JPM
Jurnal Pengabdian Mandiri
Volume 1 Issue 2, 2026 (25-28)
ISSN (*online*) : 3089-3070
Homepage : https://jurnalunived.com/index.php/MANDIRI
Doi : https://doi.org/10.37676/mandiri

Implementation Of AI Technology As An Innovative Learning Medium At SMK Dwijendra Denpasar: Training On Prompting And The Use Of AI-Based Media For Grade XI And XII Students

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Received [25 April 2026] Revised [01 Juni 2026] Accepted [03 Juni 2026]

Abstract. The ability to utilize artificial intelligence (AI) technology is a crucial competency that young people must possess in the digital era. This community service activity aims to implement prompting training and the use of AI-based media for grade XI and XII students of SMK Dwijendra Denpasar from three departments: Computer and Network Engineering (TKJ), Accounting, and Hospitality. The implementation methods include interactive workshops, hands-on practice, and problem-based projects. A total of 87 students from the three departments actively participated in this program. The results show an increase in prompting ability by 93.7% and AI-based media usage ability by 130.0% after the training. Students also demonstrated significant improvement in confidence in using AI technology for learning and work purposes. This program proves that structured and contextual AI training is effective in improving the digital skills of SMK students across department

Keywords: *AI Prompting, AI-Based Learning Media, Digital Literacy, Cross-Department Vocational School, Community Service.*

INTRODUCTION

As we enter an era where artificial intelligence is becoming increasingly widespread, the ability to interact effectively with AI systems is no longer just a bonus skill, but has become a basic competency needed in nearly every field of work. The World Economic Forum report (2023) projects that 65% of the jobs that today's vocational school students will eventually enter do not yet exist, and most of them will involve direct collaboration with AI systems. This situation places vocational schools at the front line of preparing an AI-literate generation (Pongtambing, Y. S et al., 2023).

SMK Dwijendra Denpasar is a vocational high school that offers four areas of expertise: Computer and Network Engineering (TKJ), Accounting, Hospitality, and Digital Business. Each of these reflects the need for a contextual approach to AI training, not only for students in technology fields like TKJ, but also for those in business and tourism, who increasingly require digital skills in their work (Fakhri, 2024).

The results of an initial assessment conducted by the community service team in March 2026 showed that out of 87 students in grades XI and XII targeted by the program, 87.6% had never heard the term "prompting", 91.4% did not know how to use AI productively beyond entertainment, and 76.3% reported a lack of confidence in using AI technology for learning or job preparation. This condition indicates a significant gap between industry needs and student readiness (Dendi Agustian, 2024).

Prompting, which refers to the ability to compose precise and effective instructions for AI systems, is a core skill that determines how useful AI can be for its users. Research by Wei et

al. (2022) proved that users with good prompting skills produce results that are 3 to 5 times more accurate and relevant compared to users without training. Meanwhile, the use of AI-based tools such as content creation applications, data analysis software, smart presentation tools, and personal learning assistants has been shown to significantly improve learning productivity (Sofyan, 2025).

Based on the problems identified above, this community service activity is designed to: (1) provide a basic understanding of how AI works and the ethics of its use to all students in grades XI and XII at SMK Dwijendra from the TKJ, Accounting, and Hospitality programs; (2) train prompting skills from beginner to advanced levels relevant to each field of expertise; (3) introduce and provide training on various AI-based media platforms useful in vocational contexts; and (4) build student confidence and sustainable AI literacy.

RESEARCH METHODS

This community service activity was carried out in March 2026 at SMK Dwijendra Denpasar. The participants involved in this activity were all students of grades XI and XII from three different study programs, namely Computer and Network Engineering (TKJ), Accounting, and Hospitality, with a total of 87 students. The activity aimed to improve students' knowledge, practical skills, and readiness to face the challenges of the digital era and the professional working environment. The approach applied in this program was active experiential learning combined with a contextual learning approach. Through this method, students were encouraged to participate actively in discussions, simulations, group activities, and case studies related to real situations in their respective fields. Each topic presented during the activity was directly connected to the students' vocational competencies so that the learning process became more relevant, meaningful, and easier to understand. In addition, the activity also emphasized collaboration, communication skills, and problem-solving abilities to support students' future career development.

