



Digital Literacy with Software Media Application of Elementary Social Studies Materials to Improve Student Learning Outcomes

Zuni Eka Tiyas Rifayanti¹ · Evi Rizqi Salamah²

^{1,2} STKIP Bina Insan Mandiri Surabaya, Indonesia

ARTICLE INFO

Article history:

Received February 15, 2023

Revised July 26, 2023

Accepted Agust 01, 2023

Available online Agust 05, 2023

Kata Kunci:

Literasi Digital, Media, Hasil belajar

Keywords:

Digital Literacy, Media, Learning Outcomes

This is an open access article under the [CC BY-SA](#) license.

Copyright © 2022 by Author.
Published by Program Studi Pendidikan Guru Madrasah Ibtidaiyah

ABSTRAK

Perkembangan teknologi saat ini sangat berkembang, terutama perangkat lunak yang ada, individu harus memahami bahwa literasi digital adalah kebutuhan untuk berpartisipasi dalam dunia modern. Literasi digital sama pentingnya dengan membaca, menulis, dan berhitung. Kementerian Pendidikan dan Kebudayaan pada tahun 2017 mensosialisasikan gerakan literasi digital di sekolah dasar berupa; jumlah dan ragam bahan bacaan dan alat peraga, frekuensi peminjaman buku, jumlah kegiatan di sekolah, penyajian informasi sekolah, kebijakan sekolah, komunikasi di lingkungan sekolah, serta penggunaan dan penerapan teknologi informasi di lingkungan sekolah. bentuk e-report, pengelolaan keuangan, dapodik, pemanfaatan data siswa, semua profil sekolah dikemas dalam bentuk teknologi digital. Melalui gerakan ini, peneliti memanfaatkan perangkat lunak aplikasi berupa aplikasi pembelajaran SD IPS, untuk mendukung kegiatan literasi digital di sekolah dasar. Tujuan penelitian ini adalah memberikan rekomendasi media pembelajaran berbasis digital berupa aplikasi pembelajaran IPS SD sebagai penunjang gerakan literasi digital, dan memberikan solusi untuk meningkatkan hasil belajar siswa khususnya IPS SD.

ABSTRACT

The development of technology is currently growing so much, especially the existing software, individuals must understand that digital literacy is a necessity to participate in the modern world. Digital literacy is as important as reading, writing and arithmetic. The Ministry of Education and Culture in 2017 promoted the digital literacy movement in elementary schools in the form of; the number and variety of reading materials and visual aids, the frequency of borrowing books, the number of activities at school, presentation of school information, school policies, communication within the school environment, as well as the use and application of information technology in the form of e-reports, financial management, dapodik, utilization of student data, all school profiles are packaged in the form of digital technology. Through this movement, researchers utilized application software in the form of social studies SD learning applications, to support digital literacy activities in elementary schools. The purpose of this study is to provide recommendations for digital-based learning media in the form of social studies SD learning applications as a support for the digital literacy movement, and provide solutions to improve student learning outcomes, especially in social studies SD.

INTRODUCTION

The rapid development of science and technology in the world of education requires us to be able to use technology-based media, especially for teachers and students must be able to use technology-based media to support the learning process, so as to achieve maximum learning goals. (Salamah, 2017). The digital literacy movement that is promoted by the digital literacy movement, with the ease of the teacher to deliver material to students. The digital literacy movement promoted by the government to the elementary school environment requires school residents to be able to implement digital literacy in the school environment. (Setiawan, 2019). This can be applied to teaching and learning activities. In this study,

*Corresponding author.

E-mail addresses: zunieka@stkipbim.ac.id (Zuni Eka Tiyas Rifayanti)

researchers implemented a digital literacy movement in the school environment, especially class VI in elementary social studies learning material on the struggle of heroes. The results of relevant research show that the competency value of mastery of social studies knowledge of students taught using the literacy learning model in grade IV students of SDN Jeruk as an experimental group is seen from the average post-test score of 65.42. And the control group is seen from the average post-test score of 73.94. The previous research equation with what I researched is that both used 2 experimental groups for the study. The difference is that previous researchers used literacy culture to increase interest in learning while this study uses literacy culture to improve learning outcomes. Low literacy in students causes less competitive human resources due to several things, namely; lack of mastery of science and technology, as a result of weak interest and ability to read and write. (Santosa et al., 2019). Reading and writing have not become a necessity of life and have not become a student culture, so that as teachers we must encourage the realization of this so that it becomes a good culture in education (Salamah, 2018).

