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The Correlation Between Digital Literacy and Collaboration Skill with Environmental Literacy of Class X Students of SMAN 2 Malang

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ABSTRACT
Digital literacy (X_1) and collaboration skills (X_2) related to environmental literacy (Y) are the superior characteristics to use digital and to work together in solving various environmental issues. This study aims to determine the relationship between X_1 and X_2 with Y class X students at SMAN 2 Malang. The research uses a quantitative approach with descriptive research types and linear regression tests. The sample used was class X LMT-1 Biology with 33 students consisting of students majoring in Social Sciences and Languages. The instruments used were the X1 questionnaire, the X_2 questionnaire, and the Y questionnaire. The results of the study showed that then correlation coefficient values X_1Y, X_2Y, X_1X_2, X_1X_2Y respectively 0.125: 0.401; 0.593; 1.119. From the overall results of the data analysis, it was found that digital literacy and environmental literacy have a very weak correlation. Collaboration skills and environmental literacy are sufficiently correlated. Digital literacy and collaboration skills have a strong correlation. Digital literacy and collaboration skills provide a perfect or very strong correlation to environmental literacy.

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1. INTRODUCTION

The topic related to the environment is a very lively discussion in recent decades. A good environment will create a society with integrity toward its environment (Oktavia Fatma *et al*., 2020). Environmental problems are the main thing that must be resolved because they relate to many things in people's lives (Oktavia Fatma *et al*., 2020). Environmental literacy is very crucial because this literacy is an affective as well as cognitive ability towards the environment and its preservation (Kusumaningrum, 20.18). Environmental literacy includes knowledge about the environment and the responsiveness as well as the care for the environment (Kusumaningrum, 2018). Environmental problems are influenced by population. If the population increases, environmental problems are getting bigger. The increase in population is showed by the results of the 2022 Population Census (SP2022) of the Central Statistics Agency, which stated that Indonesia's population in February 2022 was more than 275.77 million people (Desviandini & Karyana, 2022)

Indonesia as a country that prioritizes character education has provided a good platform for the issue (Nurohman, 2020). It can be seen by the existence of Pancasila Education and Religion subjects which are full of moral content, especially Pancasila morals and religious morals. Moreover, since the enactment of the 2013 Curriculum, morality has been taught in all existing subjects (Nurohman, 2020). The main objective of Indonesian education is to create good morals in the nation's generation that must be achieved in each subject (Permendikbud RI No. 54 of 2013). Nevertheless, the morality of the Indonesian people, especially the younger generation, is increasingly apprehensive day by day (Wahyuni, 2021). One of the factors causing the nation's moral decline is due to digital abuse (Wahyuni, 2021).

Digital use causes permissive behaviour, a culture of hedonism, and instantaneous mentality. Digital abuse has given rise to generation that ignores noble personality as a dignified principle in the life of society, nation, and state (Ngafifi, 2014). Digital abuse presents moral chaos that is increasingly worrying day by day. Noble

morals such as caring for the environment, being willing to work together, and polite courtesy have increasingly disappeared from the nation's generation (Yulianti, 2022).

In Indonesia, more than half of the population uses digital devices in their daily lives, especially using social media (Febriyantoro & Arisandi, 2018). Most of these users are teenagers. They are active users with a very high level. Of the total population of Indonesia, which is around 275.77 million people, approximately 64% of the population have accessed cyberspace. In 2020, it was stated that there were 175.4 million internet users in Indonesia which showed an increase of 17% or 25 million compared to the previous year (Sumardi *et al*., 2022). With such widespread coverage and very active users in Indonesia, digital has the potential to have both positive and negative impacts for the Indonesian people. The impacts depend on how the user uses and controls it. Several studies have found the fact that the digital world, in addition to having a positive influence, also has a negative influence, even the negative influence is greater than the positive influence (Ngafifi, 2014).

Among many negative influences caused by information technology, the most dangerous influence is the damage of the nation's morals (Sumardi *et al*., 2022). With the problems that occur, it is necessary to carry out a literacy movement to overcome these problems. The importance of environmental literacy will make students gain insight of their environment so that they can interact positively, grow, and develop well (Dasrita *et al*., 2015). Good environmental literacy can improve students' learning abilities and their quality of life for a more prosperous life (de Leeuw *et al*., 2015).

Environmental literacy has four aspects. The first is aspects of ecological knowledge with indicators of ecological knowledge. Next is aspect of cognitive skill with indicators of environmental identification, environmental canopy analysis, and environmental action tips. In addition, there is also aspect of environmental attitude with indicators of willingness to act, sensitivity to the environment, and feelings towards the environment. The last one is aspect of environmental behaviour with indicator of real responsibility for the environment (Oktavia Fatma *et al*., 2020). Apart from the importance of environmental literacy, digital literacy is also very crucial to master in the 21st century. The main goal is to maximize the use of digital devices to ease their life (Chairunisa & Zamhari, 2022).

