

A NEEDS ANALYSIS OF MULTIMEDIA IN THEMATIC LEARNING IN PRIMARY SCHOOLS AS STRENGTHENING CHARACTER EDUCATION

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Abstract

Purpose of the study: The aim of this study to shape Indonesian people who are moral, form Indonesian people who are intelligent and rational, form innovative people who like to work hard, are optimistic and trustworthy, and have a patriot spirit.

Methodology: This research was conducted using a survey method in elementary school teachers, both public and private schools, throughout the Wonogiri district. There were 25 teachers involved in this research. The instrument used was a character education questionnaire, which was adopted from 18 values in the nation's character education. The questions used consisted of four indicators, including teaching materials, the use of multimedia, character education in learning, and the integration of character education in multimedia learning.

Main Findings: The results showed that multimedia learning used by teachers had not integrated the values of Pancasila. While the results of character education analysis, to show that some character values have been applied in learning.

Applications of this study: The implication of the research results can be utilized for further research, in the context of strengthening character education is an educational policy whose main purpose is to implement the Nawacita of President JokoWidodo - JusufKalla in the national education system.

Novelty/Originality of this study: The study of the Value of Character Education in thematic learning is one of the innovations that is being developed theoretically so that multimedia will be created that will strengthen the value of character education. Character values that have not been maximally implemented are creative values, national spirit, discipline, and an attitude of respect for achievement.

Keywords: Needs Analysis, Multimedia, Thematic, Primary Schools, Character Education.

INTRODUCTION

Nowadays, the development of human life cannot be separated from the existence of technology, including in the social and educational spheres (Affandy et al., 2019; Towaf, 2014). The generation that grows and develops is raised in the dominance of the use of information and communication technology, commonly referred to as the millennial generation. The millennial generation is a generation born from 1980 to 2000. Growing in the era of the turn of the century has made the lifestyle of the generation experience drastic changes compared to the previous generation, namely the X generation. Especially since it was introduced with the use of technology. Social life in this generation is very dependent on existing information and communication technology. In this case, the most widely used information and communication technology is internet-based technology (Jolls, 2008).

The internet is an abbreviation of *interconnection networking*, a network that combines several computers and is connected in an *internet protocol* (IP), covering a wide range of the world. The many benefits and conveniences offered by the internet are also directly proportional to the negative impacts produced (Jolls, 2008). Broadly speaking, the negative impact of the use of the internet is the first reduction in human social characteristics. This is because they prefer to communicate using internet-based media rather than meet and exchange greetings directly (Jolls, 2008). Second, pornography and other crimes are rampant on the porches on almost every internet web and without filter images or scenes. Of course, this will adversely affect the development of the next generation, and if this is allowed to continue then the young generation of Indonesia, especially the millennial generation in which they are born and live in this high-tech era, will experience social and moral degradation (Jolls, 2008; Kamaruddin, 2012; Thompson, 2002).

Prolonged social and moral degradation can affect the survival and integrity of the Indonesian nation in the future (Muclas & Hariyanto, 2011). One way that can be used to overcome these problems is to return to the values of Pancasila and strengthen character education. Character education is an essential education especially for children who are still in the world of education (Manalu, 2014) because character education in the world of education is used as a container or process to shape the child's personality to be a good person (Kamaruddin, 2012; Thompson, 2002).

Education does not merely function as a medium to develop abilities alone but also functions to shape the character and civilization of a civilized nation (Easterbrooks & Scheetz, 2004). Therefore, character education or moral education is the most important part of building the identity of a nation (Kamaruddin, 2012). The moral problems of the present generation are the accumulation of past educational mistakes which have not applied character education in their

learning (Marsh, 1991). Education only pursues intellectual abilities so as to produce smart but not good humans (Benawa et al., 2018). Basically, smart humans but not good, is a danger because they have the opportunity to commit fraud.

Character education aims to shape Indonesian people who are moral, form Indonesian people who are intelligent and rational, form innovative people who like to work hard, are optimistic and trustworthy, and have a patriot spirit (Benawa et al., 2018; Hartutik et al., 2016; Mayasari, 2013). Thus education that is needed right now is education that can integrate character education with the education that can optimize the development of all dimensions of children in the areas of cognitive, physical, social-emotional, creativity, and spiritual must be balanced (Kamaruddin, 2012; Saptono, 2011).

