



EFFORTS TO IMPROVE ELEMENTARY STUDENTS' DIGITAL LITERACY THROUGH THE USE OF TECHNOLOGY-BASED LEARNING MEDIA

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ABSTRACT

The purpose of this study is to explain efforts to increase digital literacy of elementary students through use of technology-based learning media in social studies learning. The research method used a literature study approach. Sources of research data are secondary data by collecting research data from several journals that are relevant to the topic of discussion. The results of the study show that the IPS learning paradigm through the use of various technology-based learning media is carried out so that learning is relevant to the rapid development of technology. The use of instructional media in social studies learning varies greatly according to the material delivered by the teacher and the availability of adequate technological devices. Utilization of technology-based learning media is carried out as a teacher's effort in packaging social studies learning material to be more attractive so that the learning process becomes more interactive and real, effective and efficient as well as fostering student motivation so that it is easy to understand and student-centered learning. The use of technology-based learning media in the learning process contributes to improving elementary students' digital literacy skills. This happens because the teacher designs a learning process that involves elementary school students to directly use and practice technological devices.

Keywords: *Digital literacy, media, technology*

INTRODUCTION

The rapid development of the times has changed the order a lot in world life. Changes known as the era of revolution 4.0 are currently having a lot of influence in various aspects of life. The era of the 4.0 generation industrial revolution was marked by the increasing development of digital systems, connectivity, the presence of artificial intelligence and ease of communication. The rapid development of science and technology has certainly had a significant impact on people's lives, including the ease of finding and obtaining information. (Mulyadi et al., 2021) said that the era of the industrial revolution 4.0 was marked by the development of computerization and the internet which formed a new habit.

The era of the industrial revolution 4.0 has made many changes to the world of education, including education in elementary schools. This is because education is closely related to preparing human resources to meet the future of the world. The current conditions are constantly changing and developing, so the role of basic education is one of the important steps that must be able to instill the values and competencies of each individual which will support the preparation for the formation of quality human resources. Education in facing the digital era has a role and responsibility in shaping future generations who have the ability to use and utilize technology properly and optimally. Based on this, education must be able to build and improve the digital literacy of its students in facing the current era. Digital literacy is the ability to use and understand information obtained from digital sources such as tablets, cell phones and computers (Hardiyanti & Alwi, 2022). According to (Heryani et al., 2022) digital literacy is a skill in using technology and information with digital-based media in various domains of life, including in the process of learning activities in schools.

Developing mastery of digital literacy in learning is expected to be a support in developing students' abilities and preparing students who are able to face the demands of the times. In the world of education, digital literacy can be applied through the use of various digital-based media around us to support the learning process. Teachers can utilize digital media such as laptops, mobile phones, computers and others in an effort to create an interesting and innovative learning environment according to the stage of development and the conditions of students. According to (Heryani et al., 2022), digital literacy in the educational process in schools can be applied through the use of various media in the existing surrounding environment such as the use of computers, smartphones, laptops and others.

Every learning must be able to contribute in shaping students to master digital literacy. The focus of this article is on social studies learning in high grade elementary schools. Social studies education in elementary schools

contributes to the development of digital literacy for every student to prepare themselves to become a quality generation. The use of technology-based learning media in the IPS learning process can play a role in developing elementary school students' digital literacy skills. Advances in technology, both digital and internet-based information and communication technology can be used by students and teachers to support active and fun learning activities.

Currently, many elementary school students are able to operate technology in the form of mobile phones in their daily activities so that this information technology media can be utilized in classroom learning. Based on this, teachers can take this opportunity to train students to use technology to support the learning process. IPS teachers are not the only source of learning. According to (Agustina et al., 2019) along with the rapid development of information and communication media, the teacher's role no longer dominates the implementation of the teaching and learning process, but teachers need other supporting media that can be used as a support in the process of providing information, messages or content being taught.

Social studies lessons that used to be considered tended to be boring because most of them only used the lecture method in their delivery. In contrast to the current social studies learning must begin to experience changes in accordance with the demands of the times. The role of fun learning media is also effective as a solution in overcoming social studies learning which tends to be monotonous. The use of digital media can help deliver social studies material to be more interesting and easy to understand. Because according to (Prehanto et al., 2021) the implementation of IPS learning in high grades requires a specific strategy in teaching social science material contextually.

