Utilisation of Canva Application and Student Worksheet Digital-based Islamic learning

Frizka Amalia[1*]; Rahmad Salahuddin[2]; Anita Puji Astutik[3]

[1,2,3]Islamic Religious Education, Universitas Muhammadiyah Sidoarjo, Indonesia
[1]Corresponding Email: frizkaamalia03@gmail.com, Phone Number: 0858 xxxx xxxx*

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Abstract: This research aims to describe how PAI teachers use the Canva application media and sheets student work in learning digital-based, as well as illustrate student learning conditions when the teacher uses the Canva application and worksheets in digital-based PAI learning. Study This implemented at SMP Muhammadiyah 1 Sidoarjo. This study uses a qualitative descriptive approach that ensures data through data validity. Technique research data was collected through interviews, documents, and observations with subject study PAI teachers and class VII students. Data were collected for data reduction for the next in the analysis using the data triangulation technique for making conclusions and interrogation. The research results explain that the application canvas and worksheets used in PAI learning using the Flipped classroom model assist PAI teachers in explaining material learning effectively and efficiently. The Canva application is used to provide understanding to students through mind mapping, and the worksheet application, as student worksheets, is used to evaluate learning. By utilizing these two learning media, it turns out that it is able to improve student learning conditions that are active, innovative, creative, effective, and fun. Active students can be seen from the involvement of students in answering the question and answer questions, innovative is shown through the results of mind mapping work, practical can be seen from the achievement of understanding as measured from the table worksheet, and fun can be seen from the learning conditions of students in responding to learning.

Abstrak: Tujuan penelitian ini adalah untuk mendeskripsikan guru metode PAI menggunakan media aplikasi Canva dan LKS dalam pembelajaran berbasis digital serta menggambarkan kondisi belajar siswa ketika guru menggunakan aplikasi Canva dan LKS dalam pembelajaran PAI berbasis digital. Penelitian ini dilaksanakan di SMP Muhammadiyah 1 Sidoarjo. Dalam penelitian ini menggunakan pendekatan kualitatif deskriptif yaitu memastikan data melalui validitas data. Teknik pengumpulan data penelitian dilakukan melalui wawancara, dokumen, dan observasi dengan guru mata pelajaran PAI dan siswa kelas VII. Data yang terkumpul, dilakukan reduksi data untuk selanjutnya dianalisis dengan menggunakan teknik triangulasi data untuk menarik kesimpulan dan interogasi. Hasil penelitian menjelaskan bahwa pemanfaatan aplikasi kanvas dan LKS yang digunakan dalam pembelajaran PAI dengan model Flipped classroom untuk membantu guru PAI dalam menjelaskan materi pembelajaran secara efektif dan efisien. Aplikasi Canva digunakan untuk memberikan pemahaman kepada siswa melalui mind mapping, dan aplikasi lembar kerja sebagai lembar kerja siswa digunakan untuk mengevaluasi pembelajaran. Dengan memanfaatkan kedua media pembelajaran tersebut ternyata mampu meningkatkan kondisi belajar siswa yang aktif, inovatif, kreatif, efektif, dan menyenangkan. Siswa aktif terlihat dari keterlibatan siswa dalam menjawab pertanyaan dan menjawab pertanyaan, inovatif ditunjukkan melalui hasil kerja mind mapping, efektif terlihat dari pencapaian pemahaman yang diukur dari tabel LKS, dan menyenangkan terlihat dari kondisi belajar siswa dalam menanggapi pembelajaran.

A. Introduction

The development of science and technology in the digitalization era is rapidly growing. With the rapid development of information technology, educational institutions must keep up with changes, one of which is utilizing learning media (Wulandari, 2017). Developing increasingly advanced information technology will challenge educators (baby generation). Boomers) such as information technology, because there was still no technology (Nuriana et al., 2019). Unlike generation z, the development of information technology 4.0 is not a problem for them because they were born when technology was booming. The learning habits of the z generation (millennials) are currently more interested in using gadgets as learning media which tend to be more practical, so they tend towards an instant learning style. Instant learning styles make the millennial generation more comfortable and happy in using technology as a learning medium (Setyawan, 2017).

