



# Implementation of Technology Literacy through Technology Adaptation in Teaching Campus Program 5 at SDN 1 GANCANG

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## ABSTRACT

The teaching campus program is part of the Merdeka Belajar Kampus Merdeka (MBKM) policy of the Ministry of Education, Culture, Research, and Technology (Kemendikbudristek). The existence of this teaching campus program is one of the goals because the increasingly rapid development of technology is very influential on education, therefore increasing the ability to understand technology must be based on technological literacy. This also happened to the students of SDN 1 Gancang. The method used in this study is the community development method. Community development method is a community development activity that aims to increase community access. This activity includes providing knowledge on how to operate hardware and software starting from how to turn on and off laptops, introduction to hardware in the form of projectors, how to use websites for learning purposes and operating software in the form of Microsoft office correctly such as Microsoft Word, Excel and also Power point. The implementation of this Teaching Campus activity was carried out for 4 months where during this activity campus student taught through activities in the form of observation, design and preparation of work programs, as well as the implementation of work programs that had been compiled. One of them is a work program in the form of efforts to improve technological capabilities through technology adaptation where this technology training activity has a good impact on students. This activity is also considered quite successful, this can be seen from several things such as the interest of participants who are very enthusiastic in participating in the activity and high curiosity from the students.

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## 1. Introduction

The Teaching Campus Program Batch 5 is a continuation of the program in which the presence of the Teaching Campus Program Batch 1 to 4 has benefited. The Teaching Campus program is a flagship of the Merdeka Belajar Kampus Merdeka (MBKM) policy of the Ministry of Education, Culture, Research and Technology (Kemendikbudristek). In this teaching campus program, students act as teacher partners where students have the opportunity to learn outside which can be used to improve their skills and gain experience (General of Higher Education et al., n.d.). The number of education units in Indonesia has a variety of problems, both formal, non-formal and informal education units. Learning activities in the form of teaching campuses are carried out by students in educational units such as elementary schools, junior high schools, and high schools which are carried out to improve the quality of

primary and secondary education in Indonesia which is still very low (General et al., 2020).

In the Era Society 5.0, technological advances are increasingly visible, where digital technology is applied to human life. This technological development has more and more effects, especially in the world of education. The world of education plays an important role in order to improve the quality of Human Resources (HR), therefore it is very necessary to educate about life skills in the 21st century or known as 4C (Creativity, Critical Thinking, Communication, Collaboration). Another challenge in the world of education in the era of society 5.0 is where the readiness of students in accessing and mastering technology, the low level of media literacy among students, only some students have access to information technology. With the existence of Society 5.0, the world of education can grow and grow quickly. However, the sophistication of technology in the Society 5.0 era cannot be separated from all the challenges faced. Therefore, it is necessary to have technological literacy.

Technological literacy can improve students' abilities. The results showed that the level of students' digital literacy was divided into three categories, namely high 69%, medium 18%, and low 13%. Meanwhile, the level of student collaboration skills is also divided into three categories, namely high 72%, medium 23%, and low 7% (Ayun, 2021). Technological literacy includes three things, namely knowledge and skills in operating technological devices, one of which is operating a laptop, online information processing skills such as searching, processing, evaluating and communicating information effectively and efficiently, and online communication skills, both written and oral. Therefore, technological literacy can be one of the skills that students arguably must have in order to be a provision both in the world of education and in the world of work so that they can actively participate in society and are increasingly connected online.

Article 31 paragraph (1) of Law No.20 of 2003 concerning the National Education System has explained that one of them is skills education and job training. Training is organized for people who need provision of knowledge and skills, skills, attitudes to develop professions, and continue education. One type of training that is very important is computer skills training.

Several previous studies have been conducted to improve technological literacy. The goal is to provide knowledge through hardware and software. Research conducted by (Intan Pratiwi et al., 2021), regarding the Development of Website-Based Thematic Teaching Materials for Learners in Elementary Schools. This research is limited to the development of website-based teaching materials. The purpose of this study was to develop website-based teaching materials for grade IV elementary school students to foster the nature of independence. The method used in this research is using the R&D (Research and Development) method with the ADDIE development model which consists of 5 steps, namely Analysis, Design, Development, Implementation, and Evaluation.