Researchers meant to conduct research on efforts to increase digital literacy of elementary students through the use of digital technology-based learning media in social studies learning in elementary schools. The purpose of this study was to determine the variety of technology-based learning media and their role in developing digital literacy skills for elementary school students in social studies learning.

METHODS

This research was conducted using a literature study approach. Literature study is a method by reviewing and critically examining a knowledge, idea or discovery from several written sources that have previously been made. Data from literacy results from several journals that are relevant to the topics raised within the scope of the Role of Technology-based Learning Media in Social Studies Learning in high school grades (namely grades 4, 5 and

6) and digital literacy skills are a source of data in the research conducted. Data collection techniques were carried out through digital searches of several journals. Data analysis was carried out using the content method through the process of selecting several journals that were relevant to the scope of the research, comparisons between several journals obtained from the selection process,.

RESULTS AND DISCUSSION

IPS learning is learning that integrates several social sciences to make it simpler according to the stage of development of students. In elementary schools, social studies learning has begun to expand its subject matter. Therefore it is necessary to use media that is effective, varied and interesting in supporting success in the process of teaching and learning activities. Technological developments are currently an opportunity for every social studies teacher to develop technology-based learning media.

Based on the results of literature studies from several journals regarding the use of technological devices to support the teaching and learning process on social studies material for elementary school students, especially in high grades, information and data were obtained that many schools have used technology-based learning media and it is proven that these media can increase participant motivation and learning achievement during the learning activities in class. However, the use of technology-based learning media must be supported by adequate technological devices so that their use can be maximized. The main obstacle to the implementation of technology-based learning media is related to the inadequacy of technological devices found in several schools.

The use of technology-based learning media also contributes to increasing students' digital literacy. There are several influences of technology-based learning media in elementary social studies learning in high grades in increasing digital literacy. This influence can certainly be felt by various elements that contribute to learning activities and to the creation of a learning climate. The use of technology-based learning media changes the paradigm of the IPS learning process which was originally saturated and tends to be textual into a learning process that has a positive climate, is student-centered and leads to increased digital literacy skills in students.

1. Technology-Based Learning Media

One of component that contributes significantly in the process of delivering learning material from the sender of learning messages (teachers) to those who receive learning messages (students) is learning media. In this case,

in simple terms the role of learning media is as an intermediary or conveyer of learning messages which are basically always closely related to the learning process carried out. According to Makruf 2009 in (Putri, 2017) suggests that learning media is anything that can provide convenience when the material is conveyed by the teacher to all students during the learning process being carried out. Along with the development of increasingly massive technology, we often hear the term technology-based learning media lately. This refers to the role of technology used for learning media to support the process of teaching and learning activities carried out. The classification of learning media put forward by Sanjaya, 2010 in (Firmadani, 2020) is classified into several types, which include:

- a. Based on its nature, this type of media includes (1) Audio Media, which is a media that produces a sound that can be heard by humans, such as sound that goes through a recording process, (2) Visual Media, namely media that displays something that can be sensed by the human eye, such as images and (3) Audiovisual media, namely media resulting from the combination of auditive and visual media so that it can be seen as well as heard like a video.
- b. Based on the breadth of coverage, media is divided into (1) Media that can be seen simultaneously by all humans without being limited by space and time, such as TV and radio tape, (2) Media that can be seen by humans but is limited by space and time, such as video recordings or films.
- c. Based on the technique used, media is divided into (1) media that needs projection tools such as video recordings or films, (2) media that do not need projection tools such as pictures or manual posters.

2. Description of Learning Social Sciences in High Grade Elementary Schools

This study discusses various problems related to the problems of social life in the community which are reviewed in an integrated manner from various aspects of life (Suhada, 2017). Soemantri in (Rahmad, 2016) reveals that social science is a simple form of the basic concepts of social science so that it is prepared for the learning process at the elementary and advanced school levels. In this case, namely simplifying or reducing the level of difficulty of various social sciences that are usually taught and studied at the tertiary level into subjects that are relevant to the level of thinking ability of students at the elementary and high school levels. The learning is packaged by connecting and integrating several parts of the social sciences with the community environment.

