Indonesian Journal of Social Science Education (IJSSE)

Indonesian Journal of Social Science Education

http://ejournal.uinfasbengkulu.ac.id/index.php/ijsse

E-ISSN: 2655-6278 P-ISSN: 2655-6588

Development of E-Module Research and Development Materials for History Education Students

KRISTOFORUS BAGAS ROMUALDI[1], ANDANG FIRMANSYAH[2], MICHAEL SILVESTER MITCHEL VINCO[3], SUNARTO[4]

[1,2]Universitas Tanjungpura, Pontianak, Indonesia.
[3]Universitas Mulawarman, Samarinda, Indonesia.
[4]PPSDM Kemendikdasmen, Jakarta, Indonesia.
Email: kristoforus.bagas.romualdi@fkip.untan.ac.id

ABSTRACT:
The transformation of 21st century education requires history education students to master research and development (R&D) methods to create learning innovations. This research aims to develop e-module on research and development (R&D) materials that can be accessed through digital devices to answer these challenges. The research and development method with the ADDIE model is applied in five systematic stages. The results of validation by the first expert showed that the e-module was very feasible in the learning aspect (score 4.4), feasible in the content aspect (score 4.0) and very feasible for the media aspect (score 4.75). Then the second expert gave feasible on the learning aspect (score 3.4), very feasible on the content aspect (score 4.38) and feasible for the media aspect (score 3.5). User trials reinforced the findings with very feasible scores on all aspects: learning (4.63), content (4.48), and media (4.63). The findings prove that the developed e-module are feasible to use as learning media. This product has the potential to be an alternative digital-based learning media to support the mastery of R&D material in history education lectures.
Keywords: E-module, Research and Development (R&D), History Education, ADDIE Model.

ABSTRAK:
Transformasi pendidikan abad 21 menuntut mahasiswa pendidikan sejarah agar dapat menguasai metode penelitian dan pengembangan (R&D) guna menciptakan inovasi pembelajaran. Penelitian ini bertujuan mengembangkan e-modul pada materi penelitian dan pengembangan (R&D) yang dapat diakses melalui perangkat digital untuk menjawab tantangan tersebut. Metode penelitian dan pengembangan dengan model ADDIE diterapkan dalam lima tahap sistematis. Hasil validasi oleh ahli pertama menunjukkan e-modul sangat layak pada aspek pembelajaran (skor 4.4), layak pada aspek isi (skor 4.0) dan sangat layak untuk aspek media (skor 4.75). Kemudian ahli ke dua memberikan layak pada aspek pembelajaran (skor 3.4), sangat layak pada aspek isi (skor 4.38) dan layak untuk aspek media (skor 3.5). Uji coba pengguna memperkuat temuan dengan skor sangat layak pada semua aspek: pembelajaran (4.63), isi (4.48), dan media (4.63). Temuan membuktikan e-modul yang dikembangkan layak digunakan sebagai media pembelajaran. Produk ini berpotensi menjadi alternatif media pembelajaran berbasis digital untuk mendukung penguasaan materi R&D dalam perkuliahan pendidikan sejarah.
Kata Kunci: E-modul, Penelitian dan Pengembangan (R&D), Pendidikan Sejarah, Model ADDIE.

Article History: Received: 06-06-2025, Accepted: 26-06-2025, Published: 31-07-2025.
PLEASE CITE AS: Romualdi, K.B., Firmansyah, A., Vinco, M.S.M., & Sunatro. (2025). Development of E-Module Research and Development Materials for History Education Students. *Indonesian Journal of Social Science Education (IJSSE), 7* (2), 135-144. DOI: http://dx.doi.org/10.29300/ijsse.v7i2.8363

A. INTRODUCTION

The 21st-century education model requires a transformation in the field of learning, including history education (Hasan, 2019). In this context, history education students who are prospective teachers are not only required to understand historical content but also must master research and development (R&D) methods to create innovative learning experiences. The learning innovations in question can take the form of developing models, strategies, and utilizing various types of learning media (Zunidar, 2019). In history learning, innovation itself is needed as a means to increase interest and motivation, so that students can get a useful history learning experience (Pramayogi, P, & Hartanto, 2019).

