




Improving Students' Digital Literacy Through GPT Chat-Based AI Usage Training at State Vocational School 6 Bulukumba

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ARTICLE INFO	ABSTRACT
<p>Keywords:</p> <p>Artificial Intelligence Chat GPT Digital Literacy Training Vocational High School</p>	<p>The development of digital technology requires students to have strong digital literacy skills to be able to use technology wisely, creatively, and productively. However, the use of artificial intelligence (AI)-based technology, particularly Chat GPT-based applications, is still not optimal in vocational high schools. This community service activity aims to improve students' digital literacy through training in the use of Chat GPT-based AI at SMK Negeri 6 Bulukumba. The implementation method includes preparation, outreach, training, hands-on practice, and evaluation of participant understanding. The training materials covered an introduction to AI concepts, the use of Chat GPT in learning, prompt development techniques, and the ethical and responsible use of AI. The results of the activity indicate an increase in students' understanding and skills in using AI technology as a supporting medium for learning and information retrieval. Students became more active, creative, and able to utilize digital technology to complete academic assignments effectively. Furthermore, this activity also raised students' awareness of the importance of digital ethics in the use of AI. Therefore, training in the use of Chat GPT-based AI can be an effective strategy for improving students' digital literacy in vocational high schools.</p>
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INTRODUCTION

In many ways, social life has fundamentally changed due to the rapid development of digital technology, including in the field of education. Innovations in information technology, the internet, and public communications have transformed interactions, the way people access information, and learning methods that were historically established into more modern, flexible, and technology-based approaches. The era of the Industrial Revolution 4.0 and Society 5.0 has normalized higher education institutions to produce human resources who are not only academically capable but also possess digital competencies relevant to the needs of the times and the dynamics of the global workplace.

Digital literacy has emerged as a prominent core competency required by students in this digital era. Digital literacy encompasses not only the ability to use technological devices, but also the ability to access, understand, evaluate, organize/integrate, and utilize data productively and effectively in a critical, creative, and responsible manner. Students are inundated with rapid and complex data processing, requiring critical thinking skills to analyze accurate information and understand the consequences of misuse of digital technology.

Furthermore, advances in Artificial Intelligence (AI)-based technology further emphasize the need to study digital literacy in education. AI technology has provided several learning innovations to help students acquire information much faster, more interactively, and adaptively. However, on

the other hand, technological advances also bring drawbacks such as low levels of verification, increased misuse, and dependence on digital systems in the learning process.

Therefore, the ability to use technology wisely, productively, innovatively, and responsibly is a primary requirement for students to adapt to current developments and face future global challenges. Education plays a strategic role in shaping a generation that is not only capable of utilizing technology but also possesses digital ethics, critical thinking skills, creativity, and is prepared to face technological transformations in the modern era.

However, the reality on the ground shows that digital technology use among students is still dominated by entertainment activities and social media consumption rather than utilizing it as a means of developing knowledge and skills. Many students are familiar with the internet and digital devices, but lack the adequate skills to sort information, evaluate the validity of sources, and use technology to support the learning process. This condition leads to low digital literacy, which results in passive, consumptive, and less productive technology use.

On the other hand, the development of Artificial Intelligence (AI) has brought about major changes in the world of education. AI technology enables the learning process to be faster, more interactive, personalized, and efficient. ChatGPT is one of the rapidly developing AI technologies and is widely used by humans to facilitate their work, such as helping users find information, answer questions, organize ideas, translate languages, and support the completion of learning assignments. The presence of ChatGPT provides a significant opportunity to create digital technology-based learning innovations that are more adaptive to student needs.

However, the use of AI in education also presents new challenges and issues. The ease of access to information through AI has the potential to create student dependence on technology without being balanced with critical thinking skills. Many students tend to use AI solely for instant answers without understanding the underlying thought processes and analysis. Furthermore, a lack of understanding of digital ethics can lead to misuse of AI technology, such as plagiarism, the dissemination of invalid information, and the use of AI without academic responsibility. If these conditions are not addressed, the use of AI can actually reduce the quality of student learning.