Based on the supporting material for digital literacy of the Ministry of Education and Culture in 2017, the digital literacy movement implemented in elementary schools includes; the number and variety of reading materials and digital-based teaching aids, the frequency of borrowing digital-themed books, the number of activities at school that utilize technology and information, the number of school information presentations using digital media or website, the number of school policies on the use and utilization of information and communication technology and communication in the school environment, and the level of utilization and application of information and communication technology and communication in terms of school services (for example, report card-e, financial management, dapodik, utilization of student data, school profiles, etc.). The existence of the digital literacy movement, the researcher makes an application software in the form of elementary social studies learning applications to support digital literacy activities that are being marched in elementary schools. This research provides a reference to digital-based learning media in the form of elementary social studies material applications as a support for the digital literacy movement in the elementary school environment, and provides solutions to improve the learning outcomes of elementary school students, especially in elementary social studies material, and of course in the learning process must apply the principles of learning and its application. (Salamah, 2019).

The literacy movement must be mobilized both in the classroom and outside the classroom (Santosa et al., 2019)The literacy movement must start from simple things, namely

habituation to high development in the world of education (Hastuti & Lestari, 2018). (Hastuti & Lestari, 2018). The School Literacy Movement in Schools can also develop the character of students through acculturation of the school literacy ecosystem, so that they become lifelong learners. And the target is all school members. The Literacy Movement in Schools is more than just reading and writing but includes thinking skills in accordance with the stages and components of literacy. Meanwhile, good practice needs to emphasize the principles of the school literacy movement. In order for schools to be at the forefront of literacy culture, it is necessary to use several implementation strategies. There are several technical concepts of literacy in schools, including daily, weekly, monthly and per semester. This activity is carried out to foster students' interest in reading so that knowledge can be mastered properly. Reading materials contain cultural values, local, national and global wisdom, which are delivered according to the development of students. The implementation of monitoring and evaluation of GLS (School Literacy Movement) activities uses indicators of the achievement of each stage. (Pujiati et al., 2022).

The importance of developing a critical approach to digital media as a necessary prerequisite for using it as a learning resource (Aguilera, 2022) The importance of developing a critical approach to digital media as a necessary prerequisite for using it as a learning resource (Aguera, 2022), and also overall educators, researchers and practitioners must commit and work hard to design media that will work to build digital media literacy (Pandian et al., 2020). Because elementary school students' abilities in terms of digital media literacy are significantly influenced by students' digital media experiences and parental mediation (Zhang & Zhu, 2016). (Zhang & Zhu, 2016). And of course it must be known that through digital media, learning objectives can be achieved well, through digital literacy students can also improve their learning outcomes, with technology-based reading habituation. (Keengwe & Bhargava, 2013).. In implementing learning that uses digital technology, teachers, students and teams must be able to work together to maximize the learning process and outcomes. (Martin & Tapp, 2019). And in a study from (Pujiati et al., 2022)(Pujiati et al, 2022), said that through literacy learning, character education can be instilled well, this is in line with Ministerial Regulation number 23 of 2013 launching a school literacy movement to foster noble character attitudes to children through language. Simply put, every child in elementary school is required to read books reading local stories and folklores that have local wisdom in their reading material before the learning process in the classroom begins.

The application software that researchers use is a supporting medium in the implementation of the literacy culture movement in the elementary school environment and is

a new media product produced by researchers so that it is very helpful, especially for students in supporting the teaching and learning process in elementary social studies class IV sub-theme of the struggle of heroes, so that students are not bored reading in books but are facilitated by applications made by researchers to be accessed on each student's device without. (Keengwe & Bhargava, 2013) (Keengwe & Bhargava, 2013) shows that young people who have the expertise to access digital media, currently have not matched their ability to use digital media for the benefit of obtaining self-development information. This is also not supported by the increase in material/information presented in digital media which is very diverse in type, relevance, and validation. (Nasution, 2013). According to (Moradi et al., 2009) the concept of teaching literacy is defined as the ability to read and write. A person is called literate if he/she has the essential knowledge to be used in any activity that requires the effective functioning of literacy in society and the knowledge achieved by reading, writing and arithmetic allows him/her to be utilized for himself/herself and the development of society. (Tjoe, 2012).

Meanwhile, (Hsieh Chang & Smith, 2008) said that there are eight essential elements to develop digital literacy, which are as follows. 1. Cultural, namely understanding the various contexts of digital world users; 2. Cognitive, namely thinking power in assessing content; 3. Constructive, namely the design of something expert and actual; 4. Communicative, namely understanding the performance of networking and communication in the digital world; 5. Responsible self-confidence; 6. Creative, doing new things in new ways; 7. Critical in responding to content; and 8. Socially responsible. The rapid development of the times has made the definition of literacy evolve. The meaning of literacy, which was initially only reading and writing, has become broader and more complex. The meaning of literacy is not only about reading and writing, but even so, literacy is still related to language. Critical thinking, being able to calculate, solve problems, a way to achieve goals, develop knowledge and one's potential are new definitions of literacy. A very significant change indeed. From a definition that is only about reading and writing, it transforms into a complex definition.