There are six indicators of digital literacy, namely indicators of digital knowledge based on finding (finds) which explains that students must be able to independently select and find relevant information related to the problems. The second indicator is the indicator of using multiple sources (uses multiple sources) that claims students must be skilled in almost all forms of information sources, ranging from text, video, music, simulations, and others. The third one is selects indicator which explains that students are proficient in understanding the preferences of writers on information sources and be able to choose relevant information wisely. In addition, the indicator evaluates (evaluates) explains that students can verify the authors and their sources and recognize biases/differences in the information obtained.

Moreover, the indicator of considering sources and message effects explains that students must be sensitive to the persuasive nature of electronic sources and be able to explain the basis/methodology of each information they obtain. At last, the indicator of using them to produce original work (uses to produce original work) is being able to perform critical and evaluative analysis on the use of digital information to create a viable product (Carolus *et al*., 2023).

One of the learning skills required for the success of these learning objectives is collaboration skill. The importance of collaboration skill is evidenced by the recognition in the world of education that this skill is included in the 21st-century life skill that must be mastered by students (Kundarti *et al*., 2019).

Collaboration skill is individual skill to participate in each activity as well as to respect a relationship and participate in group work to achieve common goals (Nurhayati *et al*., 2019). Collaboration skill is very important for instilling character education in the form of socialization skill, having sensitivity to the surrounding environment, and being able to control oneself (Nurwahidah *et al*., 2021). Collaboration skill has four indicators. First one is the indicator of working productively in which students can understand the tasks given. The second is the indicator of demonstrates respect (demonstrates respect) in which students can discuss to find solutions to problems. Next is the compromise indicator in which students can work together to achieve common goals. The last one is the shared responsibility indicator in which all team members can do the best work and follow the tasks given (Greenstein, 2012).

Based on the prior description, the researcher conducted the study with the following objectives: (1) finding out the digital literacy of class X students at Senior High School 2 Malang; (2) finding out the collaboration skill of class X students at SMAN 2 Malang; (3) finding out the environmental literacy of class X students at SMAN 2 Malang; (4) analyzing the relationship between digital literacy and environmental literacy of class X students at SMAN 2 Malang; (5) analyzing the relationship between collaboration skill and environmental literacy of class X students at SMAN 2 Malang; (6) analyzing the relationship between digital literacy and the collaboration skill of class X students in SMAN 2 Malang; (7) analyzing the relationship between digital literacy and collaboration skill with the environmental literacy of class X students at SMAN 2 Malang.

2. RESEARCH METHOD

The method of the study is survey research. It is a study of collecting information which describes related knowledge, attitudes, and behaviors as well as the events studied to test hypotheses or to answer questions in a situation with a correlational design. Correlational design is a design to find out a relationship (Anggraini & Perdana, 2019). Survey research is research in which data collection is obtained from samples taken from the population using a questionnaire (Islamy, 2019). This study aims to find out and analyze the relationship between variables and how big the level of correlation is. The correlational design is also used to measure the strength of the two independent variable relationships (XA, XB) with the dependent variable (Y), then to find the relationship between the independent variable A (XA) and the dependent variable (Y), independent variable B (XB) to the dependent variable Y, and the independent variables A and B (XAXB) to the dependent variable (Y). This research was conducted in April-May 2023. The research was carried out at Senior High School 2 Malang, which is located on Jl. Admiral Martadinata No. 84, Sukoharjo, Kec. Klojen, Malang, East Java 65118. The population is all subjects in the global area with certain quantities and characteristics that have previously been applied by researchers (Danuri & Maisaroh, 2019).

The population in the study was students of SMAN 2 Malang class X IPS (SOCIAL Science) and X Language which were 177 students in total. Based on the population, several students were selected who were considered able to represent the subjects or samples. The numbers of students in each class from X IPS and X Language are 36 and 35 students. The class selection technique that became the sample was selected using simple random sampling by taking it through a lottery system. Simple random sampling is a sampling method in which each member of the population is given the same opportunity to be selected as a sample (Arieska & Herdiani, 2018). The sample that becomes the object in this study was determined based on the simple random sampling technique that the LMT-1 Biology class consisted of 33 students.

The measurement of the digital literacy variable instrument uses a digital literacy questionnaire with a Likert Scale referring to the Greenstein scoring rubric. The measurement of digital literacy variables in this study was in the form of a questionnaire through 40 statements (Greenstein, 2012). The measurement of the collaboration skill variable instrument uses collaboration skill literacy with a Likert Scale referring to the Greenstein scoring rubric. The measurement of the collaboration skill variable in this study was a questionnaire through 45 statements. Questions 1-23 are measurements of the behavioral aspects of collaboration skills and questions 24-45 are measurements of aspects of collaboration skills (Greenstein, 2012). The research instrument used for environmental literacy variables was measured using research instruments in the form of tests and questionnaires with a Likert Scale adopted by the Middle School Environmental Literacy Survey (MELS). The environmental literacy instrument on the aspect of ecological knowledge is in the form of multiple choice questions totaling 20 questions. The other three aspects, namely cognitive skill, environmental attitudes, and environmental behavior in the form of a Likert Scale questionnaire totaling 20 positive statements and 15 negative statements (McBeth *et al*., 2011). The research instrument was tested for validity and reliability, then continued with data analysis in the form of a prerequisite test, namely the normality test and linearity test. The next test was the regression and correlation test. Variable categories based on the range of values as shown in Table 1.

