



REVIEW: APPLICATION OF FLIPBOOK TECHNOLOGY IN LEARNING AT SMK/SMA

I Gusti Kadek Surya Adnyana¹, Ketut Agustini² and I Gede Wawan Sudatha³

surya.adnyana@student.undikha.ac.id

Universitas Pendidikan Ganesha, Bali

ABSTRACT

In recent years, flipbook technology has emerged as an interactive digital medium in education, enhancing the learning process. Flipbooks provide a print-like reading experience enriched with digital features that promote interactivity and accessibility. This article presents a systematic literature review (SLR) of previous studies concerning the application of flipbook technology in secondary education, particularly in vocational and general high schools. The review examines 20 relevant studies to understand the effectiveness, challenges, and opportunities associated with flipbook implementation in education. Data collection in this study uses observation, interviews, and questionnaire methods. Some key findings include increased student motivation and engagement, better concept understanding, improved learning outcomes, learning independence, and enhanced digital and critical thinking skills. The application of flipbook technology in learning at vocational high schools/senior high schools shows potential. that significantly enhance student engagement and understanding. Although there are several obstacles, such as limited technology and teacher skills, strategic measures can be taken to overcome these challenges. This study emphasizes the importance of flipbooks as interactive and flexible learning tools, which can help improve the quality of education at the secondary school level.

Keywords: flipbook, digital learning, vocational school, high school, interactive media, systematic literature review

INTRODUCTION

The development of technology has influenced the way students learn in schools, especially in the current digital era. Flipbook technology,



Submitted: 4 December 2024

Revised: 8 December 2024

Accepted: 18 March 2026

as one of the interactive digital aids, offers a more dynamic and interactive learning experience compared to conventional print media. Flipbook allows students to access materials flexibly, both in and out of the classroom, and can enhance student engagement in the learning process. In order to understand the extent to which flipbook technology has been applied in education, particularly at the vocational high school/senior high school level, a systematic literature review was conducted to examine various studies that have discussed the use of flipbooks in the context of learning. The main focus of this review is to identify the effectiveness of flipbooks in improving learning outcomes, as well as the challenges and opportunities that arise in their use.

METHOD

1. Research Method The research begins with searching for articles related to the research topic that will be conducted. The articles used as data are scientific articles sourced from journals with a recency of the last 7 years, specifically between 2018-2024. A total of 20 scientific articles were used. Scientific articles are articles that can be accessed publicly.
2. Based on the articles or journals used as references, the research was conducted at SMK Negeri 1 Giritontro, SMK Cendika Bangsa Kepanjen, MAN 1 Kota Madiun, SMK Negeri 2 Semarang, SMK Negeri 1 Sooko Mojokerto, SMA N Ambulu, SMK Negeri 6 Yogyakarta, SMA Negeri 6 Malang, SMK Negeri 1 Surakarta, SMK Negeri 4 Surabaya, SMK Muhammadiyah 2 Metro, SMK Negeri 2 Tuban, SMK Negeri 2 Bandung, SMK Negeri 7 Jakarta, SMA Adabiah 1 Padang, SMK Negeri 3 Jakarta, SMK Negeri 1 Cirebon, SMKN 2 Mojokerto, SMK Negeri 4 Medan, SMK Negeri 5 Surabaya.
3. Data collection in this study uses observation, interviews, and questionnaire methods. According to Sugiyono (2018), observation is a data collection method conducted by directly observing the object being studied. Sugiyono (2018): An interview is a process of verbal interaction between two or more people conducted to obtain specific information. Interviews can be of the nature structured, semi-structured, or unstructured. According to Sugiyono (2018), the questionnaire method is a data collection technique that uses a series of questions arranged to be answered.
4. The instruments used to collect research data include: observation sheets, which are used to determine the learning facilities available



Submitted: 4 December 2024	Revised: 8 December 2024	Accepted: 18 March 2026
----------------------------	--------------------------	-------------------------

at the school and to observe the learning process that occurs in the classroom; interview sheets, questionnaires, and student grade lists.

