AI-Based Cultural Poster Design Training for MGMP German Teachers in Surabaya

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Abstract. Young people are generally more interested in international culture than local culture. In this context, the youth of East Java often forget their cultural heritage. As an effort to introduce and integrate East Javanese culture into German learning, teachers can use informative and creative media, namely posters created with Artificial Intelligence (AI). However, teachers lack the adequate competence to create posters using AI. Based on this, this community service activity was held. The aim of this community service was for German teachers in high schools to be able to create East Javanese cultural posters with the help of Artificial Intelligence. The target of this activity was German teachers in Surabaya and surrounding areas. The implementation method was designed with three stages main activities: (1) preparation, (2) implementation, (3) feedback sessions & evaluation. The training was conducted both offline and online during June 2024, and the result of this training was East Javanese cultural posters in Indonesian and German. The result of the community service indicates that the training was helpful for the participants.

Keywords: Cultural Posters, Artificial Intelligence (AI), Learning German, Teacher Training, Community Service

1   Introduction

Modernization has had a significant impact on young Indonesians, particularly in terms of their interest in foreign cultures. Korean, Thai, Japanese, and American cultures often dominate their daily lives, from music and movies to cuisine. Unfortunately, this trend is accompanied by a lack of recognition and appreciation for local culture [1], especially East Javanese culture. The primary factors behind this phenomenon include a lack of understanding and environmental support, combined with the strong current of globalization.

A similar situation is observed in the realm of education. For example, the teaching of the German language has not yet fully utilized local wisdom as a bridge to understanding [2]. The lack of awareness of the importance of local wisdom, limited supporting resources, and insufficient government support hinder the integration of local culture into foreign language learning.

If left unchecked, this phenomenon could negatively impact the cultural identity of the younger generation and their ability to adapt to their environment. Therefore, comprehensive efforts are needed to enhance the understanding and appreciation of local culture through both formal and informal education and to encourage the

integration of local wisdom into various fields, including foreign language learning. [3] Only with tangible and collaborative steps can local culture be preserved and harmoniously coexist with global cultural influences in the lives of young Indonesians.

Integrating local wisdom can provide several benefits, such as: (1) Increasing motivation to learn. Young people will be more motivated to learn German if they see its connection to local culture. (2) Facilitating understanding of the material. Young people will find it easier to understand German lessons if the material is linked to familiar local culture. (3) Developing critical thinking skills. Young people can learn to think critically by analyzing the connections between local culture and German culture.

Examples of integrating local wisdom in German learning include: (1) Using local cultural examples in teaching materials. Teachers can use examples from East Javanese culture, such as batik, wayang, and traditional dances, in German lessons. (2) Aligning German teaching materials with Indonesian local wisdom. This can be done by incorporating local cultural content into German teaching materials. Language teaching that integrates local wisdom can help increase the recognition and appreciation of local culture among young people. [4] Therefore, teacher training and socialization efforts on integrating local wisdom into German teaching are necessary.

One way to promote cultural arts is through posters. [5] Posters have the advantage of conveying messages visually. The rich colors, motifs, and symbols of East Javanese culture can be effectively represented in visually appealing forms. Posters allow for the concise and direct delivery of cultural messages, which is crucial for quick comprehension by the audience. Moreover, posters can support the teaching of German writing skills [6] and introduce German culture [7]. They can also be used to promote the cultural diversity of East Java. However, teachers often lack the necessary skills to create posters, as this is not their primary competence, task, or responsibility as German teachers. Therefore, German teachers in the MGMP need adequate training in creating East Javanese cultural posters through the PKM Unesa team.

Based on the above analysis, it can be concluded that the German Teachers' Association (MGMP Bahasa Jerman) faces several challenges in integrating local culture into German teaching. These issues need to be addressed to appreciate local culture and introduce East Javanese culture to high school students, thereby preserving Indonesian national identity for future generations.

