to meet or surpass the KKM of 70, demonstrating the usefulness of this e-module as an interactive teaching tool.

Normality Test Results

To make sure the data was distributed, a normality test was used to examine the students' pretest and posttest findings. Determining if the learning results of the students are regularly distributed requires the use of this test. To see the distribution of the data, a Shapiro-Wilk analysis was performed using the SPSS version 25.0 application. The results of the normality test regarding student learning outcomes in the large-scale trial in class VIII of State Junior High School in Padang are presented in table 4.

Table 4. Normality Test Results on Large Scale Trial

	Tests of Normality					
	Kolmogorov-Smirnov ^a			Shapiro-Wilk		
	Statistic	df	Sig.	Statistic	df	Sig.
Pretest	0.165	90	0.076	0.915	90	0.040
posttest	0.162	90	0.092	0.947	90	0.218

Based on table 4, the outcomes of the pretest and posttest normality tests were employed, along with the Kolmogorov-Smirnov method's normality test. Both the pretest and posttest results had significance values (Sig.) of 0.076 and 0.092, respectively. Given that both of these values exceed the significance level of 0.05, the Kolmogorov-Smirnov method indicates that the pretest and posttest data are regularly distributed (Fiandini et al., 2024).

Pretest and posttest Mean Difference Test Results

The difference between the average pretest and posttest scores of student learning outcomes was examined using the t-test also to assess how effectively Flipbook-based E-Modules work for teaching social studies, particularly when it comes to the content of Western nations' colonialism and imperialism in Indonesia (Golub et al., 2024). To determine the variation in the average value of student learning outcomes, this analysis was conducted using the SPSS version 25.0 application. The data under analysis comprised pretest and posttest results from a large-scale study that involved 120 students in grade VIII of a public junior high school in Padang. The t-test analysis's findings are shown in Table 5.

Table 5. Results of Product Trial on a Large Scale

Statistics	Value
Mean Difference (Pretest–Posttest)	-18.520
Std. Deviation	5.486
t-value	-16.880
df	4
Sig. (2-tailed)	.000

Based on table 5, the average difference in pretest and posttest scores is -18.520, with a standard deviation of 5.486 and a standard error of 1.097. The 95% confidence interval for the mean difference is in the range -20.784 to -16.256, which does not include zero. This indicates that the difference in mean pretest and posttest scores is statistically significant. According to the computed t value of -16.880 and the degree of freedom (df) of 24, these findings demonstrate a positive rise in student learning outcomes. Furthermore, the significant value (Sig. 2-tailed) is below the significance level of 0.05, at 0.000.

N-Gain Test Result

The N-Gain test compares pretest and posttest data in percentage form to assess how well student learning outcomes have improved (Bañez & Mosteyro, 2025; Dewantara et al., 2020). This method aims to assess how well students' comprehension and learning outcomes are enhanced by the learning intervention offered, which takes the shape of E-modules as a historical resource with content about Western nations' colonialism and imperialism in Indonesia. By calculating the difference between

normalized pretest and posttest scores (Talan & Widayati, 2023). Table 6 presents the N-Gain test results as well as the pretest and posttest scores of the students.

Table 6. N-Gain Test Results

Pretest Average	Posttest Average	Average Difference	N-Gain	N-Gain (%)	Criteria
62.40	80.92	18.52	0.4957	49.57%	Medium

Based on table 6, the findings of the N-Gain test indicate that using Flipbook-based E-Modules to teach social studies improved student learning outcomes. With an average difference of 18.52, the average student pretest score prior to learning was 62.40, and the average posttest score following learning rose to 80.92. The N-Gain test was used to calculate this increase, and the resultant value, when translated to a percentage, was 0.4957, or 49.57% (Suprpto et al., 2021).

Discussion

The effectiveness of using Flipbook-based E-Modules that have been built with content on colonialism and imperialism of Western nations in Indonesia is assessed using results from pretests and posttests of student learning (Junaedy & Asyiah, 2025). Through the measurement of students' ability to meet predefined learning objectives, this assessment seeks to quantify the effectiveness of the learning process (Ma'Shumah et al., 2023). E-modules based on flipbooks have been shown to improve student learning results in prior studies (Seevaratnam et al., 2023). Because of its more structured and interactive presentation, this E-Module greatly enhances students' comprehension, particularly of the information on colonialism and imperialism in Indonesia in social studies classes (Sar and Pujiastuti, 2023; Utama et al., 2023).