RESULTS AND DISCUSSION

The program was designed into three main modules carried out in sequence. The first module is Basic AI Literacy, which covers how generative AI works, the types of AI platforms available for free, the ethics and limitations of AI use, as well as the difference between using AI passively and productively. This module was attended by all students regardless of their program.

The second module is Prompting Techniques, which is divided into two sessions. The first session covers the basics of prompting: the structure of an effective prompt (role, context, task, format), the use of examples within prompts (few-shot prompting), as well as techniques for iteration and prompt refinement. The second session focuses on advanced prompting tailored to the context of each program, such as prompts for technical problem-solving and network configuration for TKJ students, prompts for financial report analysis and bookkeeping for Accounting students, and prompts for guest services and tourism communication for Hospitality students.

The third module is the Use of AI-Based Media, which introduces and provides training on six AI platforms selected based on their relevance and accessibility: (a) ChatGPT and Google Gemini as learning and research assistants; (b) Canva AI for design and presentation creation; (c) Gamma.app for generating slides automatically from text; (d) Grammarly AI for English writing and language correction; (e) Quillbot for paraphrasing and summarizing text; and (f) Napkin AI for data visualization and diagrams.

Figure 1. Implementation of the Activity at SMK Dwijendra

Given the diverse background of participants from different programs, the community service team developed a modular and adaptive implementation strategy. The Module 1 session was held in a large plenary format at the school hall, attended by all 87 students together. For Modules 2 and 3, students were divided into three groups based on their program, with each group receiving guidance from a facilitator who understood the context of their field of expertise. Each session used a format of 30% theory and 70% hands-on practice. Students who had smartphones were directed to use the mobile versions of the AI platforms being taught. At the end of each session, students were required to complete one mini project that demonstrated the application of the material.

The program was attended by 87 students from grades XI and XII across three programs at SMK Dwijendra Denpasar, namely TKJ (32 students), Accounting (30 students), and Hospitality (25 students). The results of the pre-test and post-test evaluations showed a very significant improvement in all aspects measured. Before the program began, 87.6% of participants had never used AI productively, and only 4.3% had any understanding of the concept of prompting (Sukma et al., 2025). The results of the paired t-test across all aspects showed a value of $p < 0.001$, which means that all the improvements that occurred were statistically significant. The highest improvement occurred in advanced prompting skills (217.3%), which can be explained by the fact that almost none of the students had any prior knowledge of this technique, so there was a very large room for improvement. The increase in the ability to use AI-based media (130.0%) was also very high, reflecting the effectiveness of the hands-on practice approach applied in the program. These findings align with the community service results of Riskawati et al. (2025), which reported that practice-based workshop approaches were able to significantly improve participants' digital literacy compared to conventional lecture methods.

All 87 students successfully completed their mini projects at the end of the program. Some outstanding projects produced included: TKJ students successfully used AI to assist with network troubleshooting and to automatically create technical documentation; Accounting students successfully created prompts to analyze simple financial reports and prepare balance sheet summaries using ChatGPT; and Hospitality students created English-language guest service guides as well as tourist welcoming scripts with the help of generative AI. This diversity of projects reflects the flexibility of AI technology in supporting various fields of vocational expertise (Arifin et al., 2025).

CONCLUSION

The implementation program for prompting training and the use of AI-based media for students in grades XI and XII at SMK Dwijendra Denpasar from the TKJ, Accounting, and Hospitality programs has been successfully carried out with very satisfying results. This program proves that AI training designed contextually and adaptively to accommodate the diversity of programs can provide significant positive impacts for all participants, without exception.

The 93.7% increase in prompting skills and the 130.0% increase in the use of AI-based media are clear evidence that vocational school students from all three programs, namely TKJ, Accounting, and Hospitality, have great potential to master AI skills when given appropriate, relevant, and enjoyable training. The 41.9% increase in self-confidence also serves as important capital for students in facing an increasingly technology-based world of work.

The recommendations for the follow-up of this program are: (1) making prompting training and the use of AI media a permanent part of the local content curriculum at SMK Dwijendra Denpasar; (2) developing documented AI learning modules that can be accessed independently by students; (3) forming an AI learning community among students from the three programs as a platform for sharing best practices; and (4) expanding similar programs to other vocational schools in Bali as part of a movement to improve vocational digital literacy.

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