The current implementation of education has not yet integrated character education into learning (Mayasari, 2013). One aspect that supports the 2013 Curriculum (K13) related to strengthening Pancasila-based character education in the learning process is to use multimedia learning (Muhamad & Saparahayuningsih, 2016). The use of multimedia has a positive impact by providing meaningful learning (Iskandar et al., 2018). Students will appreciate the entire teaching and learning process with the presence of multimedia learning (Adhitama et al., 2018). Programs such as games that are well designed in multimedia can motivate students to improve their knowledge and skills (Sukardjo & Sugiyanta, 2018). The use of multimedia can also make learning fun.

By first revealing the values of Pancasila to get an understanding of the values contained in Pancasila as well as determine and develop multimedia learning appropriately, it will be able to explore and develop the values of Pancasila. So that it will further transmit the positive impact of the values of Pancasila that have been transformed in character education. Therefore we need a theoretical study in integrating the values of multimedia-based Pancasila to strengthen the character education of students.

METHODOLOGY

Research Sample

This research was conducted using a survey method in elementary school teachers, both public and private schools, throughout the Wonogiri district. There were 25 teachers involved in this research. The instrument used was a character education questionnaire, which was adopted from 18 values in the nation's character education. The questions used consisted of four indicators, including teaching materials, the use of multimedia, character education in learning, and the integration of character education in multimedia learning.

Instrument and Procedures

The research instrument was in the form of a questionnaire consisting of four measurement scales, namely (STS) Strongly Disagree score 1, Disagree (TS) score 2, Agree (S) score 3, and Strongly Agree (SS) score 4. The selection of four measurement scales in the use of the needs analysis questionnaire is because we don't want teacher responses that are hesitant if neutral answer categories are provided. Then the availability of the middle answers can cause (central tendency effect), especially for those who are doubtful about the direction of respondents' opinions, towards agreeing or disagreeing.

After being given a research questionnaire, we then selected several teachers to conduct in-depth interviews in a structured manner. This aims to find out more deeply about the profile of multimedia learning needs in primary schools, as our consideration in developing multimedia based on Pancasila values as a reinforcement of character education.

RESULTS AND DISCUSSION

The Results of A Questionnaire Needs Analysis of Multimedia Learning

The questions used consisted of four indicators, including teaching materials, the use of multimedia, character education in learning, and the integration of character education in multimedia learning. The results of the analysis are presented in Table 1.

Table 1: Results of Needs Analysis of Learning Multimedia

No	Question	STS	TS	S	SS
1	Teacher's Teaching Materials	17	22	23	38
2	Learning Multimedia	25	28	30	42
3	Character Education in Learning	93	95	111	151
4	Integration of Character Education in Learning Multimedia	54	52	62	82

The results of the analysis using a questionnaire on indicators of teaching materials, the use of multimedia, character education in learning, and the integration of character education in multimedia learning show that teachers strongly agree that Pancasila-based multimedia of learning is integrated with learning. Pancasila consists of the words Panca and Sila.

Panca means five, sila means basis or principle. So Pancasila means five basic or five principles rather than the basic state of the Republic of Indonesia (Pujiastuti & Purwanti, 2018). The term Pancasila has been known since the Majapahit era in the XIV century which is contained in the book *Negarakertagama* by Prapanca and *Sutasoma* by EmpuTantular (Darmadi, 2014). Pancasila as the basis of the country was born and developed through a fairly long process. As is known, Pancasila experienced ups and downs in its implementation. According to Wreksosuhardjo (2014), Pancasila is a source of values and a source of guidance for all people and people of Indonesia in dealing with life, carrying out life tasks, solving life problems, and placing themselves in a system of living together, in order to achieve the goals of human life. According to Syamsudin (2009), the basic Pancasila of the state and the view of the life of the Indonesian people is one of the national cultural products which is very important. Therefore, Pancasila must also be passed on to the next generation of Indonesian youth through education. Without the effort to inherit this Pancasila, the state and nation will lose the most important cultural or culinary results.