The advantages of E-Modules based on Flipbooks lie in their interactive nature, so as to actively involve students in the learning process. With a creative approach and in-depth material, the E-Module based on Flipbook successfully supports the development of students' cognitive abilities, thus having a direct impact on improving learning outcomes. Therefore, this teaching material can be considered a relevant and effective learning innovation in improving the quality of education.

This study demonstrates that the usage of e-modules based on flipbooks in social studies instruction improves student learning outcomes, particularly when it comes to the content on imperialism and colonialism (Hadian & Tirtoni, 2024). The study of the pretest and posttest findings revealed that students' average score increased significantly from 62.40 to 80.92. The findings of Rahman et al. (2023), the paired sample t-test, which showed a significance of 0.000, and Delita et al. (2022), the moderate N-Gain value of 0.4957, who showed a moderate N-Gain value of 0.4957, indicate that interactive digital media can improve learning outcomes and motivation. Furthermore, this also shows that e-Modules can have a positive impact on student learning outcomes.

In terms of validity, this flipbook obtained high feasibility scores from material experts (91.67%) and media experts (78.33%), indicating that the content design, material depth, and visual quality are in accordance with the principles in the Merdeka Curriculum and multimedia learning theory (Boonchutima et al., 2023). This module facilitates the learning process by integrating elements such as concept maps, visual narratives, and LKPDs that support active learning (Xay et al., 2025). This theoretically supports dual-channel processing of information and the principle of cohesion between text and images.

The advantage of Flipbook lies in the flexibility of access and in-depth visual approach, which allows students to learn independently anytime and anywhere. This module is proven to bridge the gap in students' understanding of complex material, such as colonialism, which has been considered abstract and difficult to understand. In addition, the findings have practical implications for teachers and policymakers in encouraging the adoption of digital teaching materials that are contextual, adaptive, and supportive of 21st-century learning.

CONCLUSION

This study aimed to develop and test the effectiveness of a flipbook-based e-module for social studies learning on the topic of colonialism and imperialism. Using the Research and Development (R&D) design with the 4D model up to the *Develop* stage, involving 120 eighth-grade students from SMP Negeri 34 Padang, the findings showed a significant improvement in learning outcomes. The average score increased from 62.40 (pretest) to 80.92 (posttests), supported by a paired sample *t*-test result of $p = 0.000$ (< 0.05), indicating a significant difference. The N-Gain value of 0.4957 (moderate category) further confirmed the module's effectiveness. Validation results from material and media experts also showed high feasibility, classifying the flipbook-based E-module as "very feasible" for classroom use. The flipbook-based E-Module has proven to be a practical and engaging digital learning tool that supports independent and interactive learning aligned with the *Merdeka Curriculum*. Its visually appealing and structured design encourages student participation and helps improve comprehension in social studies. The results suggest that this E-Module can serve as an innovative teaching resource for teachers to enhance digital learning integration in the 21st-century classroom. Future research is recommended to apply this model in other subjects or educational levels to expand its effectiveness and contribution to technology-based education development.

