

---

# Jurnal Penelitian Pendidikan

<https://journal.unnes.ac.id/journals/JPP>

---

## The Feasibility of Flipbooks to Elements of the Industrial World and Fashion Development in Fashion Expertise Phase E of SMK N 6 Semarang

Arti Magdalena Sihombing\*, Wulansari Prasetyaningtyas

Universitas Negeri Semarang, Indonesia

\*Corresponding Author: [artymagdalenas@students.unnes.ac.id](mailto:artymagdalenas@students.unnes.ac.id)

---

### Abstract

Learning elements in the Basic Fashion Skills Phase E requires contextual and visual digital media. This study aims to test the feasibility of flipbook media as an alternative to interactive learning in the Industrial World and Fashion Development of SMK Negeri 6 Semarang through a quantitative descriptive method. Validation is carried out by material experts and media experts using instruments that have been tested for validity which include aspects of material, language, graphics, and the presentation of material in the media. The results of the analysis with the percentage descriptive analysis technique showed that the feasibility score of material experts was 88.75% and media experts 91.22%, both of which met the criteria of being very feasible. This Flipbook has the potential to be optimal as a supporting medium for vocational learning in fashion after revision, although its effectiveness on student motivation and learning outcomes requires further field trials.

**Keywords:** flipbook, learning media, industry and fashion development, fashion expertise, vocational school

---

### INTRODUCTION

Vocational education is required to produce graduates who have competencies in accordance with the needs of the world of work, so that the development of learning must be in line with the demands of the industry and the dynamics of the creative job market in the 21st century (Iliani et al., 2022). Technological advancements, the impact of globalization, and shifts in the structure of the world of work require workers to have more skills, not only from the technical side but also to have the skills to adapt, think creatively, and understand the industrial environment in which they will work (Bilotska et al., 2025).

Related to this, vocational learning is essential to prepare students to be able to successfully face changes and challenges in the ever-evolving professional world, especially in the highly flexible and innovative creative sector, including the fashion industry.

In response to these needs, the learning system *Deep Learning* is processed to strengthen the relationship between the learning process at school and the demands of the world of work through strengthening skills based on phases. At the vocational level, Phase E includes several learning elements in the Basic Fashion Skills which serve as the initial foundation in the development of students' professional skills. One of the important elements in the Basic Fashion Skills is the Industrial World and Fashion Development as the second element, which emphasizes students' understanding of the industrial structure, work culture, production process, and dynamics of fashion development as an initial preparation for entering the professional world and learning advanced skills.

In line with the goals of these elements, the fashion industry demands a fashion workforce that is not only technically skilled, but also responsive to trends developments, the use of digital technology, and sustainability issues such as *sustainable fashion* (Zulaekah et al., 2025). Therefore, the learning of

materials in the Industrial World and Fashion Development needs to be supported by the presentation of appropriate content and learning methods that are in accordance with the characteristics of the material and students.

Discussions about industrial procedures, changes in fashion trends, and their relationship with social shifts and technological developments are basically visual, contextual, and dynamic, so they require a learning strategy that is able to present information in a systematic, clear, and structured manner. Along with the advancement of educational technology, interactive digital media such as video tutorials, e-modules, e-books, flipbooks, augmented reality, and 3D simulations are increasingly used to increase learning motivation, independence, design creativity, and conceptual understanding among vocational students, especially for students majoring in fashion design.

A number of previous studies have shown that flipbook-based learning media has good potential in supporting learning in vocational high schools. For example, the use of flipbook e-modules to improve student learning outcomes in multimedia instruction suggests that digital media can significantly affect the achievement of students' competencies in vocational high schools (Amalia & Sujatmiko, 2022). Further research reveals that the use of flipbooks can significantly improve vocational students' engagement and conceptual understanding (Sabitri et al., 2024).