Pancasila is the basis of the Indonesian state, playing an important role in every aspect of Indonesian people's lives (Pujiastuti & Purwanti, 2018), one of which is "Pancasila as an ethical system". Character education should be accompanied by a movement back to the values contained in Pancasila because Pancasila as the nation's personality that unites the whole nation must be understood as central in character education (Suryono, 2014).

Pancasila which has been accepted and established as the basis of the state as stated in the fourth Alenia of the Preamble of the 1945 Constitution is the personality and outlook of life of the nation that has been tested for its truth, ability and supernatural powers so that no single power can separate the Pancasila from the life of the nation (Darmadi, 2014). According to Kaelan in Warsito (2012), Pancasila Education aims to produce students who behave in:

- A. Having the ability to take a responsible attitude in accordance with his conscience,
- B. Having the ability to recognize problems of life and well-being and ways of solving them,
- C. Recognizing the changes and developments in science, technology, and art, and
- D. Having the ability to interpret historical events and national cultural values to promote the unity of Indonesia.

Through Pancasila Education, citizens of the Republic of Indonesia are expected to be able to understand, analyze and answer the problems faced by the people of their nation in a sustainable and consistent manner based on the ideals and goals of the Indonesian nation (Harmanto et al., 2018). According to Setijo (2011), relating to the nature of the values of the Pancasila precepts, it is necessary to understand the meaning and meaning of each of the Pancasila precepts so that we can get a picture of the essence of the Meaning of Pancasila which will all be closely related.

Pancasila Education in Forming the Character of Elementary School Students

The era of globalization of increasingly rapid technological advances fades out the values of decency, character as if it has been neglected, this results in student behavior that is not in accordance with norms and deviates (Rosana et al., 2019). Juvenile delinquency that is rampant in this globalization era has gone through reasonable limits. Many minors today are smoking, drugs, free-sex, brawl, and other criminal acts. This is because the thinking of adolescents is simple and does not think about what he did, for example: theft of adolescents committed, only to please, to make an impressive and awesome impression.

The core of citizenship education includes the same human values and freedom of expression, justice, and solidarity (Muflihaini & Suhartini, 2019). As for the principles of state management: participation, transparency, or openness to each other and are responsible and trustworthy. This makes citizenship education suitable to be applied to students to form mindset and good attitude patterns as Indonesian citizens who are in line with Pancasila values. Character education can be integrated into learning. Learning materials related to Pancasila norms or values need to be developed, implemented, and linked to the context of everyday life. Therefore learning the value of character values should not only be given to the cognitive level but also touches on internalization and real experiences in the daily lives of students at school, the environment, and society.

The values of Pancasila as a philosophy of national life to awaken the character of students need to be applied and implemented to students in order to have a strong character of their nation. However, history has proven that the Pancasila material value is a source of strength for the Indonesian nation and at the same time a binding and encouraging effort to uphold and fight for independence, this is proof that the value of the Pancasila as the personality and character of the Indonesian people that unites diverse tribes, races, languages, religions, the island became a unified and one nation, in the value of Pancasila is the soul of the Indonesian nation's personality and view of people's lives throughout the archipelago since ancient times. Therefore the character education value of Pancasila aims to develop the values that shape the character of the Indonesian nation through Pancasila which consists of:

- A. Develop students' potential to be kind, honest, think clearly, and behave according to existing norms.
- B. It is building a nation that has the character of Pancasila, which means that it does not participate in other countries and has its own foundation, which is the Pancasila foundation.

C. Developing an attitude of confidence in students and being proud of their nation and country and loving their fellow humans.

To further strengthen the implementation of civic education character education there are 18 values that originate from religion, Pancasila, culture and national education goals include religious, honest, tolerance, discipline, hard work, creative, independent, democratic, curiosity, national spirit, love homeland, respect the rights of others, embrace each other, love peace, love to read, love environmental, social care, and responsible.

