Utilization of Canva for education to improve learning effectiveness of vocational students

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Abstract: Canva for education is a version of Canva designed specifically for education. The results of the literature review show that the learning effectiveness of SMK students is not optimal. This is because teachers only use passive and non-interactive learning media, such as showing pictures or videos without providing opportunities for students to actively participate in learning. This study aims to determine the use of canva for education to improve the learning effectiveness of vocational students. The method used in this study is SLR (Systematic Literature Review) which consists of 15 published journal samples. Data collection techniques are carried out by collecting some relevant previous research, then compiled, analyzed, and concluded. Based on the results of research that has been carried out, canva for education can increase the learning effectiveness of vocational students The use of canva for education can increase the learning effectiveness of vocational students because it attracts students' interest, makes learning materials easier to understand, develops graphic design skills and strengthens collaboration, thereby increasing student motivation and learning outcomes. The use of Canva for education should be balanced with effective learning strategies.

Keywords: Canva for education; learning effectiveness; vocational school

1. Introduction

Canva for education is the version of Canva created especially with education in mind. Platform It is designed to help teachers and students create engaging and effective learning materials easily. Canva for education offers a number of additional features and benefits to help users create more engaging and interactive educational content (Arifin et al., 2021). Some of the features available in Canva for education according to Sholeh et al. (2020) Among others: (1) Free access to various template education-specific designs, such as posters, presentations, cards, etc.; (2) access to more than 75 million drawings and design elements that can be used to create design projects; (3) collaboration features that allow teachers and students to work together on design projects; (4) the ability to easily create interactive and multimedia quizzes; (5) other features such as access to training and educational resources, integration with platform LMS (Learning Management System), and premium customer support.

Canva, it can be an effective learning medium because it has an easy-to-use and intuitive user interface, so even people who are not familiar with graphic design can easily create attractive designs (Rizanta & Arsanti, 2022). Canva also provides a variety of template Customizable design to your learning needs (Marwadi & Saudiq, 2022). For example, teachers can create infographics to explain important concepts, presentations to teach skills, or posters to announce assignments or activities in class. In addition, according to Safrianti (2022), visual design Canva Engaging ones can help retain students' attention and increase their learning motivation. Utilizing Canva as a teaching tool, it's critical to make sure the visual design is appropriate for the subject matter and simple enough for students to understand. In addition, it is also important to consider accessibility, so that visual design is accessible to all students.

Canva for education help students understand difficult concepts through visualization and the use of easy-to-understand images. Teachers can easily create learning materials using template which has been prepared by Canva and save time. This can allow teachers to focus on teaching and interacting with students. According to Pelangi, (2020) Canva be online platform which can be accessed from anywhere, so students can study anytime and anywhere with more flexibility. Therefore, Canva can help improve student learning effectiveness and facilitate teacher work in making interesting and interactive learning materials, so as to motivate students to learn.

Learning effectiveness refers to a student's ability to learn and understand information in an effective way (Guo et al., 2020; Kurniasari et al., 2020). Learning effectiveness can be affected by a variety of factors, including learning methods, motivation, attention, and quality of learning materials (Mardhiah, & Ali Akbar 2018; Yeap et al., 2021). Overall, learning effectiveness can be improved by paying attention to these factors. Recognizing the most effective learning methods, motivating yourself, using quality learning materials, increasing attention, and repeating material regularly can help students learn and understand information better.

Learning effectiveness can also be influenced by learning media (Ramli et al., 2018). Using the right learning resources can improve students comprehension of the topic being taught and expedite their acquisition of knowledge. Some factors that affect the relationship between learning effectiveness and learning media include: (1) availability of learning media. The effectiveness of learning may be compromised if the required learning resources are unavailable or cannot be used correctly; (2) the kind of educational materials utilized. The type of learning media used can also affect the effectiveness of learning. For example, image or video media can be more effective in explaining visual concepts, whereas audio media can be more effective in conveying complex information; (3) how well-suited educational materials are to the content being taughtTo ensure that students fully comprehend the information, the learning resources utilized must match the curriculum; (4) interactivity of learning materials. Interactive educational resources can support students in becoming more involved in their education and sustaining their interest in the subject matter; (5) proficiency in teaching with educational media. The effectiveness of learning is also impacted by teacher's media-use abilities. A teacher who is skilled in integrating learning media in learning can increase learning effectiveness.