The above description illustrates that the R&D method is a means to produce innovations by producing new products that are able to answer learning challenges in a scientific way (Waruwu, 2024). However, amid this urgency, history education students find it challenging to explore R&D. Based on the results of observations for problem analysis, it was found that the lack of teaching materials and learning media about R&D made 72% of the respondents of Tanjungpura University history education students unaware and uninterested in taking research and development. This condition needs attention because, without adequate mastery of R&D, history education graduates risk failing to respond to 21st-century educational challenges such as the integration of technology in history learning.

Lecturers need to think of appropriate innovations to facilitate the deepening of R&D material in the classroom. The Indonesian Internet Service Providers Association (APJII) survey in 2022 showed that 99.16% of 13-18 year olds and 98.64% of 19-34 year olds in Indonesia are active internet users. Students spend an average of 3-5 hours per day accessing various content, including entertainment and academic information (APJII, 2023). The data can serve as a basis for understanding the need for lecturers to develop and utilize learning media that are technology-connected (Romualdi & Firmansyah). The goal is to assist students in understanding the material, in this case R&D, so that they can make innovation-oriented historical learning research.

In principle, technological advances have made it easier for students to find or gather information related to the material taught in the classroom (Romualdi, Sudrajat, & Aman). These advances can also be utilised by lecturers to develop and use learning media connected to technology to support the learning process that is adaptive, flexible, and in accordance with the demands of the times (Romualdi & Firmansyah). Thus, it would be better if the technology-based learning media chosen by lecturers can be used by students anywhere and anytime (Romualdi, Sudrajat, & Aman).

Digital module or e-module can be used as an alternative innovation that supports the history learning process for students (Romualdi & Firmansyah). The use of e-module not only facilitates access to information, but also increases interactivity and student involvement in understanding historical material more deeply (Almahera, Jauhari, & Nafi'ah, 2023). With the multimedia features offered, e-module can include videos, images, audio, and others, making the learning experience more interesting and effective (Jafnihirda, Suparmi, Ambiyar, Rizal, & Pratiwi, 2023). E-module also allow students to learn independently through applications and can be accessed freely as long as they are connected to the internet (Syafitri &

Kurniawati, 2022; Herditiya, Sari, & Koryati, 2023).

Research conducted previously showed that the digital module on Renaissance sub-material through the Canva application for history education students received a score of 4.23 or was included in the very feasible criteria (Romualdi & Firmansyah). Herditiya et al's research also shows that the effectiveness of e-module as learning media gets an N-Gain value of 0.97 or falls into the high category (Herditiya, Sari, & Koryati, 2023). These two research results show that e-modules are feasible and effective to use as learning media. In the context of this study, researchers aim to describe e-module development research, focusing on research and development materials. The goal is to develop innovative e-module products utilizing research and development materials that are feasible through scientific testing, enabling them to serve as effective learning media for history education students.

B. METHOD

The research method used in this study is research and development with reference to the ADDIE model. The ADDIE model is an acronym for five systematic stages, namely Analysis, Design, Development, Implementation, and Evaluation (Hidayat & Nizar, 2021). Model ADDIE bersifat fleksibel dan interatif (Hidayat & Nizar, 2021), allowing developers to make revisions at each stage based on the findings obtained during the process. Adeoye et al (2024) explained that educators can follow the ADDIE model procedures in designing, developing, and implementing digital-based teaching materials.

The research data was obtained through a validation process conducted by two experts from academia as well as learning media practitioners. After completing the validation process, the researcher carried out the implementation phase through a limited field trial involving 10 student participants from the History Education Study Program at Universitas Tanjungpura, selected using a random sampling technique. The data analysis techniques used are qualitative and quantitative. Qualitative in the form of words at the analysis stage whose data is obtained through interview techniques and suggestions for improvement from experts and students on products developed by researchers. While quantitative in the form of numbers obtained in the form of scores through questionnaire techniques. The purpose of this field trial is to determine the feasibility of the product developed by the researcher. The feasibility aspect is measured by the format adopted from the reference value conversion table Sukardjo (2005) as follows.