Table 1. Variable score categories

Categories	R Score Range
Low	0-60
Sufficient	61-80
High	81-100

Source: (Siregar, 2017)

3. RESULT AND DISCUSSION

Digital Literacy Class X Students at SMAN 2 Malang

Digital literacy ability has six indicators. The first one is indicator of digital knowledge based on finding (finds) which explains that students must be able to independently select and find relevant information related to the problems.

The second indicator is the indicator of using multiple sources (uses multiple sources) that claims students must be skilled in almost all forms of information sources, ranging from text, video, music, simulations, and others. The third one is selects indicator which explains that students are proficient in understanding the preferences of writers on information sources and be able to choose relevant information wisely.

In addition, the indicator evaluates (evaluates) explains that students can verify the authors and their sources and recognize biases/differences in the information obtained. Moreover, the indicator of considering sources and message effects (considers sources, message effects) explains that students must be sensitive to the persuasive nature of electronic sources and be able to explain the basis/methodology of each information they obtain. At last, the indicator of using them to produce original work (uses to produce original work) is being able to perform critical and evaluative analysis on the use of digital information to create a viable product (Greenstein, 2012). Measurement of digital literacy was obtained from a questionnaire in the form of a Likert Scale indicated

by numbers 1-40 on the questionnaire. The average value of digital literacy indicators based on differences in social studies and language classes is shown in Table 2.

Table 2. Average Digital Literacy Indicator Values by Department

Class	Indicators					
	Finds	***Uses Multiple Sources***	***Selects***	***Evaluates***	***Considers Sources, Message Effect***	***Uses to Produce Original Work***
Social Science	95.5 (high)	95 (high)	94 (high)	94 (high)	85 (high)	75 (sufficient)
Language	99 (high)	98 (high)	99 (high)	98 (high)	88 (high)	77 (sufficient)

Based on Table 2. The indicator of finds for Social Studies (IPS) and Language (Bahasa) classes respectively get an average score of 95.5; 99 with high category. The indicators use multiple sources, for Social Sciences and Languages, respectively, to get an average score of 95; 98 with high category. The indicator of select for Social Studies and Language majors respectively get an average score of 94; 99 with high category. The indicator of evaluates for the social science (IPS) and Language (Bahasa) majors respectively get an average score of 94; 98 with high category. The indicator of consideres sources, message effect of the IPS and Language majors respectively getting an average value of 85; 88 with high category. The indicator of uses to produce original work for the Social Sciences and Languages majors respectively gets an average score of 75; 77 with sufficient category. Digital literacy is an important factor in learning. All indicators of digital literacy are urgently required to support students in learning, moreover, education currently prioritizes digital devices for access due to responding to the demands of the era (Giovanni & Komariah, 2020). Measurement of digital literacy was obtained from a questionnaire in the form of a Likert Scale indicated by numbers 1-40 on the questionnaires. The first indicator includes the ability for students to independently select and find information that is relevant to the problem being studied, its function, and how to choose journals and other sources that are accurate and related to the subject matter because choosing the right reference can level up student work (Tafonao, 2018).

The second indicator is using various sources including being skilled in almost all forms of information sources, ranging from text, video, music, simulations, and others, because currently many learning resources are formed digitally so students must be proficient in operating them (Susilawati *et al*., 2020). The third indicator of choosing includes being proficient in understanding the author's preferences for information sources and being able to choose relevant information wisely so that they are trained to avoid incorrect insight (Iskandar *et al*., 2022). The fourth is indicator of evaluating which includes verifying the author and the source and recognizing bias/differences in the information obtained to avoid plagiarism (Harahap *et al*., 2020). The fifth indicator considers the source, and the effect of the message including being sensitive to the persuasive nature of electronic sources and being able to explain the basis/methodology of each information so that they are trained to account for their knowledge (Yunita *et al*., 2020). The sixth indicator of using to produce original work includes critical analysis and evaluative activities on the use of digital information to create products (Greenstein, 2012).

Collaboration Skill of Class X Students of SMAN 2 Malang

Collaboration skill has four indicators. First one is the indicator of working productively in which students can understand the tasks given. The second is the indicator of demonstrates respect (demonstrates respect) in which students can discuss to find solutions to problems. Next is the compromise indicator in which students can work together to achieve common goals. The last one is the shared responsibility indicator in which all team members can do the best work and follow the tasks given (Greenstein, 2012). Measurement of collaboration skills was obtained from a questionnaire in the form of a Likert Scale indicated by the number 1-45 on the questionnaires. The average scores for collaboration skills indicators based on differences in social studies and language majors are shown in Table 3.