Strategies in building the character of students for national character development in its implementation must be carried out coherently with strategies that include socialization or awareness, empowerment, civilization, and cooperation of all components of the nation. This character building is carried out with a systematic and integrative approach by involving family, education, community, government and staff, mass media, industry, and business. In reviving the character of a declining nation, it is necessary to implement the values of Pancasila as the philosophy of national life. Pancasila is the basis of a state that has a critical and rational reflection as a reality of the nation's culture, with the aim of obtaining the main points of understanding in a fundamental and comprehensive way.

The Nature and Benefits of Multimedia Learning

Many experts define what is meant by multimedia according to their respective perspectives. With this difference in perspective, it will increase our understanding of the definition of multimedia. According to [Munir \(2012\)](#), it is a combination of various media (file formats) in the form of text, images (vectors or bitmaps), graphics, sound, animation, video, interactions, etc. that have been packaged into digital files that are used to convey or deliver messages to the public. Meanwhile, according to [Warsita \(2008\)](#), multimedia is one of the media that combines all types of media consisting of text, graphics, photos, videos, animations, music, narration, and others.

From the two opinions above it can be concluded that multimedia is one of the media that can be used in the learning process, in other words to channel messages (knowledge, skills, and attitudes) and can stimulate thoughts, feelings, attention, and willingness to learn so that intentionally the learning process occurs, aims and controlled. The results of interviews with several teachers stated that they really need multimedia learning to make it easier to deliver the material. The pieces of interviews with the teacher are as follows:

Researcher: Do you use multimedia in learning?

Teacher: yes, I use multimedia in learning in class.

Researcher: What form of multimedia do you use?

Teacher: Shaped soft file, which is in the form of animation.

Researcher: How often do you use the teaching material?

Teacher: Adjusting the material to be taught, because not all material can be presented in a multimedia form.

Researcher: What multimedia learning content do you use? Is it only material, or comes to practice questions?

Teacher: Only the material, because as a reinforcement of the delivery of material.

The results of interviews with the teacher showed that the teacher understood the benefits provided by multimedia, namely as reinforcement in delivering the material. [Arsyad \(2011\)](#), said that one of the most widely used references as a theoretical basis is the use of media in the teaching and learning process, namely the Dale's Cone of Experience or the cone of the Dale experience. The influence of media in learning can be seen from the level of learning experiences that will be received by students. A person's learning outcomes are obtained starting from direct experience or concrete, the reality that is in the environment of one's life then through artificial objects, to the verbal or abstract symbols.

Levi and Levie in [Arsyad \(2011\)](#), about the results of research on learning through image stimulus and a word or visual and verbal stimulus, concluded that verbal stimulus produced better learning outcomes for tasks of remembering, recognizing, recalling, and connecting- connect facts and conditions. In addition, verbal stimuli provide better learning outcomes if learning involves sequential or sequential memories. Multimedia has unique characteristics compared to other learning media. This is a special feature of the multimedia. According to [Warsita \(2008\)](#), the characteristics of multimedia learning are as follows:

- A. I am having more than one converging media, for example combining several elements.
- B. Be interactive, in the sense of having the ability to accommodate user responses.
- C. Be independent, in the sense of providing convenience and completeness of content so that users can use it without the guidance of others.
- D. Be programmatic, which contains structured learning materials and provides a wealth of information.

Based on this, multimedia in the teaching and learning process can be used in three functions. First, multimedia can function as an instructional aid. Second, multimedia can function as an interactive tutorial, for example in simulations. Third, multimedia can function as a source of learning instructions, for example, multimedia is used to store a series of microscope or radiograph slides. In line with the opinion above [Daryanto \(2010\)](#), states that multimedia provides benefits for teachers and students, among others, as follows:

- A. The learning process becomes more attractive to students. This is because, in multimedia, there are so many features that are so many and diverse that they will be able to attract students' attention.
- B. The existence of interactive learning. This is because in multimedia, it allows feedback with students, so it is possible to have a positive interaction between multimedia and its users.
- C. Learning time becomes efficient. This is because multimedia can be made according to certain time constraints, so as not to allow excessive material delivery. So that the material does not overlap in the delivery. Another thing that makes time efficient is because multimedia can be used anywhere and anytime.
- D. It can improve the quality of learning. In multimedia, there are many features that can enrich learning. So that it can complement the subject matter delivered by the teacher at school.
- E. Increase student attractiveness in learning. This is because in the multimedia available, a variety of material and appearance so that it will be able to attract students' attention in carrying out learning.

