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Training on the Use of AI Tools to Support High School/Vocational High School Education in Jakarta

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Abstract

The numerous facets of education have been significantly transformed by artificial intelligence (AI) technology. It is currently in widespread use to improve the efficiency of learning, provide personalized learning experiences, and assist instructors in managing administrative responsibilities. In addition to its advantages, the integration of AI into education also poses obstacles, including ethical concerns, excessive dependence on technology, and doubts about the validity of learning outcomes. The objective of this community service activity is to investigate the potential benefits and drawbacks of AI applications in education, as well as to offer suggestions for their effective implementation. Educators can employ AI more responsibly and effectively by comprehending both the advantages and obstacles. The training is administered online to ensure that a diverse audience, including high school and vocational school teachers in Jakarta, has access to the material. It commences with a pre-test to assess the initial comprehension of AI tools among participants. A post-test is administered at the conclusion of the session to assess the extent to which the knowledge has been enhanced as a result of the training.

Keywords*: Artificial Intelligent, learning, educators*

1. INTRODUCTION

Artificial intelligence (AI) is the term used to describe the capacity of machines to replicate and execute tasks that are typically associated with human intelligence. The development of AI has a significant influence on a variety of human activities, including education, health, and industry [1]. Artificial intelligence is gaining popularity as a method of learning. It is evident that there are a multitude of perspectives on this matter among both academics and educators. Some of the issues that arise when AI-based tools are used for learning include the failure to think critically, plagiarism, and the lack of skill development [2].

The emergence of Era Society 5.0, which is a continuance of the Industrial Revolution 4.0, is inextricably linked to the rapid advancement of technology, which has led to the increasing prevalence of AI. In 2016, the Japanese government implemented Era Society 5.0 in response to prevalent issues in Japan, including an aging population, a low birth rate, economic challenges, and numerous natural calamities. This initiative prompted consideration of technological services to assist humans in their daily activities [3]. A teacher must comprehend their capacity to confront these obstacles in order to employ artificial intelligence tools in the classroom to enhance the efficiency, effectiveness, and appeal of their education [4].

Simultaneously, the field of education is confronted with an issue: the utilization of ChatGPT as a learning aid results in a substantial decline in students' academic performance, as evidenced by lower grades and negative Hake factors in comparison to conventional learning methods. Additionally, surveys administered to students indicate that the utilization of ChatGPT may diminish independent learning and critical thinking proficiency [5]. Training activities regarding the utilization of AI tools in education were implemented in response to the aforementioned issues. Fadilah and Sulistyowati have also conducted a comparable training topic, which is the development of engaging teaching materials with the help of artificial intelligence [6]. As technological advancements and changes in behaviors induced by AI are perpetually evolving, the numerous training activities associated with the use of Artificial Intelligence do not necessarily provide teachers or instructors with a sense of sufficiency. As a result, this investigation assessed the reliability of responses to artificial intelligence tools and implemented training exercises from an ethical perspective.

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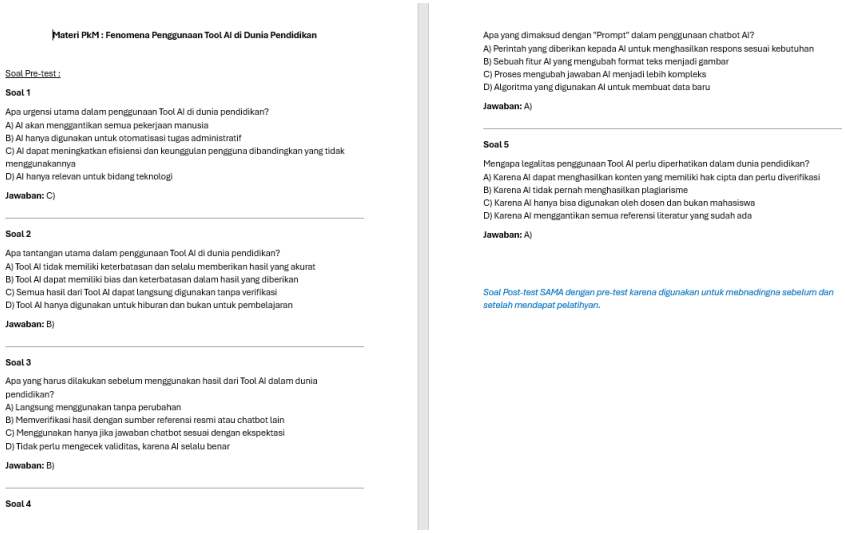
2. METHODOLOGY

This training is conducted online to accommodate a variety of organizations, including high school and vocational school teachers in the Jakarta region. The training commenced with a pre-test to ascertain the teacher's comprehension of AI tools. A Post-Test was administered to the teacher at the conclusion of the activity to ascertain their comprehension of the material. The PreTest and PostTest questions are illustrated in Figure 1.