In addition, the creation of an interactive flipbook-based e-module for skill training has also been proven to be successful in improving student learning outcomes (Putri & Hakim, 2025), and a flipbook model developed to support self-paced learning can improve students' understanding of the subject matter (Yusmar Firdha et al, 2024). Other research conducted by Suprayogi et al. (2024) shows that the use of the e-module flipbook maker in the starter system material is able to significantly increase student understanding in the vocational automotive engineering expertise program. The research conducted Rivai et al.(2024) stated that the flipbook-based e-module on business elements and logistics services was declared very feasible based on expert validation tests and practical tests of vocational school students.

Research in the field of beauty education also reports that the use of flipbooks is highly interactive, valid and practical in the context of salon management, thereby increasing student engagement in vocational learning (Ayuningtyas et al., 2025) Further, Islamiah et al.(2024) developing a learning media-based flipbook for accessory subjects at vocational schools that show high validation results by material and media experts, strengthening the potential of flipbooks as a viable learning medium and relevant to the character of vocational education. The findings made by previous researchers show that flipbook-based digital media is not only preferred, but also has a positive influence in the context of modern vocational learning in vocational high schools.

However, until now there has been no research that specifically develops whether flipbook media is suitable for the field of fashion expertise by combining aspects such as an understanding of the structure and work process of the fashion industry, quality standards and work culture, as well as the dynamics of the development of fashion trends influenced by social, cultural, and technological changes.

Several studies on the development of flipbook media in vocational high schools (SMK) show that the media is considered qualified and appropriate to be used based on assessments in terms of content, media appearance, and language, although it is often used in other vocational subjects or focuses on certain technical abilities (Amalia & Sujatmiko, 2022; Yusmar Firdha et al, 2024) .

Research related to the creation of flipbook media that is enhanced by technology also shows satisfactory results and is suitable for use in the teaching and learning process *augmented reality (AR)*, however, there has been no specific study examining the feasibility of flipbook media that includes the integration between aspects of the Industrial World and Fashion Development in fashion expertise (Sabitri et al., 2024; Sakti et al., 2025). This situation is in line with the situation of the learning process within the scope of vocational schools with the field of fashion design, where material about the Industrial World and Fashion Development is still delivered through limited learning resources, so it is necessary to develop and test the feasibility of flipbook media that clearly presents elements of the industrial world and changes in fashion trends that are in accordance with the characteristics of phase E students.

Therefore, research on the feasibility testing of flipbook media on the elements of the industrial world and Fashion Development is needed as a basis to evaluate the harmony of content, presentation methods, and the importance of media in supporting the achievement of fashion expertise competencies in phase E as a trusted learning medium, easy to use and in accordance with the needs of the modern

fashion industry.

**METHOD**

This study uses a descriptive quantitative method with the aim of analyzing the feasibility level of flipbook learning media on the elements of the Industrial World and Fashion Development in the Basic of Fashion Skills Phase E at SMK Negeri 6 Semarang. The descriptive quantitative approach was chosen because this study focuses on presenting data on the results of media feasibility assessment systematically in the form of scores and percentages (Laksono et al., 2021)

The research subjects consist of media experts and material experts. The media experts are from lecturers from Semarang State University with a scientific background in Educational Technology and Family Welfare Education, who assess the graphic aspects and presentation of material in the media which are summarized in 18 statements. Meanwhile, the material experts consisted of fashion teachers from SMK Negeri 6 Semarang who assessed the suitability of the content of the material with the curriculum, the accuracy of the concept, the depth of the material, and the relevance of the material to the elements of the Industrial World and Fashion Development which were summarized in 20 statements.

Data collection technique by closed questionnaire in the form of an assessment scale (*rating scale*). Before use, the instrument first goes through the validation stage. At the validation stage, validators as expert assessors are given an instrument validation sheet consisting of three indicators, namely material, construction, and language, with seven sub-indicators summarized in the instrument test grid.

