DEVELOPING E-NIPA (*EDUKASI NILAI PANCASILA*) APPLICATION TO IMPROVE THE FIFTH-GRADE STUDENTS' UNDERSTANDING OF PANCASILA VALUES

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PENGEMBANGAN APLIKASI E-NIPA (EDUKASI NILAI PANCASILA) UNTUK MENINGKATKAN PEMAHAMAN SISWA KELAS V NILAI-NILAI PANCASILA

ARTICLE HISTORY	ABSTRACT
	Abstract: *This paper discusses the improvement of fifth-grade students' understanding of Pancasila values by developing the e-NIPA (Edukasi Nilai Pancasila) application, which is an android application that is appropriate for students' interests and abilities. This application can be operated by students without using an internet network. The research was conducted because the fifth-grade students did not understand Pancasila values in elementary school. The method used in the research is the R&D (Research and Development) method with the ADDIE (Analysis, Design, Development, Implementation, and Evaluation) development model. The research was conducted on fifth-grade students, which consisted of 21 students in one of the elementary schools in Sumedang City. The results of the research indicate that this product is feasible to use after applying the validation by media and material experts in the very good category with a percentage of 95.5%. The results of the research on the research subjects were processed using the Paired Sample T-test by comparing the results of the students' average pretest and posttest scores, which begins with conducting a normality test on the data. The results imply that the data were normally distributed and there was a difference between the average students' pretest and posttest scores and it was obtained that the students' average scores increased at 38% based on N-gain. It implies that the e-NIPA application can improve students' understanding of the values of Pancasila.* ***Keywords:** e-NIPA application, learning media, students' understanding, Pancasila values*
	Abstrak: Tulisan ini membahas peningkatan pemahaman siswa kelas 5 tentang nilai-nilai Pancasila dengan mengembangkan aplikasi e-NIPA (Edukasi Nilai Pancasila), yang merupakan aplikasi android yang sesuai dengan minat dan kemampuan siswa. Aplikasi ini dapat dioperasikan oleh mahasiswa tanpa menggunakan jaringan internet. Penelitian dilakukan karena ditemukan bahwa siswa kelas 5 SD belum memahami tentang nilai-nilai Pancasila. Metode yang digunakan pada penelitian adalah metode R&D (Research and Development) dengan model pengembangan ADDIE (Anaysis, Design, Development, Implementation, and Evaluation). Penelitian dilakukan pada 21 siswa kelas 5 di salah satu sekolah dasar di Kota Sumedang. Hasil penelitian menunjukkan bahwa produk ini layak digunakan setelah divalidasi oleh ahli media dan ahli materi dengan kategori Sangat Baik dengan persentase 95,5%. Hasil penelitian terhadap subjek penelitian diolah dengan menggunakan Paired Sample T-test dengan cara membandingkan hasil rata-rata nilai pretest dan posttest siswa dengan terlebih dahulu melakukan uji normalitas terhadap data yang diperoleh. Hasil penelitian menunjukkan bahwa data yang diperoleh berdistribusi normal dan terdapat perbedaan rata-rata nilai pretest dan posttest siswa dan diketahui rata-rata nilai siswa meningkat sebesar 38% berdasarkan ngain. Hal ini menunjukkan bahwa aplikasi e-NIPA dapat meningkatkan pemahaman siswa tentang nilai-nilai Pancasila. **Kata Kunci:** *aplikasi e-NIPA, media pembelajaran, pemahaman siswa, nilai-nilai pancasila*

INTRODUCTION

In the world of education in schools, study activities carried out by students and teaching activities carried out by teachers can't be separated, these two activities can be said to be larning activities. Learning is a way to gain as much knowledge as possible which is used for a better life. Learning can be done anytime and anywhere (Palittin et al., 2019). In school, learning is a proccess of interaction between teachers and students and learning resources intentionally in a learning environment. In the learning process, the learning environment must be created and designed in such a way as to cause student behaviour in the desired direction and achieve learning goals. Teachers as professional educators are required to be able to have good skills and mastery in preparing learning tools, such as analysis of student needs, student characteristics, formulation of learning goals, determination of teaching subjects, selection of learning strategies, and use of learning (Angraini et al., 2021). Based on these things, the use of media is an important element in helping the success of learning process.