REFERENCES

- Alabi, A. T., & Jelili, M. O. (2023). Clarifying Likert Scale Misconceptions For Improved Application In Urban Studies. *Quality and Quantity*, 57(2), 1337–1350. <https://doi.org/10.1007/s11135-022-01415-8>
- Andrews, K., & Aydin, H. (2020). Pre-Service Teachers' Perceptions Of Global Citizenship Education In The Social Studies Curriculum. *Journal of Social Studies Education Research*, 11(4), 84–113. <https://doi.org/10.2139/ssrn.3549266>
- Bañez, R. M., & Mosteyro, H. G. (2025). Evaluating the Sufficiency of Multiplicity Functions of Visual Cues in English Modules for Remote Learning: Perspective from Public Junior High School Teachers. *Participatory Educational Research*, 12(1), 118–137. <https://doi.org/10.17275/per.25.7.12.1>
- Boonchutima, S., Chongkolrattanaporn, T., & Kongchan, W. (2023). Cognitive Load Theory in Online Education: Leveraging Interactive Media, Testing, Interaction and to Enhance Engagement and Active Learning. *TENCON 2023 - 2023 IEEE Region 10 Conference (TENCON)*, 2-9.
- Delita, F., Berutu, N., & Nofrion, N. (2022). Online Learning: The Effects Of Using E-Modules On Self-Efficacy, Motivation and Learning Outcomes. *Turkish Online Journal of Distance Education*, 23(4), 93-107. <https://doi.org/10.17718/tojde.1182760>

- Dewantara, D., Wati, M., Misbah, M., Mahtari, S., & Haryandi, S. (2020). Blended Learning to Improve Learning Outcomes in Digital Electronics Courses. *Proceedings: 1st South Borneo International Conference on Sport Science and Education (SBICSSE 2019)* 188-190 <https://doi.org/10.2991/assehr.k.200219.054>
- Elmunsyah, H., Hidayat, W. N., Bramastya, R., & Bin Musta'amal, A. H. (2023). E-Module to Grow Interest in Learning Multimedia Engineering for Informatics Engineering Students. *Proceedings: ICEEIE 2023-International Conference on Electrical, Electronics and Information Engineering*, 1-4. <https://doi.org/10.1109/ICEEIE59078.2023.10334831>
- Fiandini, M., Nandiyanto, A. B. D., Al Husaeni, D. F., Al Husaeni, D. N., & Mushiban, M. (2024). How to Calculate Statistics for Significant Difference Test Using SPSS: Understanding Students Comprehension on the Concept of Steam Engines as Power Plant. *Indonesian Journal of Science and Technology*, 9(1), 45-108. <https://doi.org/10.17509/ijost.v9i1.64035>
- Golub, I. J., Vakharia, R. M., & Razi, A. E. (2024). Basic Science Statistics. In *Translational Orthopedics* (pp. 163–166). Elsevier. <https://doi.org/10.1016/B978-0-323-85663-8.00048-9>
- González-Pérez, L. I., & Ramírez-Montoya, M. S. (2022). Components of Education 4.0 in 21st Century Skills Frameworks: Systematic Review. *Sustainability*, 14 (3), 1493. <https://doi.org/10.3390/su14031493>
- Gopalan, M., Rosinger, K., & Ahn, J. B. (2020). Use of Quasi-Experimental Research Designs in Education Research: Growth, Promise, and Challenges. *Review of Research in Education*, 44(1), 218–243 <https://doi.org/10.3102/0091732X20903302>
- Hadian, N. S., & Tirtoni, F. (2024). Ethnopedagogy-Based Literacy E-Modules in Pancasila Education Subject. *Lectura : Jurnal Pendidikan*, 15, 273–286.
- Halse, R. (2023). Curriculum analysis of primary school's representation of ICT and digital media in social studies: Competitive workforce or educated, digital citizens? *Acta Didactica Norden*, 17(3), Article 3. <https://doi.org/10.5617/adno.9269>
- Haniah, H., Mahira, M., & Djuaeni, M. N. (2023). The Development of Interactive E-Book-Based Teaching Materials for Senior High School Students. *Arabiyatuna: Jurnal Bahasa Arab*, 7(1 May). <https://doi.org/10.29240/jba.v7i1.6690>
- Hidayati, N. A., Waluyo, H. J., Winarni, R., & Suyitno. (2020). Exploring the Implementation of Local Wisdom-Based Character Education among Indonesian Higher Education Students. *International Journal of Instruction*, 13(2), 179-198. <https://doi.org/10.29333/iji.2020.13213a>
- Junaedy, A. G., & Asyiah, I. N. (2025). Developing a Culturally Integrated E-Module on Madurese Herbal Knowledge to Enhance Students' Ecoliteracy Skills. *Lectura : Jurnal Pendidikan*, 16(2), 602-615. <https://doi.org/10.31849/7fjk2q25>.
- Kloos, D. (2021). Dis/connection: Violence, Religion, and Geographic Imaginings in Aceh and Colonial Indonesia, 1890s-1920s. *Itinerario*, 45(3), 1-24. <https://doi.org/10.1017/S0165115321000255>
- Lawa, J. A., Madale, V. A., Salic-Hairulla, M. A., Alcopra, A. R., Magsayo, J. R., & Ellare, A. O. (2025). Needs Analysis: Development of a Contextualized Socioscientific Issues (SSI)-Based Module for Enhancing Conceptual Understanding of the Digestive System in Health Science Education. *Seminars in Medical Writing and Education*, 4, Article 706. <https://doi.org/10.56294/mw2025706>