In this modern era, German learning also uses laptops and smartphones [8]. Additionally, they use various applications, such as TikTok [9], Quiz Whizzer [10], and digital media in comic creation, such as Pixton [11]. Cultural introduction can also use those media. However, German teaching rarely utilizes artificial intelligence (AI).

In the context of cultural education, AI can facilitate teachers in creating posters [12], whether for German or East Javanese culture, according to the cultural material they wish to promote. Using AI in designing East Javanese cultural posters can ensure that the posters effectively achieve their communicative goals. Moreover, AI-assisted design can enhance efficiency, with automated design algorithms helping arrange visual elements aesthetically without requiring deep graphic design skills. The design process with AI can be quicker than manual design. However, teachers still lack AI competencies related to creating posters featuring East Javanese culture.

Based on the discussion with MGMP German Teacher in Surabaya, we found that the German teacher in Surabaya didn't get any training related to cultural poster design

and Artificial Intelligence yet. Despite being young teachers with better media literacy, many had a limited understanding of media, especially AI, and how to utilize it in teaching German. Hopefully, this community service project on using AI to design cultural posters could enhance teachers' media literacy, particularly in AI. Based on this background, the research aimed to provide training in AI for German teachers in Surabaya and surrounding areas, enabling them to design posters themed around East Javanese culture. This initiative was expected to enhance their media competence.

2   Methods

This community service used the method in the form of integrated training. The training approach provided began with the provision of materials related to Poster and Poster Design using Artificial Intelligence (AI) to German teachers from Surabaya and surrounding areas at SMAN 15 Surabaya. More specifically the stages of activities and the method of implementing the activities carried out can be seen in the following Table 1 and Figure 1.

Table 1. Activity Stages

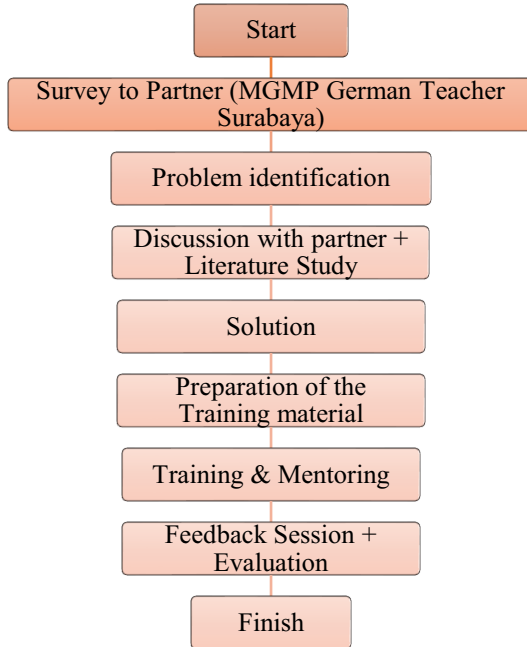| No	Stage	Activity	Method	Partner Participation
1	Preparation	Coordinate with MGMP German Teacher)	Focus Group Discussion	As an informant in problems and solutions
2	Implementation	Presentation about Poster Design and Artificial Intelligence for Cultural Poster Design	Discussion and Q&A	As Participant and provide place and time
		Practical Assistance in designing Cultural Poster	Discussion and Q&A	As Participant and provide place and time
3	Feedback Session and Evaluation	Monitoring and Discussion with partners on the implementation of the result of the training, Evaluation	Focus Group Discussion	As Participant Making and submitting cultural poster in 2 languages: Indonesian and German

Start

Survey to Partner (MGMP German Teacher Surabaya)

Problem identification

Discussion with partner + Literature Study

Solution

Preparation of the Training material

Training & Mentoring

Feedback Session + Evaluation

Finish

Figure 1. Community Service Implementation Framework.

3   Result And Analysis

3.1 Results

The community service implementation plan was divided into three stages, each of which has been successfully completed. The outcomes of each stage are detailed as follows. During the preparation phase, the team conducted a literature review to compile presentation materials, ensuring that the content was accessible and understandable for the partners. Additionally, the team prepared the necessary equipment and facilities to support the activities at the community service partner location, SMAN 15 Surabaya.