Government policies related to improving religious learning quality are close to the arrangement and quality of education delivery (Salahuddin, 2013). Learning media's role is essential for educators in increasing quality education, like using learning media as internal tools to transfer knowledge. Utilization of learning media No can be separated during the learning process. According to quote azhar arsyad about opinion hamalik, using learning media can raise interest in student learning (Laily et al., 2022). With the existence of learning media, think of the benefit for an inside teacher to convey material academically (Laily et al., 2022). Utilization of alternative media, wrong One uses Canva apps and worksheets. The Canva application is a web-based platform to design manners online. Many features are found in the Canva application, such as making posters, presentation brochures, charts, flyers, etc (Kartiwi & Rostikawati, 2022). The advantages of the Canva application are that it has a variety of attractive designs and increases innovation and creativity in teachers and students in designing engaging learning media because, in Canva media, there are many available, accessible, and practical features (Safrianti, 2022). While the worksheet application is a learning medium as a digital-based student worksheet that can evaluate learning outcomes. The worksheet application contains questions that students will answer. The advantage of the worksheet application is that it is easy to use anywhere and anytime, so you can find student learning outcomes. Worksheet applications also provide words, numbers, two-dimensional images, notations, and diagrams (Wedyastuti, 2022).

Both of these applications are a form of digital innovation in Islamic Religious Education learning as an answer to future educational challenges by utilizing these applications so that Islamic Religious Education learning applies superior learning and can create active, innovative, creative, practical, and fun learning (Mu'is et al., 2022). So there appears to be an interest in student learning interest in learning Islamic religious education. So that learning that is fun becomes optimal learning success that emerges from within the students themselves. Learning outcomes will also be high with interest in student learning that becomes motivation (Kusumo & Afandi, 2020).

One of the successes of students and the achievement of learning objectives is using the learning model the teacher applies in the classroom (Risal & Astutik, 2021). A learning model capable of creating an effective learning atmosphere and efficiency is the flipped classroom learning model. Flipped classroom learning is a learning model that involves students studying the material before starting learning in the classroom. The purpose of the inverted concept is to reverse learning activities. Activities that should be done at home are completed at school, and work at school is completed at home. The flipped classroom learning model is a form of digital-based media by teachers to convey learning messages (Destriani & Warsah, 2022). while an efficient learning method is to use the PAIKEM method (active, innovative, creative, practical, and fun learning), which is used to stimulate thinking again in the learning process, which can achieve learning goals (Primadoniati, 2020). Thus in learning PAI, teachers must be able to innovate, be creative and create fun learning with the use learning digital media based.

Because therefore, the researcher finds that various writings of scientific work make relevant differences in research. Relevant differences such as media utilization learning. Many other writing researchers, specifically educators, utilize Canvas to make PowerPoint For delivery material. However, not all educators utilize the application canvas as material evaluation or assignment in the form of mind mapping to deepen and understand the material. This research only focuses on using the Canva application as a teacher's tool in assigning students to understand the material and evaluate learning. So the purposes of this research are (1) To describe how PAI teachers use the Canva application and worksheets as digital-based learning media, (2) To describe student learning conditions when teachers use the Canva application and worksheets in implementing the flipped classroom learning model (Saadah & Hasanah, 2023).

B. Method

This study uses a qualitative descriptive research approach method. Descriptive qualitative is a method for presenting qualitative data described descriptively by holistically analyzing a phenomenon, social situation, or class action by describing the results of observations in a particular scientific context. Research data collection techniques were in the form of interview results to gather some information from informants to collect data, and observations were made to observe research objects in class action and documentation as supporting data to assist researchers in collecting actual data. With the data that has been collected, researchers use triangulation analysis techniques. Triangulation is the collection of valid data and correct data. Collecting data that is declared valid to provide confidence in the data through the validity of the data by comparing the results of interviews with the research object (Bachri, 2010). In this study, the subjects were PAI teachers and 18 SMP Muhammadiyah 1 Sidoarjo Jl grade VII students. Samanhudi 81, Bulusidokare, Temple District, Sidoarjo Regency. Therefore, researchers use qualitative research methods to ensure the data through the validity of the

data using interviews, observation, and documentation. The following is the flow of research from start to finish:

Figure 1. Design of Qualitative Research Methods

C. Results and Discussion

Result

From the results of observations made by researchers. PAI learning that is applied to SMP Muhammadiyah 1 Sidoarjo in class VIII is digital-based learning by utilizing Canva technology media and worksheets as teacher aids in evaluating learning. In utilizing technological media, it is necessary to have a learning model. PAI teachers at SMP Muhammadiyah 1 Sidoarjo design learning using models flipped classroom. Here's the learning process in the use of learning media:

Table 1. Results Study

Stages	Teacher Activities	Student Activities
Phase 1 Preparation learning	- Prepare And give teaching materials for studying at home	- Learn the material at home that has been shared via the web
Phase 2 Introduction (student orientation)	- The teacher explains objective learning - Teacher gives motivation Study to students	- Students understand objective learning
Phase 3 Assignment pen canvas (Mind mapping)	- The teacher gives tasks in a manner that makes a mind map on the application Canva and materials about " faith to Messenger of Allah SWT" through Canvas.	- Students create or complete the mind mapping through the application canvas.
Phase 4 Serve results work and Discussion	- The teacher gives guidance to current students serve the results of the mind mapping that has been done and made	- Students present mind-mapping results
Phase 5 Assignment and evaluation worksheet (LKPD)	- The teacher gives task evaluation form sheet work online through a worksheet application - An activity asks to answer the question given _ by the teacher - The teacher gives conclusion material already _ studied	- Students worksheet work online through the worksheet application - Students answer questions from the teacher - Students can understand material already _ studied

Stages	Teacher Activities	Student Activities
Phase 6 Closing	- The teacher gives sheet paper for writing reflection learning	- Students are requested to write reflections on the learning process on the sheet paper that has an education

The table above is a learning process teach. Phases 3 & 5 use learning media as teacher aids for students in assignments and to evaluate student learning results. Phase 3rd is the utilization application canvas in making mind maps, and phase 5th utilization worksheet application used for sheet student work.

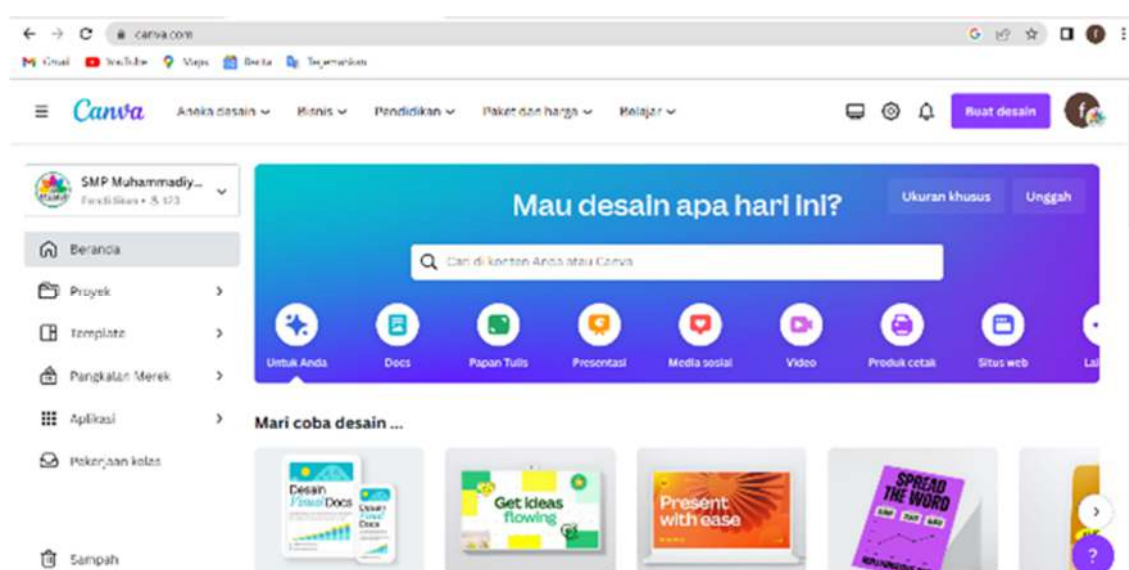## 1. Benefit Learning Media on the Canva App

Figure 2. Web Application Canvas

Figure 2 represents the application Canva, a web-based platform utilized or designing learning with various exciting designs. (Hartanti & Yulia, 2022) Many people take advantage of the application canvas for designing logos, posters, or social media content Because many existing features in the application Canva became opportunities for educators to utilize learning media, with designing enjoyable learning in accordance his creativity each. Whereas application canvas has Many benefits for world education, specifically in the learning process teach, like making mind maps. Mind mapping usually forms information in a manner short to facilitate the reader in understanding the material. There are several steps in making mind maps with the application. Canvas is a great medium and interesting. This is because Canvas owns Lots of complete features but is simple in appearance, so mind mapping can be done in a manner that is effective And efficient (Kurniawan & Sriyanto, 2022). Here are the steps for making a mind map in the Canva application:

1. Install and open a Canva application account via a laptop or cellphone.

The utilization of canvas application in mind mapping can be through various electronic media that connect to the internet network, such as laptops and cellphones.