Research conducted by (Hartini et al., 2022). regarding Microsoft Office training for teenagers in Kindang Village. This research is limited to Microsoft Office training. The purpose of the study was to improve the abilities and skills of adolescents who are junior high school (SMP) and senior high school (SMA) students. The method used is starting with conducting a location survey, then collecting data on participants, continuing with the preparation of activity programs, Microsoft Office training (Microsoft Word, Microsoft Excel, and Microsoft Power Point), conducting evaluations, preparing reports, until the activity is completed.

Based on the results of observations during activities at SDN 1 GANCANG, information was obtained that the use of technology in teaching and learning activities was still very limited and most students still lacked knowledge about technology which is basically indispensable in the digital era which cannot be separated from technological literacy. Based on this background, this research aims to improve students' abilities and skills as well as increase knowledge about technology that is already owned by students at SDN 1 GANCANG, Gumelar District, Banyumas Regency, especially the ability to use hardware in the form of Laptop and projectors, websites that can be used as materials for learning, and Microsoft Office which is much needed in the present and as a support for the ability for the next level. By

participating in this activity, it is hoped that students will have skills or skills that can be used to deal with the learning process at school.

## 2. Method

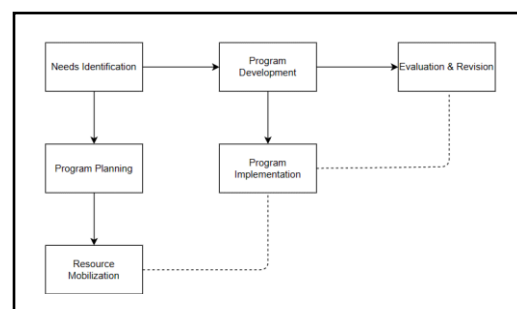


Figure 1. Caption of Flowchart of the method Community development

The application of the community development method in KM5 activities at SDN 1 Gancang is as follows:

### 2.1. Needs Identification

This research aims to improve students' abilities and skills and increase their knowledge of technology which is indispensable in the digital era that cannot be separated from technological literacy. The conclusion from observations made during this activity at SDN 1 Gancang Shows that the use of technology in education is still very limited.

### 2.2. Program Planning

The Planning of this program is to increase the knowledge of the students, increasing the knowledge of students one of which can be by providing technological knowledge. When education is of higher quality, the social aspect will also improve, the community will become more prosperous. When students are more educated, students will be more aware of efforts to protect the environment around them.

### 2.3. Resource Mobilization

This program targeted 28 students in grade 3, 3 students in grade 4, and 22 students in grade 5.

### 2.4. Program Development

By observing students, preparing programs, implementing activities by providing directive material and then students practicing the directions given but still in assistance, followed by reporting activities.

### 2.5. Program Implementation

This program provides knowledge about how to operate hardware and software starting from how to turn on and turn off the laptop, operating hardware in the form of a projector, using websites to learn and operating Microsoft office correctly such as Microsoft Word, Microsoft Excel and also Power point.

### 2.6. Evaluation and Revision

From this program, the teaching campus team evaluated the implementation of the program, namely students and students who have participated in this technology application program receive teachings well and they understand what is being taught. However, there is still a need for effective time management and a lack of approach

to participants. From this evaluation, the teaching campus team made improvements by organizing the division of time and approaching more participants in order to get maximum results.