Figure 2. The Opening of Training

Training stage, the opening of the event was led directly by the Head of MGMG German Teacher Surabaya was attended by 17 German teachers from Surabaya and surrounding areas such as Sidoarjo, Gresik, Jombang, Pacitan and Malang. In the opening, the head of the community service Team conveyed the background of the implementation of community service, followed by remarks and acceptance from the head of MGMP German Teacher Surabaya who expressed his gratitude for the choice of as partner for this community service and to SMAN 15 Surabaya as the place for community service. Documentation of opening and training activities can be seen in the Figure 2 above.

Figure 3. Training process

Next, material on poster design was presented to enhance teachers' media literacy, particularly in creating cultural posters with an East Javanese theme for German lessons. Posters can serve as a medium to integrate local wisdom into German language teaching. Incorporating local wisdom in language instruction can help increase young people's recognition and appreciation of their local culture. Thus, this presentation was essential to demonstrate to participants how to create cultural posters.

Two speakers delivered the sessions, focusing on poster design and AI-assisted cultural poster creation. The first speaker covered the definition, functions, and key components of posters, different types of posters, and the benefits of using posters for educational and cultural purposes. By the end of this presentation, participants had learned how to create an effective poster.
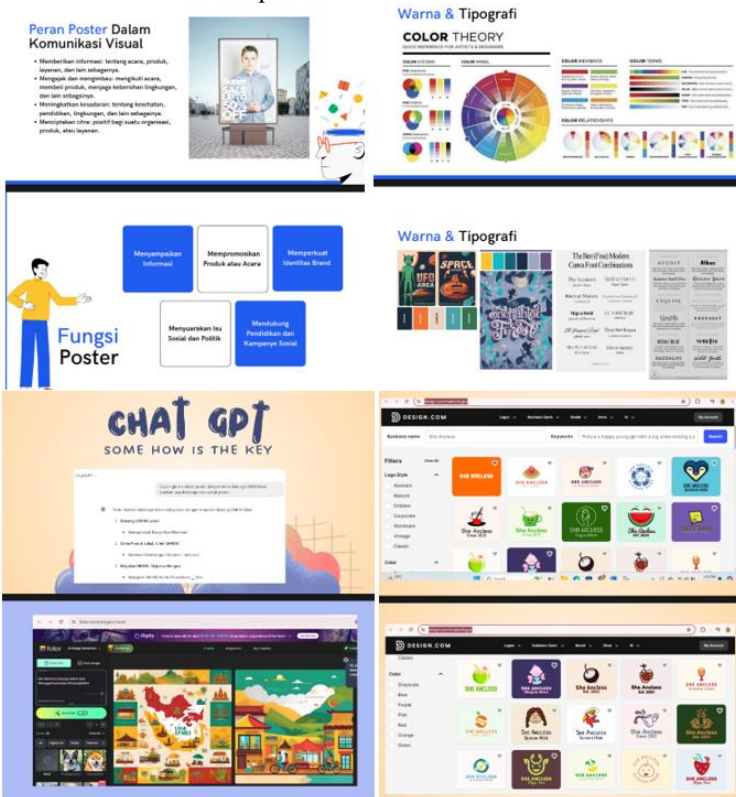
Figure 4. Examples of Presentation Material

The second presentation introduced participants to AI tools such as ChatGPT, Fotor, Piktochart, Design.com, and Canva. The presenter provided a general overview of content creation before diving into AI-based cultural poster design. Following the presentations, participants practiced using ChatGPT to brainstorm the structure of their cultural posters. After finalizing the poster structure, they selected appropriate templates on Canva and sourced AI-generated images, photos, or logos from Foto, Piktochart, and Design.com. At the end of the presentation, the participants were tasked

to design a cultural poster with the theme of East Java Culture. They had to make one design for 2 versions: In Indonesian and in German.