Students of SMK (Vocational High School) are secondary schools that provide skill-based and vocational education (Tridiana & Rizal, 2020). Vocational students usually follow educational programs that focus on technical and practical skills, with the aim that students are ready to enter the workforce after graduation. Inderanata and Sukardi, (2023); Prasetyowati et al. (2021) explained that in the vocational school environment, students get theoretical and practical lessons proportionally. Theory subjects include general subjects such as mathematics, Indonesian, English, and so on, while practical lessons include technical and vocational skills, such as welding, assembling machines, or cooking.

In order to apply the skills they have gained in the classroom to a real work setting, vocational students might participate in internships or work practices at businesses (Sudaryono et al., 2022). Internships or work practices can also help students in building a network of relationships and getting to know the world of work. Lastya, (2019) states that SMK students can also prepare themselves to continue their education to a higher level, such as D3 or S1, to explore more specific technical skills or to acquire deeper knowledge in certain fields.

On other hand, the prosess of learning by using of inappropriate learning media may reduce the effectiveness of learning and could students less interested in learning the subject matter in classroom. It will be effect for learning prosess when the teachers taught by using media that are not in accordance with the subject matter being taught, could be effected to the students. If the teachers only use passive and non-interactive learning media and so on, such as by showing the pictures or videos without providing

opportunities for students to actively participate in learning, it could be effected also to students.

One way to solve the above problem is to take advantage of canva for education to increase learning effectiveness. Bolstered by the findings of studies carried out by Purba and Harahap, (2022) which states that mathematics learning by application Canva "Using Canva both before and after training increases the capacity to generate multimedia for mathematics education, which is highly helpful". The similar idea was additionally stated by Admelia et al.,(2022) that interactive-based learning media using microsoft word and Canva It is effectively used by teachers. Results of research conducted by Putri and Mudinillah (2021), claims that using Canva to enhance social science learning can help students become more engaged in the process of learning.

Concluded the study's findings by Riono and Fauzi, (2022) states that application-based media development Canva can increase student motivation and achievement and can be used in the learning process. Sa'diah et al., (2022) declares that the educational content is based on Canva the produced ones are classified as alternative learning resources that are simple to comprehend and engaging for learners. With Canva, educators can impart knowledge, creativity, and skills to students so they can use media in a variety of contexts.

Based on this background, the author intends to conduct research on "Utilization of Canva for Education to Improve Student Learning Effectiveness in SMK". The reason for the title of this study is that it is expected that this research will be a consideration for vocational teachers to create educational media. In addition, tt is expected of students to participate in instructional and learning activities. and work together in completing tasks so as to increase learning effectiveness.

2. Research Methods

The research methods used are: Systematic Literature Review (SLR) From the results of research that have been published in national journals. A systematic and structured approach to finding, assessing, and translating research findings from numerous pertinent sources is the systematic literature review (Putra & Milenia, 2021). The aim is to summarize and synthesize existing scientific evidence on a particular topic, so as to provide a broader and comprehensive understanding of the topic (Khairunnisa & Ilmi, 2020).

In doing Systematic Literature Review, it's critical to consider the caliber of the literature sources that are consulted, such as the research method used, sample size, population studied, and other factors that may affect the study's findings (Khairunnisa et al., 2022). In addition, the method Systematic Literature Review It must also be done carefully and structured to produce valid and reliable scientific evidence.

Data for this study were first gathered by compiling all studies on the effectiveness of student learning by utilizing Canva for Education, data analysis in scientific journals and drawing conclusions. Based on these stages, researchers look for scientific journals with keywords for student learning effectiveness by utilizing Canva for Education by googling the resources of journals, then scientific journals are selected and evaluated according to predetermined criteria, then the data that has been collected is analyzed and conclusions are drawn. The scientific journals used in this study are 15 journals that have been published and indexed by Google Scholar in the period 2018 -2023 by googling the journals. The implementation of this research was carried out independently in several days, from 01 to 20 February 2023 and the research was carried out in the library of SMK Negeri 2 Kediri City.

3. Results

Table 1 presents the findings of the study that employed the Systematic Literature Review approach, which include an overview of published scientific journals about the use of canva for education to increase vocational students' learning effectiveness.

