

JPM
Jurnal Pengabdian Mandiri
Volume 3 Issue 1, 2026 (37-42)
ISSN (*online*) : 3089-3070
Homepage : https://jurnalunived.com/index.php/MANDIRI
Doi : https://doi.org/10.37676/mandiri

Student Interaction with AI Technology and Its Impact on Digital Literacy at SMKN 7 in Bengkulu City

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Received [20 April 2026] *Revised [01 June 2026]* *Accepted [03 June 2026]*

Abstract. 21st century technological developments, especially artificial intelligence (AI) and digital literacy, are increasingly important in vocational education to improve students' work readiness. AI socialization and training activities carried out at SMKN 7 Bengkulu City aim to strengthen students' understanding of the wise and productive use of technology. Using qualitative descriptive methods through material presentation and activity-based practice, the activities lasted for 30 days involving 480 students. The results show that 96% of students participated actively and were able to understand AI concepts more concretely. Apart from being an information tool, the use of AI has been proven to encourage students' critical thinking skills through data analysis and evaluation. This activity has a positive impact in increasing students' digital literacy, technology skills and work readiness to face the industrial world.

Keywords: *Digital Literacy; Vocational Education; vocational school; Technology Skills; Job Readiness.*

INTRODUCTION

The development of 21st-century technology, particularly artificial intelligence (AI) and digital technologies, is highly relevant to vocational high school (SMK) education (Wetria & Supratman, 2025). Digital literacy among SMK students has been shown to have a positive impact on the job readiness of Generation Z (Multidisciplinary et al., 2025).

The use of generative AI among SMK students through project-based training has demonstrated improvements in their digital skills (Arifin, Alfian, & Sumardiono, 2025). In addition, research conducted at SMKN 1 Medan found that the use of AI and digital literacy significantly influences students' learning interest (Multidisciplinary et al., 2025).

Digital literacy and AI socialization are therefore crucial at SMKN 7 Bengkulu City to ensure that students are able to use technology wisely and ethically, strengthen their vocational competencies, and prepare themselves for the challenges of the future workforce. For this reason, digital literacy and AI socialization activities are important to help students understand the responsible and ethical use of technology while also preparing them to face future technological challenges. According to Farid (2023), digital literacy refers to the ability to understand, utilize, and critically evaluate information effectively.

Artificial intelligence (AI) technology is developing rapidly, not only enabling effective information processing but also the generation of new, relevant, and contextual content. Its application in the education sector has received increasing attention, particularly in relation to how prospective teachers can leverage AI to design more effective learning experiences (Multidisciplinary et al., 2025).

The advancement of information and communication technology has brought significant changes to the education sector, including the ways in which teachers deliver material and students acquire knowledge. Generation Z, born in the digital era, is highly familiar with the use of social media and the internet (Sosialisasi et al., 2025)..

RESEARCH METHODS

The introductory and socialization activities on artificial intelligence (AI) were conducted from 28 October 2025 to 28 November 2025, with a duration of four hours per session. The method applied in this socialization activity was a descriptive qualitative approach, focusing on linking artificial intelligence (AI) concepts to the everyday situations and experiences encountered by students.

Through this approach, students were able to more easily understand and apply the knowledge they acquired in their daily lives. In addition, this approach emphasized socialization and hands-on practice, ensuring that students did not merely receive information passively but actively participated in the learning process.

Participation and Location

Number of Participants

1. Target: all students of SMKN 7 Bengkulu City
2. Target achieved: 480 students

Location and Time

1. SMKN 7 Bengkulu City
2. Duration: 4 hours

RESULTS AND DISCUSSION

The socialization and introductory activities on artificial intelligence (AI), conducted over a period of 30 days with a duration of four hours per session, ran smoothly and received a high level of enthusiasm from students. Of the total 480 students of SMKN 7 Bengkulu City who participated in the program, approximately 96% were actively involved in discussion sessions, question-and-answer activities, and hands-on practice.The activity consisted of two main sessions: a material presentation session and a training session.

