

Learning Alternative Energy Using Graphic Video Media

A.A. Putu Pradana Yogi Nugraha^{1*}, I Wayan Widiana²

^{1,2} Elementary School Teacher Education Study Program, Universitas Pendidikan Ganesha, Singaraja, Indonesia

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ABSTRAK

Dalam pembelajaran daring guru membutuhkan bantuan media dalam proses pembelajarannya. Maka dari itulah perlu dibantu dengan pengembangan media dalam bentuk media video grafis. Penelitian ini bertujuan untuk mengembangkan media video grafis dan mengetahui validitas media video grafis. Data yang dihasilkan dalam penelitian ini bersifat kualitatif dan kuantitatif. Penelitian ini merupakan penelitian pengembangan yang dilaksanakan dengan menggunakan model ADDIE. Subjek penelitian ini adalah 2 ahli media, 2 ahli desain, 2 ahli materi, 1 orang guru atau praktisi, dan 12 orang siswa. Pengumpulan data pada penelitian ini menggunakan metode kuesioner/ angket. Data yang diperoleh kemudian dianalisis dengan menggunakan rumus rumus Indeks validasi Aiken untuk mengetahui rata-rata validasi media video grafis. Pengembangan media video grafis dinyatakan valid dengan indeks validitas Aiken secara keseluruhan oleh ahli terendah 0,5 dan tertinggi 1, review praktisi atau guru memiliki persentase 98%, dan review siswa secara keseluruhan memiliki persentase 94%. Dengan demikian media video grafis pada topik energi alternatif dan pemanfaatannya yang telah dikembangkan dapat digunakan sebagai media pembelajaran untuk membantu siswa dalam memahami materi pelajaran khususnya materi energi alternatif dan pemanfaatannya pada pembelajaran daring.

ABSTRACT

In online learning, teachers need media assistance in the learning process. Therefore, it was necessary to assist the development of media in the form of graphic video media. This study aimed to develop graphic video media and determine the validity of video graphic media. The data generated in this study were qualitative and quantitative. This research was development research carried out using the ADDIE model. The subjects of this study were 2 media experts, 2 design experts, 2 material experts, 1 teacher or practitioner, and 12 students. Data collection in this study used a questionnaire/questionnaire method. The data obtained were then analyzed using the Aiken validation index formula to determine the average validation of video graphic media. The development of graphic video media was declared valid with the overall Aiken validity index by the lowest expert 0.5 and the highest 1, practitioner or teacher reviews having a percentage of 98%, and overall student reviews having a percentage of 94%. Thus, graphic video media on the topic of alternative energy and its utilization that had been developed can be used as learning media to help students understand the subject matter, especially alternative energy materials and their use in online learning.

1. INTRODUCTION

In the current situation, the world is being hit by the Covid-19 pandemic, so that all activities carried out by humans must be limited. This also has an impact on the educational process that cannot be carried out face-to-face (Daulay, 2021). By the circular letter of the Minister of Education and Culture No. 4 of 2020 concerning the Implementation of Education Policies in the Emergency Period for the Spread of Coronavirus Disease (Covid-19) which requires the teaching and learning process to be carried out at their respective homes through distance or online learning (Prasetyaningtyas, 2021; Rigiarti, 2020). It makes all the teaching and learning processes carried out in their respective homes (Cahapay, 2020) by using communication tools or media that can support distance or online learning. Online learning can be identified as a learning process in asynchronous and asynchronous environments using different devices such as laptops, cell phones, and so on with internet access. (Dhawan, 2020). By the implementation of online learning, it is expected to have the same effect as direct learning on students because the implementation of online learning can provide benefits for everyone to get lessons well by removing physical barriers in the classroom environment (Fitriyani et al., 2020). The implementation of online learning will also give a boring impression to students (Dewantara & Nurgiansah, 2020). To overcome this boredom, teachers need to design a lesson that can eliminate students' boredom in participating in online learning, for example by presenting interesting learning media to students in online learning. Learning media can be said as a tool in the learning process that can be used to stimulate students' thoughts,

*Corresponding author.