Integration of Pancasila-Based Character Education Multimedia

This interactive multimedia is structured to answer one of the teacher's needs in applying the concept of integrative thematic learning. This interactive multimedia that was developed will package the material on the theme of Togetherness in Diversity, by integrating seven subjects and presenting them into six times of learning. The integration is presented in Figure 1.

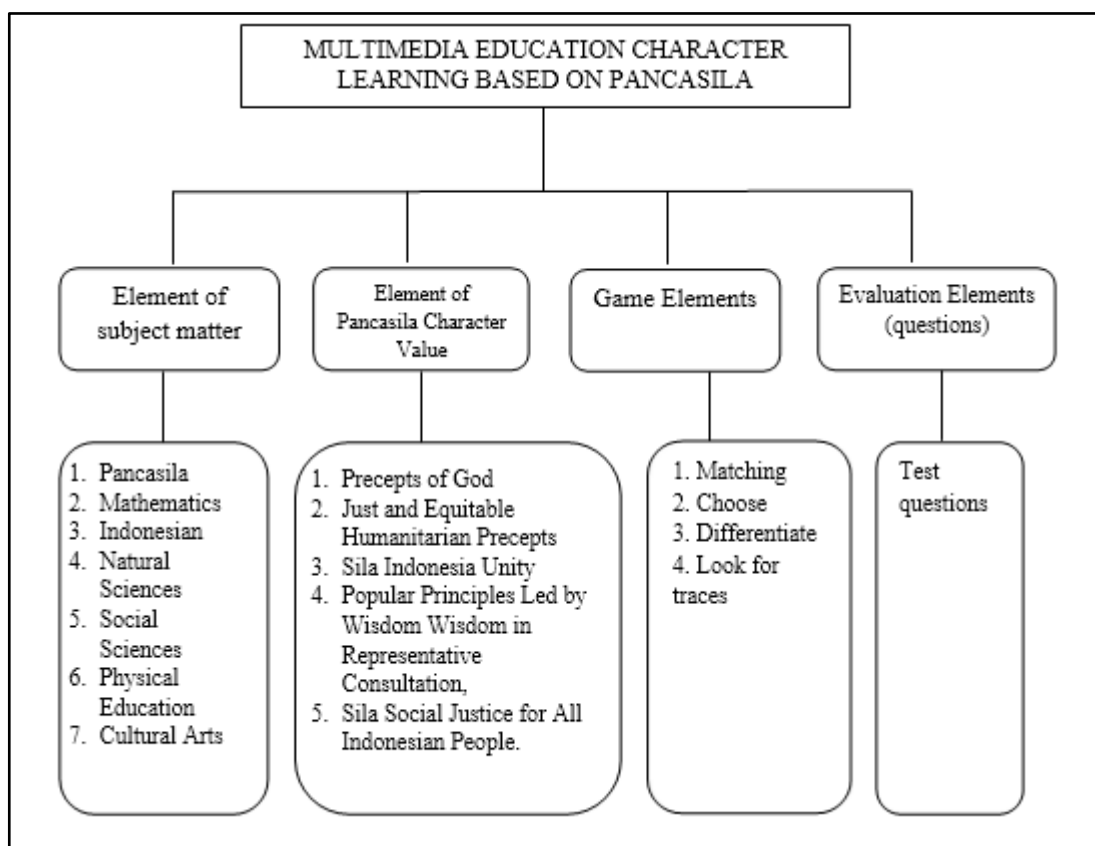


Figure 1: Integration of Pancasila-Based Character Learning Multimedia

In making Pancasila-based character education multimedia, there are several values and equipment that support the course of making this multimedia ([Manggo & Ismaniati, 2018](#)). The elements that become the content of multimedia production includes subject matter, Pancasila character values, games (games), and evaluations (questions). The elements of subject matter include PPKn, Mathematics, Indonesian Language, Natural Sciences, Social Sciences, PJOK, and SBdP. The values of the Pancasila character include The Almighty's Godhead principles, Fair and Adjusted Humanity, Indonesian Unity, Society Led by Wisdom Wisdom in Representative Consultation, and Social Justice for All

Indonesians ([Rosana et al., 2019](#)). Components of the game include matchmaking, choosing, differentiating, and searching for tracks. Evaluation involves working on multiple-choice test questions.