Media in the learning perspective is a strategic instrument that is influential in determining student success in learning activities. This is because media can foster a positive attitude and help them to understand the material and learning process. The learning process becomes more interesting when using the right media so that students are motivated to learn and can achive the learning goals (Firmadani, 2020). More specifically, media in learning activities can be interpreted as everything that physically can convey learning material, including books, tape recorders, movies, photographs, pictures, bars, graphics, television, computers, and the others (Novita et al., 2019). From this definition, it can be concluded that learning media are strategic instruments in the form of graphic, photographic, or electronic tools as well as

learning methods and techniques to increase the students' understanding so that they can achieve learning goals.

However, in reality sometimes learning objectives can't be achieved optimally. This is because there are problems that can hinder and fail the results of the learning process. As was the case in an elementary school in Sumedang Regency, West Java, where the fifth grade students at the elementary school couldn't understand the study of Pancasila values. The reason why they have not been able to understand that study is because the teacher as an educator is less able to maximize the use of media during the learning process. The teacher only uses the lecture method by transferring knowledge to students so that students are less motivated to learn and less undestanding the study of Pancasila values. In addition, the students in grade 5 are happier and are able to use and operate Android mobile devices (smartphones) properly, which results in them being busy playing mobile phones and not re-learning the study at school. In fact, they already have their own smartphones, they don't use their parents' smartphones anymore. To further investigate this problem, pretest questions were distributed to fifth grade students to measure their level of understanding of Pancasila values. The results of the pretest showed that the fifth grade students did not really understand the study of Pancasila values. Of the 21 research subjects, only four students that got scored 75 or known as KKM (Kriteria Ketuntasan Minimal/Minimum Completeness Criteria).

There are many previous researchs that seek to provide solutions to the problem of students' lack of understanding of the study about Pancasila values. Previous research conducted by Aiman (2018) regarding the application of the cooperative learning model picture and picture, Aiman (2018) chose to apply the learning method to increasing elementary students' understanding of the

study about Pancasila values. Determination of learning methods and models is an important element in carrying out the learning process so that learning goals can be achieved. Subsequent research regarding the implementation of counseling activities to increase students' understanding of Pancasila values (Octavian, 2019), this research emphasizes more on the goal that students can directly apply Pancasila values in real life through community service. The research conducted by Huninhatu et al., (2021) is similar to previous research, that determining learning methods and models. The method and model used is the online numbered heads together (NHT) method to increase understanding of Pancasila values for junior high school students. The results of these researches show that the used of learning methods and models can improve students' understanding of the study about Pancasila values.

More specifically on technology-based media products, there are several researches that seek to create and develop application media for learning apart besides researches that focus on increasing students' understanding of Pancasila values, one of which is research conducted by regarding the development of interactive multimedia based on an articulate storyline about the Pancasila values. The results of this research indicate that the products created and developed get a good response from the teachers. The media product being developed is in the form of an html5 file that can be used using a laptop device and requires an internet connection to use it. And then there's research that develops application media in the form of puzzles based on augmented reality that can be used on smartphone devices with the aim of instilling Pancasila values in elementary school students (Halimah, 2021). The results of this reserch received good responses from teachers and students.

Different to previous research, this research aims to improve understanding of Pancasila values in fifth grade students through the development of the e-NIPA (Edukasi Nilai Pancasila/Pancasila Values Education) application as an android application that is in accordance with the interests and abilities of students, this application can be used by students using smartphones offline (without an internet network). This research focuses on the following two questions: 1) How is the e-NIPA application development process? 2) How is the effectiveness of the e-NIPA application in increasing the understanding of Pancasila values in fifth grade students? To answer this questions, research using the R&D (Research and Development) method was carried out.