FINDINGS AND DISCUSSION

In the study by Umi Rochayati, Kusuma Setyawati (2024) "Development of Interactive Learning Media Based on Flipbook for Passive and Active Component Materials in Basic Electronics Engineering Subjects," the research results indicate that the use of flipbook learning media enhances students' understanding in identifying and comprehending passive components (resistors, capacitors, and inductors) as well as active components. (transistor, IC, dan dioda). Students gave positive feedback on the flipbook due to its attractive visual appearance and easy navigation. In addition, this study also observed that the flipbook helps teachers explain the material in a more structured and comprehensive manner.

In the study by Aini Faridatul Ulya, Dian Pratiwi, Teguh Kurniawan (2022) "Development of Teaching Materials E-booklet Based on Flip PDF Professional on Technological Development in The Period of Perundagian in Indonesia," the research results show that the Flip PDF Professional-based e-booklet is effective in enhancing students' understanding of the Perundagian material. Data from student learning outcomes show an increase in scores after the use of the e-booklet. The validation of the learning materials shows that the developed teaching materials are suitable for use in technology history education at vocational schools.

Then, the research by Aisyah, Permatasari, Fauzi, (2023) "The Application of Guided Inquiry and the Use of Flipbook Media to Improve Students' Critical Thinking Skills." The research results show a significant increase in critical thinking skills in the experimental group compared to the control group. Students who learned using the guided inquiry method and flipbook media demonstrated a deeper understanding, better analytical skills, and higher reflective abilities.

Research by Setyowati, Firdaus, (2023) "The Use of Flipbook in Chemistry Practical Learning in Vocational High Schools." The research results show that the use of flipbooks has a positive impact on students' learning outcomes, with the average posttest scores of the experimental group being higher than those of the control group. In addition, the practical skills of students who used flipbooks also showed significant improvement compared to students who used conventional methods.

Copyright ©2026 JOEPALLT

Journal of English Pedagogy, Linguistics, Literature, and Teaching



Next, the research by Sri Handayani, (2021) "Development of Flipbook Maker-Based E-Modules in Office Technology Subjects." The results of this research indicate an Improvement in Learning Effectiveness, as the use of Flipbook Maker-based e-modules has proven to enhance learning effectiveness. This is evidenced by the increase in the average student score from pre-test to post-test by 25%. Interactivity and Understanding of the Material, that is, students experienced a more interactive learning experience. The presentation of material accompanied by animations and videos makes it easier for students to understand abstract concepts in office technology. Positive Response from Students Based on the survey, around 90% of students gave positive feedback on the e-module. They feel more motivated to learn and more interested in following the lessons.

Then, a study by Dr. Rina Kurniawati, M.Pd and Ahmad Nurhadi, S.Pd (2023) titled "The Application of the Problem-Based Learning (PBL) Model Using Flipbook Media to Improve Biology Learning Outcomes of Students at SMAN Ambulu." The analysis results show that there is a significant improvement in learning outcomes in the experimental group compared to the control group. The average posttest score of students in the experimental class reached 85, while in the control class it only reached 74. Additionally, students' responses to the use of flipbooks were also very positive, as they felt more interested and assisted in understanding complex biology concepts.

Research by Dian Setiawan, S.Pd., M.Pd (2022) "The Influence of Flipbook Media on Students' Learning Interest in Technical Drawing Subjects at SMK Negeri 6 Yogyakarta." The research results show that the use of flipbook media in Technical Drawing learning significantly increases students' learning interest. Students who learn with the help of flipbook media have a higher interest compared to students who use conventional learning media. Data analysis using the t-test shows a significant difference in learning interest between the group using flipbook media and the control group. Factors that influence the increase in learning interest includes more engaging material visualization, ease of accessing the material, and interactivity presented by the flipbook.

Next, the research by Rina Aditya, S.Pd (2024) "Development of Flipbook Learning Media for Economics Subjects at SMA Negeri 6 Malang." The research results show that the development of flipbook learning media for Economics subjects successfully improved students' learning outcomes. Based on data analysis, the average posttest scores of students showed a significant improvement compared to the pretest scores. Students' responses to the use of flipbooks were also very positive; they



Submitted: 4 December 2024

Revised: 8 December 2024

Accepted: 18 March 2026

felt that flipbooks helped them understand economic concepts more easily and engagingly. Thus, the flipbook as a learning medium has proven to be effective in enhancing students' understanding of economic concepts.