E-mail addresses: yoginugraha445@gmail.com (A.A. Putu Pradana Yogi Nugraha)

feelings, attention, and abilities in learning so that it can encourage a good learning process (Tafonao, 2018). In the selection of learning media that will be used in online learning, several things need to be considered, as stated by Bates (Batubara & Batubara, 2020) namely by considering the SECTION model, namely: S-tudent (students), E-ase of use (easy to use), C-ost/time (cost/time), T-eaching (learning activities), I-nteraction (interaction), O-rganizational issues (problem management), N-etworking (expanding the network), and S-security and privacy (security and privacy).

In the implementation of online learning, there are several problems experienced by teachers and students. In general, the problems faced by teachers in implementing online learning include a lack of understanding of technology, inadequate facilities, difficulties in learning planning, and limitations of the internet network (Fauzi & Sastra Khusuma, 2020; Santaria, 2020; P. R. Sari et al., 2021). By the results of observations, namely the problems faced by teachers in implementing online learning are teachers find it difficult to carry out online learning because of the teacher's lack of understanding in preparing good online learning, for example, teachers find it difficult to choose appropriate learning media. Meanwhile, in general, in online learning, the problems experienced by students are lack of interest in online learning, limited tools that students can use in online learning, inadequate internet networks (Asmuni, 2020), as well as difficulties in obtaining information or interacting with teachers or other students when working on the problems given (Adnan & Anwar, 2020; Yuangga & Sunarsi, 2020). By the observations obtained, students find it difficult to understand the content of the material that the teacher provides because students find it difficult to understand if it is not explained directly. Based on what has been mentioned, the problems that arise in online learning experienced by teachers include limited tools, limitations of the internet network, difficulties in learning planning, and difficulties in implementing learning. The problems experienced by teachers who are less capable of planning and implementing online learning can have an impact on students. With teachers who only ask students to study the material, it will have an impact on the ability of students to understand the material being explained because it is not explained directly by the teacher (Juliya & Herlambang, 2021).

Based on the problems mentioned above, the solution that can be done by teachers in overcoming problems in online learning is to make the material concisely so that students can understand the material well (Baety, D & Munandar, D, 2021). One way to deliver good material in learning is to use videos. Videos can help teachers explain the material (Hadi, 2017) and can increase student interest in the material presented (Hadi, 2017; Rahmawati et al., 2021) so that the subject matter can be understood easily by students. Learning video media is one of the learning media that display motion, images, sound, and text that are packaged in a concise, concise, and clear manner (Purwanto & Rizki, 2015). Learning videos show sound equipped with material packaged in the form of text and images that sometimes don't move. Learning videos can be used properly if they can attract students' attention to the material presented. One of them is to add animation to the video. Animation can give an interesting impression to students so that they can attract students' interest in learning.

One example of a learning video that displays animation is a graphic video. Graphic video is a video concept that describes events or activities that are usually used in the world of education, entertainment, advertising, and so on (Arthana et al., 2018). Graphic video usually displays concepts, activities, and events, and so on in the form of animation. Using graphic video media or animated videos in learning can make students have better motivation in learning (Lestari et al., 2017). Previous research mentioned that the development of graphic video media in SMK got good validity so that graphic video media was declared feasible (Tjahjono & Wibawa, 2019). In this regard, other results of research also mentioned that graphic video is suitable for use in learning because it can improve the learning outcomes of vocational students (Mucharomah & Wibawa, 2017). Unfortunately, there is no research on video graphics that have been developed for elementary school students, and video graphics usually only display material that is packaged using animation that is accompanied by music only. In this development research, the video graphic developed is a graphic video that can display material that is packaged with interesting animations and is equipped with the narrator's voice as an explanation of the material presented which was developed for elementary school students. With the implementation of the development of graphic video media, it is hoped that it will be the answer to the problems that teachers face in having difficulty planning or choosing good learning media to use in online learning. In addition, the development of graphic video media is expected to be able to help students understand the material that the teacher provides in online learning.