RESEARCH METHODS

The research method used in this research is mix-method research, namely Research and Development (R&D) method in the form of interviews and tests. Research and Development is a research method used to produce and develop a product and test the effectiveness of the product. In the world of education, this research method aims to provide and develop facilities in the form of a product to facilitate learning activities with the aim of improving the quality of learning with products that have been tested for validity. R&D research procedures on basically consist of two main objectives, namely: 1) developing the product, and 2) testing product effectiveness in achieving goals (Fransisca & Putri, 2019). The model used in this research is the ADDIE model, the ADDIE model consists of five stages, including analysis, design, development, implementation, and evaluation (Cahyadi, 2019). The ADDIE model is a model that still very relevant for used because this model can adapt very well in various conditions (Kurnia et al., 2019). The ADDIE model is very suitable for use in research that focuses on developing a product, such as learning media, student worksheets, and teaching study. The research stages in the ADDIE model are illustrated in the following picture.
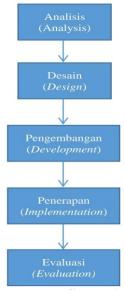
Figure 1. ADDIE Model Stages (Rosmiati, 2019)

The development procedure includes five stages, namely ADDIE. The analysis phase is carried out by looking at the problem through three stages, including analysis student needs, analysis of student characteristics, and analysis of the learning environment to determine which learning media will be applied as a solution. The design stage is the product design stage as a solution in the form of learning media based on Android applications. The development stage is the stage of improving or revising the application based on expert validation instruments that have been filled out by the media expert validator and material expert validator. The implementation stage is the stage of using the product to be tested in the learning process. The evaluation stage is the stage of measuring the results of product implementations and measuring the increase in students' understanding of the Pancasila values.

The time of the research was carried out between September and November 2022 which took place in one of the elementary schools in Sumedang Regency. The research subjects were 21 grade 5 elementary school students.

Data collection techniques for this research were interviewing teachers and students, administering expert validation instruments to material expert validators and media expert validators to test the adequacy of the media, and carrying out pretest and posttest to fifth grade elementary school students to measure their increased understanding of Pancasila values. The data obtained from this study were divided into two, namely data obtained from the expert validation instrument and data obtained from the results of the pretest and posttest in grade 5 students. The first data obtained from the expert validation instrument was data in the form of a Likert scale from 1 to 5. The total score obtained from the validator is then processed by calculating the percentage and classified by category. The product is said to be feasible to be tested if it is included in the Good or Very good category. Determination of product categories is explained in the following table.

Table 1. Product Categories

Score	Categories
81-100	Very good
61-80	Good
41-60	Fair
21-40	Poor
0-20	Very poor

Subsequent data were obtained from research subjects, namely fifth grade that totaling 21 students. The data analysis technique used in this research was a one-group pretest-posttest design using multiple choice questions with a total of 20 questions that analyzed using the Paired Sample T-test with the help of SPSS 26 software. Paired Sample T-test is one of the methods data testing is used to determine the effectiveness of the treatment carried out after the pretest by marking whether there is a change in the average results before and after the treatment is carried out (Ismawati & Prasetyo, 2020). The research subjects were given pretest and posttest questions to measure their understanding before and after testing the product as a learning media.

RESULTS AND DISCUSSIONS

The research results are explained through the ADDIE development model. The first stage is the analysis stage, namely analyzing the problems found in the learning process at school. The problem found in this research was the lack of understanding of the fifth grade students on the study about Pancasila values. Then the researcher analyzes the things that cause the problem and analyzes what is the right solution to resolve the problem. This analysis stage itself is carried out through three stages, namely analysis of student needs, analysis of student characteristics, and analysis of the learning environment (Nurhamidah et al., 2022). The analysis of student needs stage was carried out through interviews with both students and teachers. In fact, it was found that teachers were less able to develop learning media in the classroom and often used lecture methods only