Table 1. Canva for Education Research Results

No.	Researchers	Research Title	Research Results
1.	(Fitria et al., 2021)	Pemanfaatan Canva untuk Mendukung Media Pembelajaran Online Siswa Siswi SMK Mahardika Karangploso Malang di Masa Pandemi	This application can help students in making presentation slides, mind mapping, posters and so on.
2.	(Diana & Jaya, 2021)	Pengembangan Materi Ajar Dasar Listrik dan Elektronika Berbasis Canva di SMK Negeri 5 Padang	The results of the Canva application training for students of SMK Negeri 5 Padang had a positive impact. And none of the participants gave a negative impression
3.	(Marwadi & Sodiq, 2022)	Pemanfaatan Aplikasi Canva pada Pembelajaran Menyusun Teks Iklan Kelas XII DKV 2 SMKN 13 Surabaya	The study's findings demonstrate how "very good" using the Canva app can be while learning to create advertisements.
5.	(Rahmayanti & Jaya, 2020)	Pengaruh Penerapan Media Pembelajaran Canva dengan Pendekatan Saintifik Terhadap Hasil Belajar Dasar Listrik dan Elektronika	Based on the hypothesis test, there is a significant influence by applying Canva learning media with a scientific approach at SMK Negeri 3 Kota Pariaman
7.	(Arief & Ashar, 2021)	Pembuatan Media Pembelajaran Interaktif Pada Mata Pelajaran Kerja Bengkel dan Gambar Teknik Menggunakan Aplikasi Canva di Kelas X TAV SMK Cendana Padang Panjang	Based on student-conducted user tests, which yielded 90.92% results in the extremely practical category, it was determined that this media was highly practicable to use.
8.	(Utarini, 2022)	Penerapan Model Project Based Learning (PjBL) dengan Aplikasi Canva untuk Meningkatkan Prestasi Belajar Produk Kreatif dan Kewirausahaan Peserta Didik Kelas XII BDP 1 SMK Negeri 1 Negara	These findings demonstrate that, in the even semester of the 2021–2022 academic year, students studying creative products and entrepreneurship at grade XII BDP 1 SMK Negeri 1 Negara can achieve higher learning outcomes when the Project Based Learning (PjBL) model is applied with the Canva application.
9.	(Sartika et al., 2018)	Efektifitas Pembelajaran Menulis Bahasa Inggris Menggunakan Strategi Sentence Combining dengan Aplikasi Canva	Students in grade XI Mechatronics Engineering at SMK Negeri 1 South Inderalaya can write better by using the sentence combining approach that is part of the Canva program.
10.	(Juwairia et al., 2022)	Meningkatkan Kreativitas Desain Flyer Digital	The findings demonstrated that SMK Negeri 1 Pemouthan

No.	Researchers	Research Title	Research Results
		Menggunakan Aplikasi Canva Melalui Model Pembelajaran Project Based Learning (PjBL)	students increased creativity when creating digital flyers with the Canva software is influenced by the Project Based Learning learning approach.
11.	(Budiarti & Tantri, 2019)	Pengaruh Penggunaan Media Pembelajaran Audio Visual Berbasis Aplikasi Canva terhadap Kreativitas Siswa	The research findings in the practical category explain how Class X TKJ 1 SMK Negeri 1 Batang Angkola uses audio-visual learning materials based on the Canva application.
12.	(Alif, 2021)	Penggunaan Media *Canva* untuk Meningkatkan Hasil Belajar Siswa pada Mata Pelajaran Sistem Komputer Kelas X Program Keahlian Teknik Komputer dan Jaringan di SMKS Nurut Taqwa	It has been determined that animation learning media, as a research product, are appropriate for use in vocational school students' electronics education.
13.	(Yusnidah, 2022)	Pengembangan Media Animasi pada Pembelajaran Elektronika Siswa SMK	It is concluded that e-modules can stimulate and pique students' interest in learning during online learning based on the findings of the questionnaire used to evaluate students' motivation and interest in learning.
14	(Ekawarna et al., 2022)	Pengembangan Modul Perbankan Dasar untuk Kelas X SMK dan Implementasinya pada Pembelajaran Daring	Based on the results of the questionnaire used to assess student's motivation and interest in learning, it is concluded that e-modules can excite and pique students' interest in learning during online learning.
15	(Siregar et al., 2023)	Perancangan Bahan Ajar Menggunakan Aplikasi Canva pada Mata Pelajaran Administrasi Sistem Jaringan	The results showed that the results of the eligibility percentage of the responses of TKJ XI students got a percentage value of 89.6% by getting the Very Valid category at SMK Yapim Taruna Barumun Tengah