So, Permendikbud Number 37 of 2018 contains basic competencies from social studies subjects in high-grade elementary schools. At the 4th grade elementary school level, students learn about 1) spatial characteristics, utilization of natural resources, 2) diversity (social, cultural, economic, religious and ethnic), 3) economic activities, various types of work, 4) Hindu, Buddhist and Islam. At the 5th grade elementary school level, students learn about 1) geographical characteristics of Indonesia, 2) forms of human interaction, 3) the role of the economy in the welfare of life, 4) the causes of the colonization of the Indonesian nation. Then at the 6th grade elementary school level, students learn about material 1) geographical characteristics of the ASEAN region and life in the ASEAN region, 2) socio-cultural changes (modernization),

At the high grade level, namely grades 4 to 6, social studies subjects are stand-alone subjects, but in the learning process the learning activities are carried out thematically integrated with other subjects. This is different from social studies in lower grades where the social studies content subjects are combined with B. Indonesian subjects. The presentation of social studies education material in elementary schools uses an integrated approach. Social studies material presented in elementary schools does not show the names of each field of social science disciplines, but the material is presented thematically and connected to various social themes that occur in the students' environment. The various social themes presented are sourced from various life events and activities around students.

3. Examples of Technology-Based Learning Media for IPS Materials in Elementary Classes Tinggi

Learning media has an important role in supporting the continuity of learning activities in schools. There are many learning media that can be used as intermediaries for the delivery of social studies learning materials in high grade elementary schools. The use of learning media in learning can facilitate the process of understanding students regarding the learning content they learn and encourage the emergence of learning motivation. In the midst of very rapid technological developments, it has increasingly encouraged various efforts to utilize technology for the learning process. Various studies are increasingly being carried out in examining the effectiveness of using technology-based learning media in elementary schools. In social studies learning in high grades, there are many technology-based learning media that are used in the implementation of learning so that it can be one of the teacher's references in applying it to the social studies learning process that will be carried out. In the following, several learning media that utilize technology that teachers can use

in social studies learning in high school elementary schools are presented based on the results of various studies:

a. Animation-based Learning Media in Interactive CD

According to Binanto in (Ariyati & Misriati, 2016) animation is an attempt to make static presentations come alive. Based on the results of research from (Alannasir, 2016) the use of animated learning media has a positive impact on increasing students' learning motivation. The research process regarding the use of animated media uses learning animation CDs. Where in the CD there are various choices of subjects, one of which is social studies learning. In the application display that is used, interactive material will appear which contains the subject matter of social studies subjects. During the trial, the students looked happy and seriously paid attention to the teacher's explanation regarding the use of the prepared animation media. Students also try independently in using the prepared animation media. At that time the students looked happy, active and also interactive in operating the learning media. Based on the results of the research above, social studies teachers can use animated media in interactive CDs in delivering learning material.

b. Interactive Multimedia Based Learning Media

According to Hasanuddin in (Ariyati & Misriati, 2016) multimedia is a combination of audio, text, graphics and also video that is made computer-based and can be used interactively. Based on the results of (Agustina et al., 2019) research information was obtained that there was an increase in the interest and enthusiasm of students in learning social studies material in grade 5 elementary schools which was taught through the use of interactive multimedia.

c. Audio-Visual Learning Media

This media is the result of a combination of audio and visual. In learning this media can be used to assist the process of delivering material. In research conducted by (Hasan et al., 2016) it was found that the achievement of learning outcomes in social studies material regarding the development of transportation, communication and production technology has increased through the use of this media.

d. Visual Learning Media

Visual media is a viewer of something that can be seen. This media can be utilized in the social studies teaching and learning process in the form of photo media, charts and various images relevant to the material being

studied. Based on research conducted by (Fauzi, 2017) the use of visual media in the learning process can increase student interest and learning outcomes. (Fauzi, 2017) conducted research using visual media, namely photos, drawings and charts related to the material for the struggle for independence in grade 5.

e. Interactive Learning Media Based on Articulate Storyline

*Articulate Storyline*merprovide an innovation in the form of a tool that is useful as a combination of some learning content in the form of visual, audio and audio-visual media so that it leads to the creation of interactive learning media (Setyaningsih et al., 2020). The publication of the results of this project is in the form of web-based media and can be operated or used on several devices, namely laptops, tablets or smartphones (Setyaningsih et al., 2020).

berbased on the research results of (Setyaningsih et al., 2020), information was obtained that students experienced an increase in learning motivation and learning outcomes in material about the Hindu Buddhist kingdom in learning in class 4 of SD. The increased enthusiasm of students is influenced by learning using technology as a learning medium in the form of Articulate Storylines. Students become more informed about the material being studied.