Table 3. Average Score of Collaboration Skill Indicators by Department

Class	Indicators			
	Works Productively	**Shared Responsibility**	**Demonstrates Respect**	**Compromises**
Social Science	83 (high)	85 (high)	95.5 (high)	95 (high)
Language	93 (high)	96 (high)	99 (high)	97 (high)

Based on Table 3. The indicators of works productively with the Social Sciences and Languages classes respectively get an average score of 83; 77.3 with the high category. The indicators of shared responsibility the Social Sciences and Languages departments respectively get an average score of 85; 96 with high category. The indicators of demonstrates respect for Social Studies and Language majors respectively getting an average score of 95.5; 99 with high category. The compromise indicators for IPS and Language majors respectively get an average score of 95; 97 with high category. Collaboration skill helps students to share knowledge with their peers to make their understanding of the material presented better and improve superior personal characteristics. Collaboration skills are very important to note because collaboration skills will also train students in terms of controlling their social life and emotions. Good collaboration skills will make group work goes well. Students will be able to exchange opinions. Collaboration skills will also foster students' skills to want to work together (Yunita *et al*., 2020).

Working together is cooperation in terms of education and good things. Obstacles encountered during learning will be more easily overcome as there is an exchange of ideas among students. Learning obstacles will be easier to overcome. Students will provide solutions through their point of view both directly and schematically (Ayuningtiyas *et al*., 2021). Measurement of collaboration skill was obtained from a questionnaire in the form of a Likert Scale indicated by the number 1-45 on the questionnaire. The first indicator of works productively involves using all of the time efficiently to stay focused on a task and produce the work. Each member of the group does their respective tasks with due regard to the time available. The second indicator of shared responsibility includes all students doing their best work and doing the assignments given, feeling ownership of the learning, and being diligent in doing the assignments together. The third indicator is demonstrates respect for all group members, in which the students listen and discuss ideas that are shared with respect, decide the best ideas to solve problems, and adapt to others and respect each other. The fourth indicator of compromise includes all adaptive students working together to achieve common goals (Greenstein,2012).

Environmental Literacy of Class X Students at SMAN 2 Malang

Environmental literacy has four aspects. The first is aspects of ecological knowledge with indicators of ecological knowledge. Next is aspect of cognitive skill with indicators of environmental identification, environmental canopy analysis, and environmental action tips. In addition, there is also aspect of environmental attitude with indicators of willingness to act, sensitivity to the environment, and feelings towards the environment. The last one is aspect of environmental behavior with indicator of real responsibility for the environment (Afrianda *et al*., 2019). The environmental literacy instrument on the aspect of ecological knowledge is in the form of multiple-choice questions totaling 20 questions. The other three aspects, namely cognitive skills, environmental attitudes, and environmental behavior in the form of a Likert Scale questionnaire totaling 20 positive statements and 15 negative statements. The average value of student knowledge based on each class major is shown in Table 4 as follows:

Table 4. Average score of Environmental Literacy Aspects of each class

Class	**Indicators**			
	Ecological knowledge	**Cognitive skill**	**Environment attitude**	**Environmental behavior**
Social Science	89 (high)	72 (sufficient)	95 (high)	83.8 (high)
Language	93 (high)	82 (high)	97 (high)	91 (high)

Based on Table 4. Aspects of ecological knowledge in Social Sciences and Languages classes respectively get an average score of 89; 93 with high category. Aspects of cognitive skills get an average value of 72; 82 with sufficient category. The environmental attitude aspect of the Social Sciences and Languages classes respectively received an average score of 95; 97 with high category. Aspects of environmental behavior majoring in Social Studies and Language respectively get an average score of 83.8; 91 with high category. Environmental literacy is one type of literacy that can foster an attitude of protecting the environment. The environment is currently consciously or unconsciously starting to deteriorate in quality due to the impact of various kinds of activities carried out by humans. Inappropriate living habits in protecting the environment are one of the things that result in environmental damage. Extreme climate change such as very high rainfall, prolonged drought, and increasing air temperature are some of the impacts that must be borne by humans. Along with the many problems regarding the environment, character education, especially regarding concern for the environment, is one of the things that catches attention of the community and government (Oktavia Fatma *et al*., 2020).

The Correlation Between Digital Literacy, Collaboration Skills, and Environmental Literacy

The results of digital literacy research, collaboration skills and environmental literacy have differences, namely collaboration skills have the highest average. The results of the analysis of differences in the average values of digital literacy, collaboration skills, and environmental literacy can be seen in Figure 1.