### 3. Result and Discussion

SDN 1 Gancang is one of the B-accredited elementary schools located on Cibangkong-Cihonje road, Gancang Village, Gumelar District, Banyumas District. The elementary school has six classrooms, one library, one teacher's room, and five bathrooms. Students of the teaching campus found some circumstances inadequate. Starting from the Healthy room, prayer room and kitchen which are still combined, the principal's room which is still merged with the teacher's room. In some classes there are still many inadequate facilities such as reading corners, information boards, organizational structures, evidence of student work on display, educational room decorations. The state of the library is still not well organized because it is still incorporated with the sports equipment storage room. A school building that looks like an old building. In Figure 1. Caption of SDN 1 Gancang describes the location of SDN 1 Gancang.

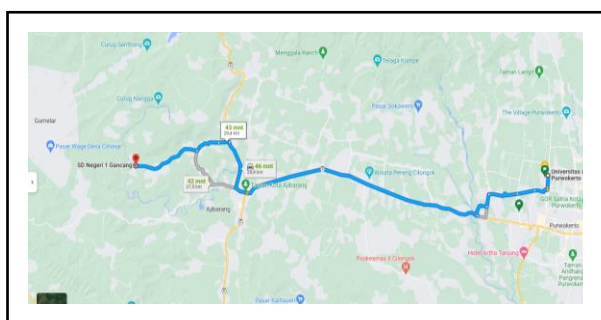


Figure 2. Caption of Location of SDN 1 Gancang

The Teaching Campus 5 Program is carried out for 4 months, starting on February 20, 2023 until June 16, 2023. This activity is carried out offline or arrived directly to the school every five working days, Monday to Friday. Waktu effective in the implementation of activities, namely at 07.00 to 13.00.

Looking at the observations of SDN 1 Gancang, there is still no computer laboratory for students to study. Therefore, in this activity at SDN 1 Gancang still relies on laptops both from students and from teachers and several Chromebook facilities from schools. From the results of questions and answers to students about technology, most students are still lacking in knowledge about technology. Therefore, it is necessary to increase technological literacy in the form of introduction of hardware and software to students. However, the absence of a computer laboratory makes this activity must be carried out gradually, especially with internet network access that is still not optimal. Technology literacy improvement activities are carried out by providing material followed by directing the students then students practice what has been explained directly by taking turns practicing and typing according to what has been directed.

#### 3.1. Efforts made to improve technological literacy

##### 3.1.1. Hardware introduction

The introduction of hardware in elementary school-age children can provide good benefits for them. Introduction to computer devices to elementary school-age students can help them understand how technology works and improve their skills in using computer devices. In general, a computer is defined as a set of electronic devices that produce information, this information has been processed beforehand. Computer comes from the word Computer which means to count. This electronic device connects components to one another.

The use of this hardware includes how to operate hardware in the form of laptops starting from knowledge on how to turn on and then continued with how to turn off laptops. As well as providing knowledge about the function of each existing button.

The introduction of hardware in the form of projectors in elementary school-age children can help increase students' interest in learning, using projectors can make it easier for students to see clearer and more detailed. In addition, projectors can also help save time in the teaching and learning process in the classroom. In the form of hardware in the form of a projector, it starts from explaining what a projector is, what is the function of the projector, then continues by showing how to use it Projector and how to display images or videos on a large screen with a projector.

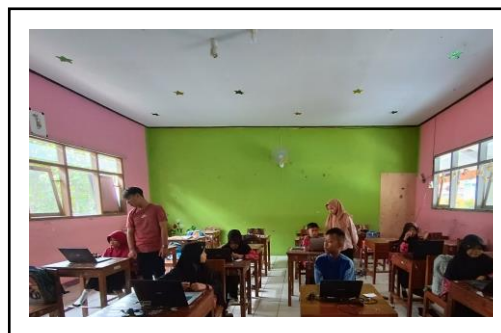


Figure 3. Caption of Hardware Introduction

##### 3.1.2. Website Operation Learning Materials

The use of the website as a student learning resource can improve students' ability to understand the subject matter. Students can access online learning resources such as searching for learning information through google and yahoo, searching for data related to lessons and online libraries. The website can be used as a medium and learning resource because it provides information, images, videos, even, discussion forums to bridge between students and teachers. The website can be used as an alternative learning resource.