Based on Aiken (1985) The validity of the instrument can be tested using the Aiken's V formula. In this study, the validity test was carried out by six validators with a rating scale of 1-5, with the result of calculating the Aiken's V value of 0.88, so that the instrument was declared valid and suitable for use (Prasetyaningtyas et al., 2023). The Aiken V formula is as follows:

$$V = \frac{\sum s}{n(c - 1)}$$

S = r \u2012 lom

Lo= Lowest validity rating number (in this case = 1)

C = Highest validity rating number (in this case = 5)

r = Number given by an evaluator n = Number of validators

The results of the validity test with 38 statements met the criterion  $\geq 0.88$ , so that the instrument was declared valid and feasible to collect data. The instrument reliability test was then using the Intraclass Correlation Coefficient (ICC). The results of the reliability test of material experts and media experts using ICC are presented as follows:

	Intraclass Correlation <sup>b</sup>	95% Confidence Interval		F Test with True Value 0			
		Lower Bound	Upper Bound	Value	df1	df2	Sig.
Single Measures	.203 <sup>a</sup>	.059	.644	6,103	5	95	.000
Average Measures	.836 <sup>c</sup>	.557	.973	6,103	5	95	.000

Two-way mixed effects model where people effects are random and measures effects are fixed.

a. The estimator is the same, whether the interaction effect is present or not.

b. Type C intraclass correlation coefficients using a consistency definition. The between-measure variance is excluded from the denominator variance.

c. This estimate is computed assuming the interaction effect is absent, because it is not estimable otherwise.

Figure 1. Results of the Material Expert Reliability Test

	Intraclass Correlation <sup>b</sup>	95% Confidence Interval		F Test with True Value 0			
		Lower Bound	Upper Bound	Value	df1	df2	Sig.
Single Measures	.351 <sup>a</sup>	.141	.782	10,755	5	85	.000
Average Measures	.907 <sup>c</sup>	.747	.985	10,755	5	85	.000

Two-way mixed effects model where people effects are random and measures effects are fixed.

a. The estimator is the same, whether the interaction effect is present or not.

b. Type C intraclass correlation coefficients using a consistency definition. The between-measure variance is excluded from the denominator variance.

c. This estimate is computed assuming the interaction effect is absent, because it is not estimable otherwise.

Figure 2. Media Expert Reliability Test Results

According to Prasetyaningtyas et al., (2023), the Intraclass Correlation Coefficient (ICC) value in the range of 0.75–1.00 is included in the very good category and the instrument is declared reliable. The results of the reliability test in this study showed an ICC value of 0.836 in the material expert instrument and 0.907 in the media expert instrument with a significance of 0.000, so that the instrument was declared reliable and suitable for use.

The data obtained was analyzed using percentage descriptive analysis to determine the feasibility level of flipbook media. The results of the percentage calculation are then interpreted based on the eligibility criteria that have been set (Scott, 2017). The percentage descriptive analysis formula used is as follows:

$$P = \frac{\sum n}{\sum N} \times 100\%$$

with a caption:

$P$  = percentage of media eligibility

$n$  = the total score obtained from the assessment of media experts and subject matter experts

$N$  = Maximum number of possible scores (Maximum Score of each item x Number of question items x Number of respondents)

The results of the percentage calculation are converted into descriptive sentences and interpreted according to the predetermined eligibility criteria. The eligibility criteria are presented in Table 3.

Table 3. Percentage Calculation Scale

Percentage	Interpretation
85%-100%	Highly Worth It
69%-84%	Worthy
53%-68%	Quite Decent
37%-52%	Less Worthy
20%-36%	Not eligible

## RESULTS AND DISCUSSION

The Flipbook of the Industrial World and Fashion Development is a learning medium that has been developed and tested for its feasibility as a support for the vocational learning process. This media is designed to resemble a digital magazine with a page-flipping effect, interactive navigation, and a responsive zoom feature, making it easier for students to access and learn material online through smartphones, tablets, and laptops. The flipbook is organized in 88 pages, including a front cover and a back cover.