4. Discussion

Published systematic observations might not always be as trustworthy as dependable as their name would imply (Uttley et al., 2023). In conducting a Systematic Literature Review, there are several obstacles or challenges that can be faced, in the same time also, prepared the solution including: (1) limited access to literature sources: Some literature sources may not be openly accessible or require special access that is not easily obtained; to solve this, the school should provide open access to students, than more eazly to the students to geet information. (2) low quality of literature sources: Some literature sources may be of low quality or not very valid, so careful selection is necessary; the solusion for the problem no 2, the school must prepare good quality of resource centre

with great facilities. (3) limited time: Sometimes the time available to conduct a literature study is very limited, so it is necessary to select the most relevant literature sources to the research topic; The solusion is giving the fix time or timetable. The schedule has been appoved by the teachers and students (4) difficulty in identifying relevant literature sources: In some cases, it is difficult to find literature sources that are most relevant to the research topic, especially if the research topic is relatively new or specific; The solution for this, by giving special training to the students, so they are more understand. (5) difficulty in evaluating the quality of literature sources: Evaluating the quality of relevant literature sources can be difficult especially for inexperienced people; To overcome that difficulty, by preparing qualified and up-to-date literature sources, will produce the quality people and awere with quality literature sources. (6) the possibility of bias or different views in literature sources: Different literature sources can have different biases or views, so it is necessary to conduct a more critical and objective analysis; To overcome the different views in literature source by understanging the perspective and background of the authors of literature sources and propose of writing, culture and historical context (7) language: Some literature sources may be written in languages that are not understood, so it is necessary to do sufficient translation or foreign language skills. To overcome this by providing the ability to understand or translate literatur from multiple languages and enriching understanding and by ensuring access to abroad standing, and ensuring access to a broad of sources, and also by inversting in adequate foreign languages.

This obstacle can be overcome by selecting appropriate literature sources, identifying and evaluating the quality of relevant literature sources, and conducting a careful and objective analysis of the scientific evidence obtained. Using criteria standards to categorize study quality and impact attributes makes it possible to conduct high-quality cross-study comparisons and meta-analyses (Mallett et al., 2012). In addition, expanding access to literature sources and collaborating with other experts can help overcome these obstacles. Literature is obtained from academic search engines, namely Google Scholar, and visiting libraries that have a wide and diverse collection of various sciences.

Some supporting factors for the Systematic Literature Review on how to utilize Canva to increase vocational student's learning effectiveness include: (1) previous research and studies: There have been several previous studies and studies that have been conducted on studied the application of canva in education and have offered proof that using canva can increase student's learning efficacy; (2) practical experience: A few educators have experimented with using Canva for educational purposes and have proven its effectiveness in improving student learning outcomes; (3) reliable sources: Literature reviews conducted are based on reliable sources such as scientific journals, reference books, and articles published by leading educational and research institutions; (4) accurate literature review methodology: The literature review carried out is carried out in an accurate and systematic method, by collecting data from various sources and conducting careful analysis to obtain accurate results; (5) consistency of results: The outcomes of the literature review are in line with earlier research findings, both domestically and internationally, demonstrating the value of utilizing Canva to enhance student learning effectiveness. Consistent with the results Ngoc and Huyen, (2023) using Canva to learn to write becomes more fun.

With these supporting factors, it is a reliable source that using Canva in the classroom can improve vocational student's learning outcomes. Based on Table 1, Fitria et al. (2021) revealed that the results of his research aimed to introduce the application Canva to the students of SMK Mahardika Karangploso. This application can help students in making Slide presentation mind mapping posters and so on. In line with this, Diana and Jaya, (2021) concluded the results of application training Canva to the students of SMK Mahardika Karangploso gave a positive impact. This can be shown from the average assessment of SMK Mahardika students on training activities is quite high, which is 8.67 (Range 1-10). And none of the participants gave a negative impression.

Bolstered by the findings of studies carried out by Marwadi and Sodiq, (2022) which proves that using the Canva software to learn how to create advertisements is "very

good". This achievement is corroborated by the following: (1) observations of teacher activities during syntax instruction yielded results of 93.75 with "very good" criteria; and (2) results of the product test, which had the highest score of 92 and the lowest score of 59 in terms of language elements and advertising structure, yielded a result of 90 with "very good" criteria. Out of the two outcomes, the use of the Canva app for ad text learning yielded a score of 91.5 in the "very good" category; (3) student reactions in this study yielded a result of 3.26 with the criteria of "meet".

In studies conducted by Mukti, (2021) entitled; "Best Practices for Optimizing the Use of Canva in Formal Invitation Writing in Class XI of SMK Negeri 1 Tanjung Palas" shows that according to professional evaluations and student feedback, learning media make good use of the user-friendly Canva program. This Canva program can be used as a learning tool for various courses outside English, both online and offline.

The results of research by Rahmayanti and Jaya, (2020), the control group received an average score of 74.18, whereas the experimental group received an average of 82.50. A computed t value of 2.99 > t table 2.672 was achieved based on the hypothesis test, indicating a substantial influence by using Canva learning media with a scientific approach at SMK Negeri 3 Kota Pariaman.