2. Determine the category in mind mapping design.

   Step First in, make mind maps on the application canvas. Election category groups that can reach on canvas free version. In making mind maps on the application canvas, 2 options are to choose a mind map group or map thought.

3. Choose a mind-mapping template.

   After determining the group, choose a suitable template according to the desire for ready to design. Students can add various interesting features when designing maps.

4. Design a mind map as desired and save the design results

   The results of the mind mapping design are downloaded for sharing. So the results of design mind mapping can be presented in front of the class.

Figure 3. Making Mind Mapping

Figure 3 above is a learning process carried out by SMP Muhammadiyah 1 Sidoarjo in utilizing learning media in the form of the Canva application in making mind maps. Teachers use the flipped classroom learning model in the SMP Muhammadiyah 1 Sidoarjo PAI learning process. The flipped classroom learning model allows students to learn the material, especially at home. After students understand material already studied at home. Activity next inside class is assignment for measure understanding of such students complete and analyze the mind mapping given by the teacher with material "Faith to Messenger of Allah". After That, the result of the mind mapping designed on the application canvas will be presented by students in the front class in picture 3 below this.

Figure 4. Results of Student Design

Figure 4 shows student design on the application canvas in making mind maps. Students can develop mark cognitive and creativity values on students. Cognitive value C1- C6 like Remember (C1) Understand (C2) Apply (C3) Analyze (C4) Assess (C5) Create. has the goal of seeing student feedback so that students can understand digital technology-based learning material and helps students in increasing cognitive values C1-C6 namely Remembering (C1) Understanding (C2) Applying (C3) Analyzing (C4) Assessing (C5) Create.

Making a mind map using the Canva application has a goal in the learning process: to attract readers to understand the material. Many k features in the application canvas make the design suitable so that more readers are interested and understand the material presented. Making designs in mind mapping in the Canva application can make it easier for anyone to use it and can be reached by anyone because Canva is a digital-based learning medium, so the use of the application can be used free of charge. Therefore, using learning media such as the Canva application as a tool for learning processes based on technology, skills, creativity, and innovation because the Canva application can increase cognitive values, creative values, and collaborative skills to increase student learning motivation by presenting teaching materials creatively and interesting (Maulia, 2023). Here are the advantages of using Canva media, namely:

1. With the Canva application, educators and students can easily access it, and educators can deliver material creatively and innovatively
2. The Canva application is used for various projects, such as making posters, presentations, flyers, certificates, menus, etc.
3. The Canva application has many features in it.
4. Canva learning media increases students' enthusiasm for participating in learning. And The disadvantages of using Canva media are:
1. The Canva application must require the internet to access it.
2. The Canva application sometimes has errors when used in the learning media editing process.

3.   This application does not provide features that are all free (Amrina et al., 2021).

2.   Utilization of Learning Media in Worksheet Applications

One of the utilization of learning media is the use of worksheet applications as a teacher's tool in making student worksheets. The worksheet is a supporting tool in learning planning that contains questions and information that students must answer. The worksheet has a conceptual purpose, namely, a tool to assist students in recalling material that has been studied. Worksheets too containing various types of questions for practice think students. A teacher presents the question in the worksheet for resolution by students. Worksheets are given to students through worksheet applications to find out the goals achieved in learning. Student worksheets contain multiple choice (multiple choice) in the form of correct answer choices and some wrong answers. Steps to create a worksheet application:

1.   Create questions that will be included in the worksheet application in Microsoft Word, converted into pdf format.
2.   Create a live worksheet account in the browser https://www.liveworksheets.com
3.   Click teacher access, then register to register and complete the registration form.
4.   After completing all the data, there will be an incoming email reply to activate the live worksheet account.
5.   Start creating questions, then click Make an interactive worksheet, then select get started.
6.   Then upload a PDF format file with a maximum capacity of 5 MB. Then click choose file and upload.
7.   Then select the type of question you want to create. Click the preview at the top to save the LKPD.