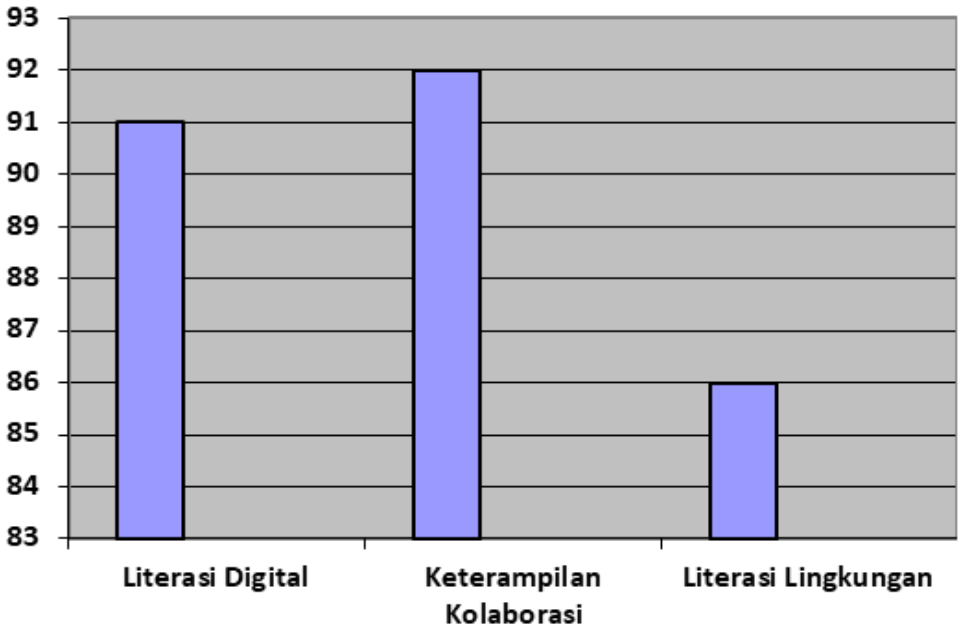

Figure 1. Graph of Differences in Average score of Technology Literacy, Collaboration Skill, and Literacy Environment

Based on Figure 1. it is known that the average scores of students' digital literacy, collaboration skill, and environmental literacy are respectively 91; 92; 86. So it can be seen that the criteria for digital literacy, collaboration skill, and environmental literacy are high. The correlation between digital literacy, collaboration skill, and environmental literacy can be seen in Table 5.

Tabel 5. Value of correlation between digital literacy, collaboration skills, and environmental literacy

Correlation	Significance level	Correlation Coefficient Value	Effective contribution value	Relative contribution value
X_1Y	0,244	0,125	-2,2 %	-0,12 %
X_2Y	0,010	0,401	20,2 %	1,12 %
X_1X_2	0,000	0,593	18,0 %	1,00 %
X_1X_2Y	0,180	1,119	40,4 %	2,24 %

The results of the hypothesis test on the relationship between digital literacy, collaboration skill, and environmental literacy in Table 5 show that the significance value of the X1Y data is greater than 0.05, which is 0.244.

A significance value greater than 0.05 indicates that the research hypothesis (H0) cannot be accepted, so it can be seen that there is no relationship between X1 and Y with X1's effective contribution value is -2.2% to Y. The significance value of X2Y data is smaller than 0.05, which is 0.010. A significance value of less than 0.05 indicates that the research hypothesis (H1) is acceptable, so it can be seen that there is a relationship between X2 and Y with an effective contribution value of X2 of 20.2% to Y. The significance value of X1X2 data is smaller than 0 .05 which is equal to 0.00. A significance value of less than 0.05 indicates that the research hypothesis (H1) is acceptable, so it can be seen that there is a relationship between X1 and X2 with an effective contribution value of X1 of 18.0% to X2. The significance value of the X1X2Y data is greater than 0.05, which is 0.180. A significance value greater than 0.05 indicates that the research hypothesis (H0) is unacceptable, so it can be seen that there is a relationship between X1, X2, and Y with the value of the effective contribution of X1 through X2 of 40.4% to Y. An illustration of the relationship between X1, X2 and Y can be seen in Figure 2. and Figure 3. The effective contribution of X1 to Y and X2 to Y.

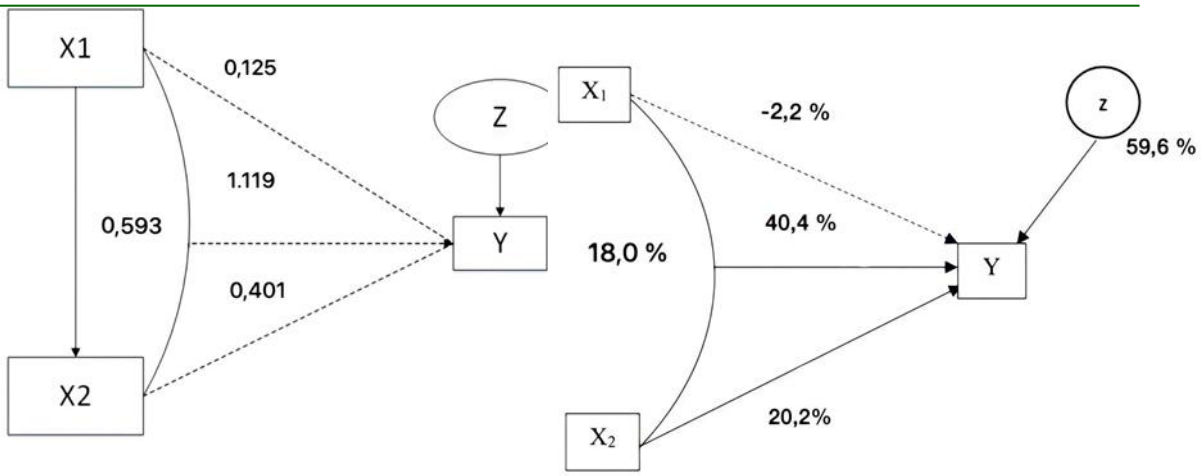

Figure 2. Correlation value results between X1, X2, and Y and Figure 3. Effective Contribution of X1 to Y and X2 to Y.