The targets of the digital literacy movement in schools (1) Classroom Base: a. Increased number of digital literacy trainings attended by principals, teachers and education personnel; b. Increased intensity of application and utilization of digital literacy in learning activities; and c. Increased understanding of principals, teachers, education personnel and students in using digital media and the internet. (2) School Culture Base a. The number and variety of digital-based reading materials and teaching aids; b. The frequency of borrowing digital-themed books; c. The number of activities at school that utilize technology and

information; d. The number of school information presentations using digital media. The number of school information presentations using digital media or web sites; e. The number of school policies on the use and utilization of information and communication technology and communication in the school environment; and f. The level of utilization and application of information and communication technology in the school environment. The level of utilization and application of information and communication and communication technology in terms of school services (for example, e-report card, financial management, dapodik, student data utilization, school profile, etc.) (3) Community Base; a. The number of facilities and infrastructure that support digital literacy in schools; and b. The level of involvement of parents, communities and institutions in the development of digital literacy.

The application software that researchers make is an application product that can be accessed on a device in the form of an application that provides K13 class IV SD student books on the sub-theme of the struggle of heroes and is a supporting medium in the implementation of the literacy culture movement in the elementary school environment and is a new media product produced by researchers so that it is very helpful, especially students in supporting the teaching and learning process in elementary social studies class IV material on the struggle of heroes, so that students are not bored reading in books but are facilitated by applications made by researchers to be accessed by each student without time limitations with the aim of making it easier for students to access material, improve literacy and learning outcomes.

Learning outcomes are the culmination of a process that has been carried out in learning. The culmination will always be accompanied by follow-up activities. Learning outcomes must show changes in behavior or the acquisition of new behavior from students that are permanent, functional, positive, and conscious. The overall behavioral aspects of learning objectives according to Benjamin Bloom which can show a picture of learning outcomes, include cognitive, affective, and psychomotor aspects. Learning outcomes are the result of an assessment in the field of knowledge skills and attitudes as a result of learning which is expressed in the form of a value. (Lestari et al., 2019). Student learning outcomes are essentially changes in behavior after going through the teaching and learning process. Behavior as a result of learning in a broad sense includes cognitive, affective and psychomotor fields. Assessment and measurement of learning outcomes is carried out by using learning outcome tests, especially cognitive learning outcomes regarding mastery of teaching materials in accordance with educational and teaching objectives. Learning outcomes are things that can be viewed from two sides, namely the student side and the teacher side.

From the student's side, learning outcomes are a better level of mental development when compared to the time before learning. The level of mental development is manifested in the types of cognitive, affective, and psychomotor domains. Meanwhile, from the teacher's side, learning outcomes are the completion of learning materials. Results can also be interpreted when someone has learned but changes in behavior in that person, for example from not knowing to knowing, and from not understanding to understanding.

Learning and teaching are inseparable concepts. Learning refers to what a person should do as a subject in learning. Meanwhile, teaching refers to what a teacher should do as a teacher. Two concepts of teaching and learning carried out by students and teachers. The ability that students have from the teaching and learning process alone must be able to get results through one's creativity without the intervention of others as teachers. Therefore, the learning outcomes referred to here are the abilities that a student has after he receives treatment from the teacher (teacher). (Supiyanto, 2013). Sudjana (2004) says learning outcomes are the abilities that students have after receiving their learning experience. Meanwhile, according to Horwart Kingsley divides three kinds of teaching and learning outcomes: (1) skills and habits, (2) knowledge and direction, (3) attitudes and ideals. From the above opinion, it can be concluded that learning outcomes are the ability of skills, attitudes and skills obtained by students after they receive treatment provided by the teacher so that they can construct that knowledge in their daily lives. According to (Woordworth, 2000), learning outcomes are changes in behavior as a result of the learning process. Woordworth also said that learning outcomes are actual abilities that are measured directly. The results of this learning measurement will ultimately determine how far the objectives of education and teaching have been achieved.

Social studies learning is closely related to the formation and cultivation of social attitudes towards students. Permendikbud No. 21 of 2016 concerning Content Standards defines social attitude as an attitude that shows honest, disciplined, polite, confident, caring, and responsible behavior in interacting with family, friends, teachers, neighbors, and the State. Furthermore, (Hardaningtiastuti et al., 2018) suggests that social attitude is a predisposition or tendency to behave in a certain way towards other people. So it can be interpreted that social attitude is an awareness within the individual towards the surrounding social environment. Social attitudes are usually shown because of a sense of attention and concern for the environment in which a person is located. Meanwhile, basic social attitudes are things or attitudes that underlie the social development of each individual. These basic social attitudes should be instilled in individuals from an early age. Social attitudes become an

important thing in the common life of a society, considering that we live in the midst of a diverse Indonesian society and of course during his life humans will never be separated by an interaction with other humans.