In the first session, namely the material presentation, the facilitator delivered fundamental concepts of artificial intelligence (AI) and digital literacy in relation to the needs of vocational high school students. The material was presented through an interactive presentation lasting 30 minutes. The content covered several key topics, as follows:

Basic Concepts of Artificial Intelligence (AI)

1. the definition of artificial intelligence,
2. the development of AI over time.

The Role and Impact of AI in Education and Industry

1. how AI supports learning processes, such as summarizing materials, creating quizzes, and providing explanations,
2. the use of AI in vocational industries such as engineering, design, business, marketing, and public services,
3. New job opportunities emerging as a result of digital technology development.

Table 1. Completion of Training Certificates

No.	Class Name	Number of Students per Class	Target Number Receiving Training Certificates	Number of Students Completing
1	Grade XI PA I	60	2	60
2	Grade XI PA II	60	2	55
3	Grade XI PA III	60	2	60
4	Grade X PA I	60	2	60
5	Grade X PA II	60	2	60
6	Grade X PA III	60	2	60
7	Grade XII PA I	60	2	57
8	Grade XII PA II	60	2	60
Total		**480**		**472**

Based on the table, the results of the eight-day training show that 472 participants completed the activities, achieving an outcome of 96% out of 100%

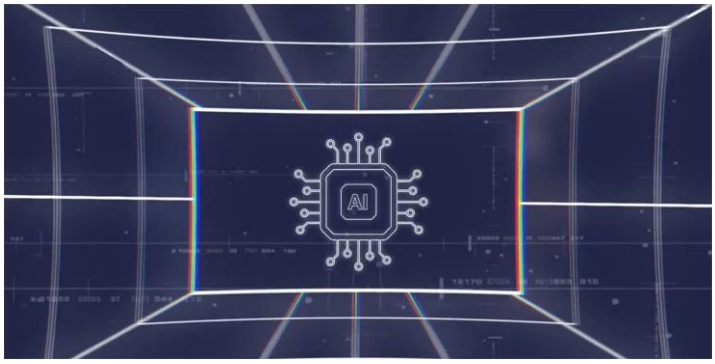


Figure 1. AI for Beginners

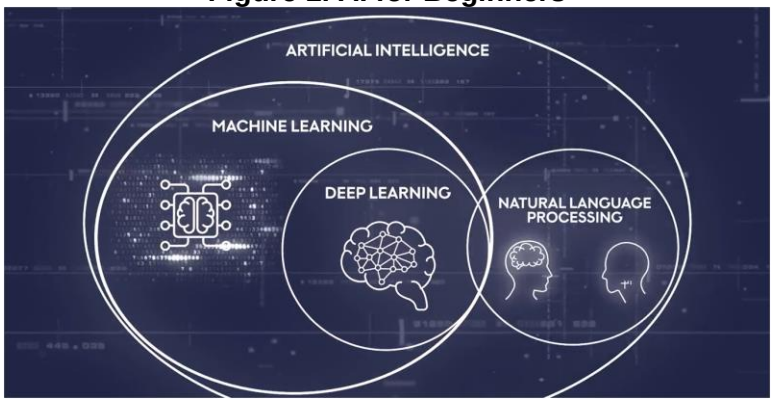


Figure 2. AI for Beginners Material



Figure 3. AI for Beginners Material

Training Session

In this session, KKN students conducted a practicum session that actively involved all participants. The session lasted for three hours and was designed using a contextual, activity-based approach, enabling students to directly apply the material presented in the first session.The training utilized a web-based application called HP LIFE, which can be downloaded from the Play Store or App Store. In addition to using the application, the training materials were also accessible via the web domain linktr.ee/ITUBPPTIK.