Strengthening Character Education (PPK) is an educational movement through the formation, transformation, transmission, and development of potentials by means of heart, taste, thought and sense to strengthen student character. In PPK, character values are the deepest dimension in education. There are five main values developed in the PPK movement, including religious, nationalist, independent, mutual cooperation, and integrity. Of the five values are still developed into several sub-values. In this study, the characters developed are cooperation and maintaining cultural wealth.

Class-based PPK can be done by integrating character planting in classroom learning through curriculum content thematically. In addition, in the implementation of classroom-based character education, it is also necessary to strengthen classroom management, accuracy in the choice of methodology, and accuracy of learning evaluation. One of the ways to implement PPK through a class approach is through thematic learning. PPK through thematic education is taught through themes that contain the main values of PPK taught in the form of classroom learning. The themes taught can be adjusted to the syllabus that has been provided. Thematic learning is learning that integrates several learning contents that are overshadowed by themes and sub-themes.

Thematic learning also integrates aspects of knowledge, attitudes, and skills. So that the implementation of thematic learning can include PPK in it. In practice, thematic learning uses a scientific approach. This requires that the implementation of thematic learning is carried out in accordance with the environment around students. The material and learning process starts from the nearest environment of students and then is developed into a wider environment. In addition to using a scientific approach, in implementing thematic learning, the government has provided teacher and student books. The teacher's book contains the steps of learning and assessment that must be done by the teacher while student books contain material that must be studied by students.

In addition, the learning process in the 2013 curriculum thematic learning is done in a spiral that starts from the closest environment of students to the wider environment. So that in the implementation of learning in the 2013 curriculum that uses the scientific approach, of course, it really needs the surrounding environment as a vehicle in the implementation of learning. Students can observe the environment around the learning material. Besides that with the environment, students will also find it easier to try everything available in the environment related to learning material.

In implementing thematic learning that links with the environment around students, of course, the teacher must first be able to identify excellence or local wisdom of the local area to be able to, connect with learning material. Thus thematic learning will provide a holistic and meaningful concept to students. Knowledge learned by students will be more beneficial because by studying themes students can learn some material from several learning contents. Students will be more motivated in learning if students learn knowledge that is close to the local area environment.

Supporting factors for the implementation of Pancasila-Based Character Education Multimedia

A supporting factor in thematic learning is the availability of infrastructure in elementary schools. The support includes, among others, the field, LCD projectors in each class, and adequate book references ([Manggo & Ismanati, 2018](#)). In addition, human resources such as teachers and school principals strongly support this learning. This form of support includes providing time to develop a shared learning device before teaching and learning activities begin ([Khasbullah, 2013](#)). With teachers putting together learning devices, the learning tools used can be more structured.

Participation from guardians of students can greatly support learning activities. In the implementation of thematic learning, the form of guardian participation of students is to support in terms of material and infrastructure. [Sanjaya \(2008\)](#), argues that the variables that influence the success of the learning system are teacher factors, student factors, facilities and infrastructure factors, and environmental factors. The teacher, in this case, is directly dealing with students. So the teacher must be able to play a role as a learning planner and as a learning implementation. The teacher factor is considered to have been able to do both.

Complete tools and infrastructure can foster teacher passion and motivation in teaching. It also can be with the completeness of facilities and infrastructure at school can also provide choices for students to learn; of course, this can foster student motivation ([Caddafie et al., 2017](#)).