Social Studies (IPS) is one of the subjects given at the level of SD / MI / SDLB. Social studies a set of events, facts, concepts, and generalizations related to social issues. At the SD / MI level, social studies subjects include geography, history, sociology, and economics. Through social studies subjects, participants are directed to be able to become citizens who appreciate social values, responsible, create a natural environment, and become peace-loving citizens of the world. (Correa & Montero, 2013).. Social studies learning is organized systematically, comprehensively, and integrated in the learning process towards maturity and success in life in society. (Puspitasari, 2016). With this approach, it is expected that students will gain a broader and deeper understanding of the related fields of science. Generally, teachers present social studies rigidly and tend to be boring. Teachers only convey information they read from books while students are asked to listen or take notes. Teachers do not encourage students to explore their own strategies. As a result, students can only reveal what they receive from the teacher. (Yundarini et al., 2020). Social Science (IPS) is one of the subjects given starting from elementary school (SD) to junior high school (SMP) trying to provide comprehensive insight into events, facts, concepts, and generalizations related to social issues. Various traditions in social science, including concepts, theories, facts, structures, methods and instilling values in social science need to be packaged pedagogically, integratively and communicatively and relevant to the situation and conditions that develop in society.

In Curriculum 2013, the materials taught include: 1) knowledge: about the life of the surrounding community, nation and humanity in various aspects of life and the environment; 2) skills: logical and critical thinking, reading, learning (learning skills, inquiry), solving problems, communicating and cooperating in the life of society and the nation; 3) values of honesty, hard work; social, cultural, national, peace-loving and humanity and personality based on these values; 4) attitudes: curiosity, independence, respect for achievement, competitive, creative and innovative and responsible. The purpose of social studies education is to produce citizens who have knowledge and understanding of society and their nation, religious, honest, democratic, creative, analytical, love to read, have the ability to learn, curiosity, care about the social and physical environment, contribute to the development of social and cultural life, and communicate productively.

According to Suhanadji and Waspodo Tjipto (2003:1), Social Science Education should be able to develop aspects of knowledge and understanding, aspects of attitude and value and aspects of skills in students. The knowledge and understanding aspect is related to providing students with knowledge and understanding of the world and the life of the surrounding community, the attitude aspect is related to providing provisions regarding the basics of ethics and norms which will later become a value orientation in their life in society. While the skills aspect includes social skills and intellectual skills so that students are responsive to social problems around them and can cooperate with others in everyday life, schools are a vehicle that is very supportive in instilling values and norms education and democratic behavior. The cultivation of values and norms and democratic behavior is normatively the responsibility of the entire academic community in all schools. However, the responsibility is specifically placed on the Civics and Social Studies teachers. Therefore, the study of the development of values and norms and socialization of democratic behavior needs to be developed creatively in the process of learning social studies. Because in social studies learning values can be taught easily. (Rismayani et al., 2020) This is supported by the opinion of (Yekti Utami, Arif Purnomo, 2020) and (Wahyuni & Yusuf, 2021)

The nature of social studies in elementary schools is a subject that studies humans in all aspects of life and their interactions in society. The purpose of teaching social studies is to introduce students to the knowledge of the life of human society systematically. While according to (Gunawan, 2011) the nature of social studies is a study of man and his world. Humans as social beings always live together with each other. With technological advances as well, now people can communicate quickly wherever they are through cell phones and the internet. Therefore, it is believed that "the one who controls the information is the one who controls the world". Based on the above opinion, it can be concluded that in essence social studies is a subject that learns about how humans live, interact, and adapt to their lives in society. Humans as social beings always relate to others by utilizing existing technology to facilitate communication with others.

RESEARCH METHOD

This type of research is quantitative research. This quantitative research is conducted and based on the characteristics of data in the form of numbers, and uses statistical calculations. Researchers use experimental designs of the True Experimental Design type.

The design in this study is the Posttest-Only Control Design (Sugiyono, 2011: 74). This design can be described as follows:

R₁	X	O₁
R₂		O₂

Description:

R1 = Experimental Class

R2 = Control Class

X = Treated

O1 = Post Test results after treatment

O2 = Post Test results with no treatment

In the Posttest-Only Control Design there are two classes. Where the first class is treated using the literacy culture method (x) while the second class is not treated. The first class (the treated group) is called the experimental class, while the second class (the untreated group) is called the control class. The two classes will be compared, if there is a significant difference between the experimental class and the control class, then it can be said that there is an influence between the literacy culture method and numbers on the learning outcomes of grade IV elementary school students.

Data collection techniques are the means used to obtain empirical data used to achieve research objectives. The data collection technique used in this study is the intensity of utilization of application media along with student test results. Posttest was conducted at the end of learning with the aim of knowing student learning outcomes.