In the study by Ahmad Sudirman, M.Pd., Rina Wulandari, M.Pd., Budi Santoso, M.Kom (2023) "Development of Interactive Flipbook Media to Improve Understanding of Hospitality Subjects," the research results show that the use of interactive flipbooks is effective in enhancing students' understanding. There was a significant increase in the average comprehension test scores after learning using the interactive Flipbook compared to conventional learning. Students also showed a positive response to the use of Flipbook, indicating that this media can enhance their learning motivation and engagement in the learning process.

Research by Dr. Andi Setiawan, M.Pd., Dra. Siti Rahmawati, M.M (2022) "The Effectiveness of Flipbook as an Interactive Learning Media for Hospitality Management Subjects in Vocational High Schools". The research results indicate that the use of flipbook significantly improves students' understanding compared to conventional methods. This data was obtained through comprehension tests before and after the learning process, as well as student satisfaction surveys regarding the flipbook media. In the research by Ahmad Rifai, S.Pd., M.Pd (2019) "Development of Computer-Based Mathematics Teaching Materials Using Flipbook Maker Accompanied by Islamic Values on Probability Material." The results of this research indicate that the suitability of these computer-based teaching materials is deemed appropriate for mathematics learning in vocational schools. This is due to the interactive display and the use of Islamic values relevant to everyday life, making it more appealing to students. Student Interest: Most students showed a higher interest in learning mathematics using this Flipbook-based teaching material. This is evident from the survey results, which show that students feel more enthusiastic about understanding probability material.

Next, the research by Ahmad Rizal, S.Pd., M.Pd (2022) "Validation of IT-Based Teaching Material Development (Flipbook) at SMK Negeri 2 Tuban (Business Administration Document Material)." The results of this study show that validation by content experts indicates that the flipbook content received an average score of 90%, which falls into the "Very Feasible" category. Validation by media experts gave an average score of 88%, also falling into the "Very Feasible" category. This in the study by Umi Rochayati, Kusuma Setyawati (2024) "Development of Interactive Learning Media Based on Flipbook for Passive and Active Component Materials in Basic Electronics Engineering Subjects," the research results indicate that the use of flipbook learning media enhances students'

Copyright ©2026 JOEPALLT

Journal of English Pedagogy, Linguistics, Literature, and Teaching



understanding in identifying and comprehending passive components (resistors, capacitors, and inductors) as well as active components. (transistor, IC, dan dioda). Students gave positive feedback on the flipbook due to its attractive visual appearance and easy navigation. In addition, this study also observed that the flipbook helps teachers explain the material in a more structured and comprehensive manner.

In the study by Aini Faridatul Ulya, Dian Pratiwi, Teguh Kurniawan (2022) "Development of Teaching Materials E-booklet Based on Flip PDF Professional on Technological Development in The Period of Perundagian in Indonesia," the research results show that the Flip PDF Professional-based e-booklet is effective in enhancing

students' understanding of the Perundagian material. Data from student learning outcomes show an increase in scores after the use of the e-booklet. The validation of the learning materials shows that the developed teaching materials are suitable for use in technology history education at vocational schools.

Then, the research by Nur Aisyah, M.Pd., Dian Permatasari, S.Pd., Ahmad Fauzi, S.Pd. (2023) "The Application of Guided Inquiry and the Use of Flipbook Media to Improve Students' Critical Thinking Skills." The research results show a significant increase in critical thinking skills in the experimental group compared to the control group. Students who learned using the guided inquiry method and flipbook media demonstrated a deeper understanding, better analytical skills, and higher reflective abilities.

Research by Rina Setyowati, S.Pd., M.Pd., and Ahmad Firdaus, S.Pd., M.Pd (2023) "The Use of Flipbook in Chemistry Practical Learning in Vocational High Schools." The research results show that the use of flipbooks has a positive impact on students' learning outcomes, with the average posttest scores of the experimental group being higher than those of the control group. In addition, the practical skills of students who used flipbooks also showed significant improvement compared to students who used conventional methods. Next, the research by Sri Handayani, S.PD., M.Pd (2021) "Development of Flipbook Maker-Based E-Modules in Office Technology Subjects." The results of this research indicate an Improvement in Learning Effectiveness, as the use of Flipbook Maker-based e-modules has proven to enhance learning effectiveness. This is evidenced by the increase in the average student score from pre-test to post-test by 25%. Interactivity and Understanding of the Material, that is, students experienced a more interactive learning experience. The presentation of material accompanied by animations and videos makes it easier for students to understand abstract concepts in office technology. Positive Response from