f. Learning Media in the form of Infographics

infographic is the visual presentation of information in graphical form (Resnatika et al., 2018). Infographics have the goal of communicating messages/information that are complex at first to become easier to understand and simpler so that the information/messages to be conveyed can stimulate a willingness to learn. Based on research by (Hersita et al., 2020), researchers conducted research on the development of infographic media as social studies learning media in elementary schools. Based on the results of his research, this infographic media is used on the geographical conditions of Indonesia in grade 5 elementary school. The infographic media developed aims to clarify the delivery of material on the geographical conditions of Indonesia's territory so that it can be easily understood by grade 5 students (Hersita et al., 2020).

g. Learning Media uses the Sway Application

According to Huda in (Merliana et al., 2021) Sway is an internet-based presentation medium that has various features. This media can combine images, sound, video and text when the presentation is run. This sway application is not software that must be installed first on a computer device but is a web-based application. In the Sway application the teacher can add the Microsoft form that was made before. Huda (Merliana et al., 2021) further

explained the benefits of the microsoft form in the Sway application, namely that it can make it easier for teachers to process data such as attendance or assignments.

berbased on research results from (Merliana et al., 2021), information was obtained that the use of the Microsoft office sway application in social studies learning materials for export and import showed that students' interest had increased when participating in the process of teaching and learning activities with social studies material and became better than the implementation of conventional learning activities which teachers often do.

4. The Effect of Using Technology-Based Learning Media on Social Studies Learning in High Grade Elementary Schools on Increasing Digital Literacy

Refforts today's technological developments are very influential on the learning process that we are carrying out. This is indicated by a change in the learning paradigm which demands a technology-based learning process which is characterized by innovations in learning media which also utilize technology. The influence of technology-based learning media is very significant as stated by Ali, 2015 in (Nafisah et al., 2020) that the use of technology-assisted learning media can foster students' enthusiasm for learning so that they have a high willingness to learn a particular competency.

a. The Effect of Technology-Based Learning Media in Social Studies Learning

The current paradigma of social studies learning tends to be saturated and textual in nature. It seems that this discourse is also relevant to what was conveyed by (Setyanto & Adiwibawa, 2018) that not all students have a positive perception of social studies learning at school. If we relate it to current learning demands, then the social studies learning paradigm should be relevant to the rapid development of technology through the use of learning media that utilize technology. The use of technology-based learning media certainly has an influence on the implementation of the learning process both for students as learning subjects or teachers as designers and developers of learning media in creating a positive learning climate.

IPS material that is packaged in an attractive way through the use of technology-based learning media can provide convenience to students regarding the process of understanding the material provided by the teacher to them. This is because technology-based learning media fosters students' willingness to learn to participate interactively during learning. This agrees with what was conveyed by (Russell & Hannon, 2012) that learning material delivered through technology-based learning media can provide equal

opportunities for all educational subjects to be able to understand learning material beyond individual diversity in a learning process that is carried out.

The influence of the use of technology-based learning media certainly affects not only students, but also the teacher as the party who develops and designs learning media. Teachers can package IPS material which was previously textual in nature, then developed into more interesting media. The existence of technology is currently an opportunity for teachers to be able to use it as a learning medium. This affects the learning process carried out by the teacher in (Anshori, 2018), namely the teaching and learning process becomes more stimulating for students' willingness to learn, interactive and concrete, the management of teaching activities is more efficient as well as effective, Technology-based learning media can encourage students to be able to study independently or study is not limited by space or time so that it can improve the quality of the teaching and learning process and foster a positive attitude of students towards the process of improving learning. Apparently the influence felt by students and teachers can have a big influence on the learning climate that is carried out, namely creating a positive learning climate.

b. The Effect of Technology-based Learning Media in Increasing Digital Literacy

Technological developments that are currently developing are synonymous with the birth of the era of disruption (occupiedness) which is marked by the conversion of almost all realms of life from manual to digital, including the realm of education. In this regard, the Ministry of Research, Technology and Higher Education (Ministry of Research, Technology and Higher Education) issued the idea of New Literacy, one type of literacy of which is technological literacy or digital literacy at the National Work Meeting (Rakernas) on January 17 2018. This discourse is a form of preparation. Indonesia is welcoming the era of disruption apart from strengthening old literacy. In this case, apparently digital literacy really needs to be owned by students. According to (Van Voorhees et al., 2008), berIn this regard, one of the efforts that teachers can make in changing the learning paradigm to welcome this era of disruption is to create an innovative technology-based learning media. This is because basically, in teaching and learning activities the use of technology as a learning medium contributes to improving students' digital literacy skills. In line with this, (Mısır et al., 2018)