The question items made are 20 questions. 10 multiple choice questions, 5 essay questions, and 5 description questions. Each multiple choice question is given a score of 2 (two) if the question is answered correctly and given a score of 1 (one) if the question is answered incorrectly. In essay questions, each question is given a score of 6 (six) for the correct answer and a score of 1 (one) for the wrong answer. Whereas in the description questions the question with the correct answer is given a score of 10 (ten) and a score of 2-9 (two to nine) for answers that are less correct, score 1 (one) for the wrong answer. All questions are given a score of 0 (zero) if the question is not answered. Each answer is summed up and the sum becomes the score for mastery of social studies knowledge competencies in the range 0-100. 0 is the minimum score and 100 is the ideal maximum score of mastery of social studies knowledge competencies. The test is prepared by students through the guidance of mentors and experts.

Analysis of data obtained in the form of learning outcomes tests will be analyzed by researchers using appropriate methods. The methods used are Normality Test, Homogeneity Test, and Hypothesis Test. The data normality test is intended to show that the sample data comes from a normally distributed population. The data normality test was carried out using the One-sample Kolmogorov Smirnov (K-S) test with the help of SPSS for Windows release 17. In the normality column, the applicable criterion is if the significance value of K-S 0.05 , then the data is declared normally distributed. (Purwanto in Surono, 2011: 59)

The homogeneity test is used to determine whether the variants in the research population are the same or not. The homogeneity test in this study used the help of SPSS for Windows release 17 by looking at the significance probability of Lavene Statistic, the smaller the Lavene Statistic value, the greater the level of homogeneity, and vice versa. To determine homogeneity, the following guidelines were used: (a) Set the significant level of the test, $\alpha = 0.05$, (b) If the significant obtained 0.05 , then the variance of each sample is the same (homogeneous), (c) If the variance obtained <0.05 , then the variance of each sample is not the same (not homogeneous).

After calculating the available data, the last step is hypothesis testing. Hypothesis testing is done to find out whether there is an influence of X (literacy culture) on Y (student learning outcomes). Learning is considered successful if the average value in the experimental class is higher than in the control class. This hypothesis testing uses the Paired Sample tTest test with the help of SPSS for Windows release 17. Decision-making rules: seen in the t test conducted using the help of SPSS for Windows release 17 obtained p value (probability) indicated by the Sig value (2 - tailed). With the rule if the Sig value 0.05 , then H_0 is accepted. Conversely, if the Sig value is <0.05 , then H_0 is rejected, which means that H_1 is accepted and the average learning outcomes of experimental class students are higher than the average learning outcomes of control class students.

RESULT AND DISCUSSION

The results obtained by researchers in the field are explained about the process and results and discussion of data processing that has been carried out by researchers. To find out and describe the effect of literacy culture on student learning outcomes, researchers used SPSS for Windows release 17 as an analytical tool and to make conclusions based on the proposed hypothesis test. In testing the reliability of the test instrument, researchers used the

Cronbach Alpha formula. The following are the results of the calculation of the test instrument reliability test using the help of SPSS for Windows release 17.

Table 2 Reliability Test of Test Instrument

Reliability Statistics

Cronbach's Alpha pada tabel 4.2, hasil dapat dikonsultasikan dengan tabel klasifikasi koefisien reliabilitas dan dapat diketahui bahwa hasil uji reliabilitas instrument tes memiliki tingkat reliabel sangat kuat. Hasil pada tabel uji reliabilitas tes menunjukkan bahwa nilai Cronbach Alpha bernilai $0,868 > 0,6$ yang berarti instrumen tes ini dinyatakan reliabel.

Normality Test Results The data obtained in this study are data on student learning outcomes obtained from tests conducted by teachers before the study and tests given after treatment (posttest). This test aims to determine the effect that occurs in the learning outcomes of 5th grade students after treatment in class groups. The following is the data on the average pretest and posttest scores in the control and experimental classes.

Table 3 Average Pretest and Posttest Score

Class	Average	
	Pretest Score	Posttest Score
Control	74,43	79,00
Experiment	74,43	90,76

The normality test was carried out based on pretest and posttest data from both class samples to test whether the data was normally distributed or not. The normality test uses the Kolmogorov-Smirnov formula. After calculating the normality test with the help of SPSS for Windows release 17, the data is interpreted with the test criteria, namely if the significance level in the Kolmogorov-Smirnov table > 0.05 then the data obtained is normally distributed. Conversely, if the significance level in the Kolmogorov-Smirnov table < 0.05 , the data obtained is not normally distributed.

Table 4 Tests of Normality Tests of Normality

	Kolmogorov-Smirnov ^a			Shapiro-Wilk		
	Statistic	Df	Sig.	Statistic	df	Sig.
pre_experience	.169	30	.290	.935	30	.068
pre_control	.101	30	.200 *	.973	30	.622
post_control	.106	30	.200 *	.962	30	.355
post_experiment	.141	30	.132	.922	30	.030

a. Lilliefors Significance Correction

*. This is a lower bound of the true significance.