Copyright ©2026 JOEPALLT

Journal of English Pedagogy, Linguistics, Literature, and Teaching



Submitted: 4 December 2024

Revised: 8 December 2024

Accepted: 18 March 2026

Students Based on the survey, around 90% of students gave positive feedback on the e-module. They feel more motivated to learn and more interested in following the lessons.

Then, a study by Dr. Rina Kurniawati, M.Pd and Ahmad Nurhadi, S.Pd (2023) titled “The Application of the Problem-Based Learning (PBL) Model Using Flipbook Media to Improve Biology Learning Outcomes of Students at SMAN Ambulu.” The analysis results show that there is a significant improvement in learning outcomes in the experimental group compared to the control group. The average posttest score of students in the experimental class reached 85, while in the control class it only reached 74. Additionally, students' responses to the use of flipbooks were also very positive, as they felt more interested and assisted in understanding complex biology concepts.

Research by Dian Setiawan, S.Pd., M.Pd (2022) "The Influence of Flipbook Media on Students' Learning Interest in Technical Drawing Subjects at SMK Negeri 6 Yogyakarta." The research results show that the use of flipbook media in Technical Drawing learning significantly increases students' learning interest. Students who learn with the help of flipbook media have a higher interest compared to students who use conventional learning media. Data analysis using the t-test shows a significant difference in learning interest between the group using flipbook media and the control group. Factors that influence the increase in learning interest includes more engaging material visualization, ease of accessing the material, and interactivity presented by the flipbook.

Next, the research by Rina Aditya, S.Pd (2024) "Development of Flipbook Learning Media for Economics Subjects at SMA Negeri 6 Malang." The research results show that the development of flipbook learning media for Economics subjects successfully improved students' learning outcomes. Based on data analysis, the average posttest scores of students showed a significant improvement compared to the pretest scores. Students' responses to the use of flipbooks were also very positive; they felt that flipbooks helped them understand economic concepts more easily and engagingly. Thus, the flipbook as a learning medium has proven to be effective in enhancing students' understanding of economic concepts.

In the study by Ahmad Sudirman, M.Pd., Rina Wulandari, M.Pd., Budi Santoso, M.Kom (2023) "Development of Interactive Flipbook Media to Improve Understanding of Hospitality Subjects," the research results show that the use of interactive flipbooks is effective in enhancing students' understanding. There was a significant increase in the average comprehension test scores after learning using the interactive Flipbook compared to



Submitted: 4 December 2024	Revised: 8 December 2024	Accepted: 18 March 2026
----------------------------	--------------------------	-------------------------

conventional learning. Students also showed a positive response to the use of Flipbook, indicating that this media can enhance their learning motivation and engagement in the learning process.

Research by Dr. Andi Setiawan, M.Pd., Dra. Siti Rahmawati, M.M (2022) "The Effectiveness of Flipbook as an Interactive Learning Media for Hospitality Management Subjects in Vocational High Schools". The research results indicate that the use of flipbook significantly improves students' understanding compared to conventional methods. This data was obtained through comprehension tests before and after the learning process, as well as student satisfaction surveys regarding the flipbook media.

In the research by Ahmad Rifai, S.Pd., M.Pd (2019) "Development of Computer-Based Mathematics Teaching Materials Using Flipbook Maker Accompanied by Islamic Values on Probability Material." The results of this research indicate that the suitability of these computer-based teaching materials is deemed appropriate for mathematics learning in vocational schools. This is due to the interactive display and the use of Islamic values relevant to everyday life, making it more appealing to students. Student Interest: Most students showed a higher interest in learning mathematics using this Flipbook-based teaching material. This is evident from the survey results, which show that students feel more enthusiastic about understanding probability material.