2. METHOD

This type of research is development research using the ADDIE model. The ADDIE model is a systematic design of learning and development materials as a procedural aspect of a systems approach

that has been embodied in methodological practice for the design of developing texts, audio-visual materials, and computer-based learning materials (Tegeh et al., 2014). The selection of the ADDIE model in this study was based on the characteristics of this model which was developed systematically and based on the theoretical foundation of learning design. This model is easy to understand and implement to develop development products such as textbooks, learning modules, learning videos, multimedia, and so on. More about this source text, the source text is needed to get additional translation information (Tegeh et al., 2014), so that this ADDIE model is considered to have developed characteristics that are easy to implement or implement in this study. The subjects of this development research were experts consisting of 2 media experts, 2 design experts, and 2 material experts, 1 teacher or practitioner, and 12 students consisting of 3 individual test students and 9 small group test students.

Data collection methods and instruments used in this development research are interviews, observations, documentation studies, rating scales, and questionnaires. The interview method was carried out to find problems in the field from teachers and students. The method of observation is done to find out directly the problems that occur in the field. Documentation studies were conducted to obtain data regarding the needs in the research process. The rating scale is data in the form of numbers that can be interpreted descriptively, for example positive-negative and large-small (Ilhami & Rimantho, 2017). The rating scale is used to obtain data in testing the validity of the developed media. A questionnaire is a measuring tool or data collection that contains questions given to respondents for assessment or getting feedback on an object or activity with a specific purpose (Riany et al., 2016). Questionnaires were used to obtain data to determine the responses of teachers and students to the developed media.

The making of the instrument begins with making a grid table, consulting with the supervisor, and compiling the instrument. The instruments that have been made are then tested to determine the validity of the contents of the instruments carried out by two experts (judges) who are experts in their fields. The validity of the content of the media grid can be determined by reviewing each item of the instrument grid through expert judgments (judges). The test results are then calculated using Gregory (Sutama & Suranata, 2014) to determine the coefficient of media content validity. The results of the validity test were entered in the 2×2 cross-tabulation. The instruments that were tested for validation were 1) media validation instruments by media experts, 2) media validation instruments by design experts, 3) media validation instruments by material experts. Overall, the media validation instrument has a content validity of 0.97 with a very good category.

Data analysis methods and techniques used in this study are descriptive qualitative analysis methods and quantitative descriptive analysis. The qualitative descriptive analysis method is processing data into sentences or words or grouping an object (Agung, 2014). The data processed using this method are the results of interviews with teachers and students, results of observations, results of literature studies, and input and suggestions from the results of reviews by experts. The quantitative descriptive analysis method is processing data in the form of numbers or percentages regarding the object under study (Agung, 2014). The quantitative descriptive analysis method was used to obtain expert agreement regarding the validity of the media developed from each expert through an assessment sheet. The score obtained is then calculated using the Aiken validation index formula. The Aiken validity index obtained is then converted into the Aiken criteria, namely $V < 0.40$ which is in the low validation criteria, $0.40 < V < 0.80$ is in the medium validation criteria, $V \geq 0.80$ is in the high validation criteria (Retnawati, 2016). While the data analysis technique of teacher and student responses was obtained using a questionnaire in the form of a percentage (Tegeh et al., 2014).

3. RESULT AND DISCUSSION

Result

The analysis stage (analyze), at this stage, is done by making observations made to find out the needs and problems that exist in schools related to learning. At this stage, the character analysis of students, competency analysis, and facility and environmental analysis is carried out. At the stage of analyzing the character of students, it is known that students in online learning conditions make students not enthusiastic in learning because the learning process that the teacher provides is only by giving assignments and asking students to do them with the help of the student handbook. Based on the results of the competency analysis, it is found that in the topic of alternative energy and its use there are several material points, namely the definition of alternative energy, types of alternative energy, and its use in life.