In research by Arief and Ashar, (2021) also concluded that media experts scored an average of 88% in the extremely valid category and material experts scored an average of 92% in the same category, according to the results of validation tests conducted by the experts in the fields. Based on student-conducted user tests, which yielded 90.92% results in the extremely practical category, it was determined that this media was highly practicable to use.

Research by Utarini, (2022) conclude that using the Canva app in conjunction with the Project Based Learning (PjBL) paradigm can improve students' learning outcomes for creative and entrepreneurial products of class XII BDP 1 SMK Negeri 1 Nagara students for the school year 2021–2022, in the even semester. Backed by the findings of studies conducted by Sartika et al., (2018) which claims that using sentence combination techniques found in the Canva app will help student's writing abilities. Thus, it is hoped that teachers can combine writing strategies and the use of the Canva software to inspire students to create their best writing.

The same idea was conveyed by Juwairia et al., (2022), the results of his research show that the learning model Project Based Learning influences students' Flyer Digital design creativity with the use of Canva tools. Create digital flyer is one example of how students can develop their creativity and enhance their abilities in developing flyers to become business opportunities, all while meeting the expectations of the corporate and industrial worlds at SMK Negeri 1 Pemouthan. Supported by the results of research by Budiarti and Tantri, (2019), the findings of studies on the implementation of application-based audio-visual learning resources Canva in Class X TKJ 1 SMK Negeri 1 Batang Angkola is in the practical category. The picture of student creativity in class X TKJ 1 SMK Negeri 1 Batang Angkola is classified as "good" since the average student score is 80.83.

Using Canva media to enhance student learning in Computer Systems classes in class X Expertise Program in Computer and Network Engineering at SMKS Nurut Taqwa conducted by Alif, (2021) concluded that the learning outcomes in the initial condition were just 4 students received KKM scores, compared to 12 students who received KKM scores in the first cycle and in cycle II students whose scores were completed in the initial condition were 18 students so that from 20 students of grade X of the Computer and Network Engineering Expertise Program, about 90% have passed KKM. In addition, the animation media development process makes use of Canva Pro, and expert material replies yielded an overall average of 79.17%, falling into the "very satisfactory" category. In the meantime, the category "very satisfactory" received an overall average of 94.18% from media / design specialists. Consequently, it is determined that animation learning media, as a research product, are appropriate for use in vocational students' electronic learning (Yusnidah, 2022).

Ekawarna et al., (2022) explained that (1) based on the results of the assessment trial of the motivation questionnaire and student learning interest, the e-module can motivate and attract students' learning interest during online learning. (2) the results of the e-module validity test from material experts and media experts stated that the e-modules developed were included in the suitability for use; (3) the results of the validity test for learning independence state that the e-module can be used for independent learning during online learning.

Using Canva can increase the efficacy of learning of SMK students and there are relationship between Canvan, student work and student learning interest in several ways: (1) facilitate the creation of presentation materials: In learning, presentations are important to provide information to students. With Canva, teachers can easily create presentation materials that are engaging and simple for studentss to comprehend; Canva's connection to their educational benefits such as: ease of use, templates and customizability and collaboration tools. (2) Make Infographics easier: Infographics are an effective way to present data with attractive and easy-to-understand visuals. In learning, infographics can help students understand complex information. Canva makes it easy to create infographics with a wide selection of templates to choose from; (3) Increase student creativity: In learning, student creativity is very important to help them understand and remember the material. With Canva, students can learn to use various design elements and create interesting work. This can boost their creativity and help them understand the material in a more fun way; the relationship with impact on student works and activities such as: arts and humanities, sciences and engineering and education and social sciences. (4) make posters easier: Posters are an effective way to convey information in learning. With Canva, teachers can create posters that are attractive and simple for students to understand. With enhancing student enthusiasm for studying, including: engagement through creativity, practical skill development and motivation throught achievement (Kong, 2021).

5. Conclusions

It may be inferred from the debate and research findings that using Canva for Education can improve the efficacy of learning of SMK students because it attracts students, makes learning materials easier to understand, develops graphic design skills, and strengthens collaboration among students. By increasing new knolwedge for the students, learning the new things by adding material in Canva, facilitating material understanding, developing graphic design skills, and strengthening collaboration, the utilization of Canva for Education has the potential to enhance not just the motivation and learning results of vocational students, but also their learning effectiveness. The use of Canva for education must be balanced with the right learning strategy, including: determining learning objectives, adjusting graphic design to learning materials, using graphic design as a supplement, implementing active learning strategies, and providing feedback and evaluation.