The advantages of the use of worksheet applications

1.   Improving student learning outcomes and fun learning will result in increased learning outcomes so that learning is not boring (Iffah, 2021).
2.   Train students' cognitive values to think in solving questions in the worksheet application.
3.   The worksheet application is easy to use both anytime and anywhere.
4.   Worksheet applications can present words, numbers, notations, pictures, and diagrams.

Figure 5. Student Worksheet (Worksheet)

Figure 5 above is the result of class VIII students' worksheets at SMP Muhammadiyah 1 Sidoarjo using the worksheet application. The use of worksheet applications takes advantage of digital-based learning, such as making worksheets used by teachers in evaluating learning. Using learning media in the worksheet application can increase student learning interest in answering several questions related to the material studied in class so that students do not feel bored while working. Student learning interest in using worksheet applications can increase student learning outcomes in the current era of digitalization (Wedyastuti, 2022).

The worksheet application increases the creativity and innovation of the learning process. There are several functions in the worksheet application, namely the worksheet application can compile material, the worksheet application can formulate student learning steps, and the worksheet application can create student worksheets in an integrated manner (Iffah, 2021).

Discussion

Learning success is learning that optimizes all active, innovative, creative activities of students so that they feel happy in learning. So PAI teachers need tools and infrastructure that support the learning process.

Figure 6. Question and Answer Session

Figure 6 is a question-and-answer session where students are very active in answering the questions raised by the teacher. The activeness of students in the class seemed to have mastered and understood the material because previously, the material had been studied first by students at home. After that, the teacher explains and explores the material that has been distributed. Then students try to analyze the material again in the form of a mind map given by the teacher. So that the creation of effective and efficient learning.

Figure 7. Student Feedback

Figure 7 is an interactive form of students towards the teacher during the learning process. Student feedback to the teacher is very important to know and evaluate learning at that time. Feedback cards are one of the media given to students to discover student responses during learning by depicting emoticons on the learning atmosphere that day.

The feedback card that the students made illustrated that out of 18 students during the lesson, they felt very happy and did not feel bored when using digital technology-based learning media. So that students ' interest in learning can increase results in deep student learning classes.
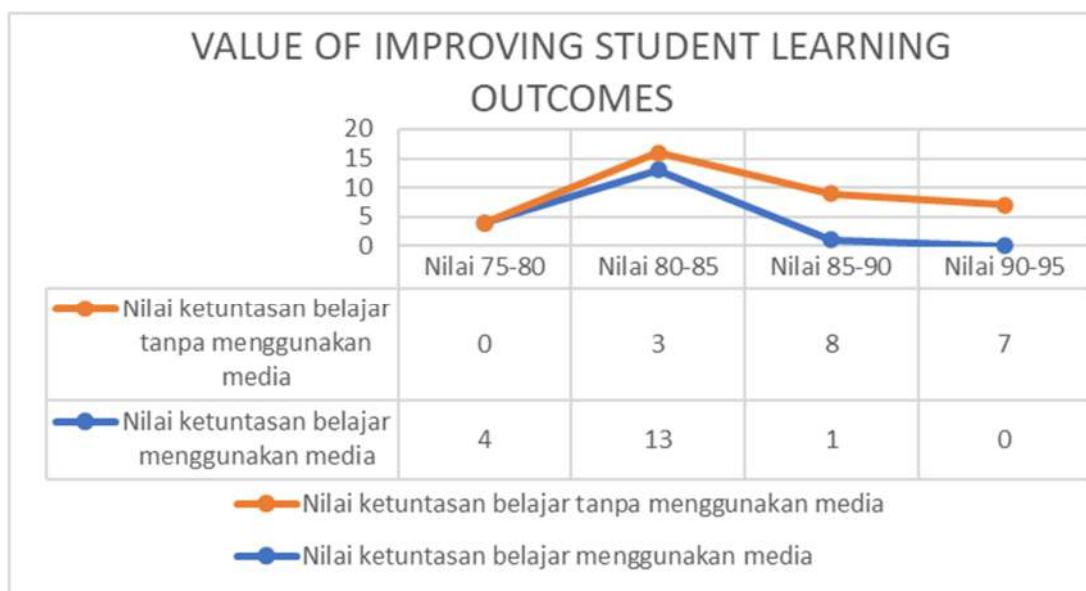

Figure 8. Increase the Value of Student Learning Outcomes

Based on the results of observations and interviews with PAI learning activities using the flipped classroom model assisted by Canva media and worksheets, it appears that learning activities in class VIII at SMP Muhammadiyah 1 Sidoarjo seem to create learning that is active, innovative, creative, effective, and fun. Active students can be seen from the involvement of students in answering the question and answer questions, innovative is shown through the results of mind mapping work, practical can be seen from the achievement of understanding as measured from the table worksheet, and fun can be seen from the learning conditions of students in responding to learning.