Participants were highly engaged throughout both presentations, valuing the practical examples that closely aligned with their teaching needs. They found the presentations innovative and relevant to their roles as educators and were enthusiastic about designing cultural posters themed around East Javanese culture. The training process and examples of poster design and AI-assisted cultural poster design are illustrated in Figures 3 and 4 above.
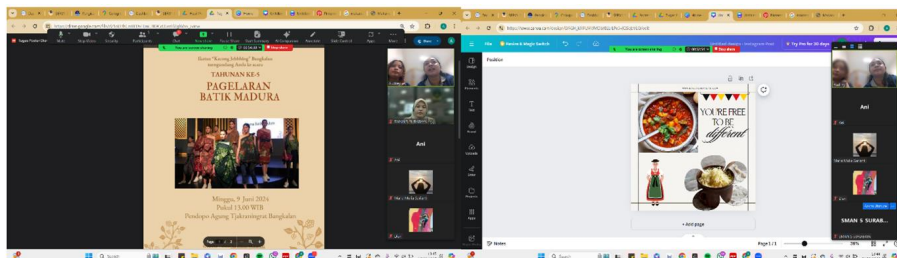
Figure 5. Feedback Session via zoom

In the third stage, the feedback session and evaluation, the community service team assisted participants in finalizing their cultural posters with the theme of East Javanese culture. A Zoom meeting was held to provide feedback on the posters designed by the participants, who created posters in both Indonesian and German. After submitting the final versions of their cultural posters, participants completed a questionnaire to evaluate the training. The feedback session, examples of the cultural posters made by the participants and questionnaire used for evaluation are shown in Figures 5, 6 and 7.

Figure 6. Examples of AI-assisted Cultural Posters

Figure 7. Evaluation Questionnaire

The evaluation results indicate that a significant portion of participants (8 responses) learned about poster creation using AI tools like GPT-Chat and Canva. Four participants noted the application of AI in teaching, while three focused on creating cultural posters with AI. Additionally, two participants each mentioned general poster creation and enhancing teaching media. Only one participant highlighted the importance of becoming a role model for students by making posters. This shows a strong interest and perceived benefit in integrating AI and digital tools into their teaching methods. The results can be seen in Figure 8 below.
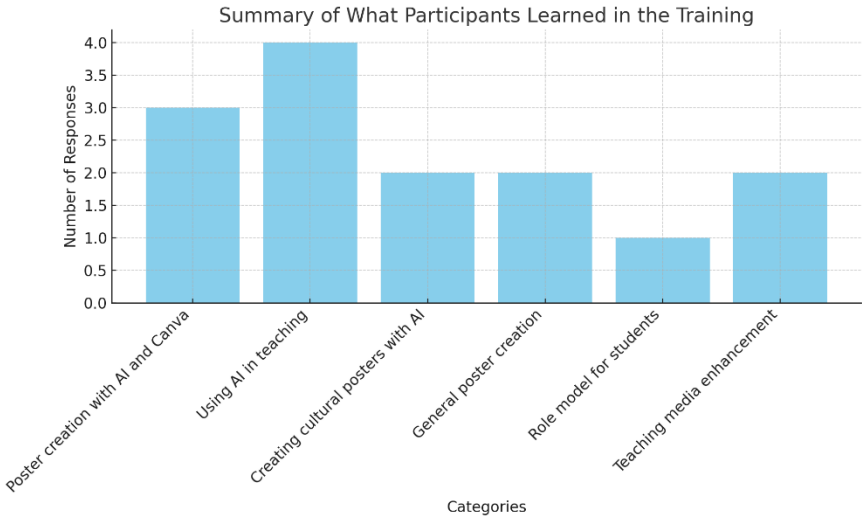