In the planning stage (Design), at this stage several things are done, namely determining basic competencies and indicators of competency achievement, making storyboards, compiling product assessment instruments, and making products. After determining the basic competencies and indicators of competency achievement, the preparation of product designs begins with making a storyboard. A

storyboard is a collection of framed images as an illustration of the video that will be made (Furini et al., 2010). At this stage, a product assessment instrument is created and its content validity is tested. The results obtained in the instrument content validity test were then calculated using the formula (Sutama & Suranata, 2014) to determine the coefficient of media content validity. The results of the validity test were entered in a 2×2 cross-tabulation. The instruments that were tested for validation were 1) media validation instruments by media experts, 2) media validation instruments by design experts, 3) media validation instruments by material experts. Overall, the media validation instrument has a content validity of 0.97 with a very good category. At this stage, video graphic media is also created. The results of the developed video graphic media can be seen in the following picture.

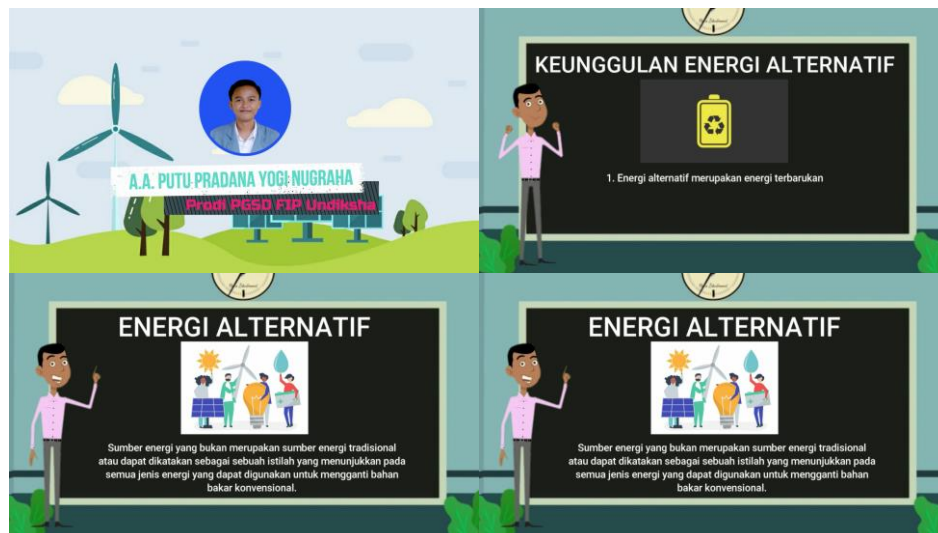


Figure 1. Initial View, Material Display, and Question Display

The Development Phase is the last stage in this development research. At this stage, media testing was carried out by experts to determine the validity of the developed video graphic media as well as testing teachers and students to get teacher and student responses to the developed video graphic media. The results of the assessment of two material expert lecturers, two media expert lecturers, as well as the assessment of the responses of one teacher as a practitioner and twelve students, stated that graphic video media on the topic of alternative energy and its use for grade IV SD as a whole is in the category or the predicate is very good and worthy. It can be seen from the assessments of two material experts, two design experts, and media experts, respectively, that the lowest Aiken validation index is 0.5 with the medium validation category and the highest Aiken validation index is 1 with the high validation category. Graphic video media with an introduction to Indonesian culture can be said to be valid. The response from the teacher or practitioner to the developed media got a percentage of 98% and the student's response got a percentage of 94% which was based on a five-scale conference table having a very good category. Clearer results of the validation of graphic video media on the topic of alternative energy and its use for grade IV SD are presented in the Table 1 and 2.

Table 1. Aiken Validation Index Calculation Results

No	Index Aiken	expert	Media Expert	Design Expert	Material Expert	information
1	Highest		1	1	1	High Validity
2	Lowest		0,5	0,75	0,75	Medium Validity

Table 2. Calculation Results of the Percentage of Teacher and Student Responses

No	Respondent	Subject	Result
1	Teacher	Practitioner Trial	98%
2	Student	Individual Test	94%
		Small-Group Test	94%

Discussion

The product produced in this development research is a graphic video media with the topic of alternative energy and its use. Graphic video media is media that can help teachers or students in explaining or understanding the content of the material being studied which is explained with the help of animation and is equipped with audio as an explanation of the content of the material being explained. In addition, the use of graphic video media can be an option that teachers can use in online learning because graphic video media can display or explain concepts that are still abstract (Qurrotaini et al., 2020; S. L. Sari et al., 2017) and easy application in online learning. In developing this graphic video media, several things are considered, namely: (1) the type of material to be presented, (2) the duration of time, which is associated with students' memory and concentration abilities, which are limited to 15-20 minutes, (3) the format of the video presentation, (4) technical provisions both from camera effects, shooting, lighting, editing and sound techniques, communicative and interesting presentations, (5) use of music and sound effects (Cheppy, 2017).