- Lucero, M., Montanero, M., & van Boxtel, C. (2024). Semiempty Collaborative Concept Mapping in History Education: Students' Engagement in Historical Reasoning and Coconstruction. *Instructional Science*, 52(4), 557–581. <https://doi.org/10.1007/s11251-024-09659-7>
- Ma'Shumah, R., Rahman, A., & Nurjayadi, M. (2023). The Development of Hydrocarbon's Electronic Module for Science Student 11th Grade with PQ4R (Preview, Question, Read, Reflect, Recite, Review) Strategy. In *Conference: The 3RD International Conference on Science Education And Technology (ICOSETH 2021)*. <https://doi.org/10.1063/5.0159808>
- Malysheva, O., Tokareva, E., Orchakova, L., & Smirnova, Y. (2022). The Effect of Online Learning in Modern History Education. *Heliyon*, 8, 1-11. <https://doi.org/10.1016/j.heliyon.2022.e09965>
- Manse, M. (2023). Colonial Deficiencies. Explaining inequality and exploitation in the Dutch East Indies from a practical-administrative perspective. *Tijdschrift Voor Geschiedenis*, 136(3), 212-232. <https://doi.org/10.5117/TvG2023.3.003.MANS>
- Maricar, F. M. A. B., Anuar, M. F. Z., Bakhi, M. O., & Baloch, H. Z. (2023). The usefulness of Teaching Technology Toolkit (3T) in Selecting Appropriate Learning Tools for an Engaging Online Learning Solution. *2 Conference: 2023 20th Learning and Technology Conference (L&T)*. <https://doi.org/10.1109/LT58159.2023.10092358>
- Mulyani, S., & Marhum, M. (2025). Using Index Card Match in Developing Vocabulary of the Eighth-Grade Students in Junior High School. *Lectura: Jurnal Pendidikan*, 16, 628–639. <https://doi.org/10.31849/6rfk4g09>
- Mumu, J., Tanujaya, B., Charitas, R., & Prahmana, I. (2022). Likert Scale in Social Sciences Research: Problems and Difficulties. *FWU Journal of Social Sciences*, 16(4), 89–101. <https://doi.org/10.51709/19951272/Winter2022/7>
- Ningrum, N. I., & Ambarwati, R. (2022). Development of Flipbook-Based E-Module on Animalia Material As Teaching Material To Train Digital Literacy of Class X High School Students. *BioEdu: Berkala Ilmiah Pendidikan Biologi*, 12(2), 525-538. <https://doi.org/10.26740/bioedu.v12n2.p525-538>
- Núñez, M. L. P., López, A. T., & Acosta, A. D. (2021). Educational Innovation in the Development of Relevant Learning: A Systematic Literature Review. *Universidad y Sociedad*, 13, 134-145.
- Ofianto, O., Rahmi, U., Syafrini, D., & Ningsih, T. Z. (2024). Assessing historical thinking skills in high school history education: a Padlet-based approach. *Journal of Education and Learning*, 18(3), 881–892. <https://doi.org/10.11591/edulearn.v18i3.21260>
- Putra, E. S. I. (2020). Learning Model of Reflective Inquiry Based on Environment as a Source of Learning IPS Education. *International Journal of Scientific and Technology Research*, 9(2), 2602–2605.
- Rahman, L., Silaban, R., & Nurfajriani, N. (2023). The Effectiveness of Using Chemistry E-Modules Assisted Flip Pdf Professional on Improving Learning Outcomes and Motivating Students. *AIP Conference Proceedings*, 2642. <https://doi.org/10.1063/5.0110063>