Quizizz is an interesting and fun platform, it can also make learning interactive. This Quizizz has several features including Instructor paced Lessons / Quizzes where the teacher controls where the whole class does all questions together, Student paced Lessons / Quizzes are students do the questions and the teacher sees the leaderboard and results directly where the ranking results can change according to the answers to their respective questions, Bring Your Own Device (BYOD) which is students see content on devices they have such as PCs, laptops, tablets or smartphones, Access to millions of Quizzes is to access quizzes publicly and the quiz can be customized by editing

it, (Quiz + Lesson) The editor selects 6 different types of questions to which images, videos, and audio can later be added to move from quizzes to Another question, Reports on this feature we get detailed insight into grade levels and students in each quiz, This feature can also be shared with parents/guardians to review student progress, Options to Customize is an option used to adjust quiz sessions both competition level and speed, Sharing & Collaboration, where we can share quizzes or collaborate with other instructors.

In this activity students have the opportunity to learn to operate or run the quizzes website by doing several questions that are in accordance with the theme but still in guidance to overcome student ignorance, where by This method can be used for student study materials so that students can have a sense of interest in doing some practice questions. This activity will be held on May 22, 2023. This activity aims as an alternative so that students are enthusiastic about learning.



Figure 4. Caption of Operating Teaching Material Website

### 3.1.3. Microsoft Office training

Microsoft Office can also unlock students' potential, accelerate learning, students become ready to face the future. Microsoft Office training for elementary schools at SDN 1 Gancang is carried out as an effort to increase technological literacy, one of which is by operating Microsoft Office. In addition, students become equipped with skills that can make it easier for students to do school assignments at the next level. This activity is carried out by taking lesson hours in accordance with the agreement with the teacher and choosing several participants in turns because of the limited devices used. The students were very enthusiastic about participating in this activity, as evidenced by the enthusiasm of the students in participating in the activity. This activity was carried out in one of the rooms at SDN 1 Gancang.

### 3.1.4. Microsoft Word

Microsoft Word is a word processing program that allows users to be able to create and edit documents. In this activity students learn to do correct typing. Starting from the introduction of what tools are in the word display, writing personal biodata, making font settings on biodata that has been made, setting paragraphs on student biodata, inserting tables and setting tables that have been created, insert an image in the bio and then adjust the position of the image, introduce shortcuts that can be used in the Microsoft word application, and also change the color of the text and background. This activity will be held on May 25, 2023. This

is so that students can recognize and be able to operate word processing software that can be used at the next level.

### 3.1.5. Microsoft Excel

Microsoft Excel is a spreadsheet program that allows users to organize and analyze data. This learning students apply simple mathematical calculations such as the use of the formula MIN, MAX, SUM, AVERAGE. Starting from the introduction of features in Microsoft Excel, Settings tables that have been created using borders, adding columns and rows, using simple formulas, Combining one table with other tables using marge and center. This activity will be held on May 23, 2023. This activity aims to provide knowledge about the use of Microsoft Excel and the application of simple formulas.

### 3.1.6. Microsoft Power Point

Microsoft Power point is a presentation program that allows users to create and deliver presentations. Students learn to insert text on the available slides, make slide arrangements, insert text and also arrange text, insert images then arrange images and logos, how to use shapes. Designing the look to be interesting to look at. This activity will be held on May 23, 2023. This activity aims to allow students to make interesting presentations and get to know software for making presentations.

## 3.2. Program goals

The target of technological literacy in elementary school-age children is very important to implement. Technology literacy applied in elementary schools (SD) is a tangible manifestation of the School Literacy Movement (GLS) that has been run by the government recently due to Because of the lack of literacy possessed by elementary school students, what else is the current situation which is hampered due to the post-Covid 19 pandemic. The target of this program is SDN 1 Gancang students. The objectives of this study are mentioned in Table 1. Title of Student Data of SDN 1 Gancang where there are details of participants at SDN 1 Gancang.