Based on the results that have been obtained, it can be said that graphic video media has very good validity. Because graphic video media has very good validity which is supported by the quality of graphic video media which is measured based on certain aspects. Viewed from the aspect of competence, the development of video graphics can be said to be suitable for use in alternative energy materials because it can explain the material that is abstract and by the characteristics of fourth-grade elementary school students. The use of learning media that is by the characteristics of students in learning can help students understand abstract material and be able to improve student learning outcomes and achievements (Ekayani, 2017; Novita et al., 2019). This is in line with Piaget's theory which states that elementary school children are in the concrete operational stage (AD, 2018; Bujuri, 2018) which indicates that children will understand if taught with concrete or real objects. The concrete object that can be utilized is by using the developed video graphic media.

The feasibility of graphic video media can also be seen from the visual aspect. Graphic video media can display abstract material that is presented in the form of animation so that it can attract students' interest in learning. By displaying animation in the learning process, it will give an interesting impression to students so that they can make learning active, creative, fun, and effective (Novita et al., 2019; Panjaitan et al., 2020). With graphic video media, it can give the impression of ideal, meaningful, and fun learning (Andrian, 2017). Graphic video media can be said to be suitable for use in a learning process because it can attract students' interest in learning so that it gives the impression of ideal, meaningful, and fun learning. The feasibility of graphic video media is also seen from the audio aspect. In the development of graphic video media, graphic video media was developed by adding music. The addition of music aims to add to the impression of student relaxation so that it can focus students on learning (Febriyona et al., 2019; Oktawirawan, 2020). The graphic video media developed also adds a direct explanation from the teacher in the form of sound so that it can help teachers explain the subject matter to students in online learning to create an active, innovative, creative, and fun learning atmosphere (PAIKEM) (Supriyono, 2018) on the online learning. Based on the results of research that has been obtained previously, it can be believed that graphic video media with an introduction to Indonesian culture on the topic of alternative energy and its use is valid and suitable for use in learning.

4. CONCLUSION

Based on the results obtained, it can be concluded that graphic video media can be declared valid based on the validity tests that have been carried out by media experts, design experts, material experts, teacher responses, and student responses. Thus, graphic video media on the topic of alternative energy and its utilization that have been developed can be used as learning media to help students understand the subject matter, especially alternative energy materials and their use in online learning.

5. REFERENCES

- Ad, Y. (2018). Konsep Perkembangan Kognitif Perspektif Al-Ghazali Dan Jean Piaget. *KONSELI: Jurnal Bimbingan dan Konseling (E-Journal)*, 5(2), 97. <https://doi.org/10.24042/kons.v5i2.3501>.
- Adnan, M., & Anwar, K. (2020). Online learning amid the COVID-19 pandemic: Students' perspectives. *Journal of Pedagogical Sociology and Psychology*, 3(1), 133-139. <https://doi.org/10.46627/silet.v1i3.46>.
- Agung, A. A. G. (2014). *Metodologi Penelitian Pendidikan*. Deepublish.
- Andrian, R. (2017). Pembelajaran Bermakna Berbasis Post It. *Jurnal Mudarrisuna*. *Jurnal Mudarrisuna*, 7(1), 103-118. <http://dx.doi.org/10.22373/jm.v7i1.1911>.