This flipbook contains material on elements of the Industrial World and Fashion Development (DIPM) which is presented systematically and in stages. The material covers the fashion industry ecosystem and an overview of the fashion industry, the history of fashion development, business models in the fashion industry, changes in styles and tastes as trends develop, trend forecasting, the work of designers and fashion products, sustainable fashion concepts, examples of the introduction and manufacture of sustainable fashion products, as well as local potential and wisdom

in the development of fashion products. The preparation of the material is designed to support students' understanding of the dynamics of the fashion industry comprehensively and contextually.



Figure 3. Flipbook Cover of the Industrial and Fashion World



Figure 4. Animated Videos on flipbooks



Figure 5. Illustration on flipbook



Figure 6. QR codes on flipbooks

The material in the flipbook is equipped with text, images, illustrations, and infographics that are visually combined to make it easier for students to understand technical terms and abstract concepts in the fashion industry. Through the Heyzine Flipbook platform, materials can also be integrated with interactive features such as link insertion, video, audio, animation, to quizzes or practice questions, which allow for independent learning with faster feedback and increase student involvement so that the learning process becomes more interactive, interesting, and supports optimal understanding of the material.

Learning media in the form of flipbooks was tested by 5 subject matter experts. The results of the material feasibility test are presented in table 4.

Table 4. Results of Expert Qualification Analyst

Indicator	Material Expert
Material	44,25%
Language	43,50%
Total	87,75%

Table 4 shows the results of the flipbook feasibility analysis based on the assessment of subject matter experts which includes two indicators, namely material indicators and language indicators. The results of the assessment showed that the material indicator obtained a percentage of 44.25%, while the language indicator obtained a percentage of 43.50%, with a total achievement of 87.75%. The score is in the range of 85%–100% which is included in the very feasible category, so the flipbook is declared to meet the eligibility criteria for use in learning.

Based on the results of the feasibility analysis by material experts, the material indicator obtained a percentage of 44.25%, which is the highest percentage compared to other indicators. This achievement shows that the learning substance in the World of Industry and Fashion Development flipbook in Phase E has been systematically compiled which includes the introduction of basic concepts in the world of the fashion industry, industry characteristics, and fashion developments, so that it is in line with learning outcomes and learning objectives set (Tiara et al., 2023)

The language indicator obtained a percentage of 43.50%, which shows that the linguistic aspect of flipbooks in general has met the eligibility criteria through a clear and easy-to-understand sentence structure, the use of appropriate and consistent terms, and the level of readability of the text that supports students' understanding; These findings are in line with Marbella et al.(2024) which emphasizes the challenge of adapting academic language to interactive digital media formats in the development of teaching materials.

The material indicator obtained a higher percentage than the language indicator, which indicates that the main strength of the flipbook lies in the substance and structure of the material that is in line with the learning achievements and objectives of Phase E as well as the vocational needs of fashion, this is supported by the preparation of structured material that is relevant to the Merdeka curriculum, coupled

with the integration of texts, supporting visuals, and contextual examples of the fashion industry that strengthen students' conceptual understanding gradual and systematic, so that even though language indicators are feasible, the substance of the material remains the main driver of the effectiveness of flipbooks as a vocational learning medium; These findings are in line with Susanti et al., (2025) regarding the contribution of material suitability to the feasibility of digital media and Siska Fitriani, (2025) about the characteristics of a gradual and integrated flipbook for applicative learning.

After the material test is carried out, the next step is the media feasibility test. The media feasibility test was carried out by 5 media experts. The results of the media feasibility test are in table 5.

Table 5. Media Expert Qualification Analyst Results

Indicator	Material Expert
Graphic	51,11%
Presentation of Material in the Media	41,11%
Total	91,22%

Table 5 shows the results of the feasibility analysis of the instrument based on the assessment of media experts for two indicators, namely graphics and the presentation of material in the media. Based on the results of the feasibility analysis by media experts, the graphography and Presentation of Material in the Media indicators obtained a percentage of 51.11% and 41.11% with a total of 91.22%. This value is in the range of 85%–100% which is included in the Very Feasible category, so that flipbooks are declared suitable for use as learning media.