With the utilization of learning media, they are turned out to be many improvements related to the learning outcomes of students who were very enthusiastic about following the lesson at that time. Increased understanding and motivation to learn to make learning not watch in delivering material so that students are not bored and have great curiosity.

The benefits of using learning media are:
1. Increase results student learning and mastery received material by students.
2. Eliminate student boredom in the learning process.
3. Increase innovation and creativity of teachers and students.
4. Achievement of fun learning in accordance with objective learning (Amrina et al., 2022).

D. Conclusion

From the results of the study, PAI teachers at SMP Muhammadiyah 1 Sidoarjo can innovate in utilizing digital-based learning media such as the Canva application and worksheets. In utilizing this learning media, PAI teachers use a learning model in the form of a flipped classroom. Applying the flipped classroom learning model can help PAI teachers design active, innovative, creative, effective, and fun learning. With the creation of active learning, students are very active in answering questions and are able to present their work in front of the class. The creation of innovative learning is when students take advantage of digital-based learning media, such as using the Canva application to make mind maps and worksheet applications in answering questions. Creative learning is created when students can design a mind map on the Canva application. The creation of effective learning is the achievement of learning objectives designed by PAI teachers in utilizing digital-based learning media. The creation of fun learning increases student interest in participating in learning, feeling enjoy, and not feeling bored or bored. So that the learning objectives and student learning interests are achieved. The achievement of learning objectives is due to the use of learning media using the flipped classroom learning model, which can increase independence in studying material at home. The flipped classroom model can also hone the creativity of educators and their students in utilizing digital-based learning media.

Judging from the condition of students during the teaching and learning process, students are very active and create fun learning to increase student motivation. This is evidenced by the results of the evaluation given by the teacher through student worksheets, that student learning scores are increasing and also increasing student learning interest. Therefore it is important to use learning media that helps PAI teachers achieve learning goals.

The advice given by the researcher to the next researcher is that online applications are not only used in the world of education but can be used by society in general. So that online media makes it easier for humans to design their own needs and desires. It is also essential for educators to design learning that is active, innovative, creative, effective, and enjoyable by utilizing learning media. So that educators do not watch in delivering material and students feel energized. This is the importance of keeping up with the times in the digitalization era by utilizing online-based learning media that can increase innovation and student interest in learning. With the innovation of PAI teachers, the quality of learning and student learning outcomes can be increased. Researchers, so that this research can be helpful and become a source of information for further researchers.

References

Amrina, Mudinillah, A., & Hafiz, A. (2021). Pemanfaatan Aplikasi Canva pada Pembelajaran Kitabah di SMP IT Brilliant Batusangkar Kelas 7. *Muhadasah: Jurnal Pendidikan Bahasa Arab*, *3*(2), 90-105.

Amrina, Mudinillah, A., & Isnain, D. N. I. (2022). Pemanfaatan Aplikasi Canva untuk Meningkatkan Penguasaan Mufradat dalam Pembelajaran Bahasa Arab Siswa Kelas III Madrasah Ibtidaiyah. *Jurnal Informatika dan Teknologi Pendidikan*, *1*(2), 55–65. https://doi.org/10.25008/jitp.v1i2.14.

Bachri, B. S. (2010). Meyakinkan Validitas Data Melalui Triangulasi pada Penelitian Kualitatif. *Jurnal Teknologi Pendidikan*, *10*(1), 46-62.

Destriani, D., & Warsah, I. (2022). Pemanfaatan Model Pembelajaran Flipped Classroom pada Pembelajaran Pendidikan Agama Islam di Sekolah Dasar Islam Terpadu. *SITTAH: Journal of Primary Education*, *3*(2), 175-190. https://doi.org/10.30762/sittah.v3i2.557.