CONCLUSION

The return of this research has been carried out is that we can change the current IPS learning paradigm through the use of various technology-based

learning media. This is done so that learning is relevant to the rapid development of technology which is synonymous with the emergence of the era of disruption (occupiedness). The use of learning media, especially in social studies learning, is very diverse, which of course is in line with the material delivered by the teacher and the availability of adequate technological devices. Utilization of technology-based media is carried out as an effort by the teacher to package social studies learning material to be more attractive so that the learning process becomes more interactive and real. effective and efficient as well as fostering student motivation so as to provide convenience for each student in the process of understanding the material being studied and leading to a student-centered learning process. The influence of the use of technology-based learning media in the learning process also contributes to increasing students' digital literacy. This is very possible if the teacher in designing the learning process requires students to directly use and practice technological devices that are used to support learning activities in the form of a medium.

Based on the conclusions previously presented, the researcher put forward a number of suggestions, namely (1) It is necessary to develop a variety of technology-based learning media, especially in social studies learning so that it can indirectly change the social studies learning paradigm which tends to be saturated and textual in nature, (2) the availability of technological devices in all schools in Indonesia need to be one of the main priorities in the APBD of each local government because there are still many schools that incidentally have inadequate technological equipment, (3) Higher education institutions, especially in the realm of education, must be able to produce teacher candidates who have high technological literacy. qualified, creative and innovative in utilizing technology as a learning medium.

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REFERENCES

- Agustina, I., Astuti, D., Sumarni, R. A., & Bhakti, Y. B. (2019). Pengembangan Multimedia Interaktif Berbasis. *Abdimas Dewantara*, 2(2), 107–114.
- Alannasir, W. (2016). Pengaruh Penggunaan Media Animasi Dalam Pembelajaran Terhadap Motivasi Belajar Siswa. *Journal of EST*, 2(3), 81–90.

- Anshori, S. (2018). Pemanfaatan Teknologi Informasi Dan Komunikasi Sebagai Media Pembelajaran. *Civic-Culture: Jurnal Ilmu Pendidikan PKn Dan Sosial Budaya*, 9924, 88–100. file:///C:/Users/HP/Downloads/70-Article Text-536-1-10-20191223.pdf
- Ariyati, S., & Misriati, T. (2016). Perancangan Animasi Interaktif Pembelajaran Asmaul Husna. *Jurnal Teknik Komputer Amik Bsi*, II(1), 116–121.
- Fauzi, H. , A. (2017). Utilization of Audio Visual Media to Improve Student Learning Result in IPS Learning. *International Journal Pedagogy of Social Studies*, 2(1), 88. <https://doi.org/10.17509/ijposs.v2i1.8666>
- Firmadani, F. (2020). Media Pembelajaran Berbasis Teknologi Sebagai Inovasi Pembelajaran Era Revolusi Industri 4.0. *Prosiding Konferensi Pendidikan Nasional*, 2(1), 93–97. http://ejurnal.mercubuana-yogya.ac.id/index.php/Prosiding_KoPeN/article/view/1084/660
- Hardiyanti, W. E., & Alwi, N. M. (2022). Analisis Kemampuan Literasi Digital Guru PAUD pada Masa Pandemi COVID-19. *Jurnal Obsesi : Jurnal Pendidikan Anak Usia Dini*, 6(4), 3759–3770. <https://doi.org/10.31004/obsesi.v6i4.1657>
- Hasan, M., Choi, J., Neumann, J., Roy-Chowdhury, A. K., & Davis, L. S. (2016). Learning Temporal Regularity in Video Sequences: Supplementary Material. *Cvpr*, 1–31. <http://arxiv.org/abs/1604.04574>
- Hersita, A. F., Kusdiana, A., Respati, R., & Respati, R. (2020). Pengembangan Media Infografis sebagai Media Penunjang Pembelajaran IPS di SD. *PEDADIDAKTIKA: Jurnal Ilmiah Pendidikan Guru Sekolah Dasar*, 7(4), 192–198. <https://doi.org/10.17509/pedadidaktika.v7i4.30132>
- Heryani, A., Pebriyanti, N., Rustini, T., & Wahyuningsih, Y. (2022). Peran Media Pembelajaran Berbasis Teknologi Dalam Meningkatkan Literasi Digital Pada Pembelajaran Ips Di Sd Kelas Tinggi. *Jurnal Pendidikan*, 31(1), 17. <https://doi.org/10.32585/jp.v31i1.1977>
- Merliana, N. P. E., Putra, P. B. A. A., & Gunawan, I. G. D. (2021). Teknologi Augmented Reality Sebagai Inovasi Media Pembelajaran Agama Hindu. *Maha Widya Bhuwana*, 4(2), 71–75.
- Mısır, H., Koban Koç, D., & Engin Koç, S. (2018). An Analysis of Learner Autonomy and Autonomous Learning Practices in Massive Open Online Language Courses. *Arab World English Journal*, 4(4), 24–39. <https://doi.org/10.24093/awej/call4.3>