The graphic indicator obtained a percentage of 51.11%, which indicates that the visual design quality of the flipbook is excellent, with a harmonious layout, optimal typography, consistent color selection, high readability of text on various devices, as well as visual suitability with the characteristics of interactive digital learning media, so that the visual design of the flipbook not only supports the effective delivery of the material but also increases aesthetic appeal, retention of attention, and learning experience of students during the vocational learning process of fashion (Dewi & Al-washliyah, 2025).

The indicator of material presentation on the media obtained a percentage of 41.11%, which shows that the display of material preparation in the flipbook has been presented quite well and supports the learning flow. The appearance of the presentation of the material on the media is arranged in a structured manner and follows a logical order of delivery, starting from concept introduction to practical application, making it easier for students to follow the flow of information gradually and systematically; The presentation strengthens the function of flipbooks as an effective digital media for vocational learning in fashion. (Viona Alifita, 2022)

The graphic indicator obtained the highest percentage compared to the indicator of material presentation in the media, this shows that the main strength of the World of Industry and Fashion Development (DIPM) flipbook lies in its visual and graphic design aspects. This advantage is based on the suitability of graphic elements, such as harmonious layout, optimal typography, color selection with a fashion industry theme, and contextual illustrations that are in accordance with the characteristics of DIPM material that emphasizes understanding the dynamics of the industrial world and fashion developments, so that abstract concepts can be visualized more easily so that they are easier to understand. The high rating on this graph indicator indicates that the visual design has been designed in line with the interactive digital learning needs of flipbooks, which not only support the delivery of information but also improve the overall engagement, memory, and learning experience of learners; This is in line with the findings Alshaykha, (2022) which states that the use of appropriate visuals in digital learning significantly increases the effectiveness of information absorption and creates an interesting and meaningful learning process.

Overall, the indicators have met the feasibility criteria and are stated to be "Very decent" To be used as an alternative learning medium, even so, the flipbook still needs to be revised. The aspects that are revised in the flipbook are in line with the suggestions and inputs obtained from media experts and material experts. The results of the suggestions are in table 6.

Table 6. Advice and Input from Material and Media Experts

Aspects	Suggestions and Feedback
---------	--------------------------

Material	Show online resources if fetch specific websites Evaluation/reflection is given shortcut keys other than QR codes
Media	On the cover of Flipbook, logo placement is used as the center On the page that list 2 Youtube videos should be separated into 1 video 1 page

Table 7. Flipbook view before revision and after revision

The Appearance of the Flipbook Before the Revision	Flipbook Appearance After Revision
--	------------------------------------

Show online sources if fetching a specific website



Evaluation/reflection is given a shortcut button in addition to the QR code



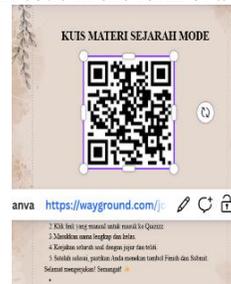
On the cover of the Flipbook, the placement of the logo is used as the center



Show online sources if fetching a specific website



Evaluation/reflection is given a shortcut button in addition to the QR code in the form of a link



On the cover of the Flipbook, the placement of the logo is used as the center



On a page sheet that lists 2 Youtube videos, it is best to split it into 1 video of 1 page



On a page sheet that lists 2 Youtube videos, it is best to split it into 1 video of 1 page



Based on the results of the evaluation and input obtained, several revisions were made to improve the quality and effectiveness of flipbooks as a learning medium. According to subject matter experts, the addition of online resources to materials that refer to specific websites is important to clarify the origin of the information and increase the credibility and accountability of the learning content. In addition, the provision of evaluation or reflection shortcut buttons as an alternative to the use of QR codes aims to facilitate student access, considering that not all devices or learning conditions allow optimal use of QR codes

Meanwhile, the revision of media experts on the flipbook cover design by focusing on the placement of the logo was carried out to create a more balanced, professional, and visual appearance in accordance with the principles of learning media design. And the separation of two YouTube videos that were previously placed on a single page into one video per page aims to improve learning focus, reduce students' cognitive load, and ensure each video is optimally understood.