Table 1: Five Scale Score Conversion Based on Benchmark Assessment (PAP)

Interval	Score	Category
$x > Xi + 1{,}80$ Sbi	$x > 4{,}21$	Very Suitable
$Xi + 0{,}60$ Sbi $< x \leq Xi + 1{,}80$ Sbi	$3{,}40 < x \leq 4{,}21$	Suitable
$Xi - 0{,}60$ Sbi $< x \leq Xi + 0{,}60$ Sbi	$2{,}60 < x \leq 3{,}40$	Enough Suitable
$Xi - 1{,}80$ Sbi $< x \leq Xi - 0{,}60$ Sbi	$1{,}79 < x \leq 2{,}60$	Low Suitable
$x \leq Xi - 1{,}80$ Sbi	$X \leq 1{,}79$	Very Not Suitable

C. RESULT AND DISCCUSSION

1. Result

a. Analysis Stage

Product selection and development in the ADDIE model begins with problem findings. The analysis stage in the ADDIE model is carried out with the aim of producing a clear

understanding of what is actually needed by learners, in this case students. The analysis stage includes three forms, namely needs analysis, student characteristics, and learning environment analysis (Nurhamidah, Sujana, & Karlina, 2022). The three forms of analysis are then elaborated to find the main problems and needs of students in the context of learning on research and development materials. The three forms of analysis were conducted through a Google Form-based survey method and interviews. The researcher's findings through the Google Form are as follows.

Figure 1. Diagram of Students' Knowledge of R&D Writing Procedures

Of the 50 respondents from the 2022 and 2024 batches, it is known that there are 70% of students who do not know the procedures for writing scientific papers using the R&D method. This means that only 30% know about the procedures for writing scientific research and development papers properly and correctly. In fact, in the study programme curriculum design, it is known that one of the expected graduate profiles is that students can become innovative learning media developers. So it is very necessary to have a strong insight into the R&D mechanism so that they can produce innovative work that can be scientifically accounted for.

On the one hand, it was also found that most of the Tanjungpura University history education students had difficulty in getting access to R&D materials. A total of 72% of all respondents admitted that it was difficult to find references or guidelines or module on making research and development that were easily accessible and free. There are only 28% of students who easily access free research and development references, guidelines, or module. The diagram of findings related to this can be seen in the following diagram.

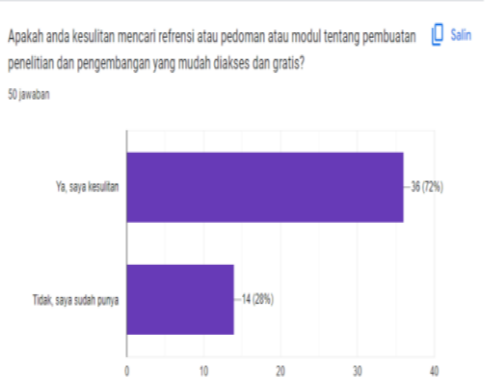

Figure 2. Diagram of Students' Difficulty Level in finding sources or module on R&D materials

Based on the findings of the analysis above, the researchers created a digital module that can be used by students to explore research and development materials. Digital module were chosen because they can be accessed for free and can also be used by students anywhere and anytime. In addition, based on the results of interviews, it was found that history education students are active internet users who are also supported by ownership of electronic devices such as laptops and smartphones. They use digital-based facilities to support the lecture process.

b. Design Stage

Next is the design stage, which is the stage for designing the product to be developed (Waruwu, 2024). At this stage, the main focus is to design the structure and learning elements that will be contained in the e-module based on the results of the

previous analysis. This stage is an important foundation to ensure that the e-module developed is in accordance with the characteristics of History Education study programme students and the learning objectives to be achieved. The e-module design includes the preparation of learning objectives, material presentation, and evaluation format.