- Mulyadi, G. A., Firman, F., & Rusdinal, R. (2021). *Pembelajaran Ilmu Pengetahuan Sosial sebagai Sarana Pembentukan Karakter Siswa Menghadapi Revolusi Industry 4.0*. 3(3), 6.
- Nafisah, D., Ghofur, A., Eryadini, N., Kuswanto, Aulia Rachma, E., Youhanita, E., & Sidi, A. (2020). Workshop Virtual Pengembangan Desain Pembelajaran Jarak Jauh. *BERNAS: Jurnal Pengabdian Kepada Masyarakat*, 1(4), 454–464. <https://doi.org/10.31949/jb.v1i4.474>
- Prehanto, A., Guntara, R. G., & Aprily, N. M. (2021). Informasi dalam Seminar Kurikulum. *Indonesian Journal of Digital Business*, 1(1), 42–48.
- Putri, W. N. (2017). Pengaruh Media Pembelajaran Terhadap Motivasi Belajar Bahasa Arab Siswa Madrasah Tsanawiyah. *LISANIA: Journal of Arabic Education and Literature*, 1(1), 1. <https://doi.org/10.18326/lisania.v1i1.1160>
- Rahmad. (2016). Kedudukan ilmu pengetahuan sosial (IPS) pada sekolah dasar. *Jurnal Madrasah Ibtidaiyah*, 2(1), 67–78. <http://ojs.uniska-bjm.ac.id/index.php/muallimuna>
- Resnatika, A., Sukaesih, S., & Kurniasih, N. (2018). Peran infografis sebagai media promosi dalam pemanfaatan perpustakaan. *Jurnal Kajian Informasi Dan Perpustakaan*, 6(2), 183–196. <https://doi.org/10.24198/jkip.v6i2.15440>
- Russell, A., & Hannon, D. (2012). A cognitive load approach to learner-centered design of digital instructional media and supporting accessibility tools. *Proceedings of the Human Factors and Ergonomics Society*, 556–560. <https://doi.org/10.1177/1071181312561116>
- Setyaningsih, S., Rusijono, R., & Wahyudi, A. (2020). Pengaruh Penggunaan Media Pembelajaran Interaktif Berbasis Articulate Storyline Terhadap Motivasi Belajar dan Hasil Belajar Siswa Pada Materi Kerajaan Hindu Budha di Indonesia. *Didaktis: Jurnal Pendidikan Dan Ilmu Pengetahuan*, 20(2), 144–156. <https://doi.org/10.30651/didaktis.v20i2.4772>
- Setyanto, D. W., & Adiwibawa, B. A. P. (2018). Membaca Warna Pada Karakter Superhero Marvel. *Desain Komunikasi Visual, Manajemen Desain Dan Periklanan (Demandia)*, 3(02), 256. <https://doi.org/10.25124/demandia.v3i02.1551>
- Suhada, H. (2017). Model Pembelajaran Inquiry Dan Kemampuan Berpikir Kritis Terhadap Keterampilan Proses Sains Siswa Kelas V Pada Mata Pelajaran Ipa. *Jurnal Pendidikan Dasar*, 8(2), 13–24. <http://doi.org/10.21009/JPD>

Van Voorhees, B. W., Vanderplough-Booth, K., Fogel, J., Gladstone, T., Bell, C., Stuart, S., Gollan, J., Bradford, N., Domanico, R., Fagan, B., Ross, R., Larson, J., Watson, N., Paunesku, D., Melkonian, S., Kuwabara, S., Holper, T., Shank, N., Saner, D., ... Reinecke, M. A. (2008). Integrative internet-based depression prevention for adolescents: A randomized clinical trial in primary care for vulnerability and protective factors. *Journal of the Canadian Academy of Child and Adolescent Psychiatry*, 17(4), 184–196.