Overall, revisions based on these suggestions and inputs are important so that the flipbooks developed are not only feasible in terms of content and appearance, but also more effective, accessible, and in accordance with the needs of students. This revision is quite important because the improvement in the product will have an impact on its use and the redevelopment of the product in the future so that flipbooks can be used as a learning medium. Based on the results of the flipbook feasibility test, it can be concluded that flipbooks are suitable for use as an alternative learning media in terms of materials and media.

## CONCLUSION

Based on the results of the validation of material and media experts, the flipbook "The Industrial World and Fashion Development" is stated "Very decent" with a material qualification score of 87.75% and media of 91.22%. The material expert's assessment confirmed that the flipbook had met the standards of language and material aspects, while the validation of media experts stated that the feasibility of the graphic aspect and the presentation of the material in the media had been met.

However, the effectiveness of flipbooks in increasing student motivation and learning outcomes cannot be ascertained because field trials and follow-up research have not been carried out. Overall, this flipbook has the potential to be used as a valid and contextual alternative learning media in the subject of Industrial World and Fashion Development.

## REFERENCES

- Aiken, L. R. (1985). Analyzing Reliability and Validity Ratings Aiken. *Educational and Psychological Measurement*, 131–142.
- Alshaykha, A. M. A. (2022). E-learning Visual Design Elements of User Experience Perspective. *Tikrit Journal of Engineering Sciences*, 29(1), 111–118. <https://doi.org/10.25130/tjes.29.1.9>