Based on table 4, it can be seen that normality in Kolmogorov-Smirnov on pretest results gets a significance value of more than 0.05, namely in the control class of $0.200 > 0.05$ and in the experimental class of $0.290 > 0.05$. So it can be concluded that the data from the pretest results of the control class and the experimental class are normally distributed. Likewise, the posttest results obtained significance results of more than 0.05, namely in the control class of $0.200 > 0.05$ and in the experimental class of $0.132 > 0.05$. So it can be concluded that the data from the posttest results of the control class and the experimental class are normally distributed.

This homogeneity test is carried out to determine whether the data obtained comes from a homogeneous population or not. The test was carried out using the help of SPSS for Windows release 17 to see the significance value. The data is interpreted with the test criteria, namely if the significant level in the Homogeneity of Variance Based on Mean table > 0.05 then the data obtained is homogeneous or the same. Conversely, if the significance level in the Homogeneity of Variance Based on Mean table < 0.05 then the data obtained is not homogeneously distributed. The calculation results are as follows.

Table 5 Homogeneity Test
Test of Homogeneity of Variance

		Levene Statistic	d f 1	df2	Sig.
Ability	Based on Mean	,216	1	58	,347
Critical	Based on Median	,003	1	58	,322
Thinking	Based on Median and with adjusted df	,003	1	58,80 4	,322
	Based on trimmed mean	,342	1	58	,352

Based on table 5 of the homogeneity test, it is known that the significance value (sig.) Based on Mean is $0.347 > 0.05$, so it can be concluded that the variance of the experimental class posttest data and the control class posttest data is homogeneous or the same. Hypothesis testing is used to test the similarity of the means between the control class and the experimental class. In this study using the T-test to prove the hypothesis about whether or not there is an effect of literacy culture on the learning outcomes of 4th grade students. After the data is declared normally distributed and the data is homogeneous, the next step is to conduct a T-test. The T-test test was used to compare the posttest results between the control class and the experimental class. In this study, the T-test test was in the form of a Paired Samples T-test using the help of SPSS for Windows release 17. The data is interpreted with the test criteria, namely if the significant level in the Paired Samples T-test Output Pair 1 table < 0.05 , the data obtained can be concluded that there is a significant effect. Conversely, if the significance level in the Paired Samples Ttest Output Pair 1 table > 0.05 , the data obtained is that there is no significant effect. The calculation results can be seen in table 4.6 below.

Based on the t-test table, Pair 1 output obtained Sig value. (2-tailed) of $0.000 < 0.05$, it can be concluded that there is a difference in the average student learning outcomes for the experimental class pretest and experimental class posttest. Based on the t-test table, the Pair 2 output obtained a Sig. (2-tailed) of $0.000 < 0.05$, it can be concluded that there is a difference in the average student learning outcomes for the control class pretest with the control class posttest. So it can be concluded that based on the discussion of Pair 1 output and Pair 2 output, there is a significant influence between the learning outcomes of experimental class students who use literacy culture and control classes that do not use literacy culture (using conventional learning models).

DISCUSSION

This study was conducted to determine the effect of literacy culture on student learning outcomes. Before reaching the results of the study, it will first be described about the description of the implementation of the research along with the results of the data analysis that has been carried out. The implementation of learning in the control class in this study took place in accordance with the lesson plan that had been prepared. Students obtained Social Studies learning materials focused on the material of the Proclamation of Independence. Learning in the control class used a conventional learning model. The teacher is the key holder of learning and the only source of material information after the textbook. The teacher explains and students record all the material provided, so students tend to feel bored in participating in learning activities.

The implementation of learning activities in the experimental class went according to the lesson plan. Learning in the experimental class used a culture of literacy focused on learning Social Studies (IPS). The teacher as a facilitator and provides direction to students to create more active, critical and interesting learning. Students were involved in teaching and learning activities. At the time of the posttest, students' difficulties in understanding the concept of material were reduced in each class. However, the average scores of the control and experimental classes were different. The average posttest score in the control class was 79.00, while the average posttest score in the experimental class was 90.76. The achievement of the average value proves that student learning outcomes in the experimental class are better when compared to the control class.

The data on posttest scores that have been submitted in the previous description were then analyzed using the help of the SPSS for Windows release 17 program. The data analysis techniques in this study are normality tests and hypothesis tests. Researchers conducted a normality test using the Kolmogorov-Smirnov formula. The test criteria are if the significance level in the Kolmogorov-Smirnov table > 0.05 then the data obtained is normally distributed, and vice versa if the significance level in the Kolmogorov-Smirnov table < 0.05 then the data obtained is not normally distributed.

Based on table 5 the results of the normality test calculation, it can be seen that normality in Kolmogorov-Smirnov on the pretest results data gets a significance value of more than 0.05, namely in the control class of $0.200 > 0.05$ and in the experimental class of $0.290 > 0.05$. So it can be concluded that the pretest data of the control class and experimental class are normally distributed.