from books. In addition, students also have low motivation to take part in learning that only uses the lecture method. The next stage of analysis is an analysis of student characteristics, after further investigation it turns out that students prefer playing smartphones than studying at home. In fact, most of them already have their own smartphone. Apart from being happy using smartphones, students also like watching animated videos that can be accessed either from smartphones or television. The students are able to operate smartphones well. The third analysis stage is the analysis of the learning environment, at this stage the researcher analyzes the condition of the school where the learning takes place, after being analyzed it is known that the student learning environment has a fairly good internet network and the school allows students to bring smartphone devices for certain purposes.

After the analysis phase has been completed, the next stage is product design (learning media). Design is something that makes sense and can be accepted by logic. Product design (learning media) is adapted to the characteristics of students who like to play smartphones so that researchers design learning media in the form of android applications that can be used via smartphones by students. The application made is named e-NIPA (Edukasi Nilai Pancasila) which aims to improve students' understanding of grade 5 on Pancasila values study. This app was created using various apps, such as Canva, PixelLab, KineMaster, and Smart Apps Creator (SAC). There are three main menus contained in the e-NIPA Application, including learning materials in the form of text on Pancasila symbols, simbolys of Pancasila precepts, and

Pancasila values and examples accompanied by pictures. In addition to include learning materials, the application also contains exercises that display 12 animated videos about practicing the values of the Pancasila precepts which are analyzed by students to deepen their understanding of examples of the implementation of the Pancasila precepts. The Quiz menu in the application presents 20 questions related to Pancasila to measure the extent to which students understand the material presented on Pancasila values. In addition to these three main menus, there are also other menus such as opening covers, maker and developer profiles (about application), how to use the application, Basic Competency (Kompetensi Dasar/KD) displays, Competency Achievement Indicators, and Learning Goals which will be achieved. The display of the menus contained in the e-NIPA application can be seen in the following picture.

Figure 2. Display of The Menus in e-NIPA Application

After the e-NIPA application is designed and created, the next stage is the development of the application. Development is carried out by checking the e-NIPA application to expert validators, the expert validators are media expert validators and material expert validators. The implementation of product checking on expert validators is carried out with the aim of validating and developing products that are made to be better. If the product still has deficiencies, the expert validator will provide criticism and suggestions for product improvement and revisions to the product so that the product can develop for the better and ready to be implemented at class. The results of the validation of media and material experts are explained in the following table.

Table 2. Results of Media and Materials Validation

No	Indicators	Ideal Score	Actual Score	Persentage	Categories
1.	Learning media	60	57	95%	Very good
2.	Learning materials	50	48	96%	Very good
	Persentage of Average Score			95.5%	Very good

There were a few comments and suggestions from the media expert validator during the validation process, namely the existence of a button icon that was not clearly visible because the color was almost the same as the background color and the inappropriate layout should be corrected, the presence of a clipped Pancasila symbol should be corrected, and the text layout too sideways should be repaired. Based on these comments and suggestions, a revision was made to the e-NIPA application product. The product validation results show that the e-NIPA application product is ready to be applied for implementations because it gets a score in the Very good category with a percentage of 95.5%.

After the product is designed, manufactured, and developed, the next step is to test the product on the research subjects. The research subjects in this research were 21 grade 5 elementary school students. The trial conducted was a limited trial which was applied to one elementary school and was carried out once. The trials carried out were using the e-NIPA application as a learning media with the aim of increasing grade 5 students' understanding of Pancasila values. Prior to carrying out product trials as learning media, students were first given pretest questions as the first variable of the research. This was done so that an increase in students' understanding of the Pancasila values could be seen by comparing the difference in the average pretest and posttest results using SPSS 26 software.