Hartanti, A. R., & Yulia, C. (2022). Efektivitas media canva untuk meningkatkan kepercayaan diri pada siswa. *Research and Development Journal of Education*, *8*(2), 565-571. http://dx.doi.org/10.30998/rdje.v8i2.13621.

Iffah, J. D. N. (2021). Pengaruh Penggunaan Media Worksheet terhadap Hasil Belajar Siswa Sekolah Menengah. *Mosharafa: Jurnal Pendidikan Matematika, 10*(1), 107–116. https://doi.org/10.31980/mosharafa.v10i1.812.

Kartiwi, Y. M., & Rostikawati, Y. (2022). Pemanfaatan Media Canva dan Aplikasi Quizizz pada Pembelajaran Teks Fabel Peserta Didik SMP. *Semantik*, *11*(1), 61-70. https://doi.org/10.22460/semantik.v11i1.p61-70.

Kurniawan, T., & Sriyanto, S. (2022). Canva Mind Mapping: Alternative Pembelajaran Inovatif Abad 21. *Proceedings Series on Social Sciences & Humanities*, *3*, 392-396. https://doi.org/10.30595/pssh.v3i.408.

Kusumo, D., & Afandi, R. (2021). The Effect of Augmented Reality Learning Media on Motivation and Social Studies Learning Outcomes in Elementary Schools. *Academia Open*, *4*, 10-21070. https://doi.org/10.21070/acopen.4.2021.2729.

Laily, I. M., Astutik, A. P., & Haryanto, B. (2022). Instagram sebagai Media Pembelajaran Digital Agama Islam di Era 4.0. *Munaddhomah: Jurnal Manajemen Pendidikan Islam*, *3*(2), 160–174. https://doi.org/10.31538/munaddhomah.v3i2.250.

Maulia, S. (2023). Pemanfaatan Aplikasi Canva sebagai Media Pembelajaran di Era Digital. In *Prosiding Seminar Nasional Hasil Penelitian, Pengabdian, dan Diseminasi, 1*(1), 83-87.

Mu'is, A., Soebahar, A. H., & Sahlan, M. (2022). Digitalisasi Pendidikan Agama Islam di Sekolah: Digitization of Islamic Religious Education in Schools. In *Proceedings*, 337–348.

Nuriana, D., Rizkiyah, I., Efendi, L., Wibowo, H., & Raharjo, S. T. (2019). Generasi Baby Boomers (Lanjut Usia) dalam Menghadapi Era Revolusi Industri 4.0. *Focus: Jurnal Pekerjaan Sosial*, *2*(1), 32-46. https://doi.org/10.24198/focus.v2i1.23117.

Primadoniati, A. (2020). Pengaruh Metode Pembelajaran Problem Based Learning terhadap Peningkatan Hasil Belajar Pendidikan Agama Islam. *Didaktika: Jurnal Kependidikan*, *9*(1), 77-97.

Risal, M., & Astutik, A. P. (2021). The Effectiveness of Islamic Education Learning Based on Learning Cycle on Learning Outcomes in Junior High School. *Academia Open, 4*, 1–10. https://doi.org/10.21070/acopen.4.2021.3098.

Saadah, F. N. L., & Hasanah, F. N. (2023). Development of Science Learning Media Klanimal Android-Based for Elementary School Students. *Edunesia: Jurnal Ilmiah Pendidikan*, *4*(3), 1222–1240. https://doi.org/10.51276/edu.v4i3.534.

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.

Salahuddin, R. (2013). Kebijakan pengembangan pendidikan al-qur'an di kabupaten pasuruan. *JKMP (Jurnal Kebijakan dan Manajemen Publik)*, *1*(2), 203-221.

Setyawan, F. E. B. (2017). *Pengantar Metodologi Penelitian: (Statistika Praktis)*. Sidoarjo: Zifatama Jawara.

Wedyastuti, R. (2022). Upaya Meningkatkan Hasil Belajar Polinomial menggunakan Media Interaktif Live Worksheet. *Ideguru: Jurnal Karya Ilmiah Guru, 8(*2), 171–178. https://doi.org/10.51169/ideguru.v8i2.427.

Wulandari, H. (2017). Optimalisasi E-Learning dengan Menggunakan Metode Flipped Classroom. In *Seminar Nasional Pendidikan 2017, 09*.