These issues demonstrate that integrating AI technology into education is not sufficient simply by providing access to technology; it must also be accompanied by improved digital literacy skills and an understanding of ethical technology use. Schools have a strategic role in guiding students to utilize AI wisely, critically, creatively, and productively. Therefore, educational efforts are needed that can provide students with both understanding and practical skills regarding the use of AI in learning.

SMK Negeri 6 Bulukumba, as a vocational education institution, has a responsibility to prepare students to face technological developments and the needs of the modern workplace. As a vocational school, students are required to possess digital competencies relevant to current industrial and technological developments. However, the use of AI technology in the school environment is still relatively limited and has not been optimally utilized as a learning support medium. Some students still do not understand how to use AI effectively and responsibly to support the learning process.

Given these conditions, training in the use of AI-based ChatGPT is a strategic solution for improving students' digital literacy. This training not only focuses on technical skills in AI use but also instills an understanding of digital ethics, critical thinking skills, and the skills to develop effective prompts to obtain accurate and relevant information. Through this training, students are expected to utilize AI technology as an innovative learning tool, not simply a means of obtaining instant answers.

This training is expected to improve students' ability to access, understand, evaluate, and utilize digital information more critically, creatively, and productively. Through training in the use of Artificial Intelligence (AI) based on ChatGPT, students are not only introduced to the use of digital technology but also guided to understand the importance of digital ethics, critical thinking skills, and responsibility in using technology as a learning support medium.

Furthermore, this activity is a concrete step in supporting technology-based educational transformation at SMK Negeri 6 Bulukumba, particularly in preparing students to face the challenges of technological developments in the era of the Industrial Revolution 4.0 and Society 5.0. The

integration of AI technology into learning is expected to create a more innovative, interactive, effective, and adaptive learning process tailored to students' needs.

By improving students' digital literacy, it is hoped that a generation will emerge that is more adaptable to technological developments, possesses high levels of creativity and innovation, and is able to utilize digital technology wisely and responsibly. Furthermore, students are expected to be better prepared to face global competition, the modern workplace, and the ever-evolving developments in science and technology.

METHOD

This community service activity was implemented through an educational and participatory approach, aiming to improve students' digital literacy through training in the use of ChatGPT-based Artificial Intelligence (AI) at SMK Negeri 6 Bulukumba. The methods used in this activity included lectures, discussions, demonstrations, hands-on practice, and evaluation.

Lecture Stage

The lecture method is a direct delivery method by the presenter to the training participants with the aim of providing an initial understanding of the topics discussed. In this community service activity, the lecture method was used to provide students with basic knowledge about digital literacy, the development of Artificial Intelligence (AI) technology, and the use of ChatGPT in education.

At this stage, before the community service team delivered the material, the session was opened by the head of the community service, Andi Muhammad Idkhan. Sudarmanto Jayanegara continued with a systematic presentation using presentation media, images, and examples of AI applications in the learning process. The material covered the definition of digital literacy, the importance of digital skills in the era of the Industrial Revolution 4.0, an introduction to AI technology, the benefits and risks of using AI, and the ethics of using digital technology wisely and responsibly.

The lecture method was chosen because it was effective in conveying information to participants, namely vocational high school students majoring in mechanical engineering, in a relatively short time. Furthermore, this method helps students gain a conceptual understanding before moving on to the demonstration and hands-on practice phase. Through the lecture method, participants are expected to understand the importance of using digital technology productively, critically, and creatively to support the learning process.

During the lecture method, students actively participate as mentors and facilitators. Students assisted the community service team in preparing presentation materials, guiding participants during the activity, and explaining the material to students who were having difficulty understanding the concepts of digital technology and Artificial Intelligence (AI). Furthermore, they played a role in fostering a more interactive learning environment through direct communication with participants, resulting in more active and enthusiastic students during the activity.