In terms of content presentation, the e-module design is designed in digital format by considering instructional design principles such as visual consistency, readability, and the use of supporting media (images, videos, and interactive links) that are contextual and educational. The e-module itself consists of several units or chapters equipped with learning objectives, material descriptions, learning activities, examples and practice questions. At this stage, the researcher also made a questionnaire design used for validation by experts and student assessment. This questionnaire is designed based on feasibility indicators that include learning aspects, content aspects, and media aspects, using a 5-point Likert scale and equipped with a comment column for qualitative input.

c. Development Stage

The development stage focused on the validation process and refinement of the e-module that had been designed at the design stage. The previously developed e-module were then validated by experts using feasibility assessment instruments covering three main aspects, namely learning aspects, content aspects, and media aspects. Validation was conducted by experts who are experienced in R&D as well as teaching practitioners and making learning media to assess the feasibility of the product. Based on the assessment results and input from the experts, revisions were made to the e-module before proceeding to a limited trial to 10 students to obtain a feasibility assessment from the user side.

Expert Validation I. This stage is carried out to obtain a feasibility assessment as well as revision suggestions from competent experts. The experts involved in validation I have experience as practitioners in the fields of R&D, teaching, and learning media. The results of this validation were used as a basis for making revisions. The results of the assessment of the two experts are as follows.

Table 2: Expert I Validation Results

Aspects of Validation	Score	Category	Comments and Suggestions
Learning	4,4	Very Suitable	1. Added examples of Borg and Gall and ADDIE research articles to the module as well as a new assignment view on the research design assignment. 2. Adding captions to images in the module. 3. Moved the ADDIE video page from being located in one flow with the writing systematic section to being in one flow with the discussion with ADDIE.. 4. Adding new types of questions related to ADDIE that are more theoretical
Content	4	Suitable	
Media	4,75	Very Suitable	
Average	**4,38**	Very Suitable	**Suitable for use with revision notes**

The results of expert validation of the e-module show that overall the product is in the very feasible category with an average score of 4.38. The assessment covers three main aspects, namely learning aspects, content aspects, and media aspects. In the learning aspect, the e-module obtained a score of 4.4 with a very feasible category. In the content aspect, the e-module scored 4.0 with a decent category, while in the media aspect, the e-module achieved the highest score of 4.75 and was included in the very decent category. The conclusion of expert I, namely the e-module is feasible to use with revision notes. The researcher then made several improvements according to the expert's suggestions, such as:

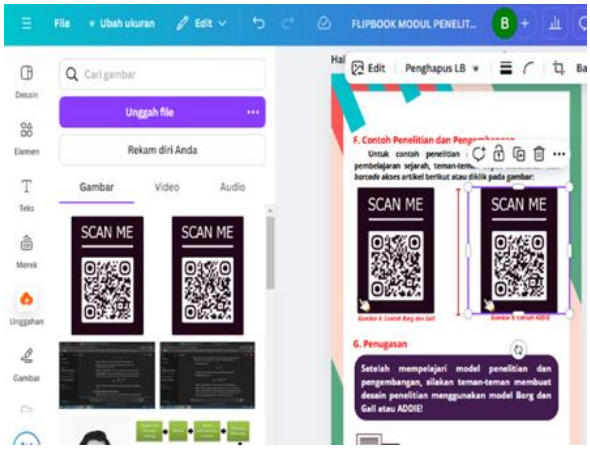

Figure 3. Revisions to the First Suggestion

Figure 3 shows that the researcher made improvements by adding examples of Borg and Gall and ADDIE research articles to the module as well as a new assignment display on the research design task as suggested by the first validator.

Then the researcher made improvements according to the second suggestion of the researcher as in Figure 4 below:

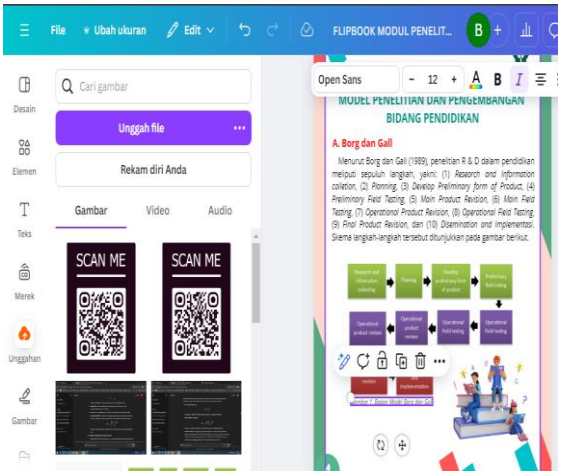

Figure 4. Revisions to the Second Suggestion

Lastly, the researcher also made improvements according to the third and fourth suggestions from the first expert validator. The researcher moved the ADDIE video page and added new types of questions related to ADDIE that are more theoretical. The results can be seen in Figure 5 below:

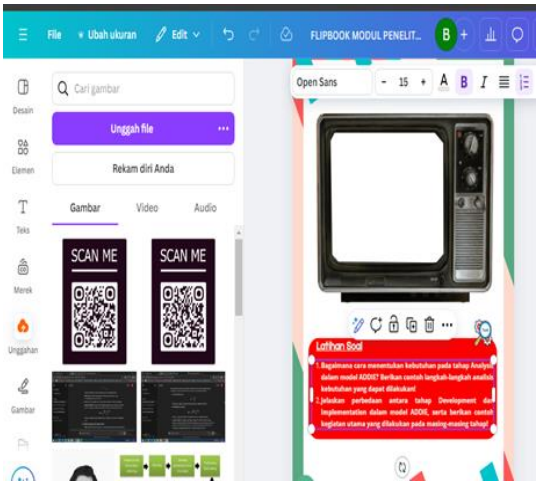

Figure 5. Revision to the Fifth Suggestion

Expert Validation II. The second expert validation was conducted by an expert who had the same experience as the first expert. Expert validation was conducted twice by two different people to obtain a more comprehensive and objective assessment of the quality of the e-module developed. This double validation is also done to minimise

the bias of assessment from only one party and strengthen the reliability of the validation results as a basis for decision making in the process of product revision and improvement. The results of the validation by Expert II are presented as follows.

Table 3: Expert I Validation Results

Aspects of Validation	Score	Category	Comments and Suggestions
Learning	3,4	Suitable	The related video is not attractive enough to make it seem saturated and boring. It should be replaced like a content creator who gives a fun feel when talking
Content	4,38	Very Suitable	
Media	3,5	Suitable	
Average	**3,76**	Suitable	**Suitable for use with revision notes**

The assessment results showed that the e-module obtained an average score of 3.76 with a decent category. In the learning aspect, the score obtained was 3.4. The content aspect received a score of 4.38 and was included in the very feasible category. Meanwhile, the media aspect scored 3.5 and was in the feasible category. As for the response to criticism and suggestions, the researcher decided not to implement it. This was due to (1) the absence of video sources on R&D in the style of typical content creators whose content truth can be accounted for. (2) The first video source chosen was one in which the explanation was done by an academic with experience in R&D.

4. Implementation Stage

The implementation stage is the process of applying the validated e-module into real learning activities. The e-module was tested on a limited basis to 10 students of the History Education Study Programme at Tanjungpura University who were taking the history education research course. Students accessed the e-module through their respective digital devices and followed the learning flow that had been prepared. This stage aims to get feedback on e-module products developed and implemented (Waruwu, 2024).

The feedback was obtained using an instrument in the form of an assessment questionnaire. This feedback was filled in by students after they attended the lecture process using the e-module developed by the researcher. The results of the assessment from students on the feasibility of e-module products are as follows.

Table 4. Assessment Results of 10 Students

Aspects of Validation	Score	Category	Comments and Suggestions
Learning	4,63	Very Suitable	-
Content	4,48	Very Suitable	
Media	4,63	Very Suitable	
Average	**3,76**	Suitable	**Suitable**

The results of the assessment of the e-module by 10 students showed that the product was in the very feasible category, with an overall average score of 4.58. The assessment was conducted on three main aspects, namely learning, content, and media. In the learning aspect, students gave an average score of 4.63 or included in the very feasible criteria. For the content aspect, a score of 4.48 was obtained, which is also in the very feasible category. Meanwhile, the media aspect was also included in the very feasible criteria with the e-module getting a score of 4.63. There were no additional criticisms or suggestions submitted by students, so it can be concluded that the e-module was very well received in the limited user trial.

2. DISCCUSSION

E-module were chosen as a solution because they fulfil the principles of flexibility, accessibility and interactivity (Romualdi & Firmansyah; Syafitri & Kurniawati, 2022). This is reinforced by Hasan (2019) and Zunidar (2019) arguments about the need for technology-based learning media transformation to meet the demands of 21st century education. E-module offer various features that support creative learning. Almahera et al's study (2023) also proved that multimedia features in e-module (video, images, audio) significantly increased student engagement, especially for complex materials such as R&D.