- Arthana, I. K. R., Tirtayani, L. A., Adnyani, K. E. K., & Mahayanti, N. W. S. (2018). Mengembangkan Media Ajar Berbasis Videografis Sebagai Learning Object Pada Sistem Garsupati Bagi Guru SMA Dan SMK Kabupaten Buleleng. *Jurnal Widya Laksana*, 7(1), 31–40. <http://dx.doi.org/10.23887/jwl.v7i1.11884>.
- Asmuni, A. (2020). Problematika Pembelajaran Daring di Masa Pandemi Covid-19 dan Solusi Pemecahannya. *Jurnal Paedagogy*, 7(4), 281. <https://doi.org/10.33394/jp.v7i4.2941>.
- Baety, D. N., & Munandar, D. R. (2021). Analisis Efektifitas Pembelajaran Daring Dalam Menghadapi Wabah Pandemi Covid-19. *EDUKATIF: Jurnal Ilmu Pendidikan*, 3(3), 880–889. <https://doi.org/10.31004/edukatif.v3i3.476>.
- Batubara, H. H., & Batubara, D. S. (2020). Penggunaan Video Tutorial Untuk Mendukung Pembelajaran Daring Di Masa Pandemi Virus Corona. *Muallimuna: Jurnal Madrasah Ibtidaiyah*, 5(2), 21. <https://doi.org/10.31602/muallimuna.v5i2.2950>.
- Bujuri, D. A. (2018). Analisis Perkembangan Kognitif Anak Usia Dasar dan Implikasinya dalam Kegiatan Belajar Mengajar. *LITERASI (Jurnal Ilmu Pendidikan)*, 9(1), 37. [https://doi.org/10.21927/literasi.2018.9\(1\).37-50](https://doi.org/10.21927/literasi.2018.9(1).37-50).
- Cahapay, M. B. (2020). How Filipino parents home educate their children with autism during COVID-19 period. *International Journal of Developmental Disabilities*, 0(0), 1–4. <https://doi.org/10.1080/20473869.2020.1780554>.
- Cheppy, R. (2017). *Pedoman Pengembangan Media Video*. P3AI UPI.
- Daulay, N. (2021). Home education for children with autism spectrum disorder during the COVID-19 pandemic: Indonesian mothers experience. *Research in Developmental Disabilities*, 114(March), 103954. <https://doi.org/10.1016/j.ridd.2021.103954>.
- Dewantara, J. A., & Nurgiansah, T. H. (2020). Efektivitas Pembelajaran Daring di Masa Pandemi COVID 19 Bagi Mahasiswa Universitas PGRI Yogyakarta. *Jurnal Basicedu*, 5(1), 367–375. <https://doi.org/10.31004/basicedu.v5i1.669>.
- Dhawan, S. (2020). Online Learning: A Panacea in the Time of COVID-19 Crisis. *Journal of Educational Technology Systems*, 49(1), 5–22. <https://doi.org/10.1177/0047239520934018>.
- Ekayani, P. (2017). (2017). Pentingnya Penggunaan Media. *Jurnal Fakultas Ilmu Pendidikan Universitas Pendidikan Ganesha Singaraja*, 2(1), 1–11. <https://www.researchgate.net/publication/315105651>.