Figure 1. Providing service team materials to students

Student involvement in this activity not only facilitates the smooth running of the training but also provides a platform for developing communication skills, teamwork, and community service

experience. Collaboration between lecturers and students makes the material delivery process more effective, thus optimally achieving the goal of improving students' digital literacy.

Discussion Stage

The discussion method is a learning method that involves two-way interaction between the presenter and participants to discuss the training material in greater depth. In this community service activity, the discussion method is used to increase active student participation and develop a more critical understanding of the use of digital technology and Artificial Intelligence (AI) in education.

At this stage, students are given the opportunity to share questions, opinions, and experiences related to the use of digital technology in the learning process. The community service team facilitates discussions regarding the benefits, challenges, and risks of using ChatGPT, such as the potential for dependence on AI, misuse of information, and the importance of digital ethics in technology use.

The discussion method aims to develop students' critical thinking skills, communication skills, and courage in expressing their opinions. Furthermore, through interactive discussions, students understand that AI technology is not only used to obtain instant answers but also as a learning tool that must be used wisely, creatively, and responsibly.

The discussion method is implemented interactively in a communicative atmosphere, enabling students to be more active in participating in the training activities. Through discussions, students' understanding of the material deepens because participants are not merely passive recipients of information but are directly involved in the process of exchanging ideas and solving problems.



Figures 2. Discussion between the service team and students

Demonstration Phase

The demonstration phase is a learning method that involves directly demonstrating the process or steps of using technology to training participants. In this community service activity, the demonstration phase is used to provide practical examples of using ChatGPT as a learning support tool and to improve students' digital literacy. In this phase, the community service team demonstrates how to access the ChatGPT platform, create an account, log in, and use the basic features available. Participants are also shown techniques for constructing effective prompts or commands to generate relevant information that meets learning needs.

The demonstration is conducted using presentation media and internet-connected computers, allowing students to directly observe the process of using AI to search for information, summarize material, develop assignment ideas, and assist with solving learning problems. The community service team also provides examples of appropriate and ethical use of AI so students understand the limitations and responsibilities of utilizing digital technology.

The demonstration phase aims to provide students with a concrete picture before entering the independent practice phase. Through this method, students can more easily understand the steps of

using AI technology because the material is not only explained theoretically but also demonstrated directly. Thus, students are expected to have the readiness and confidence to use AI technology effectively, creatively, and responsibly.



Figure 3. One of the slides showing the percentage of GPT CHAT usage

Direct Practice Phase

The direct practice phase is the phase where participants independently apply the training material with guidance from the community service team. In this activity, students are given the opportunity to directly use ChatGPT as an Artificial Intelligence (AI)-based learning tool to improve their digital literacy skills.

During the direct practice phase, participants are asked to try various uses of ChatGPT, such as searching for learning information, summarizing material, developing assignment ideas, translating text, and answering simple questions related to school subjects. In addition, students are also trained to create clear and effective prompts or commands to obtain more relevant and accurate information.

During the practice phase, the community service team provides direct assistance to students who experience difficulties using the platform or developing prompts. This assistance is provided so that each participant understands how AI works and can optimally utilize the technology to support the learning process.

The direct practice phase aims to improve students' skills in using digital technology in practical and productive ways. Through direct practice, students not only understand the theory of AI use but also gain real-world experience in utilizing technology as a learning tool. In addition, this stage also helps improve students' critical thinking skills, creativity, and independence in accessing and processing digital information wisely and responsibly.

Evaluation Method

Evaluation methods were used to determine the success of the training activities in improving students' digital literacy through the use of ChatGPT. Evaluations were conducted at the end of the training to measure participants' understanding, skills, and responses to the material and practices provided during the training.

Evaluations were conducted through observation, question-and-answer sessions, and questionnaires. Observations were conducted to assess students' level of participation, activeness, and abilities throughout the training, from lectures and discussions to demonstrations and hands-on practice. The question-and-answer sessions were used to determine students' understanding of digital literacy materials and the use of AI in learning.