Description:
X1 : Digital Literacy
X2 : Collaboration Skill
Y : Environmental Literacy
Z : Another Factor

Based on Figure 2, the correlation coefficient value of digital literacy on environmental literacy is 0.125. Collaboration skill on environmental literacy is 0.401. Digital literacy in collaboration skill is 0.593. Digital literacy and collaboration skill affect environmental literacy, namely, the correlation coefficient is 1.119. Based on the interval values in Table 5, it is known that there is no correlation between digital literacy and environmental literacy, the correlation between collaboration skill and environmental literacy is weak, digital literacy is moderate towards collaboration skill, while digital literacy and collaboration skill with environmental literacy is a perfect correlation.

Therefore, it can be said that there is a correlation between digital literacy, collaboration skill, and digital literacy. Based on Figure 3, the effective contribution of X1 to Y and X2 to Y is different. The biggest contribution that influences Y is obtained from X2 at 20.2%, the contribution obtained from X1 is -2.2%, and X1's contribution to X2 is 18.0% so that together X1 and X2 can influence behaviour with a contribution of 40 .4 %. So, 59.6% is influenced by the Z factor, so it can be said that environmental literacy is more influenced by collaboration skill than digital literacy, while digital literacy in order to affect environmental literacy must be combined with collaboration skill, therefore it can be said that there is a relationship between digital literacy, collaboration skill, and environmental literacy.

The Correlation Between Digital Literacy and Environmental Literacy of Class X Students at SMAN 2 Malang

The results of the hypothesis test of the correlation between digital literacy and environmental literacy in Table 5 the significance value of the X1Y data is more than 0.05 (0.244> 0.05) which indicates that the research hypothesis (H0 is rejected), while the correlation coefficient value is 0.004 which is in very low category. Based on research facts in class X students of SMAN 2 Malang, the online learning is not fully controlled by the family so digital usage is more widely used to play games and use social media. Finally, the impact on digital literacy is not optimal by not knowing the nature of using digital devices. This certainly affects environmental literacy that students cannot take advantage of the digital role to preserve the environment. The role of digital literacy in environmental literacy is a way to demonstrate environmental preservation by making posters, short videos, animations, and so on related to the environment. They also can make use of waste into meaningful materials with the help of sophisticated digital tools. If digital literacy is developed on environmental literacy, the finds indicators can be developed on ecological knowledge through digital software. Using various sources can be developed into a way of demonstrating environmental damage prevention through text, images, graphics, video, music, simulations, and other multimedia features.

Evaluation can be developed to properly filter environmental topics digitally to avoid hoax news and those that disturb the public. Considering sources, message effects can be developed to carry out environmental actions by being accountable for their knowledge. Using it to produce original works can be developed to produce innovations that protect the preservation of the earth. Digital literacy and environmental literacy must be carried out and balanced to provide a better and more beneficial life for every living creature (Mariani Wayan Eny, Totok I Gede, 2018).

The Correlation Between Collaboration Skill and Environmental Literacy of Class X Students at SMAN 2 Malang

The results of the hypothesis test for the correlation between collaboration skill and environmental literacy in Table 5 show that the significance value of the X2Y data is less than 0.05, namely 0.010, indicating that the research

hypothesis (HI can be accepted), while the correlation coefficient value is -0.401 which is in the sufficient category with an effective contribution of 20.2%. Based on research facts, SMAN 2 Malang students have integrated environment-based learning, this is because they are still an Adiwiyata school, as a result, they are trained to collaborate between students and schools to create an increasingly superior Adiwiyata. Collaboration skill are developed in environmental literacy through various things such as working productively to increase ecological knowledge. Increasing responsibility and contributing can result in a useful environmental tip. Showing respect can courage discussion about various environmental levels and emerge respect each other.

Compromise can make students have a real commitment to protect the environment. Collaboration skill is a skill of working together effectively and showing respect to team members which consist of various individuals so it is very important to train, especially social beings. Collaboration skill also trains fluency and willingness to make decisions needed to achieve common goals to produce individuals with a high leadership spirit to be responsible for their future lives (Malikah & Wafroturrohmah, 2022).

The Correlation Between Digital Literacy and Collaboration Skills of Class X Students at SMAN 2 Malang

The results of the hypothesis test of the link between Digital Literacy and Collaboration Skill in Table 5 the significance value of the X1X2 data is less than 0.05 (0.000 <0.05) indicating that the research hypothesis (H1 is accepted), while the correlation coefficient value is 0.593 which is included in the sufficient category. Its effective contribution is 18.0%. Based on research facts from class X students at SMAN 2 Malang, the students are allowed to bring digital devices to school to find the references needed during learning process.