The final stage of this research is the evaluation stage. Evaluation is the assessment process carried out to get results of the success of an action (Anwar, 2021). The evaluation measured in this research is the result of the pretest and posttest conducted at the implementation stage. After the product is tested, then the results of the product

implementation are evaluated whether it can make a difference or not to the treatment given. Before the data obtained was tested using the Paired Sample T-test, a normality test was carried out first. The normalization test was carried out using the Shapiro-Wilk test because the number of samples was less than 50 subjects. The hypothesis being tested is H_0: there's no difference characteristics between data and population and H_1: there's difference characteristics between data and population.

The test criterion is accept H_0 if the opportunity value obtained is more than or equal to the significance level (*sig.* = *p-value* $\geq \alpha$) indicates normal data, and reject H_0 if the opportunity value obtained is less than the significance level (*sig.* = *p-value* $< \alpha$) indicates abnormal data, with α equal to 5% (0.05). The results of the pretest and posttest normality teat are shown in the following table.

Table 3. Normality Test

	Statistic	df	Sig.
Pretest	.952	21	.367
Posttest	.931	21	.144

Based on the results of the Shapiro-Wilk normality test, it is known that the significance value (Sig.) for all data is more than α (0.05), which means that H_0 is accepted and H_1 is rejected. So it can be seen that the research data is normally distributed and then parametric testing is carried out. Parametric testing is related to statistical inference which discusses population parameters, for example the average for data that is normally distributed.

Then a Paired Sample t-Test was carried out to find out improvement values that appeared in students after treatment and to test the effectiveness of the e-NIPA application in increasing students' understanding of Pancasila values. Research criteria accept H_0 if the opportunity value obtained is more than or

equal to the level of significance (*sig.* = *p-value* $\geq \alpha$), and reject H_0 if the opportunity value obtained is less than the level of significance (*sig.* = *p-value* $< \alpha$). Hypothesis H_0 shows that there is no difference in students' understanding before and after using the e-NIPA application and H_1 shows that there are differences in students' understanding before and after using the e-NIPA application. Furthermore, the average pretest and posttest scores will be compared with the aim of knowing the effectiveness of using the e-NIPA application in increasing students' understanding of Pancasila values. The results of the Paired Sample t-Test are shown in the following table.

Table 4. Paired Sample t-Test

	Statistic		T-test		
	n	Mean	t	df	Sig. (2-tailed)
Pretest	21	58.8095	-5.818	20	.000
Posttest	21	74.5238			

Based on the results of the Paired Sample t-Test, the value of Sig = 0.000 was obtained, which means that H_0 was rejected because the value of Sig = 0.000 $< \alpha$ which indicated that there were differences in

students' understanding before and after using the e-NIPA application as a learning media. The average value (mean) for the pretest is 58.81 and for the posttest is 74.52. This shows that the posttest score is greater than the pretest

score so that there is an improvement in student scores after using the e-NIPA application as a learning media. Therefore, the e-NIPA application can improve students' understanding of Pancasila values. Then, the improvement in students' understanding of Pancasila values is measured based on normalized gain (Ngain). After being measured using Ngain, students' understanding increase by 0.38 (38%) after using e-NIPA application, which means that students' understanding incvreases in the medium category.

Research on the development of e-NIPA android-based applications as learning media with the aim of increasing fifth grade students' understanding of Pancasila values has gone through five stages of the ADDIE research model. The results showed that the use of the e-NIPA application as a learning media in one of the elementary schools in Sumedang could increase fifth grade students' understanding of Pancasila values with an increase by 38%. The increase figure was obtained from a comparison of the average student scores from the results of the pretest and posttest conducted at the product implementation stage. This is in line with the opinion of (Angraini et al., 2021) which explains that learning media are everything such as tools or environments that are intended to increase knowledge, change attitudes and instill skills in people who use the media.