Figure 8. Training Material

The evaluation results reveal that the majority of participants intend to apply AI in creating teaching media, with eight responses specifically mentioning this application. Six participants highlighted their plans to create posters for teaching purposes, while three indicated they would engage students using AI. Other responses include organizing teaching materials, guided practice with AI, creating thematic posters, and making certificates, each with one response. Overall, the responses demonstrate a strong inclination towards integrating AI tools into teaching practices, particularly in the creation of educational media and posters. The results can be seen in Figure 9 below.
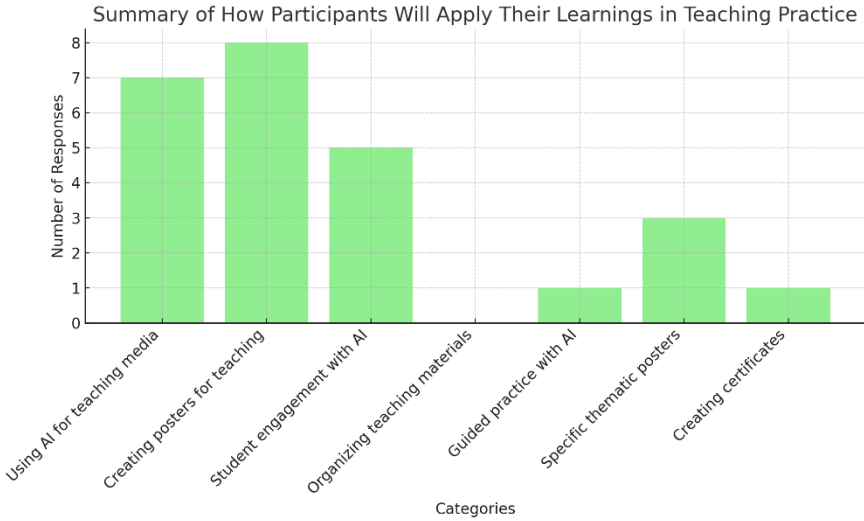
Summary of How Participants Will Apply Their Learnings in Teaching Practice

Figure 9. How will the participants apply their learning in German Lesson

Participants particularly valued learning new AI skills, with five responses indicating this as a highlight. The opportunity for hands-on practice was also appreciated, with three responses. Both the innovative and easy approach to poster creation, as well as the engaging presenters and interesting material, received two responses each. One participant noted the clear and concise delivery of the training. Additionally, the ability to be creative in poster design was mentioned by two participants. Overall, the training was well-received for its practical and engaging content, innovative use of AI, and opportunities for hands-on learning. The results can be seen in Figure 10 below.
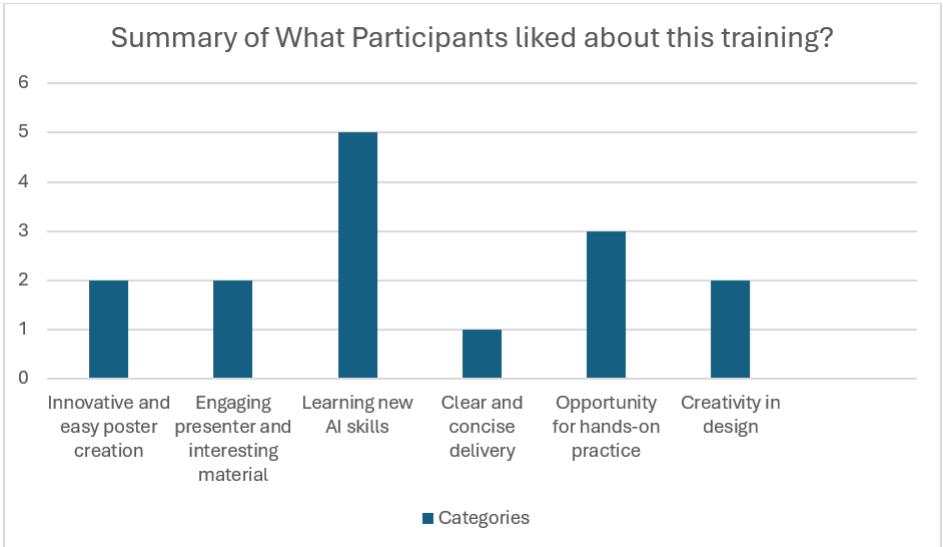

Figure 10. What did participants like about the training?