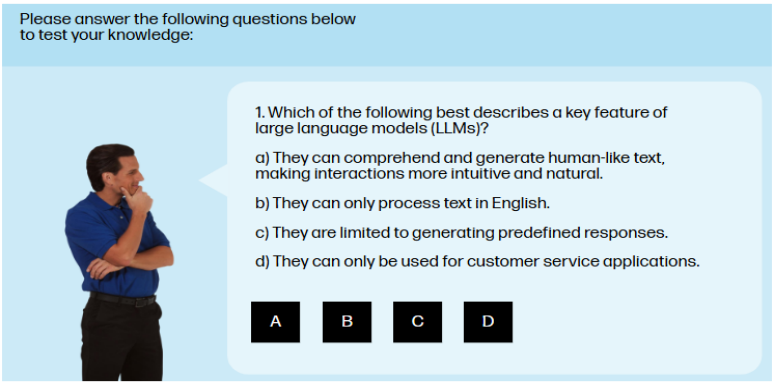


Figure 4. AI for Beginners Training Exercise

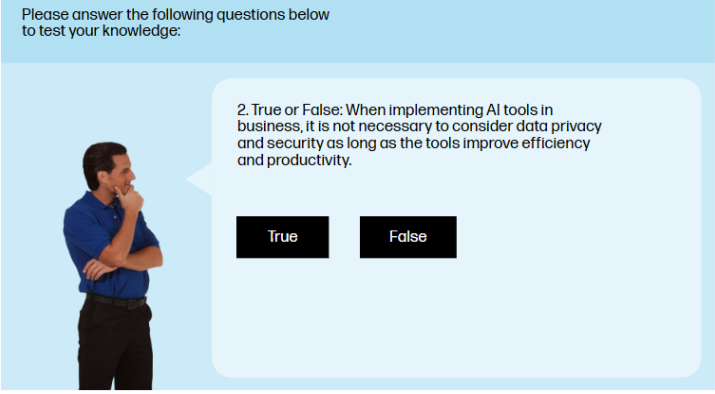


Figure 5. AI for Beginners Training Exercise

Training Task Completion Session

After logging in via the web domain linktr.ee/ITUBPPTIK, students of SMKN 07 Bengkulu City carried out the training tasks using their mobile phones. During this process, students were guided by university facilitators to engage in learning activities through digital textbooks.

Findings

These findings indicate that the integration of artificial intelligence (AI) into the learning environment does not merely function as a tool for providing answers, but rather plays a strategic role in stimulating students' critical thinking capacity. Through algorithm-based interactive mechanisms, AI creates a digital dialogic space that encourages students not only to receive information passively, but also to analyze, interpret, and systematically construct data-driven arguments. This process enables students to test the validity of their reasoning, question initial assumptions, and strengthen their ability to formulate logical and measurable conclusions based on empirically grounded evidence that is processed reflectively.



Figure 7. Training Task Completion in the Classroom



Figure 8. Training Procedures

CONCLUSION

The development of 21st-century technology, particularly artificial intelligence (AI) and digital literacy, has increasingly influenced vocational education. For vocational high school students, the ability to understand and utilize digital technology is no longer merely an additional skill, but a fundamental requirement for enhancing future workforce readiness. Therefore, the socialization and training of digital literacy and AI are essential to support the strengthening of students' vocational competencies.

The artificial intelligence socialization activities at SMKN 7 Bengkulu City, conducted over a 30-day period, successfully reached the target of 480 participants and received a positive response. The majority of students (92%) were actively engaged in discussions, question-and-answer sessions, and hands-on practice, indicating a high level of interest and strong relevance of the material to their needs. The learning method employed—namely a descriptive qualitative approach with activity-based practice—helped students to understand AI concepts more concretely through learning experiences closely connected to their daily lives.

The results of the activity indicate that the use of AI in learning is not only beneficial as a tool for obtaining answers, but also plays a role in developing students' critical thinking skills. Algorithm-based digital interactions encourage students to analyze, evaluate, and draw conclusions based on the information they obtain, rather than merely receiving content passively.Overall, this activity had a positive impact on improving students' digital literacy, technological skills, and job readiness. Through early exposure to AI, vocational high school students have greater opportunities to adapt to the evolving demands of an industrial world that is increasingly integrated with digital technology and artificial intelligence.

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