- Fauzi, I., & Sastra Khusuma, I. H. (2020). Teachers' Elementary School in Online Learning of COVID-19 Pandemic Conditions. *Jurnal Iqra': Kajian Ilmu Pendidikan*, 5(1), 58–70. <https://doi.org/10.25217/ji.v5i1.914>.
- Febriyona, C., Supartini, T., & Pangemanan, L. (2019). Metode Pembelajaran dengan Media Lagu untuk Meningkatkan Minat Belajar Firman Tuhan. *Jurnal Jaffray*, 17(1), 123. <https://doi.org/10.25278/jj71.v17i1.326>.
- Fitriyani, Y., Fauzi, I., & Sari, M. Z. (2020). Motivasi Belajar Mahasiswa Pada Pembelajaran Daring Selama Pandemi Covid-19. *Profesi Pendidikan Dasar*, 7(1), 121–132. <https://doi.org/10.23917/ppd.v7i1.10973>.
- Furini, M., Geraci, F., Montangero, M., & Pellegrini, M. (2010). STIMO: STILL and MOving video storyboard for the web scenario. *Multimedia Tools and Applications*, 46(1), 47–69. <https://doi.org/10.1007/s11042-009-0307-7>.
- Hadi, S. (2017). Efektivitas Penggunaan Video Sebagai Media Untuk Siswa Sekolah Dasar. *Seminar Nasional Teknologi Pembelajaran Dan Pendidikan Dasar 2017*, 96–102. <https://core.ac.uk/download/pdf/267023793.pdf>.
- Ilhami, R. S., & Rimantho, D. (2017). Penilaian Kinerja Karyawan dengan Metode AHP dan Rating Scale. *Jurnal Optimasi Sistem Industri*, 16(2), 150. <https://doi.org/10.25077/josi.v16.n2.p150-157.2017>.
- Juliya, M., & Herlambang, Y. T. (2021). Analisis problematika pembelajaran daring dan pengaruhnya terhadap motivasi belajar siswa. *Genta Mulia*, 12(1), 281–294. <https://www.ejournal.stkipbbm.ac.id/index.php/gm/article/view/585>.
- Lestari, D., Rochadi, D., & Maulana, A. (2017). Pengaruh Media Pembelajaran Berbasis Animasi Terhadap Hasil Belajar Siswa pada Materi Pelajaran Menggambar Bentuk Bidang Kompetensi Keahlian Teknik Gambar Bangunan di SMK 4 Tangerang Selatan. *Jurnal PenSil*, 6(2), 51–58. <https://doi.org/10.21009/pensil.6.2.1>.
- Mucharomah, R., & Wibawa, S. C. (2017). Pengembangan Video Animasi 2D Infografis Terhadap Hasil Belajar Siswa. *It-Edu*, 2(02), 104–112. <https://jurnalmahasiswa.unesa.ac.id/index.php/it-edu/article/view/22328>.
- Novita, L., Sukmanasa, E., & Pratama, M. Y. (2019). Penggunaan Media Pembelajaran Video terhadap Hasil Belajar Siswa SD. *Indonesian Journal of Primary Education Penggunaan*, 3(2), 64–72.