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6. References

Admelia, M., Farhana, N., Agustiana, S. S., Fitri, A. I., & Nurmalia, L. (2022). Efektifitas penggunaan aplikasi Canva dalam pembuatan modul pembelajaran interaktif hypercontent di Sekolah Dasar Al Ikhwan. *KACANEGARA Jurnal Pengabdian Pada Masyarakat*, *5*(2), 177. https://doi.org/10.28989/kacanegara.v5i2.1087

Alif, Y. M. I. (2021). Penggunaan media canva untuk meningkatkan hasil belajar siswa pada mata pelajaran sistem komputer kelas X program keahlian tehnik komputer dan jaringan di SMKS Nurut Taqwa. *Jurnal IKA*, *9*(1), 1–23.

https://doi.org/10.36841/pgsdunars.v9i1.2494

Arief, M., & Ashar, F. (2021). Pembuatan media pembelajaran interaktif menggunakan aplikasi articulate storylane pada mata pelajaran gambar teknik kelas X di SMKN 1 Padang. *Jurnal Applied Science in Civil Engineering*, *2*(1), 148–154. https://doi.org/10.24036/asce.v2i1.126566

Arifin, A. N., Ismail, Daud, F., & Azis, A. (2021). Pelatihan aplikasi canva sebagai strategi untuk meningkatkan technological knowledge guru sekolah menengah di kabupaten Gowa. *Seminar Nasional Pengabdian Masyarakat 2021 "Penguatan Riset, Inovasi Dan Kreatifitas Penelitian Di Era Pandemi Covid-19," 5*, 468–472. https://ojs.unm.ac.id/semnaslpm/article/view/25748

Budiarti, Y., & Tantri, R. (2019). Pengaruh penggunaan media pembelajaran audio visual berbasis android terhadap hasil belajar mahasiswa. *Pedagogia: Jurnal Ilmiah Pendidikan Dasra Indonesia*, *1*(1), 83–88. https://jurnal.stkippgribl.ac.id/index.php/pedagogia/article/view/352/306

Diana, P., & Jaya, P. (2021). Pengembangan materi ajar dasar listrik dan elektronika berbasis canva di SMK Negeri 5 Padang. *Voteteknika (Vocational Teknik Elektronika Dan Informatika)*, *9*(1), 32. https://doi.org/10.24036/voteteknika.v9i1.110688

Ekawarna, Denmar, D., & Hutabarat, L. (2022). Pengembangan modul perbangkan dasar untuk kelas X SMK dan implementasinya pada pembelajaran daring. *Syntax Literate: Jurnal Ilmiah Indonesia*, *7*(3), 1196–1205. https://doi.org/10.36418/syntax-literate.v7i3.6427

Fitria, V. A., Habibi, A. R., Hakim, L., & Islamiyah, M. (2021). Pemanfaatan canva untuk mendukung media pembelajaran online siswa-siswi SMK Mahardika Karangploso Malang di masa pandemi. *Jurnal Pengabdian Masyarakat*, *1*(2), 75–82. https://doi.org/10.32528/mujtama'.v1i2.5050

Guo, P., Saab, N., Post, L. S., & Admiraal, W. (2020). A review of project-based learning in higher education: Student outcomes and measures. *International Journal of Educational Research*, *102*(May), 101586. https://doi.org/10.1016/j.ijer.2020.101586

Inderanata, R. N., & Sukardi, T. (2023). Investigation study of integrated vocational guidance on work readiness of mechanical engineering vocational school students. *Heliyon*, *9*(2), e13333. https://doi.org/10.1016/j.heliyon.2023.e13333

Juwairia, J., Koryati, D., Amrina, D. E., & Sintara, U. (2022). Meningkatkan kreativitas desain flyer digital menggunakan Aplikasi canva melalui model pembelajaran project based learning (PjBL). *Jurnal PROFIT: Kajian Pendidikan Ekonomi Dan Ilmu Ekonomi*, *9*(1), 15–26. https://doi.org/10.36706/jp.v9i1.16084

Khairunnisa, A., Gozali, S. M., & Juandi, D. (2022). Systematic literature review: Kemampuan pemahaman matematis siswa dalam menyelesaikan masalah matematika. *Jurnal Cendikia: Jurnal Pendidikan Matematika*, *6*(2), 1846–1856. https://doi.org/10.31004/cendekia.v6i2.1405

Khairunnisa, G. F., & Ilmi, Y. I. N. (2020). Media pembelajaran matematika konkret versus digital: Systematic literature review di era revolusi industri 4.0. *Jurnal Tadris Matematika*, *3*(2), 131–140. https://doi.org/10.21274/jtm.2020.3.2.131-140