- Safitri, A., Permata, M. D., & Wilujeng, I. (2021). The Effect of Using the E-Module Assisted by the Kvisoft Flipbook Maker in Improving Student's Critical Thinking Skills During the Covid-19 Pandemic. *Proceedings of the 6th International Seminar on Science Education (ISSE 2020)*, 541. <https://doi.org/10.2991/assehr.k.210326.078>
- Sakinah, G. S., Indrawadi, J., Suryanef, S., & Ernawati, E. (2023). The Development of E-Modules of Pancasila Education Learning with the Flipbook Application. *Scaffolding: Jurnal Pendidikan Islam dan Multikulturalisme*, 5(3), 601-631. <https://doi.org/10.37680/scaffolding.v5i3.3815>
- Sandahl, J. (2020). Social Studies Education from the Socialisation, Qualification, and Subjectification Perspectives: A Proposed Synthesis. In *Political Identity and Democratic Citizenship in Turbulent Times* (pp. 186–202). IGI Global.
- Sar, R. W., & Pujiastuti, P. (2023). Social studies learning modules to improve concept understanding and attitude of the environmental care. *Journal of Education and Learning*, 17(1). <https://doi.org/10.11591/edulearn.v17i1.20690>
- Sari, M. R., & Qohar, A. (2023). Development of mathematics learning media based on articulate storyline 3 on cube materials. In S. null, K. Shimizu, E. Cahyono, M. null, C. P. Lim, & S. Aazmi (Eds.), *AIP Conference Proceedings (Conference: International Conference on Applied Computational Intelligence and Analytics (ACIA-2022))*. <https://doi.org/10.1063/5.0125871>
- Seevaratnam, V., Gannaway, D., & Lodge, J. (2023). Design thinking-learning and lifelong learning for employability in the 21st century. *Journal of Teaching and Learning for Graduate Employability*, 14(1), 167-186. <https://doi.org/10.21153/jtlge2023vol14no1art1631>
- Suprpto, N., Ibisono, H. S., & Mubarok, H. (2021). The Use of Physics Pocketbook Based on Augmented Reality on Planetary Motion to Improve Students' Learning Achievement. *Journal of Technology and Science Education*, 11(2), 526-540. <https://doi.org/10.3926/jotse.1167>
- Syahri, W., Fuldiaratman, & Ekaputra, F. (2024). Development of Project Based Learning E-Modules in Chemistry Learning Design Course Using Flipbook Builder Application. *Jurnal Penelitian Pendidikan IPA*, 10(11), 8311–8318. <https://doi.org/10.29303/jppipa.v10i11.8686>
- Talan, D. F. E., & Widayati, A. (2023). Effectiveness of Implementing E-module Based on Contextual Teaching and Learning to Improve Learning Outcomes and Class XI IPS in SMA Negeri 1 Soe. *Asian Journal of Social and Humanities*, 1(06), 279-287. <https://doi.org/10.59888/ajosh.v1i06.23>
- Utama, T. R., Suyahmo, S., & Purnomo, A. (2023). Integration of Gender Equality Values Through Innovative Development of Interactive E-Modules in Social Studies Subject. *Journal of Educational Social Studies*, 12(2), 119-127. <https://doi.org/10.15294/jess.v12i2.75804>
- Xay, P. V., Khanh, M. Q., Kien, P. T., Tinh, T. T., & Nguyen, D. L. (2025). Bridging Art, Culture And Ecology: Innovative Environmental Education Practices In University Settings. *International Journal of Ecosystems and Ecology Science*, 15(2), 231–240. <https://doi.org/10.31407/ijeess15.230>
- Yuliana, L., Setiawan, J., & Fadli, M. R. (2023). The performance of vocational high school principal's learning supervision in Indonesia. *International Journal of Evaluation and Research in Education*, 12(3), 1486–1496. <https://doi.org/10.11591/ijere.v12i3.24995>