Materi PkM : Fenomena Penggunaan Tool AI di Dunia Pendidikan

Soal Pre-test :

Soal 1

Apa urgensi utama dalam penggunaan Tool AI di dunia pendidikan?
A) AI akan menggantikan semua pekerjaan manusia
B) AI hanya digunakan untuk otomatisasi tugas administratif
C) AI dapat meningkatkan efisiensi dan keunggulan pengguna dibandingkan yang tidak menggunakannya
D) AI hanya relevan untuk bidang teknologi

Jawaban: C)

Soal 2

Apa tantangan utama dalam penggunaan Tool AI di dunia pendidikan?
A) Tool AI tidak memiliki keterbatasan dan selalu memberikan hasil yang akurat
B) Tool AI dapat memiliki bias dan keterbatasan dalam hasil yang diberikan
C) Semua hasil dari Tool AI dapat langsung digunakan tanpa verifikasi
D) Tool AI hanya digunakan untuk hiburan dan bukan untuk pembelajaran

Jawaban: B)

Soal 3

Apa yang harus dilakukan sebelum menggunakan hasil dari Tool AI dalam dunia pendidikan?
A) Langsung menggunakan tanpa perubahan
B) Memverifikasi hasil dengan sumber referensi resmi atau chatbot lain
C) Menggunakan hanya jika jawaban chatbot sesuai dengan ekspektasi
D) Tidak perlu mengecek validitas, karena AI selalu benar

Jawaban: B)

Soal 4

Apa yang dimaksud dengan "Prompt" dalam penggunaan chatbot AI?
A) Perintah yang diberikan kepada AI untuk menghasilkan respons sesuai kebutuhan
B) Sebuah fitur AI yang mengubah format teks menjadi gambar
C) Proses mengubah jawaban AI menjadi lebih kompleks
D) Algoritma yang digunakan AI untuk membuat data baru

Jawaban: A)

Soal 5

Mengapa legalitas penggunaan Tool AI perlu diperhatikan dalam dunia pendidikan?
A) Karena AI dapat menghasilkan konten yang memiliki hak cipta dan perlu diverifikasi
B) Karena AI tidak pernah menghasilkan plagiarisme
C) Karena AI hanya bisa digunakan oleh dosen dan bukan mahasiswa
D) Karena AI menggantikan semua referensi literatur yang sudah ada

Jawaban: A)

Soal Post-test SAMA dengan pre-test karena digunakan untuk mebnadingna sebelum dan setelah mendapat pelatihyan.

Figure 1. Pre Test dan Post Test

3. RESULT AND DISCUSSION

Community service is an endeavor to disseminate science, technology, and art to the community. The event, which was witnessed by 31 individuals, was successful. The majority of participants were able to comprehend the significance of ethically employing artificial intelligence-based tools following the Post-test. They were able to verify the accuracy and veracity of the instruments' output. Figure 2 illustrates the outcomes of the post-test, which assessed the participants' comprehension of the material that had been presented.

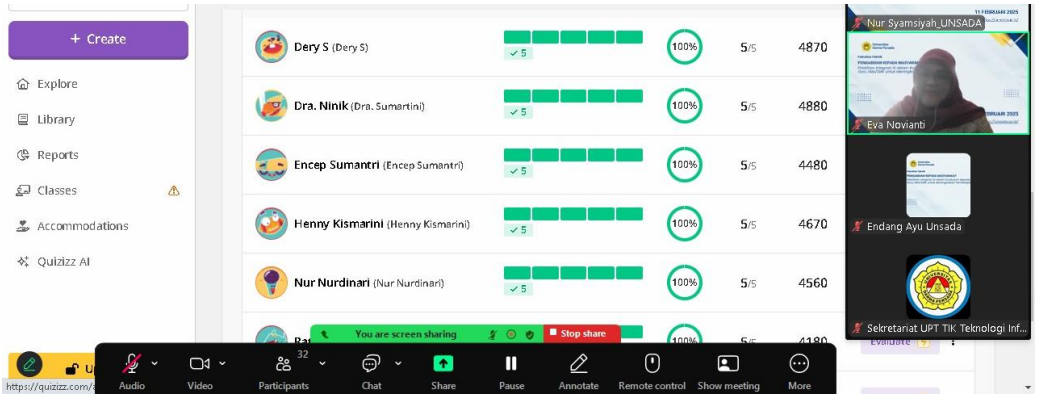


Figure 2. Post Test Result

The documentation of participants is illustrated in Figure 3, which documents the diverse activities that were conducted during the event. The presenters' delivery of materials, interactive question-and-answer sessions, and the practice questions that participants complete during the post-test are among the activities that are included. In addition, a collective photo session was conducted to commemorate the occasion. Throughout the program, the documentation functions as evidence of active engagement and participation. These instances

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are illustrated in the documentation, which emphasizes the collaborative efforts and learning process of the participants. It also guarantees that the event's impact can be effectively evaluated by providing a valuable record for future reference and evaluation.

Figure 3. *Activity*

A video recording of this activity has been uploaded to the YouTube platform as documentation and evidence of the activity's implementation, as well as a component of the information dissemination process. The video can be accessed by clicking on the following link: https://youtu.be/CfzJ340X_m0. The objective of this publication is to expand the public's understanding of the activities that have been conducted. Furthermore, this upload functions as a reference for parties in need of pertinent information. The objective of this documentation is to ensure that the outcomes of the activity are effectively disseminated and that they benefit a broader audience.

Figure 4. Youtube recording

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4. CONCLUSION

Through the provision of participants with a comprehensive comprehension of community service activities, they have been effectively implemented online. The purpose of this event is to enhance the community's insights and abilities in pertinent disciplines. Presented material is readily comprehensible to participants through interactive and informative delivery methods. Various learning media are also utilized to enhance the effectiveness and appeal of this activity. This activity is intended to provide the community with the opportunity to implement the knowledge they have acquired in their daily lives. A reference and evaluation for subsequent activities has also been prepared, which includes documentation of this activity.

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