The e-module development process using the ADDIE model (Analysis, Design, Development, Implementation, Evaluation) proved effective in bridging the gap between student needs and product design. The analysis stage succeeded in revealing 70% of students did not understand the writing of R&D scientific papers as the basis for structured content design. This is in line with the principle of Nurhamidah et al (2022) that needs assessment is the key to creating relevant products. The flexibility of the ADDIE model (Waruwu, 2024) also allows for continuous revision based on expert input, such as the addition of Borg & Gall article examples and refinement of the video flow.

The next stage is the design phase. The design of this product was developed based on the considerations derived from the analysis stage. The e-module was designed by incorporating elements such as videos, images, audio, and others to enhance the learning experience (Jafnihirda, Suparmi, Ambiyar, Rizal, & Pratiwi, 2023). In addition, the e-module was also designed to facilitate students in learning independently through an application that can be freely accessed as long as they are connected to the internet (Syafitri & Kurniawati, 2022; Herditiya, Sari, & Koryati, 2023). The selected material focuses on research and development, specifically aimed at students in the History Education study program.

The development stage showed that the e-module developed by the researcher met the criteria for being feasible to use. Expert I gave a score of 4.38, while Expert II gave a score of 3.76 with revision notes. These revisions served as feedback and were part of the formative evaluation phase within the ADDIE model. The purpose was to ensure that the product developed by the researcher was suitable for use in the implementation stage. After making revisions based on the experts' suggestions, the researcher then proceeded to the implementation phase.

The assessment results at the limited trial stage confirmed the findings of previous research on the feasibility of e-module. Firstly, the learning aspect (score 4.63) is considered very feasible and followed by the content aspect with a score of 4.48 or very feasible. The learning and content aspects must be done as well as possible because the study by Herditiya et al. (2023) showed that content accuracy is the main determinant of e-module effectiveness. The media aspect is also very feasible with a score of 4.63. Previously, although Expert II criticised the video for not being attractive enough, the researcher maintained the academic-based content to ensure scientific validity, according to Zunidar's (2019) principle of balancing attractiveness and content integrity.

This e-module not only facilitates mastery of R&D, but also encourages students to become innovators of history learning media according to the graduate profile mandated by the study programme curriculum. Its success is in line with Pramayogi & Hartanto's (2019) recommendation that

technology-based innovation is needed to increase interest in learning history. In the future, similar products can be developed to test their effectiveness in learning.

D. CONCLUSION

This study concluded that the development of e-module on Research and Development (R&D) materials for History Education students has successfully answered the main problems. The needs analysis showed that 72% of students had difficulty in accessing structured and free R&D materials, while the other 70% did not fully understand the procedures for writing R&D-based scientific papers. This condition is not in line with the demands of the study programme curriculum which directs graduates to become innovative learning media developers.

The e-module development process uses the ADDIE model (Analysis, Design, Development, Implementation, Evaluation) which is proven to be able to produce products that are in line with the characteristics and needs of users. Validation results from two experts showed that the e-module has a high level of feasibility, with an average score of 4.38 and 3.76, respectively. Limited implementation to ten students showed consistent results, with an average feasibility score of 4.58 on learning, content, and media aspects.

However, this study has some limitations that need to be observed, especially in the aspect of trials that are still limited to a small scale. In addition, the effectiveness of e-module on improving learning outcomes has not been tested quantitatively through a rigorous experimental design. Further research is recommended to involve larger and more diverse subjects, and apply experimental or quasi-experimental designs to empirically measure the effectiveness of e-module on improving students' R&D competencies in the context of history learning.