Table 1. Title of Student Data SDN 1 Gancang

Class	Number of Students
3	28
4	3
5	22

Shiva and the students of grades 3, 4 and 5 have quite good enthusiasm. In this activity the students are given knowledge about how to use technology. Where students receive teaching well and they can understand what is taught by campus students teaching. The challenge faced is that there is no laboratory that causes limitations of laptop devices used during activities, so this activity relies on student laptops and 5 Chrome OS that are already available at SDN 1 Gancang.

## 3.3. Impact of Technology Literacy Implementation

From the results of this technology literacy effort, it can have a positive impact on students, especially in terms of



utilizing information and communication technology well. Here are some of the positive impacts of increasing technology literacy:

### 3.3.1. Increase reading interest.

There is an increase in technological literacy, students can utilize technology to access reading materials, such as journals, articles, and even books that can still be accessed for free.

### 3.3.2. Easy access to information

By using technology, students can improve their skills, save their time, expand their networks, learn more quickly and efficiently, save costs, be more environmentally friendly, and make better decisions.

### 3.3.3. Improve the quality of learning

Technology literacy can help in the student learning process, such as enabling students to be able to distinguish quality learning resources. Making it easy for students to gain understanding, and students can also improve skills in critical thinking.

### 3.3.4. Helping students become tech-savvy

From this activity students become more understanding of the technology used to be utilized optimally and better in subsequent use. Technology literacy can also prepare students' futures to be even better and students can maintain interpersonal interactions with peers and teachers.

### 3.3.5. Get to know students with Hardware and Software

This activity provides students with the ability to know, engage and understand things related to technology such as software and hardware. Introduce software and hardware by providing knowledge about the name of the hardware, how it works from the device and how it works in using such hardware.

### 3.3.6. Introducing Microsoft Word, Excel and Power Point applications.

Providing knowledge to students through this activity is knowledge about software that is very useful today, especially in the world of Education which is still closely related to software. Where students can use Microsoft word to create documents such as letters or reports, Microsoft Excel can be used by students to create tables or graphs, and also Power point can be utilized by students to create a presentation.

### 3.4. Program Evaluation

To find out the ability of students to improve, the first step before the technology adaptation activity begins is to ask question to students about operating a computer from the results of these questions obtained, namely some students have operated it and some have not. Furthermore, it can be seen from the results of student work, one of which is the result of Microsoft office training.

TINGKAT UPK GUMELAR TAHUN 2023						
NO	NAMA	ASPEK PENILAIAN				RATA-RATA
		TES TULIS	PIDATO	COMPUTER	KREATIFITAS	
1	ANNA PUTRI	85	81	75	75	316
2	BASKARA	81	78	70	74	303
3	CITRA SEHATI	79	76	74	81	310
4	DEWI ANGIN	75	75	85	86	321
	JUMLAH	320	310	304	316	1250
	RATA-RATA	80	77,5	76	79	312,5
	NILAI TERTINGGI	85	81	85	86	321
	NILAI TERENDAH	75	75	70	74	303

Figure 5. Caption of Student work

## 4. Conclusion

The existence of a teaching campus as an educator helps create a new, innovative space to create a new atmosphere for the world of education, especially in rural schools. Therefore, there are several things that can be considered together, where there is still a lack of Human Resources available so as to create space for some parties to move less freely. And it is hoped that the teaching campus program and the design of the program that is carried out can be sustainable by the intended school, in order to improve the quality and quality of education in Indonesia.

Technological literacy in the world of elementary school education is very important to implement. Digital literacy is one of the six basic literacies that students must master today. Digital literacy in school education can be accessed with digital media around the environment such as cellphones, computers, laptops, and so on. Technological literacy can be used as a means to improve students' ability to understand information in cyberspace.

The implementation of technological literacy has an influence on the world of education where it is very necessary to support the ability in terms of technology both in elementary schools, junior high schools, or high schools. Given that in Era 5.0, technological advances are increasingly visible.

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