Digital devices also make it easier to do tasks both individually and in groups in order to complete the task more quickly so that collaboration skill can be interweaved among the students. Digital literacy is very important to be developed along with collaboration skill. In the era of globalization, the use of digital devices in education is growing rapidly to improve the quality of learning. Digital-based media is needed, for instance, Quick Response Code is a very fast scanning tool to find out student responses to the development of digital media as an innovation in schools. To make this innovation successful, good collaboration skill from all school members is needed. This means that digital literacy can be used as an innovation in learning and supports digital literacy with an environmental perspective if it is supported by adequate collaboration skills. Being able to use digital devices properly will make work more flexible and efficient (Hidayati, 2022).

The Correlation Between Digital Literacy and Collaboration Skills with Environmental Literacy of Class X Students at SMAN 2 Malang

The results of testing the hypothesis of the correlation between Digital Literacy and Collaboration Skill with environmental literacy in Table 5 the significance value of the X1X2Y data is more than 0.05 (0.254> 0.05) indicating that the research hypothesis (H0 is rejected), while the correlation coefficient value is 1.119 which includes perfect correction category. Based on the path analysis, the value of the effective contribution of digital literacy and collaborative skill to environmental literacy is 40.4%. In addition, 59.6% is influenced by the z factor (other factors). The contribution of digital literacy is less when compared to the value of the contribution of collaboration skill so that digital literacy can be more perfect in influencing environmental literacy, it must be along with digital literacy in training it. This is consistent with that digital literacy and collaboration skill are skills needed so that they can be implemented properly in the 21st century, they are trained together with environmental literacy so that they become a unified whole, no longer just pieces of knowledge. Based on this theory, the following depiction represents a graph of each variable element of digital literacy, collaboration skill, and environmental literacy in Figure 4. (Arsyad, 2021).

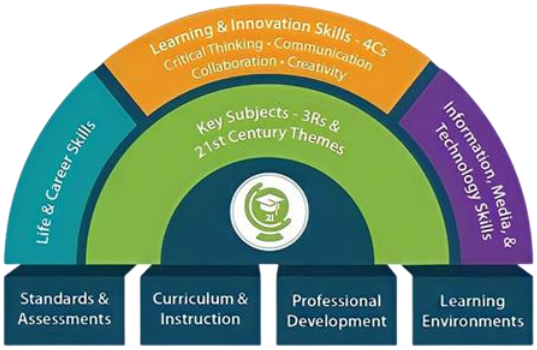

Figure 4. Learning Outcomes of 21st Century Students and Support Systems (Source: The Partnership for 21st Century Skills (2008))

Based on Figure 4, 21st-century skills are skills that must be mastered by every human being to succeed in facing today's global competition and to survive in life. The Assessment and Teaching of 21st Century Skills organization groups 21st-century skills, knowledge, attitudes, values, and ethics into four categories. First, ways of thinking include creativity and innovation, critical thinking, problem-solving, decision-making, and learning about learning

(metacognition). Second, ways of working include communication, collaboration, and teamwork skills. Third, the tools for working include general knowledge and information and communication technology literacy. Fourth, living in the world includes citizenship, life and career, personal and social responsibility, as well as competence and cultural awareness (Arsyad, 2021).

Based on Figure 4 digital literacy which is part of information, media, and technology skills is characterized by the characteristics of a person being able to access effectively using digital devices as a tool for solving problems, using digital devices to be able to access, manage, and evaluate information properly, and can understand the law relating to information. Based on Figure 4, collaboration skills which are part of the learning outcomes of 21st-century students are characterized by the characteristics of a person who can work effectively with others, demonstrates flexible abilities, desires to be a useful person to achieve a goal, and has responsibility in work together and appreciate every effort given by others.

Therefore, based on Figure 4, if the two are interconnected, the success of the main learning objective will be created to prepare superior individuals in the 21st century, namely through environmental literacy. Someone who understands environmental literacy can demonstrate knowledge about the environment and its factors influencing, increase understanding of the impact of society on nature, be able to analyze environmental problems and make conclusions, and be able to take action to overcome environmental problems.

The correlation between digital literacy and collaboration skill with environmental literacy is unstable due to several influencing factors, such as internal factors, external factors, and learning approach factors. Internal factors such as being lazy to practice creative abilities and critical thinking due to digital sophistication, the massive use of instant ways to complete tasks, for example, they often use task jockeys instead of trying to do it themselves. Environmental factors such as families who do not supervise the use of digital devices wisely, and the lack of the teacher's role in connecting digital-based subjects, there are still many roles the teacher only gives assignments without collaboration with other friends. Learning approach factors such as the inherent character of the Adiwiyata program are not yet attached so they are not yet integrated into students' daily lives. Digital literacy, collaboration skills, and environmental literacy are very useful for creating individuals who are always ready to contribute to a better and dignified Indonesian education so that Indonesia can increasingly gain a position that is valued in the world.

DISCUSSION

Digital Literacy

The results of the average scores of the six indicators of the digital literacy variable show that students from the Languages class have higher scores than students majoring in social studies, even though both are in the high category and there is one indicator which is in the sufficient category. This high digital literacy is caused by students at SMAN 2 Malang that are used to utilizing digital devices to access material related to their lessons. The difference in the average scores of the Social Sciences and Languages classes is because students from the Languages class are better trained in browsing and chatting/messaging, where the use of digital devices or mobile phones is used in the academic field such as honing language skills. This is in line with research results which show that using a smartphone can increase students' academic scores as long as smartphone use is utilized in a learning context (Circle & Education, 2022).