E. REFERENCES

Adeoye, M. A., Wirawan, K. A., Pradnyani, M. S., & Septiarini, N. I. (2024). Revolutionizing Education: Unleashing the Power of the ADDIE Model for Effective Teaching and Learning. *Jurnal Pendidikan Indonesia, 13*(1), 202-209. doi:https://doi.org/10.23887/jpiundiksha.v13i1.68624

Almahera, A. F., Jauhari, N., & Nafi'ah, U. (2023). E-modul Sejarah sebagai Inovasi Bahan Ajar Digital Berbasis Aplikasi Canva untuk Meningkatkan Minat Belajar Siswa. *Jurnal Integrasi dan Harmoni Inovatif Ilmu-Ilmu Sosial, 3*(2), 94-103. doi:10.17977/um063v3i22023

APJII. (2023). *Profil Internet Indonesia 2022.*

Hasan, S. H. (2019). Pendidikan Sejarah untuk Kehidupan Abad KE-21. *HISTORIA: Jurnal Pendidik dan Peneliti Sejarah, 2*(2), 61-72. doi:https://doi.org/10.17509/historia.v2i2.16630

Herditiya, Sari, M., & Koryati, S. (2023). Development of an e-module based on virtual practicum integrated with local potential in invertebrate material. *BIO-INOVED : Jurnal Biologi-Inovasi Pendidikan, 5*(2), 155-163. doi:10.20527/bino.v5i2.15620

Hidayat, F., & Nizar, M. (2021). MODEL ADDIE (ANALYSIS, DESIGN, DEVELOPMENT, IMPLEMENTATION AND EVALUATION) DALAM PEMBELAJARAN PENDIDIKAN AGAMA ISLAM. *Jurnal Inovasi Pendidikan Agama Islam (JIPAI), 1*(1), 28–38.

doi:https://doi.org/10.15575/jipai.v1i1.11042

Jafnihirda, L., Suparmi, Ambiyar, Rizal, F., & Pratiwi, K. E. (2023). Efektivitas Perancangan Media Pembelajaran Interaktif E-Modul. *INNOVATIVE: Journal Of Social Science Research, 3*(1), 227-239.

Nurhamidah, S. D., Sujana, A., & Karlina, D. A. (2022). PENGEMBANGAN MEDIA BERBASIS ANDROID PADA MATERI SISTEM TATA SURYA UNTUK MENINGKATKAN PENGUASAAN KONSEP SISWA. *Jurnal Cakrawala Pendas, 8*(4), 1318-1329. doi:http://dx.doi.org/10.31949/jcp.v8i2.3190

Pramayogi, I., P, R. P., & Hartanto, W. (2019). Inovasi Pembelajaran Sejarah. *SINDANG: Jurnal Pendidikan Sejarah Dan Kajian Sejarah, 1*(2), 17-22. doi:https://doi.org/https://doi.org/10.31540/sdg.v1i2.257

Romualdi, K. B., & Firmansyah, A. (2024). Pengembangan Modul Pembelajaran Sejarah Berbasis Digital pada Sub Materi RenaissanceMelalui Aplikasi Canva. *J-CEKI: Jurnal Cendekia Ilmiah, 3*(6), 8176-8186. doi:https://doi.org/10.56799/jceki.v3i6.5766

Romualdi, K. B., Sudrajat, A., & Aman. (2023). Development of Genially Interactive Multimedia on Materials for the National Movement Organization for Middle School Students. *Al-Ishlah: Jurnal Pendidikan, 15*(2), 1166-1180. doi:10.35445/alishlah.v15i2.3139

Sukardjo. (2005). *Evaluasi pembelajaran: Diktat Mata Kuliah Evaluasi Pembelajaran.* Yogyakarta: Prodi TP PPs UNY (Tidak diterbitkan).

Syafitri, A., & Kurniawati, Y. (2022). ELECTRONIC MODULE (E-MODULE) AS INNOVATIVE LEARNING MEDIA TO INCREASE KNOWLEDGE AMONG NURSING STUDENTS. *Journal of Maternity Care and Reproductive Health, 5*(2), 85-94. doi:https://doi.org/10.36780/jmcrh.v5i2.253

Waruwu, M. (2024). Metode Penelitian dan Pengembangan (R&D): Konsep, Jenis, Tahapan. *Jurnal Ilmiah Profesi Pendidikan, 9*(2), 1220-1230. doi:https://doi.org/10.29303/jipp.v9i2.2141

Zunidar. (2019). Peran Guru dalam Inovasi Pembelajaran. *Nizhamiyah, 9*(2), 41-56.