The feedback from the training evaluation reveals distinct priorities: Participants emphasized simplifying and speeding up the poster creation process, with this theme appearing in 5 responses. There were 2 responses advocating for increased practical time, especially in language-specific subjects like German. 1 response focused on improving skills in using AI tools effectively. 2 responses highlighted the importance of enhancing clarity in applying learned concepts and ensuring engaging presentations. 3 responses stressed the need for follow-up training sessions and advanced instruction in media usage. These numbers underscore the specific areas where participants feel enhancements are crucial for future training sessions. The results can be seen in Figure 10 below.
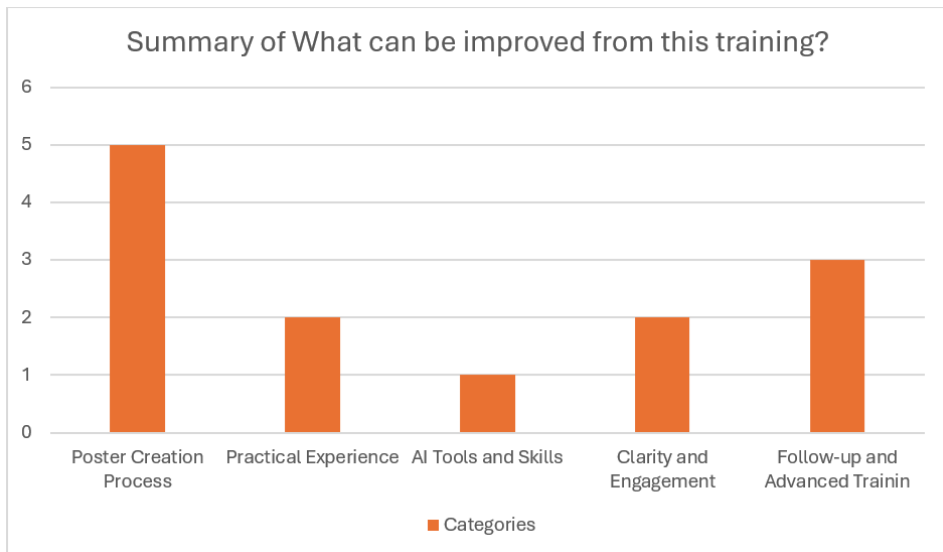

Figure 11. Community Service Implementation Framework.

Based on the results depicted in Figure 12, it is evident that a significant majority, comprising 64.7% of participants, expressed high satisfaction with the training conducted by the Community Service Team. Additionally, 25.3% of participants reported being satisfied with the training. These positive responses collectively indicate that the training can be regarded as highly successful, reflecting a strong endorsement of its effectiveness and value among the attendees. Such favorable feedback underscores the Community Service Team's achievement in delivering a training program that met or exceeded the expectations of a substantial portion of its audience.

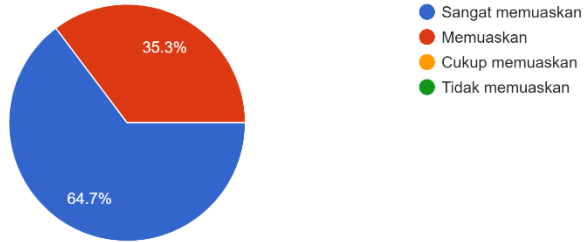5. Secara keseluruhan, bagaimana Anda menilai pelatihan ini?
17 responses

Figure 12. Participants Satisfaction of The Training

Based on the results depicted in Figure 13, it is evident that a significant majority, comprising 52.9% of participants, expressed high satisfaction with the explanations provided by both speakers during the training. Additionally, 47.1% of participants reported being satisfied with the speakers. These positive responses collectively indicate that the speakers effectively conveyed the presentation material, resulting in a strong understanding among the attendees. The data underscores the speakers' success in delivering clear and comprehensible content, contributing to a positive learning experience for the participants.