- <http://ejournal.upi.edu/index.php/IJPE/index>.
- Oktawirawan, D. H. (2020). Faktor Pemicu Kecemasan Siswa dalam Melakukan Pembelajaran Daring di Masa Pandemi Covid-19. *Jurnal Ilmiah Universitas Batanghari Jambi*, 20(2), 541. <https://doi.org/10.33087/jiubj.v20i2.932>.
- Panjaitan, N. Q., Yetti, E., & Nurani, Y. (2020). Pengaruh Media Pembelajaran Digital Animasi dan Kepercayaan Diri terhadap Hasil Belajar Pendidikan Agama Islam Anak. *Jurnal Obsesi: Jurnal Pendidikan Anak Usia Dini*, 4(2), 588. <https://doi.org/10.31004/obsesi.v4i2.404>.
- Prasetyaningtyas, S. (2021). Pelaksanaan Belajar dari Rumah (BDR) Secara Online Selama Darurat Covid-19 di SMP N 1 Semin. *Jurnal Karya Ilmiah Guru*, 5(1), 86–94. <https://jurnal-dikpora.jogjaprovo.go.id/index.php/jurnalideguru/article/download/139/165>.
- Purwanto, Y., & Rizki, S. (2015). Pengembangan Bahan Ajar Berbasis Kontekstual Pada Materi Himpunan Berbantu Video Pembelajaran. *AKSIOMA Journal of Mathematics Education*, 4(1), 67–77. <https://doi.org/10.24127/ajpm.v4i1.95>.
- Qurrotaini, L., Sari, T. W., & Sundi, V. H. (2020). Efektivitas Penggunaan Media Video Berbasis Powtoon dalam Pembelajaran Daring. *Prosiding Seminar Nasional Penelitian LPPM UMJ, E-ISSN: 27, 7*. <https://jurnal.umj.ac.id/index.php/semnaslit/article/view/7869/4682>.
- Rahmawati, F., Fatimah, V., Buraidah, N. L., El Wa'fa, A. R., Faizah, S. N., & Mukaromah, A. (2021). Efektivitas Video Belajar Dalam Pembelajaran Daring Matematika Materi Transformasi Pada Siswa Smp. *Jurnal THEOREMS (The Original Research of Mathematics)*, 5(2), 202. <https://doi.org/10.31949/th.v5i2.2668>.
- Retnawati, H. (2016). Heri Retnawati. In *Academia.Edu*. Parama. www.nuhamedika.gu.ma
- Riany, J., Fajar, M., & Lukman, M. P. (2016). Penerapan Deep Sentiment Analysis pada Angket Penilaian Terbuka Menggunakan K-Nearest Neighbor. *Sisfo*, 06(01), 147–156. <https://doi.org/10.24089/j.sisfo.2016.09.011>.
- Rigianti, H. A. (2020). Kendala Pembelajaran Daring Guru Sekolah Dasar DiKabupaten Banjarnegara. *Elementary School: Jurnal Pendidikan Dan Pembelajaran Ke-SD-An*, 21(1), 1–9. <https://doi.org/https://doi.org/10.31316/esjurnal.v7i2.768>.
- Santaria, R. (2020). Dampak Pandemi Covid-19 terhadap Proses Pengajaran bagi Guru dan Siswa Pendahuluan. 3(2), 289–295. <https://doi.org/10.30605/jsgp.3.2.2020.293>.
- Sari, P. R., Tussyantari, N. B., & Suswandari, M. (2021). Dampak Pembelajaran Daring Bagi Siswa Sekolah Dasar Selama Covid-19. *Prima Magistra: Jurnal Ilmiah Kependidikan*, 2(1), 9–15. <https://doi.org/10.37478/jpm.v2i1.732>.
- Sari, S. L., Widyanto, A., & Kamal, S. (2017). Pengembangan Media Pembelajaran Berbasis Video Animasi dalam Smartphone pada Materi Sistem Kekebalan Tubuh Manusia untuk Siswa Kelas XI di SMA Negeri 5 Banda Aceh. *Jurnal Prosiding Seminar Nasional Biotik*, 4(1), 476–485. <https://www.jurnal.ar-raniry.ac.id/index.php/PBiotik/article/view/2190>.
- Supriyono. (2018). Pentingnya Media Pembelajaran Untuk Meningkatkan Minat Belajar Siswa SD. *Edustream: Jurnal Pendidikan Dasar*, 11(1), 43–48. <https://journal.unesa.ac.id/index.php/jpd/article/view/6262/3180>.
- Sutama, & Suranata. (2014). Penerapan Teori Behavioral dengan Teknik Modeling untuk Meningkatkan Kemandirian Belajar Siswa Kelas AK C SMK Negeri 1 Singaraja Tahun Pelajaran 2013/2014. *Jurnal Ilmiah Bimbingan Konseling Undiksha*, 2(1). <http://dx.doi.org/10.23887/jibk.v2i1.3960>.
- Tafonao, T. (2018). Peranan Media Pembelajaran Dalam Meningkatkan Minat Belajar Mahasiswa. *Jurnal Komunikasi Pendidikan*, 2(2), 103. <https://doi.org/10.32585/jkp.v2i2.113>.
- Tegeh, I. M., Jampel, I. N., & Pudjawan, K. (2014). *Model Penelitian Pengembangan*. Graha Ilmu.
- Tjahjono, F. E., & Wibawa, S. C. (2019). Pengembangan E-Content Video Infografis Animasi 2D dengan Menggunakan Metode 4D. *Jurnal IT-EDU*, 4(2), 25–30. <https://jurnalmahasiswa.unesa.ac.id/index.php/it-edu/article/view/31070>.
- Yuangga, K. D., & Sunarsi, D. (2020). Pengembangan Media dan Strategi Pembelajaran Untuk Mengatasi Permasalahan Pembelajaran Jarak Jauh di Pandemi Covid-19. *JGK (Jurnal Guru Kita)*, 4(3), 51–58. <https://doi.org/10.24114/jgk.v4i3.19472>.