Next, the research by Ahmad Rizal, S.Pd., M.Pd (2022) "Validation of IT-Based Teaching Material Development (Flipbook) at SMK Negeri 2 Tuban (Business Administration Document Material)." The results of this study show that validation by content experts indicates that the flipbook content received an average score of 90%, which falls into the "Very Feasible" category. Validation by media experts gave an average score of 88%, also falling into the "Very Feasible" category. This indicates that the developed flipbook has good quality in terms of content and media.

The next research by Rudi Haryanto (2022) "The Influence of Flipbook Use in Entrepreneurship Learning at Vocational High Schools". The results of this research are that data analysis shows that the use of flipbooks has a significant positive influence on students' interest and understanding. The average posttest scores of students in the experimental group were higher compared to the control group. Additionally, the questionnaire shows that students are more interested in learning entrepreneurship using flipbook media compared to conventional methods.

The next research by Ahmad Setiawan, M.Pd (2023) "Flipbook Design for Basic Hospitality Learning in Vocational High School".

Copyright ©2026 JOEPALLT

Journal of English Pedagogy, Linguistics, Literature, and Teaching



Submitted: 4 December 2024

Revised: 8 December 2024

Accepted: 18 March 2026

research results show that the use of flipbooks in basic hospitality learning at SMK Negeri 7 Jakarta has a significant impact on improving students' understanding. The average posttest scores of students in the experimental group increased by 25% compared to the control group. This indicates that the flipbook is effective as an interactive learning medium, particularly in the subject of basic hospitality.

In the research by Dian Apriani, S.Pd., M.Pd (2024) "Development of Cultural Arts Learning Media for Visual Arts Material for Class X Based on Flipbook at SMA Adabiah 1 Padang," the results are as follows: The validity of the E-Module, validated by media and material experts, shows that this e-module has a high validity level with an average score of 87%, indicating that the content, design, and functionality of this e-module are suitable for use in learning. The practicality of the E-Module, tested through a questionnaire with 10th-grade students at SMA Adabiah 1 Padang, shows a practicality level of 85%. Students consider that this flipbook is easy to use, engaging, and helps in understanding the concepts of Fine Arts.

The subsequent research by Rina Suryani, M.Pd (2021) "The Effectiveness of Flipbook as an Interactive Learning Media in Culinary Subjects at Vocational High Schools". The research results indicate that there is a significant improvement in the learning outcomes of students who use flipbooks compared to conventional methods. Students who learn using flipbooks experienced a 30% increase in material comprehension compared to the control group. In addition, flipbooks have proven to be more engaging for students and help facilitate independent learning.

Research by Nurul Hidayati, S.Pd., M.Pd (2021) "The Application of Flipbook in Multimedia Learning at Vocational High Schools: The Impact of Flipbook Usage on Students' Understanding and Creativity in Multimedia Subjects." The research results show that the use of flipbook as a learning medium has a significantly positive impact on students' understanding and creativity. Students who learn using flipbook show a 30% increase in material understanding scores compared to students who use conventional methods. In addition, students' creativity also increased, with evaluation results showing their ability to develop multimedia projects with a more creative and innovative approach.

In the study by Ahmad Rizky, Dewi Sari (2016) "The Application of Flipbook Innovation as a Learning Media to Improve Learning Outcomes in PHP Introduction for Class XI RPL at SMKN 2 Mojokerto," the research results indicate that the use of flipbooks as a learning media can enhance students' learning outcomes. The average student scores in the first



Submitted: 4 December 2024

Revised: 8 December 2024

Accepted: 18 March 2026

cycle increased by 15% compared to the initial scores. In the second cycle, the increase reached 25% from the initial scores. Additionally, the use of flipbooks also had a positive impact on student motivation; 85% of students stated that they felt more interested and motivated in learning PHP through this flipbook medium.

In the research by Ahmad Rizal, S.Pd (2022) "Development of Problem-Based Learning-Based Flipbook Media in Computer and Network Engineering Subjects at Vocational High Schools." The results of this research are that the developed Flipbook design includes various materials related to Computer and Network Engineering presented in an interactive format, facilitating students in learning independently and collaboratively. Improvement in Critical Thinking Skills: Data analysis results show a significant increase in students' critical thinking skills after using the PBL-based flipbook media. Students were able to solve problems encountered in the context of computer and network engineering more effectively. Feedback from Students Most students provided positive feedback regarding the use of the flipbook, stating that the media was engaging, easy to use, and helped them understand the material better.