CONCLUSION

The conclusion that can be drawn from this research is the role of the teacher in providing material referring to and emphasizing learning objectives regarding their daily implications so that the teacher in shaping the character of students has a very important role because it aims to form good citizenship in daily life or the life of the nation and state. The results showed that multimedia learning used by teachers has not integrated the values of Pancasila. While the results of character education analysis show that, some character values have been applied in learning. Character values that have not been maximally implemented are creative values, national spirit, discipline, and an attitude of respect for achievement. This results in multimedia in integrative thematic learning that is needed as a tool for teachers and students

in the learning process in the classroom. The use of multimedia is expected to facilitate the teacher in delivering the material and facilitate students in understanding the material being studied.

LIMITATION AND STUDY FORWARD

The results of this study in this article constitute a conceptual development of multimedia character education. In subsequent research, thematic learning multimedia was developed to strengthen the character education of elementary school students. One of the values applied in multimedia and thematic learning is the noble value of Pancasila.

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AUTHORS CONTRIBUTION

The first author contributed to the selection of research topics, data collection, and data analysis. The second and third authors contributed to increasing the depth of discussion. Whereas the fourth author contributes to the improvement provided by reviewers, increasing the depth of discussion and presentation of data.

REFERENCES

1. Adhitama, I., Sujadi, I., & Pramudya, I. (2018). Discover The Pythagorean Theorem Using Interactive Multimedia Learning. *Journal of Physics: Conference Series*, 1008(1). <https://doi.org/10.1088/1742-6596/1008/1/012066>
2. Affandy, H., Aminah, N. S., & Supriyanto, A. (2019). The correlation of character education with critical thinking skills as an important attribute to success in the 21 st century. *Journal of Physics: Conference Series*, 1153(1). <https://doi.org/10.1088/1742-6596/1153/1/012132>
3. Arsyad, A. (2011). *Instructional Media*. Jakarta: Rajawali Press.
4. Benawa, A., Peter, R., & Makmun, S. (2018). The Effectiveness of Full Day School System for Students' Character Building. *IOP Conference Series: Materials Science and Engineering*, 288(1). <https://doi.org/10.1088/1757-899X/288/1/012160>
5. Caddafie, S. U., Kariada, N., Martuti, T., Rudyatmi, E., & Article, I. (2017). The Impact of Adiwiyata Program on Environmental Caring Character. *Journal of Biology Education*, 6(3), 350–356.
6. Darmadi, H. (2014). *Urgensi Pendidikan Pancasila dan Kewarganegaraan di Perguruan Tinggi*. Bandung: Alfabeta.
7. Daryanto. (2010). *Media pembelajaran peranannya sangat penting dalam mencapai tujuan pembelajaran*. Yogyakarta: Gava Media.
8. Easterbrooks, S. R., & Scheetz, N. A. (2004). Applying critical thinking skills to character education and values clarification with students who are deaf or hard of hearing. *American Annals of the Deaf*, 149(3), 255–263. <https://doi.org/10.1353/aad.2004.0024>
9. Harmanto, Listyaningsih, & Wijaya, R. (2018). Characteristics of competence and civic education materials curriculum in primary school in Indonesia. *Journal of Physics: Conference Series*, 953(1). <https://doi.org/10.1088/1742-6596/953/1/012150>
10. Hartutik, Rusdarti, Sumaryanto, & Supartono. (2016). Integrating Character Education Model With Spiral System In Chemistry Subject. *Journal of Physics: Conference Series*, 755(1), 6–10. <https://doi.org/10.1088/1742-6596/755/1/011001>
11. Iskandar, A., Rizal, M., Kurniasih, N., Sutiksno, D. U., & Purnomo, A. (2018). The Effects of Multimedia Learning on Students Achievement in Terms of Cognitive Test Results. *Journal of Physics: Conference Series*, 1114(1). <https://doi.org/10.1088/1742-6596/1114/1/012019>
12. Jolls, T. (2008). The Impact of Technology on Character Education. Center for Media Literacy, 1-61.
13. Kamaruddin, S. A. (2012). Character Education and Students Social Behavior. *Journal of Education and Learning*, 6(4), 223–230. <https://doi.org/10.11591/edulearn.v6i4.166>
14. Khasbullah, M. N. (2013). *The Concept of Character Education According to IbnMaskawih: Its Relevance to the Implementation of Culture and Character Education of the Ministry of Education and Culture*. STAIN Kediri.
15. Manalu, J. M. H. (2014). Character Education on Student Behavior Formation (Case Study of Character Education Process in HMJ Sociologist, Mulaarman University, East Kalimantan). *Psychology E-journal*, 2(4), 26–38.
16. Manggo, T. S., & Ismaniati, C. (2018). Selecting Appropriate Instructional Media for Teaching Pendidikan Pancasila dan Kewarganegaraan Subject to Students of Junior High School. *Journal of Physics: Conference Series*, 1140(1). <https://doi.org/10.1088/1742-6596/1140/1/012040>
17. Marsh, H. (1991). Employment during High School: Character Building or a Subversion of Academic Goals? *Sociology of Education*, 64(3), 172–189. <https://doi.org/10.2307/2112850>
18. Mayasari, L. (2013). Storytelling and Bulletin Board for Character Education. *Teaching of English Language and Literature*, 1(1), 13–23.