Furthermore, the use of digital devices has a positive and significant effect on learning achievement in language majors as research from Sauhenda, 2019 (Sauhenda & Werang, 2019). The difference between social science and Language classes is not too significant. Both of them have been quite good at utilizing existing digital literacy. The era in which almost all aspects of life, including learning that occurs using digital technology, can be said to be the digital era. In this circumstance, everyone, especially high school students who will continue to the higher education, must have adequate digital literacy (Yulianti, 2022). Digital literacy is the skill to pursue and apply information in various formats obtained from various digital sources presented by computers (Belshaw, 2012).

Digital literacy can also be translated as the knowledge to apply digital devices competently and responsively to maximize communication and interaction in everyday life (Bahri *et al*., 2020). Students can finally use digital devices to solve problems in their environment and can make improvements. The benefits that can be gained by understanding digital literacy are that students can use digital devices wisely and appropriately.

Collaboration Skills

The results of the average scores of the four indicators of the collaboration skills variable show that students from the Languages class have higher scores than students majoring in social studies, even though both are in the high category. Now because class X students at SMAN 2 Malang are trained to do tasks together. The difference in the average scores of the Social Sciences and Languages majors is because students from the Languages major have several activities such as practicing Indonesian properly and correctly, playing roles, and so on which make them trained to work together with one another. This makes collaboration skills increase because it hones the competence or abilities of students in working together, synergizing with peers, or being responsible for society and the environment (Yunita *et al*., 2020).

Collaboration skills can help students share knowledge so that they can increase their understanding of the material presented and improve personal characteristics that are superior. Today's collaboration skills make cooperation

a structure of interaction designed to facilitate collective efforts to achieve common goals. Every student must have academic abilities as well as a balanced social life because this action will be useful for increasing group work and determining success in social relations in society (Saenab *et al*., 2019).

Environmental Literacy

The environmental literacy of class X students at SMAN 2 Malang has been well-trained. This is because the school is an independent adiwiyata school. Students are familiar with environmental concepts. However, it still needs to inculcate the true character of environmental literacy. Environmental literacy is very broad in scope, virtuous character is the pre-eminent aspect of environmental literacy such as discipline, respect for time, painstakingness, neatness, and so on. These are all forms of environmental literacy that are very complex. Environmental literacy will be fully affected if digital literacy and collaboration skills are trained together on it (Wiwi Dwi Daniyarti, 2022). From the research results, it was found that students who understand digital literacy and balanced collaboration skills have good and qualified environmental literacy.

4. CONCLUSION

Conclusion

Based on the results of the study, it can be concluded as follows: (1) the digital literacy of class X students at SMAN 2 Malang obtained an average score of 91 with high criteria (2) the collaboration skills of students of SMAN 2 Malang obtained an average score 92 with high criteria (3) environmental literacy of class X students at SMAN 2 Malang obtained an average score of 86 with high criteria (4).

The results of the hypothesis test of the correlation between digital literacy and environmental literacy in Table 5 the significance value of X1Y data is more than 0, 05 (0.244> 0.05) indicates that the research hypothesis (H0 is rejected), while the value of the correlation coefficient is 0.125 which is included in the very weak category. Based on the path analysis, the value of the effective contribution of digital literacy to environmental literacy is -2.2% (5).

The results of the hypothesis test for the correlation between collaboration skill and environmental literacy in Table 5, the significance value of the X2Y data is less than 0.05 (0.010 < 0.05) shows that the research hypothesis (H1 is accepted), while the value of the correlation coefficient is 0.401 which is included in the sufficient category. Based on the path analysis, the value of the effective contribution of collaboration skill to environmental literacy is 20.2% (6). The results of the hypothesis test of the correlation between Digital Literacy and Collaboration Skills in Table 5 the significant value of the X1X2 data is less than 0.05 (0.000 <0.05) indicating that the research hypothesis (H1 is accepted), while the value of the correlation coefficient is 0.593 which includes the category of strong correlation. Based on the path analysis, the value of the effective contribution of digital literacy to collaboration skills is 18.0% (7).

The results of the hypothesis test of the correlation between Digital Literacy and Collaboration Skill and Environmental Literacy in Table 5 the significant value of the X1X2Y data is more than 0.05 (0.254> 0, 05) shows that the research hypothesis (H0 is rejected), while the value of the correlation coefficient is 1.119 which includes the perfect correlation category.

Based on the path analysis, the value of the effective contribution of digital literacy and collaborative skill to environmental literacy is 40.4% and the relative contribution is 2.24%. The effective contribution of digital literacy through collaborative skills to shared environmental literacy is 40.4%. In addition, 59.6% is influenced by the z factor (other factors).

Suggestion

Based on the research results and conclusions, several suggestions have been put forward. Schools should supervise digital use more, implement more collaboration to hone creativity skills and optimize the character of Adiwiyata schools so that all true environment-based learning systems can be implemented perfectly.

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