- Amalia, I., & Sujatmiko, B. (2022). Development of a Flipbook-based Flipbook-based e-module to improve student learning outcomes in the subject of 2D and 3D Animation Engineering Class Xi Multimedia (Case Study: Smkn 2 Singosari). *IT-Edu: Journal of Information Technology and Education*, 7(3), 92–99. <https://doi.org/10.26740/it-edu.v7i3.50147>
- Ayuningtyas, N., Jubaedah, L., & Maharani, R. (2025). *Interactive flipbook e-module for salon management learning : A digital innovation in beauty education*. 8(4), 260–271.
- Bilotska, L., Lozovenko, S., & Vodzinska, O. (2025). Formation of the Professional Competence of Future Fashion Industry Specialists With Employers' Involvement in the Educational Process. *Fashion Industry*, 2, 47–59. <https://doi.org/10.30857/2706-5898.2024.2.3>
- Dewi, J., & Al-washliyah, U. M. N. (2025). *JOURNAL INDOPEDEIA ( Innovation of Learning and Education ) DEVELOPMENT OF INTERACTIVE DIGITAL BOOKS ASSISTED BY FLIPBOOK MAKER ON UNIT OF MEASURE MATERIAL DEVELOPMENT OF INTERACTIVE DIGITAL BOOKS USING FLIPBOOK MAKER ON Article History : INTRODUCTION Science. Id. at 3*, 475–486.
- Iliani, A. I., Nurhadi, D., Zahro, S., & Ching, S. J. (2022). Entrepreneurship Development Based on Teaching Factory in Fashion Design Skill Program at Vocational High School. *Technology and Vocational: Journal of Technology, Vocational, and Its Teaching*, 45(2), 168. <https://doi.org/10.17977/um031v45i22022p168-173>
- Islamiah, L., Eryanto, H., & Amirul Adha, M. (2024). Development of Flipbook-Based Learning Media on Entrepreneurial Materials for Class XI SMK Tunas Development. *Indonesian Journal of Social Technology*, 5(10), 4338–4351. <https://doi.org/10.59141/jist.v5i10.5332>
- Laksono, D., Sidik Iriansyah, H., & Oktaviana, E. (2021). Development of Powtoon Interactive Video Learning Media in Science Subject Ecosystem Component Material. *National Seminar on Education STKIP Kusuma Negara II*, 225–233. <https://www.powtoon.com/>
- Marbella, F., Permatasari, S., & Mustika, T. P. (2024). Validity of Nearpod Digital Media for Learning to Read Poetry for High School Class X Students. *Journal of Education Research*, 5(3), 2600–2607. <https://doi.org/10.37985/jer.v5i3.1134>
- Prasetyaningtyas, W., Widihastuti, W., & Istiyono, E. I. (2023). *Development of Instrument Learning Outcomes Assessment for Fashion Technology Courses*. 5(Sec. <https://doi.org/10.2991/978-2-38476-198-2>
- Putri, A. K., & Hakim, A. R. (2025). *Integrated With Accurate Education To Improve Students' Learning*. 57–76.
- Rivai, W. A., Sumiati, A., & Wahono, P. (2024). Development of Flipbook Based Electronic Modules on Business and Logistics Service Elements At Vocational Schools. *Journal of Economics, Office, and Accounting Education*, 5(1), 20–32. <https://doi.org/10.21009/jpepa.0501.03>
- Sabitri, Z., Rahayu, S., & Meirawan, D. (2024). The implementation of augmented reality-based flipbook learning media in improving vocational school students' critical thinking skills in the era of society 5.0. *Jurnal Pendidikan Teknologi Kejuruan*, 7(1), 22–31. <https://doi.org/10.24036/jptk.v7i1.35223>
- Sakti, A. W., Rahayu, S., M. Muktiarni, Ghinaya, Z., & Sabitri, Z. (2025). Advancing Vocational Education With Vocar-Flip: Improving Student Comprehension in the Digital Era. *Jurnal PenSil*, 14(1), 65–75. <https://doi.org/10.21009/jpensil.v14i1.50198>
- Siska Fitriani, R. (2025). *Development of Interactive Flipbook Based Teaching Materials*. 9(3), 1311–1325.
- Sugiyono. (2017). *Quantitative, Qualitative and R&D Research Methods* ( p. 147).
- Suprayogi, S., Sutopo, Y., Priyatna, B. S., & Anis, S. (2024). The Effect of Using E-Module Based on Flipbook Maker on Student Understanding of the Starter System. *Journal of Vocational and Career Education*, 9(2), 124–131. <https://doi.org/10.15294/jvce.v9i2.28636>
- Susanti, A. I., Alim, W. S., Kurniawan, R., Nashihah, D., & Ajar, B. (2025). *DEVELOPMENT OF ENGLISH TEACHING MATERIALS E-BOOK*. 10(1).
- Tiara, D. A., Suhartini, R., Nahari, I., Mayasari, P., & Key, K. (2023). The application of flipbook learning media on the basic competency of making print decorations on clothes at SMK YPM 2 Taman. *Journal of Education: SEROJA*, 3(1), 95–105. <http://jurnal.anfa.co.id>
- Viona Alifta, Y. E. (2022). Android-based digital media development. *Indonesian Journal of Biology*

*Education*, 10 (September).

- Yusmar Firdha et al. (2024). Development of Flipbook-Based E-Module Integrated with External Features to Facilitate Student Self-Learning Firdha. *Journal of Education: Journal of Research and Literature Review in the Field of Education, Teaching and Learning* <https://E-Journal.Undikma.Ac.Id/Index.Php/Jurnalkependidikan/Inde>, 10(3), 988–1000.
- Zulaekah, D., Kusumastuti, A., Widjanarko, D., & Wahyuningsih, S. E. (2025). Effectiveness of the Sustainable Fashion E-Module in Improving Students Analysis of the Fashion Industrys Environmental Impact at Vocational High School. *Journal of Vocational and Career Education*, 10(1), 16–23. <https://doi.org/10.15294/jvce.v10i1.30510>