6. Bagaimana pendapat Anda penjelasan narasumber pelatihan ini?
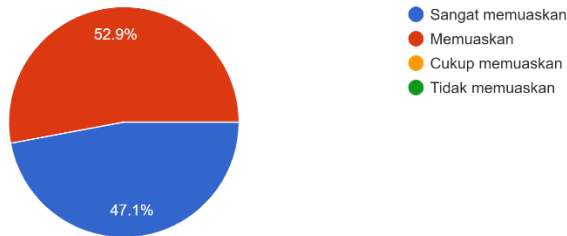17 responses

Figure 13. Participants Satisfaction of The Speakers

Based on the findings illustrated in Figure 14, it is evident that all participants in the AI-Based Cultural Poster Design Training express a strong inclination to recommend the program. Furthermore, there is unanimous interest among them for future follow-up sessions. These affirmative responses collectively underscore the participants' perception of the training topic as not only interesting but also essential and pertinent to their roles as educators.

7. Apakah Anda akan merekomendasikan pelatihan ini kepada orang lain?
17 responses

8. Apa Anda membutuhkan pelatihan lanjutan ini di masa depan?
17 responses

● Ya
● Tidak

100%

100%

Figure 14. Recommending the Training and Future Follow-Up Sessionrice seed viability test was conducted with four repetitions.

4   DISCUSSION

4.1   Comparison of Viability of Six Test Rice Varieties

From the results discussed in the previous section, the evaluation results of the AI-Based Cultural Poster Design Training highlight several significant insights. Firstly, the findings reveal a pronounced enthusiasm among participants for integrating AI tools, such as GPT-Chat and Canva, into their teaching practices. This interest spans various applications, including poster creation, cultural education, and enhancing teaching media. The feedback underscores a growing recognition among educators of the potential benefits of AI in enriching educational content and fostering student engagement.

Moreover, the high satisfaction rates with both the training program and the speakers indicate a robust endorsement of the training's effectiveness and relevance. Participants expressed not only satisfaction with the clear and engaging delivery of content but also a strong intention to recommend the program to their peers and seek further training opportunities. This positive reception underscores the training's success in meeting participants' expectations and suggests promising avenues for future educational initiatives integrating AI technologies. These findings contribute to the broader discourse on leveraging AI in educational settings particularly in German lesson [13], [14], [15], [16], [17] to enhance further enhance teaching effectiveness [18] effect learning outcomes and promote innovative teaching methodologies for teachers [19] and students [20].

5   Conclusion

The AI-Based Cultural Poster Design Training conducted by Community Service at Universitas Negeri Surabaya (UNESA) has demonstrated significant success and positive outcomes among participating educators. The evaluation results highlight a strong enthusiasm for integrating AI tools like GPT-Chat and Canva into teaching practices, particularly for poster creation and cultural education purposes. Participants expressed high satisfaction with the training content and the clarity of presentation by

speakers, underscoring the effectiveness of the program in imparting new skills and knowledge.

Furthermore, the unanimous interest among participants in recommending the training and pursuing future follow-up sessions reflects their recognition of its importance in enhancing teaching methodologies and promoting local wisdom, particularly from Indonesia. The findings suggest that integrating AI technologies in educational settings, particularly in German lesson can effectively support educators in creating engaging and informative teaching materials.

In conclusion, the AI-Based Cultural Poster Design Training by Community Service UNESA not only met but exceeded the expectations of participants, indicating its potential to contribute positively to educational practices. Moving forward, continued efforts to incorporate AI tools in educational training programs could further enhance teaching effectiveness and enrich learning experiences for educators and students alike.

Suggestions

German teachers in Surabaya and surrounding areas are encouraged to integrate local wisdom from East Java into their language lessons. By utilizing AI-generated posters, they can enhance the attractiveness and relevance of their teaching materials. This approach not only enriches the educational experience with cultural insights but also leverages innovative technologies to engage students more effectively. Incorporating local wisdom into German lessons not only broadens students' cultural awareness but also fosters a deeper appreciation for diverse cultural heritage, thereby enriching the overall learning experience.

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