Table 4 of the results of the normality test calculation, shows that normality in Kolmogorov-Smirnov on the posttest results data gets a significance result of more than 0.05, namely in the control class of $0.200 > 0.05$ and in the experimental class of $0.132 > 0.05$. So it can be concluded that the posttest data of the control class and experimental class are normally distributed. After knowing that the data is normally distributed, the next research stage is to carry out hypothesis testing using the Paired Sample T-Test found in the SPSS for Windows release 17 program. Based on table 4.7 of the t-test calculation results, the Pair 1 output obtained a Sig value. (2-tailed) of $0.000 < 0.05$, it can be concluded that there is a difference in the average student learning outcomes for the experimental class pretest and experimental class posttest.

Based on table 6 of the t-test calculation results, the Pair 2 output obtained a Sig value. (2-tailed) of $0.000 < 0.05$, it can be concluded that there is a difference in the average student learning outcomes for the control class pretest and control class posttest. Based on the discussion of Pair 1 output and Pair 2 output, it can be concluded that there is a significant effect of using literacy culture.

According to Desmita (2010:35) that elementary school children have different characteristics from children who are younger. Elementary school children love to play, love to move, love to work with groups and love to feel or do things directly. Based on this theory, a teacher must be able to teach a learning meter by using a method that is in accordance with the characteristics of elementary school students. The application of literacy culture is the right way because in this application students can be active, and students are directly involved. The activities carried out by these students will be memorable because students get a direct learning experience. In the material of the proclamation of independence, the application of literacy culture is the right thing because it is in accordance with the characteristics of elementary school students in general, it is proven by the maximum learning outcomes obtained by students on the material of the proclamation of independence.

According to Sudjana (2009: 3) student learning outcomes are essentially changes in behavior as a result of learning in a broader sense that includes cognitive, affective, and psychomotor fields. Meanwhile, according to Gagne (in Sudjana, 2009: 3) divides learning outcomes into five categories, namely, verbal information, intellectual skills, cognitive strategies, attitudes, motor skills. Satisfactory learning outcomes must involve students' skills and activeness so that learning becomes memorable to students.

CONCLUSION

From the exposure of the results and discussion, it can be concluded that digital-based learning media in the form of elementary social studies learning applications as a support for the digital literacy movement, and provide solutions to improve student learning outcomes, especially in elementary social studies learning, there is a difference in the average student learning outcomes for the control class pretest with the control class posttest. based on Pair 1 output and Pair 2 output there is a significant influence between the learning outcomes of experimental class students who use literacy culture with control classes that do not use literacy culture using conventional learning models. Social studies learning with digital literacy material with software media is proven to improve student learning outcomes.

REFERENCES

- Aguilera, E. (2022). *Defining Digital Literacy. Digital Literacies and Interactive Media*, 17-44. <https://doi.org/10.4324/9781003011750-2>
- Arif, M., Munfa'ati, K., & Kalimatusyaroh, M. (2021). Homeroom Teacher Strategy in Improving Learning Media Literacy during Covid-19 Pandemic. *Madrasah: Jurnal Pendidikan dan Pembelajaran Dasar*, 13(2), 126-141.
- Correa, G., & Montero, A. V. (2013). *THE FORMATION OF SOCIAL ATTITUDES THROUGH IPS LEARNING IN STUDENTS OF GRADE VII SMP NEGERI 3 PALANGKA RAYA DESIANA*. 2004, 1-10.
- Hardaningtiastuti, H. W., Soegito, A. T., & Murwatiningsih, M. (2018). The Development of Social Attitudes Through Cooperative Learning Methods in Social Studies Education Subjects in Public Junior High School 1 Batang. *Journal of Educational Social Studies*, 7(2), 217-223.
- Hastuti, S., & Lestari, N. A. (2018). School Literacy Movement: Implementation of the Habituation and Literacy Development Stage at Sukorejo Kediri Elementary School. *Journal of Basataka (JBT)*, 1(2), 29-34. <https://doi.org/10.36277/basataka.v1i2.34>
- Hsieh Chang, S. H., & Smith, R. A. (2008). Effectiveness of personal interaction in a learner-centered paradigm distance education class based on student satisfaction. *Journal of Research on Technology in Education*, 40(4), 407-426. <https://doi.org/10.1080/15391523.2008.10782514>
- Keengwe, J., & Bhargava, M. (2013). *Mobile learning and integration of mobile technologies in education*. <https://doi.org/10.1007/s10639-013-9250-3>
- Lestari, E. F., Zainuddin, M., & Soetjipto, B. E. (2019). Improving Social Skills and Learning Outcomes using Roundtable and Carousel Feedback Cooperative Learning Models. *Journal of Education: Theory, Research, and Development*, 4(10), 1304. <https://doi.org/10.17977/jptpp.v4i10.12807>
- Martin, L., & Tapp, D. (2019). Teaching with Teams: An introduction to teaching an undergraduate law module using Microsoft Teams [Enseñar con equipos: una introducción a la enseñanza de un módulo de derecho de pregrado con Microsoft