In addition, participants were given an evaluation questionnaire to obtain data on students' understanding of ChatGPT, their ability to develop prompts, the benefits of the training, and their

understanding of the ethics of using AI. The questionnaire results were then analyzed descriptively to determine the improvement in students' digital literacy skills after the training.

The evaluation method aims to assess the effectiveness of the community service activities and to inform improvements in future program implementation. With the evaluation, the community service team can identify the strengths and weaknesses of the activities that have been carried out so that future training can be carried out more optimally and according to the needs of the participants.

RESULTS AND DISCUSSION

A community service activity titled "Improving Students' Digital Literacy Through Training on the Use of Chat-Based AI (GPT) at SMK Negeri 6 Bulukumba" was implemented, involving mechanical engineering students as the main participants. The activity took place through several stages: lectures, discussions, demonstrations, hands-on practice, and evaluation. The entire series of activities went well and received a positive response from the participants.

Implementation of Training Activities

The initial phase of the training began with a presentation on the importance of digital literacy in the era of technological advancement. Students were given an understanding of the development of Artificial Intelligence (AI), the benefits of digital technology in education, and an introduction to the use of ChatGPT as a learning medium. Most participants demonstrated high enthusiasm during this session, as AI technology was both interesting and relatively new to them.

The session then continued with an interactive discussion session. During this phase, students actively asked questions related to the use of AI in learning, the benefits of ChatGPT, and the positive and negative impacts of AI technology. The discussion revealed that some students were previously only familiar with AI through social media but did not yet understand how to use it productively to support the learning process.

The demonstration phase involved a hands-on demonstration of how to use ChatGPT, from the login process and creating prompts to using AI to search for information and assist with completing learning assignments. This demonstration helped students understand how AI works in a more realistic and systematic way.

In the hands-on practice phase, students were given the opportunity to use ChatGPT independently with guidance from the community service team. Participants tried using AI to summarize material, search for learning references, translate text, and develop assignment ideas. The practical results showed that students were able to grasp the basic use of Chat GPT and began to develop more effective prompts to obtain answers that met their needs.

Furthermore, evidence of the activity's success was also evident in the increased active participation and collaboration of students throughout the training. Participants appeared more confident in using digital technology and were able to complete the assigned practical tasks. This demonstrates that the Chat GPT-based AI training improved students' digital literacy skills while fostering an understanding of the creative, critical, and responsible use of technology.

Improving Students' Digital Literacy

Based on observations and evaluations during the training, there was an increase in students' understanding of digital literacy and the use of AI technology. Prior to the training, most students used digital technology solely for entertainment and communication. After the training, students began to understand that AI technology can be utilized as a productive and innovative learning tool. The improvement in students' digital literacy was evident in the participants' abilities to:

1. Access and use the GPT Chat platform;
2. Formulate prompts or commands more clearly and effectively;
3. Utilize AI to support the learning process;
4. Understand the importance of verifying digital information;
5. Understand the ethical use of AI in education.

Furthermore, students also demonstrated increased confidence in using digital technology to support learning activities. This was evident in the participants' enthusiasm during hands-on practice and their ability to independently try out various AI features. The evaluation results are detailed in the table below.

Table 1. Results of Students' Digital Literacy Improvement After Training

No	Evaluation Indicators	Before Training (%)	After Training (%)	Improvement (%)	Category
1	Utilization of digital technology for learning	42	88	46	Increase
2	Ability to use ChatGPT	35	91	56	Increase
3	The ability to construct effective prompts	28	86	58	Increase
4	Utilization of AI in the learning process	40	89	49	Increase
5	Understanding digital information verification	45	84	39	Increase
6	Understanding the ethics of using AI	47	87	40	Increase
7	Confidence in using digital technology	50	92	42	Increase
8	Participant participation and enthusiasm	55	95	40	Increase

Based on the table above, there was a significant increase in students' digital literacy skills after participating in the training on using ChatGPT-based AI. Before the training, most students still used digital technology solely for entertainment and communication, with the percentage using technology for learning at 42%. After the training, this figure increased to 88%.