Learning media also functions as an intermediary that can support students so they can understand the concept of material in learning (Aghni, 2018). The e-NIPA application is enough to fulfill the functions as a learning media according to (Aghni, 2018) where the e-NIPA application can explain material and increase understanding of the material presented, namely the Pancasila values in fifth grade students in one of the elementary schools in Sumedang Regency, this application also helps increase student motivation to study because it fits the characteristics of students who like to use

smartphones. The e-NIPA application also allows students to study independently both at school and at home because they can access learning through applications on smartphones and allows students to study according to their personal learning style because of the availability of text and pictures (visual) and animated videos (audio-visual). The e-NIPA application provides the same stimulation, experience and perception to each student because they used the same application.

Besides being useful as a learning media, the e-NIPA application can also improve technological literacy skills in students and teachers. This is because the e-NIPA application is an Android-based learning media that uses smartphone technology devices. That way, students and teachers can get used to operating technology devices to improve their technology literacy skills, including in the field of education. The use of the e-NIPA application as a digital technology media is also in line with the abilities that teachers must master in learning, namely applying and integrating technology in learning or commonly known as TPACK (Technological Pedagogical Content Knowledge) (Rahmadi, 2019). The findings of this resaerch are in line with previous research which show that learning media in the form of android-based applications (smartphones) are very effective in increasing student understanding (Nurhamidah et al., 2022).

CONCLUSIONS

The e-NIPA (Edukasi Nilai Pancasila) application has gone through the development stage by going through five stages of ADDIE model. The first stage is the determination of the e-NIPA application as a solution to the problems found after carrying out three stages of analysis, namely analysis of students' needs, analysis of student characteristics, and analysis of the learning environment. The second stage is the design of the e-NIPA application which contains learning study for the Pancasila symbols and the meaning of Pancasila values

and examples of their implementation. In addition to include learning study, the e-NIPA application also contains a students worksheet menu by displaying 12 animated videos about implementation of Pancasila values to deepen students' understanding and a quiz menu totaling 20 questions about Pancasila to measure students' abilities and understanding of Pancasila values. In the third stage, namely the development stage by obtaining data from expert validation instruments and then revised the product so that the product can be suitable for use, the results of expert validation show that the e-NIPA application is in the Very good category with a percentage of 95.5%.

The research results from the next stage, namely the limited implementation stage which was tested in one school and carried out once on elementary school students with a total of 21 subjects. At this stage, the product that has been developed is used as a media in the learning process for students. The final stage is an evaluation carried out to measure the increase in students' understanding before and after using the e-NIPA application in the learning process. The average student score from the pretest results is 58.81 and the average student score from the posttest results is 74.52 which shows that the average student pretest score is lower than the posttest results and there's difference in the average score with a percentage of 38%. This shows that the e-NIPA application product can increase students' understanding of Pancasila values in the school.

REFERENCES

Aghni, R. I. (2018). Fungsi dan Jenis Media Pembelajaran dalam Pembelajaran Akuntansi. *Jurnal Pendidikan Akuntansi Indonesia*, *16*(1), 98–107. https://doi.org/10.21831/jpai.v16i1.20 173

Aiman, U. (2018). Peningkatan Pemahaman Nilai-Nilai Pancasila dan Prestasi Belajar PKn dengan Metode Pembelajaran Cooperative Learning Model Picture and Picture di MIN 2 Sleman. *Jurnal Pendidikan Madrasah*, *3*(1), 159–168.

Angraini, L. M., Wahyuni, P., Astri Wahyuni, Dahlia, A., Abdurrahman, A., & Alzaber, A. (2021). Pelatihan Pengembangan Perangkat Rencana Pelaksanaan Pembelajaran (RPP) bagi Guru-Guru di Pekanbaru. *Community Education Engagement Journal*, *2*(2), 62–73. https://doi.org/10.25299/ceej.v2i2.666 5

Anwar, K. (2021). Urgensi Evaluasi dalam Proses Pembelajaran. *Rausyan Fikr : Jurnal Pemikiran dan Pencerahan*, *17*(1), 108–117. https://doi.org/10.31000/rf.v17i1.4183

Cahyadi, R. A. H. (2019). Pengembangan Bahan Ajar Berbasis Addie Model. *Halaqa: Islamic Education Journal*, *3*(1), 35–42. https://doi.org/10.21070/halaqa.v3i1.2 124

Firmadani, F. (2020). Media pembelajaran Berbasis Teknologi sebagai Inovasi Pembelajaran Era Revolusi Industri 4.0. *KoPeN: Konferensi Pendidikan Nasional*, *2*(1), 93–97.