- Teams]. *Innovative Practice in Higher Education Journal*, 3(3), 58-66.
- Moradi, S., Fallah, A., & Ahmadi, S. (2009). Presenting a Practical Framework for Assessing and Comparing the Ict Literacy of Principals and Teachers in Iran's Schools. *Odgojne Znanosti-Educational Sciences*, 11(1), 231-245.
- Nasution, M. K. M., & Nasution, M. K. M. (2013). *Research Concepts in Information Technology Research Concepts in Information Technology*. 13(1).
- Pandian, A., Baboo, S. B., & Yi, L. J. (2020). Digital storytelling: Engaging young people to communicate for digital media literacy. *Journal of Communication: Malaysian Journal of Communication*, 36(1), 187-204. <https://doi.org/10.17576/JKMJC-2020-3601-11>
- Pujiati, D., Basyar, M. A. K., & Wijayanti, A. (2022). An analysis of the school literacy movement in elementary schools. *Pedagogik Journal of Islamic Elementary School*, 5(1), 57-68. <https://doi.org/10.24256/pijies.v5i1.2615>
- Puspitasari, E. (2016). Social Science Learning Innovation. *Eduksos: Journal of Social & Economic Education*, 3(1), 25-40. <http://syekhnurjati.ac.id/jurnal/index.php/edueksos/article/view/324>
- Rismayani, L. D., Kertih, I. W., & Sendratari, L. P. (2020). Cultivating Social Attitudes Through Social Studies Learning for Students of Grade Vii Smp Negeri 2 Singaraja. *Indonesian Journal of Social Studies Education*, 4(1), 8-15. <https://doi.org/10.23887/pips.v4i1.3164>
- Salamah, E. R. (2017). Development of Learning Media Based on Audio Visual Indonesian Independence Figures Evi. *E-Journal.Unipma*, 7 (1), 1-8. <http://e-journal.unipma.ac.id/index.php/PE>
- Salamah, E. R. (2018). The Influence of Social Culture on the Education System. *Proceedings of the ICECRS*, 1(3), 155-164. <https://doi.org/10.21070/picecrs.v1i3.1375>
- Salamah, E. R. (2019). Application of Learning Principles and Its Application to Elementary School Teacher Education (PGSD) Students to Increase Learning Motivation. *Proceedings of SEMDIKJAR (Seminar ...)*, 371-377. <http://ojs.semdikjar.fkip.unpkediri.ac.id/index.php/SEMDIKJAR/article/view/39>
- Santosa, E., Nugroho, P. J., & Siram, R. (2019). Implementation of the school literacy movement. *Equity In Education Journal*, 1(1), 56-61. <https://doi.org/10.37304/eej.v1i1.1553>
- Setiawan, A. R. (2019). Thematic Learning Oriented to Scientific Literacy. *Basicedu Journal*, 4(1), 51-69. <https://doi.org/10.31004/basicedu.v4i1.298>
- Tjoe, J. O. L. (2012). *Improving early reading skills through the use of multimedia*. 17-48.
- Wahyuni, S., & Yusuf, S. M. (2021). Group Investigation as a Process of Cultivating Tolerance Attitudes of Class Ix Students in Ips Learning. *JIPSI: Indonesian Scientific Journal of Social Sciences Number*, 1 (2), 141-150.
- Yekti Utami, Arif Purnomo, R. S. (2020). *CULTIVATION OF SOCIAL ATTITUDES THROUGH IPS LEARNING IN STUDENTS OF SUDIRMAN ISLAMIC HIGH SCHOOL AMBARAWA SEMARANG DISTRICT*. 1(1).
- Yundarini, N. K. S., Nyoman Sudana, D., & Astawan, I. G. (2020). Assessment Instruments of Social Attitudes and Social Studies Learning Outcomes for Class V Elementary School on Theme of Environment Around Us. *Journal of Education Research and Evaluation*, 4(3), 288. <https://doi.org/10.23887/jere.v4i3.27486>

- Zakariyah, Z., Arif, M., & Faidah, N. (2022). Analisis Model Kurikulum Pendidikan Agama Islam Di Abad 21. *AT-TA'DIB: JURNAL ILMIAH PRODI PENDIDIKAN AGAMA ISLAM*, 1-13.
- Zhang, H., & Zhu, C. (2016). A Study of Digital Media Literacy of the 5th and 6th Grade Primary Students in Beijing. *Asia-Pacific Education Researcher*, 25(4), 579-592. <https://doi.org/10.1007/s40299-016-0285-2>