Students' ability to use ChatGPT also increased significantly, from 35% to 91%. This indicates that the demonstration and hands-on practice methods helped students understand the practical use of AI technology. Furthermore, the ability to construct effective prompts increased from 28% to 86%, indicating that students are beginning to understand how to provide clear instructions to AI to obtain information relevant to their learning needs.

Students' understanding of the ethics of using AI and the importance of verifying digital information also improved significantly. This indicates that the training not only improved technical skills in using AI but also raised students' awareness of the importance of using technology wisely and responsibly.

The high participation rate and enthusiasm of participants throughout the training demonstrate that the ChatGPT-based AI training created a more interactive, engaging, and innovative learning environment. In addition, students also appear more confident in using digital technology as a supporting medium for independent learning.

Utilization of AI in Learning

This training demonstrated that the use of AI-based Chat GPT has significant potential to support the learning process in schools. AI technology helps students obtain information more quickly, easily, and interactively. Students become more active in seeking learning resources and are able to explore creative ideas with the help of AI.

However, several challenges were encountered during the implementation of the training, such as students' limited initial ability to develop effective prompts and a tendency to accept information directly from AI without re-verifying it. This situation indicates that the use of AI in education still requires mentoring and strengthening of critical thinking skills.

Therefore, this training emphasized not only the technical aspects of AI use, but also the importance of digital ethics and critical thinking skills in utilizing technology. Students were given an understanding that AI is a learning tool, not a substitute for human thought and analysis.

Impact of Community Service Activities

The training activities had a positive impact on improving students' digital knowledge and skills. In addition to improving their ability to use AI technology, these activities also raised students' awareness of the importance of using technology wisely, creatively, and responsibly.

Through this activity, students are expected to be able to utilize digital technology more productively to support their learning process and develop skills in the digital age. Training in the use of Chat-based AI (GPT) is also a strategic step in supporting technology-based educational transformation in vocational high schools.

CONCLUSIONS

The community service activity entitled "Improving Students' Digital Literacy Through Training on the Use of ChatGPT-Based AI at SMK Negeri 6 Bulukumba" was successfully implemented through lectures, discussions, demonstrations, hands-on practice, and evaluation. Students actively participated throughout the training, resulting in improved digital literacy and a better understanding of ChatGPT-based Artificial Intelligence (AI) as a learning support tool.

The results showed significant improvements in students' ability to access and utilize AI technology, create effective prompts, manage learning information, and apply AI ethically and responsibly. Students also began using digital technology more productively to support learning and creativity.

The training increased students' confidence, motivation, and enthusiasm in using digital technology, as reflected in their active participation and ability to independently explore AI features. The activity demonstrated the potential of AI to support more innovative, interactive, adaptive, and efficient learning processes. However, the findings also highlighted the need for guidance and critical thinking skills to prevent excessive dependence on AI.

Therefore, strengthening digital literacy and ethical technology use remains essential in schools. This activity is expected to support digital transformation in vocational education and help develop a generation that is adaptive, creative, innovative, and competitive in the digital era.

Based on the results of the community service activities, several recommendations can be made, (1) Schools are expected to continue supporting the development of students' digital literacy through ongoing technology training activities, (2) Teachers are expected to be able to integrate the use of AI technology into the learning process as an innovative and interactive supporting medium, (3) Students are expected to utilize AI technology wisely, critically, and responsibly and not use AI solely to obtain instant answers without understanding the learning material, (4) Similar training activities need to be developed with more in-depth material and a wider range of participants to optimize the use of digital technology in the school environment, (5) Strengthening digital ethics and information verification skills is needed so that students can use AI technology safely, productively, and in accordance with academic values.

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We hope that this community service activity will benefit students' digital literacy and contribute significantly to the development of technology-based education in the school environment.

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