Further research by Dr. Ahmad Rafiq, M.Pd (2023) "Implementation of Flipbook to Improve Learning Outcomes in Accounting Subjects." The results of this research are as follows: the analysis shows that the use of flipbook has a positive impact on student learning outcomes. The average post-test scores of students in the experimental class were higher compared to the control class. Additionally, observations of student activities during learning show a higher level of engagement in classes that use flipbooks. It indicates that the developed flipbook has good quality in terms of content and media.

The discussion of the research results is the Effectiveness of Flipbooks in Various Subjects. Out of the 20 reviewed studies, most indicate that the use of flipbooks significantly improves student learning outcomes across various subjects. The use of flipbooks in learning has a significantly positive impact on student learning outcomes. By looking at the first criterion, Attractive and Interactive Visualization, where Flipbook provides engaging visuals, such as images, graphics, and animations, which help students understand abstract concepts. Research by Mayer (2009) in "Cognitive Theory of Multimedia Learning" shows that visual elements combined with text can enhance student retention and understanding.

Furthermore, ease of access and active engagement According to the research by Fatimah & Wulandari (2021), digital flipbooks that are easily accessible through electronic devices allow students to learn independently



Submitted: 4 December 2024

Revised: 8 December 2024

Accepted: 18 March 2026

at any time. This encourages active student engagement in the learning process. The integration of various Flipbook learning media can incorporate video, audio, and hyperlink elements that enhance the students' learning experience. Azhar & Rohman (2020) in their journal mention that the integration of these media makes learning materials more interactive and enjoyable, there by increasing students' motivation to learn. Third, the effectiveness in enhancing conceptual understanding, such as interactive features in flipbooks, like quizzes, simulations, or easy navigation, helps students grasp complex concepts in a simpler way. Research by Putri et al. (2022) shows that problem-based learning-based flipbooks significantly enhance students' analytical skills and learning outcomes.

CONCLUSION

Effectiveness of Flipbook Implementation From the 20 studies reviewed, most showed positive results in the implementation of flipbooks. Some key findings include increased Student Motivation and Engagement, Better Concept Understanding, Improved Learning Outcomes, Learning Independence, and enhanced Digital and Critical Thinking Skills. The application of flipbook technology in learning at vocational high schools/senior high schools shows potential. that significantly enhance student engagement and understanding. Although there are several obstacles, such as limited technology and teacher skills, strategic measures can be taken to overcome these challenges. This study emphasizes the importance of flipbooks as interactive and flexible learning tools, which can help improve the quality of education at the secondary school level.

REFERENCES

- Cahyani, V. R., Sujud, S., & Jati, P. (2022). Development of Teaching Materials E-booklet based on Flip PDF Professional on Technological Development in The Period of Perundagian in Indonesia for Students Class X SMK Pengembangan Bahan Ajar E-booklet berbasis Flip PDF Professional Materi Perkembangan Teknologi pada Masa Perundagian di Indonesia untuk Siswa Kelas X SMK. *Pendidikan Dan Humaniora*, 7(1). <https://doi.org/10.36526/js.v7i2>
- Darpindo, W., Yahya, Y., Hamka, J., Tawar Bar, A., Padang Utara, K., & Padang, K. (2024). *Pengembangan Media Pembelajaran Seni Budaya Materi Seni Rupa Kelas X Berbasis Flipbook di SMA Adabiah 1 Padang*. 15–28. <https://doi.org/10.62383/realisasi.v1i4.303>