Kong, Y. (2021). The role of experiential learning on students' motivation and classroom engagement. *Frontiers in Psychology*, *12*(October), 10–13. https://doi.org/10.3389/fpsyg.2021.771272

Kurniasari, A., Pribowo, F. S. P., & Putra, D. A. (2020). Analisis efektivitas pelaksanaan belajar dari rumah (BDR) selama pandemi covid-19. *Jurnal Review Pendidikan Dasar: Jurnal Kajian Pendidikan Dan Hasil Penelitian*, *6*(3), 1–8. https://doi.org/10.26740/jrpd.v6n3.p246-253

Lastya, H. A. (2019). Minat siswa SMK kelas XII program keahlian teknik instalasi tenaga listrik masuk perguruan tinggi ditinjau dari faktor internal dan eksternal di SMK Negeri 2 Langsa. *Jurnal Ilmiah DIDAKTIKA Februari*, *19*(2), 193–214. https://doi.org/10.22373/jid.v19i2.5033

Mallett, R., Hagen-Zanker, J., Slater, R., & Duvendack, M. (2012). The benefits and challenges of using systematic reviews in international development research. *Journal of Development Effectiveness*, *4*(3), 445–455. https://doi.org/10.1080/19439342.2012.711342

Mardhiah, A., & Ali Akbar, S. (2018). Efektivitas Media Pembelajaran Terhadap Hasil Belajar Kimia Siswa Sma Negeri 16 Banda Aceh. *Lantanida Journal*, *6*(1), 49. https://doi.org/10.22373/lj.v6i1.3173

Marwadi, N., & Sodiq, S. (2022). Pemanfaatan aplikasi canva pada pembelajaran menyusun teks iklan kelas XII Dkv 2 SMKN 13 Surabaya. *Bapala*, *9*(8), 198–207. https://ejournal.unesa.ac.id/index.php/bapala/article/view/47928

Mukti, D. H. H. (2021). Best practice optimalisasi penggunaan canva dalam penulisan formal invitation di kelas XI SMK Negeri 1 Tanjung Palas. *VOCATIONAL: Jurnal Inovasi Pendidikan Kejuruan*, *1*(4), 196–204. https://doi.org/10.51878/vocational.v1i4.652

Ngoc, N. T. B., & Huyen, P. K. (2023). Using canva platform in designing english lessons to increase students learning motivation. *International Journal of Scientific and Research Publications*, *13*(4), 158–162. https://doi.org/10.29322/ijsrp.13.04.2023.p13623

Pelangi, G. (2020). Pemanfaatan aplikasi canva sebagai media pembelajaran Bahasa dan Sastra Indonesia jenjang SMA/MA. *Jurnal Sasindo Unpam*, *8*(2), 1–18. https://doi.org/10.32493/sasindo.v8i2.79-96

Prasetyowati, D., Indiati, I., & Nayla, A. (2021). Analisis keterlaksanaan perencanaan dan proses kegiatan pembelajaran praktik di SMK selama pandemi Covid 19. *Jurnal Riptek*, *15*(2), 69–74. https://doi.org/10.35475/riptek.v15i2.121

Purba, Y. A., & Harahap, A. (2022). Pemanfaatan aplikasi canva sebagai media pembelajaran matematika di SMPN 1 NA IX-X Aek Kota Batu. *Jurnal Cendekia : Jurnal Pendidikan Matematika*, *6*(2), 1325–1334. https://doi.org/10.31004/cendekia.v6i2.1335

Putra, A., & Milenia, I. F. (2021). Systematic literature review: media komik dalam pembelajaran matematika. *MATHEMA: JURNAL PENDIDIKAN MATEMATIKA*, *3*(1), 30. https://doi.org/10.33365/jm.v3i1.951

Putri, R. J., & Mudinillah, A. (2021). Penggunaan aplikasi canva untuk pembelajaran ilmu pengetahuan sosial kelas VI di SDN 02 Tarantang. *MADROSATUNA : Jurnal Pendidikan Guru Madrasah Ibtidaiyah*, *4*(2), 65–85. https://doi.org/10.47971/mjpgmi.v4i2.377

Rahmayanti, D., & Jaya, P. (2020). Pengaruh penerapan media pembelajaran canva dengan pendekatan saintifik terhadap hasil belajar dasar listrik dan elektronika. *Voteteknika (Vocational Teknik Elektronika Dan Informatika)*, *8*(4), 107. https://doi.org/10.24036/voteteknika.v8i4.110251

Ramli, A., Rahmatullah, R., Inanna, I., & Dangnga, T. (2018). Peran media dalam meningkatkan efektivitas belajar. *Prosiding Seminar Nasional Lembaga Pengabdian Kepada Masyarakat UNM*, 5–7. https://ojs.unm.ac.id/semnaslpm/article/view/7649/0