Fransisca, S., & Putri, R. N. (2019). Pemanfaatan Teknologi RFID untuk Pengelolaan Inventaris Sekolah Dengan Metode (R&D). *Jurnal Mahasiswa Aplikasi Teknologi Komputer dan Informasi (JMApTeKsi)*, *1*(1), 72–75.

Halimah, N. N. (2021). Pengembangan Puzzle Berbasis Augmented Reality untuk Penanaman Nilai Pancasila bagi Siswa Kelas 4 SD IT. *E-Jurnal Skripsi Program Studi Teknologi Pendidikan*, *X*(5), 495–507.

Huninhatu, A. F., Pudjiastuti, S. R., & Sutisna, M. (2021). Pengembangan Model Numbered Heads Together Secara Daring dalam Meningkatkan Pemahaman Nilai Pancasila dan

Pembentukan Karakter Disiplin. *Jurnal Citizenship Virtues*, *1*(1), 35–41. https://doi.org/10.37640/jcv.v1i1.914

Ismawati, D., & Prasetyo, I. (2020). Efektivitas Pembelajaran Menggunakan Video Zoom Cloud Meeting pada Anak Usia Dini Era Pandemi Covid-19. *Jurnal Obsesi : Jurnal Pendidikan Anak Usia Dini*, *5*(1), 665–675. https://doi.org/10.31004/obsesi.v5i1.671

Kurnia, T. D., Fauziah, H., & Trihanton, A. (2019). Model ADDIE untuk Pengembangan Bahan Ajar Berbasis Kemampuan Pemecahan Masalah Berbantuan 3D Pageflip. . . *In Prosiding Seminar Nasional Pendidikan Matematika (SNPM)*, *1*(1), 516–525.

Novita, L., Sukmanasa, E., & Pratama, M. Y. (2019). Penggunaan Media Pembelajaran Video terhadap Hasil Belajar Siswa SD. *Indonesian Journal of Primary Education*, *3*(2), 64–72. https://doi.org/10.17509/ijpe.v3i2.22103

Nurhamidah, S. D., Sujana, A., & Karlina, D. A. (2022). Pengembangan Media Berbasis Android pada Materi Sistem Tata Surya untuk Meningkatkan Penguasaan Konsep Siswa. *Jurnal Cakrawala Pendas*, *8*(4), 1318–1329. http://dx.doi.org/10.31949/jcp.v8i2.3190

Octavian, W. A. (2019). Upaya Peningkatan Pemahaman Nilai Pancasila Terhadap Siswa Melalui Kegiatan Penyuluhan. *Bhineka Tunggal Ika: Kajian Teori dan Praktik Pendidikan PKn*, *6*(2), 199–207.

https://doi.org/10.36706/jbti.v6i2.10087

Palittin, I. D., Wolo, W., & Purwanty, R. (2019). Hubungan Motivasi Belajar dengan Hasil Belajar Siswa. *Magistra: Jurnal Keguruan dan Ilmu Pendidikan*, *6*(2), 101–109.

Rahmadi, I. F. (2019). Technological Pedagogical Content Knowledge (TPACK): Kerangka Pengetahuan Guru Abad 21. *Jurnal Pendidikan Kewarganegaraan*, *6*(1), 65–74. https://doi.org/10.32493/jpkn.v6i1.y2019.p65-74

Rosmiati, M. (2019). Animasi Interaktif Sebagai Media Pembelajaran Bahasa Inggris Menggunakan Metode ADDIE. *Paradigma: Jurnal Komputer Dan Informatika Univiersitas Bina Sarana Informatika*, *21*(2), 261–268.