- Derrydamawati, C. C., Handajani, S., Purwidiani, N., & Pangesthi, L. T. (2024). Pengembangan e-Modul Berbasis Heyzine Flipbook pada Materi Peralatan Dapur untuk Siswa Kuliner Fase E. *Jurnal Ilmiah Profesi Pendidikan*, 9(3), 1723–1730. <https://doi.org/10.29303/jipp.v9i3.2501>
- Fadhil Adhhan, M., & Dra Ratna Tanjung, dan. (n.d.). PENGEMBANGAN E-MODUL MENGGUNAKAN APLIKASI KVISOFT FLIPBOOK MAKER PADA MATERI SUHU DAN KALOR KELAS XI SMA. *Jurnal Ikatan Alumni Fisika Universitas Negeri Medan*, 8(2).
- Handayani, S. (2021). Pengembangan E-Modul Berbasis Flipbook Maker pada Mata Pelajaran Teknologi Perkantoran. *Jurnal Pendidikan Vokasi*, 19(3), 333-344.
- Haryanto, R. (2022). Pengaruh Penggunaan Flipbook dalam Pembelajaran Kewirausahaan di SMK. *Jurnal Pendidikan Bisnis*, 10(2), 98-109.
- Hayati, S., Budi, A. S., & Handoko, E. (2015). Pengembangan media pembelajaran flipbook fisika untuk meningkatkan hasil belajar peserta didik. *Prosiding Seminar Nasional Fisika (E-Journal)*, 4, SNF2015-II.
- Hidayati, N. (2021). Penerapan Flipbook dalam Pembelajaran Multimedia di SMK: Dampak Penggunaan Flipbook terhadap Pemahaman dan Kreativitas Siswa dalam Mata Pelajaran Multimedia. *Jurnal Teknologi dan Pendidikan*, 13(4), 211-223.
- Kurniawati, R., & Nurhadi, A. (2023). Penerapan Model Pembelajaran Problem-Based Learning (PBL) Menggunakan Media Flipbook untuk Meningkatkan Hasil Belajar Biologi Siswa di SMAN Ambulu. *Jurnal Pendidikan Biologi*, 10(2), 50-60.
- Kurniawati, R., & Nurhadi, A. (2023). Penerapan Model Pembelajaran Problem-Based Learning (PBL) Menggunakan Media Flipbook untuk Meningkatkan Hasil Belajar Biologi Siswa di SMAN Ambulu. *Jurnal Pendidikan Biologi*, 10(2), 50-60.
- Listyan, O. :, Nugroho, P., & Sodiq, S. (n.d.). *EFFEKTIVITAS PENGEMBANGAN E-MODUL BERBENTUK ONLINE FLIPBOOK PADA MATERI AKSARA JAWA KELAS X SMK*.
- Munandar, A., & Rizki, S. (2019). PENGEMBANGAN BAHAN AJAR MATEMATIKA BERBASIS KOMPUTER MENGGUNAKAN FLIPBOOK MAKER DISERTAI NILAI ISLAM PADA MATERI PELUANG. *AKSIOMA: Jurnal Program Studi Pendidikan Matematika*, 8(1). <https://doi.org/10.24127/ajpm.v8i1.1957>
- Perangin Angin, & Cindi Katarina Br. (n.d.). *PENGARUH PENERAPAN MODEL PEMBELAJARAN PjBL BERBANTUAN MEDIA DIGITAL*



FLIPBOOK TERHADAP MINAT DAN HASIL BELAJAR SISWA KELAS XI PADA MATERI KESETIMBANGAN KIMIA.