Riono, & Fauzi. (2022). Pengembangan media pembelajaran PAI-BP dI SD berbasis aplikasi canva. *Jurnal Cakrawala Pendas*, *8*(1), 117–127. https://doi.org/10.31949/jcp.v8i1.1921

Rizanta, G. A., & Arsanti, M. (2022). Pemanfaatan aplikasi canva sebagai media pembelajaran masa kini. *Prosiding Seminar Nasional Daring*, *2*, 560–568. https://prosiding.ikippgribojonegoro.ac.id/index.php/SPBSI/article/view/1381

Sa'diah, Ruhiat, Y., & Sholih. (2022). Pengembangan e-modul interaktif berbasis augmented reality untuk siswa Sekolah Dasar. *VOX EDUKASI: Jurnal Ilmiah Ilmu Pendidikan*, *13*(April), 21–29. https://doi.org/10.31932/ve.v13i1.1489

Safrianti, S. (2022). Pemanfaatan aplikasi canva sebagai media pembelajaran untuk meningkatkan hasil belajar pendidikan agama Islam. *Jurnal Pendidikan Profesi Guru Agama Islam*, *2*(2), 467–474.

https://studentjournal.iaincurup.ac.id/index.php/guau/article/view/264/240

Sartika, D., Fitriati, S. W., Suwandi, S., & Pratama, H. (2018). Efektifitas pembelajaran menulis bahasa inggris menggunakan strategi sentence combining dengan aplikasi canva. *Prosiding Seminar Nasional Pascasarjana*, 279–282. https://proceeding.unnes.ac.id/snpasca/article/view/1464

Sholeh, M., Rachmawati, R. Y., & Susanti, E. (2020). Penggunaan aplikasi canva Untuk membuat konten gambar pada media sosial sebagai upaya mempromosikan hasil produk UKM. *SELAPARANG Jurnal Pengabdian Masyarakat Berkemajuan*, *4*(1), 430. https://doi.org/10.31764/jpmb.v4i1.2983

Siregar, T. S., Nasution, H. N., Sari, L. P., & Harahap, A. (2023). Perancangan bahan ajar menggunakan aplikasi canva pada mata pelajaran administrasi sistem jaringan. *Jurnal Vinertex: Vokasioal Informatika Edukasi Riset Dan Teknologi*, *2*(3), 36–39. https://jurnal.spada.ipts.ac.id/index.php/VN/article/view/1361

Sudaryono, Elmanda, V., Purba, A. E., Ayu Sanjaya, Y. P., & Julianingsih, D. (2022). Efektivitas program magang siswa SMK di kota Serang dengan menggunakan metode CIPP di era adaptasi new normal pandemi covid-19. *ADI Bisnis Digital Interdisiplin Jurnal*, *3*(1), 5–15. https://doi.org/10.34306/abdi.v3i1.565

Tridiana, R., & Rizal, F. (2020). Keterampilan guru abad 21 di Sekolah Menengah Kejuruan (SMK). *Jurnal Imiah Pendidikan Dan Pembelajaran*, *4*(2), 221–231. https://doi.org/10.23887/jipp.v4i2.25268

Utarini, N. K. N. (2022). Penerapan model project based learning (PjBL) dengan aplikasi canva untuk meningkatkan prestasi belajar produk kreatif dan kewirausahaan peserta didik kelas XII BDP 1 SMK Negeri 1 Negara. *Widyadari Jurnal Pendidikan*, *23*(1), 105–114. https://ojs.mahadewa.ac.id/index.php/widyadari/article/view/1858/1358

Uttley, L., Quintana, D. S., Montgomery, P., Carroll, C., Page, M. J., Falzon, L., Sutton, A., & Moher, D. (2023). The problems with systematic reviews: a living systematic review. *Journal of Clinical Epidemiology*, *156*, 30–41. https://doi.org/10.1016/j.jclinepi.2023.01.011

Yeap, C. F., Suhaimi, N., & Nasir, M. K. M. (2021). Issues, challenges, and suggestions for empowering technical vocational education and training education during the COVID-19 Pandemic in Malaysia. *Creative Education*, *12*(08), 1818–1839. https://doi.org/10.4236/ce.2021.128138

Yusnidah, Y. (2022). Pengembangan media animasi pada pembelajaran elektronika siswa SMK. *JKTP: Jurnal Kajian Teknologi Pendidikan*, *5*(3), 315–325. https://doi.org/10.17977/um038v5i32022p315