19. Muclas, S., & Hariyanto. (2011). *Character Education Concepts and Models*. Bandung: PT RemajaRosdakarya.
20. Muflihaini, M. A., & Suhartini. (2019). Implementation of environmental care character education value on biology subject through adiwiyata Implementation of environmental care character education value on biology subject through adiwiyata. *IOP. Conf. Series: Journal of Physics: Conf. Series*, 1241(012028), 1–10. <https://doi.org/10.1088/1742-6596/1241/1/012028>
21. Muhamad, B. & Saparahayuningsih, S. (2016). An Attitude and Character Instructional Development Based on Curriculum 2013 in Elementary School. *Creative Education*, 7, 269–277. <https://doi.org/10.4236/ce.2016.72025>
22. Munir. (2012). *Multimedia concepts & applications in education*. Bandung: Alfabeta.
23. Pujiastuti, E., & Purwanti, A. (2018). Labor supervision policy in Indonesian legal system based on Pancasila. *IOP Conference Series: Earth and Environmental Science*, 175(1). <https://doi.org/10.1088/1755-1315/175/1/012192>
24. Rosana, D., Setyawarno, D., & Setyaningsih, W. (2019). Development Model of Students' Inert-Depend Strategies to Face Disruption Era Through Best Practice Film of Android Based Learning of Pancasila Character Value. *Journal of Physics: Conference Series*, 1233(1). <https://doi.org/10.1088/1742-6596/1233/1/012098>
25. Sanjaya, W. (2008). *Perencanaandan Desain Sistem Pembelajaran*. Jakarta: Kencana Prenada Media Group.
26. Saptono. (2011). *Dimensions of Character Education*. Jakarta: Essence.
27. Setijo, P. (2011). *Pendidikan Pancasila Perspektif Sejarah Perjuangan Bangsa*. Jakarta: Grasindo.
28. Sukardjo, M., & Sugiyanta, L. (2018). Measurement of Usability for Multimedia Interactive Learning Based on Website in Mathematics for SMK. *IOP Conference Series: Materials Science and Engineering*, 336(1). <https://doi.org/10.1088/1757-899X/336/1/012032>
29. Suryono, H. (2014). *Pendidikan Pancasila Berbasis Riset Untuk Mahasiswa*. Surakarta: UNS Press.
30. Syamsudin. (2009). *Pendidikan Pancasila Menempatkan Pancasila dalam Konteks Keislaman dan Keindonesiaan*. Yogyakarta: Total Media.
31. Thompson, W. G. (2002). *The effects of character education on student behavior*. *Digital Commons at East Tennessee State University*, 12, 1–96. Retrieved from <http://dc.etsu.edu/etd> Recommended
32. Towaf, S. M. (2014). Character Education in Social Sciences Subjects. *Journal of Educational Sciences*, 20(1), 75–85.
33. Warsita, B. (2008). *Foundation learning technology and its application*. Jakarta: Rineka Cipta.
34. Warsito, B. (2012). *Pendidikan Pancasila Era Reformasi*. Yogyakarta: Ombak.
35. Wreksosuhardjo, S. (2014). *Berfilsafat Menuju Ilmu Filsafat Pancasila*. Yogyakarta: Andi.