- Pramudia, W., & Irfan, D. (2023). Rancang Bangun E-modul Berbasis FlipBook pada Mata Pelajaran Dasar-Dasar Teknik Elektronika. *Jurnal Pendidikan Tambusai*, 7(1), 4129–4140.
- Putra, B., Searmadi, H., & Harimurti, R. (2016). PENERAPAN INOVASI FLIPBOOK SEBAGAI MEDIA PEMBELAJARAN UNTUK MENINGKATKAN HASIL BELAJAR PENGENALAN PHP KELAS XI RPL DI SMK NEGERI 2 MOJOKERTO. In *Jurnal IT-Edu* (Vol. 01).
- Rafiq, A. (2023). Implementasi Flipbook untuk Meningkatkan Hasil Belajar Mata Pelajaran Akuntansi. *Jurnal Pendidikan Akuntansi*, 11(2), 132-142.
- Rahayu, D., Pramadi, R. A., Maspupah, M., & Agustina, T. W. (2021). Penerapan Media Pembelajaran Flipbook Interaktif untuk Meningkatkan Hasil Belajar Siswa. *Indonesian Journal of Mathematics and Natural Science Education*, 2(2), 105–114. <https://doi.org/10.35719/mass.v2i2.66>
- Rasmawan, R., Muharini, R., & Lestari, I. (2022). *Pengembangan E-Modul Flipbook IPA Berbasis Problem Based Learning pada Materi Pencemaran Lingkungan*. 6. <https://doi.org/10.31004/basicedu.v6i5.3558>
- Rifai, A. (2019). Pengembangan Bahan Ajar Matematika Berbasis Komputer Menggunakan Flipbook Maker Disertai Nilai Islam Pada Materi Peluang. *Jurnal Pendidikan Matematika*, 6(3), 67-79.
- Rizal, A. (2022). Pengembangan Media Flipbook Berbasis Problem-Based Learning pada Mata Pelajaran Teknik Komputer dan Jaringan di SMK. *Jurnal Teknologi dan Pembelajaran*, 15(2), 91-101.
- Rizal, A. (2022). Validasi Pengembangan Bahan Materi Ajar Berbasis IT (Flipbook) pada SMK Negeri 2 Tuban (Materi Dokumen Administrasi Usaha). *Jurnal Teknologi Pendidikan*, 13(2), 150-161.
- Rizky, A., & Sari, D. (2016). Penerapan Inovasi Flipbook sebagai Media Pembelajaran untuk Meningkatkan Hasil Belajar Pengenalan PHP Kelas XI RPL di SMKN 2 Mojokerto. *Jurnal Informatika dan Pendidikan*, 8(1), 45-55.
- Rochayati, U., & Setyawati, K. (2024). Pengembangan Media Pembelajaran Interaktif Berbasis Flipbook untuk Materi Komponen Pasif dan Aktif pada Mata Pelajaran Dasar-Dasar Teknik Elektronika. *Jurnal Teknologi Pendidikan*, 13(1), 1-15.
- Setiawan, A. (2023). Desain Flipbook untuk Pembelajaran Dasar-Dasar Perhotelan di SMK. *Jurnal Pendidikan Vokasi Perhotelan*, 12(1), 27-



38.

- Setiawan, D. (2022). Pengaruh Media Flipbook Terhadap Minat Belajar Siswa pada Mata Pelajaran Gambar Teknik di SMK Negeri 6 Yogyakarta. *Jurnal Teknik Pendidikan*, 8(4), 321-330.
- Setyowati, R., & Firdaus, A. (2023). Penggunaan Flipbook dalam Pembelajaran Praktikum Kimia di SMK. *Jurnal Pendidikan Kimia*, 14(2), 105-116.
- Sudirman, A., Wulandari, R., & Santoso, B. (2023). Pengembangan Media Flipbook Interaktif untuk Meningkatkan Pemahaman Mata Pelajaran Perhotelan. *Jurnal Pendidikan Perhotelan*, 7(1), 45-57
- Sugiyono (2018): *Metode Penelitian Kuantitatif, Kualitatif, dan R&D*.
- Suryani, R. (2021). Efektivitas Flipbook sebagai Media Pembelajaran Interaktif pada Mata Pelajaran Tata Boga di SMK. *Jurnal Pendidikan Tata Boga*, 14(3), 289-300.
- Susilo, A., Ardianto, B., Romlah, S., Wirdaini, M., Maarif Hasyim Latif, U., & Timur, J. (2023). *Implementasi Artificial Intelligence dalam Merdeka Belajar pada Bidang Humaniora, Iptek, dan Sains*.
- Ulya, A. F., Pratiwi, D., & Kurniawan, T. (2022). Development of Teaching Materials E-booklet Based on Flip PDF Professional on Technological Development in The Period of Perundagian in Indonesia. *Journal of Educational Technology*, 9(2), 87-98.
- Virdarani, N. (2023). PENERAPAN MODEL PEMBELAJARAN PBL MENGGUNAKAN MEDIA FLIPBOOK UNTUK MENINGKATKAN HASIL BELAJAR BIOLOGI SISWA SMAN AMBULU. *ScienceEdu*, 6(1), 83. <https://doi.org/10.19184/se.v6i1.40087>
- Wahyuni, E. T., Mayasari, T., & Kurniadi, E. (2023). Penerapan Inkuiri Terbimbing dan Penggunaan Media Flipbook untuk Meningkatkan Kemampuan Berpikir Kritis Siswa. *Prosiding Konferensi Berbahasa Indonesia Universitas Indraprasta PGRI*, 437-445. <https://doi.org/10.30998/kibar.27-10-2022.6341>