



COMMUNITY ENGAGEMENT ARTICLE

Gemini AI Utilization Training for English Language Learning at SMA IT Iman Syafi'i Cendikia

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Abstract

The purpose of Gemini AI utilization training for English language learning was to give a service in socialization in Pondok Pesantren MoU and UIR. The goal of in this socialization was to deliver process of socialization, namely socializing values, knowledge, and skills in life. Mufida (2018) said that learning is a real situation for the citizens' improvement in iman and takwa so they can live without changing address future threats and challenges. Questionnaire was used to measure the satisfactory activity during PkM and 27 female students involved during one day training program. As for SMA IT Iman Syafi'I Cendikia itself, they have future wish that the progress of young generation for having the paradigm that the success of a student is influenced by educators who teach in schools, especially in using modern technology. Gemini AI became one of AI tools of the program was delivered during the activities of PkM. The result of this PkM activity was motivating the students as the data result from questionnaire that the average satisfaction was high as amount 92,67%, so as summary that the implementation of PkM was successful in SMA IT Iman Syafi'I Cendikia.

Keywords

Gemini Ai Assisted Language Learning; Utilization; Teacher Professional Development; English Learning.

Abstrak

Tujuan dari pelatihan pemanfaatan Gemini AI untuk pembelajaran bahasa Inggris adalah untuk memberikan layanan dalam sosialisasi di Pondok Pesantren MoU dan UIR. Tujuan dari sosialisasi ini adalah untuk menyampaikan proses sosialisasi, yaitu mensosialisasikan nilai-nilai, pengetahuan, dan keterampilan dalam kehidupan. Mufida (2018) mengatakan bahwa belajar adalah situasi nyata bagi peningkatan iman dan takwa warga negara sehingga mereka dapat hidup tanpa mengubah menghadapi ancaman dan tantangan masa depan. Kuesioner digunakan untuk mengukur aktivitas yang memuaskan selama PkM dan 27 siswi yang terlibat selama program pelatihan satu hari. Adapun SMA IT Iman Syafi'I Cendikia sendiri, mereka memiliki harapan masa depan bahwa kemajuan generasi muda karena memiliki paradigma bahwa keberhasilan seorang siswa dipengaruhi oleh pendidik yang mengajar di sekolah, terutama dalam menggunakan teknologi modern. Gemini AI menjadi salah satu alat AI dari program yang disampaikan selama kegiatan PkM. Hasil dari kegiatan PkM ini adalah siswa termotivasi, hal ini berdasarkan data hasil angket bahwa rata-rata kepuasan siswa tergolong tinggi yaitu sebesar 81,82%, sehingga dapat disimpulkan bahwa pelaksanaan PkM di SMA IT Iman Syafi'I Cendikia dapat dikatakan berhasil.

Kata Kunci

Pembelajaran Bahasa Dengan Bantuan AI Gemini; Pemanfaatan; Pengembangan Profesional Guru; Pembelajaran Bahasa Inggris.

1 | PENDAHULUAN

Technological advances have had a huge influence on education, especially high school learning in the English language. One example of such technology is the Gemini app which has many features like text analysis, auto-correction, and vocabulary development. The text analysis feature in Gemini allows students to see deeply how texts are put together and what they mean. This is very important for improving understanding of literary and non-fiction reading materials. With the help of teachers, students can spot important things in texts like themes or moral lessons making a big difference to their reading skills (Purba, 2023). The auto-correction function of Gemini is also an important part of writing learning. This app can fix grammar spelling and punctuation mistakes instantly. Through this auto-correction, students not only learn from their errors but also generate better writing (Antonietti *et al.*, 2023). Research indicates that quick and accurate feedback from technology can enhance the quality of student writing (Andini *et al.*, 2021). Teachers may use this feature for effective feedback making learning more interactive and responsive to student needs (Antonietti *et al.*, 2023). Vocabulary development is one of Gemini's superior features that support English language learning. This application provides relevant synonym and antonym recommendations helping students enrich their vocabulary. With a broader vocabulary students can express their ideas more clearly and with more variety. This capability is crucial for improving creative as well as critical writing skills (Purba 2023) Furthermore Gemini can also train students' critical thinking skills for example through analyzing arguments in texts evaluating the validity of arguments identifying bias (Ikhwandi 2023) This aspect aligns with 21st-century learning which emphasizes developing critical thinking skills as a core competency (Purba 2023). Although it has many benefits using Gemini in learning faces big challenges. One major challenge is technology infrastructure readiness in schools. Not all schools have sufficient devices and internet connections to make full use of this application (Antonietti *et al.*, 2023). Furthermore teachers' skills in using technology are an important factor too. Teachers need sufficient training to run and integrate Gemini features into the learning process (Antonietti *et al.*, 2023).

Another challenge comes from the student perspective, namely the risk of dependence on the application. This dependence can reduce students' independent thinking skills. Therefore, the role of teachers is crucial in providing supervision and guidance so that this application is used as a tool, not as a substitute for the learning process itself (Antonietti *et al.*, 2023). With the right pedagogical approach, this application can help students develop skills effectively without sacrificing their critical and independent thinking skills. With adequate infrastructure support, teacher training, and a balanced learning approach, the Gemini application has great potential to improve the quality of English language learning in high schools. This technology can help students develop reading, writing, and critical thinking skills effectively (Purba, 2023; Adminpintarharati, 2022). The synergy between technology and traditional learning methods will create a more innovative, interactive, and relevant learning experience to meet the demands of the digital age. Furthermore, previous research (Ali *et al.*, 2024) showed that Gemini AI achieved better results in improving the quality of teaching materials with an average score increase of 20.5 points compared to ChatGPT (13.4 points) and Claude (14.6 points). This aligns with Heri Prihartono's opinion (2023) that Gemini is capable of analyzing various important aspects of writing such as story structure character development language use and writing style These findings support the effectiveness of AI use in language learning. Based on this previous research, the researchers believe that using Gemini in English language learning needs to be investigated with the aim of improving writing reading text analysis skills through an independent interactive approach. Furthermore, align with the field visits, interviews, and observations, several priority issues faced by partners were identified, including:

- 1) Increased curiosity about AI has led partners to feel the need for additional training on AI technologies that can help them improve the quality of student learning outcomes.
- 2) Students have not yet received knowledge about the use of AI, especially Gemini AI, an artificial intelligence (AI) that facilitates partner learning.
- 3) The continued development of AI technology has not yet been maximized, necessitating additional training and the use of updated technology.
- 4) Many students face difficulties in accessing relevant and up-to-date learning methods. Furthermore, there are several barriers to using AI.
- 5) Due to these limitations, students experience a lower quality of learning.

The solution provided to the partners of Imam Syafi'i 2 Pekanbaru Integrated Islamic Senior High School (SMA) addresses the problems they face. Considering the aforementioned issues, it was decided that Gemini AI training should be conducted, including:

- 1) Socialization of the latest AI technology using an online paraphrasing tool.
- 2) The method used in this activity was lecture and discussion. This AI introduction explained Gemini AI, an artificial intelligence (AI). This was conducted through lectures and discussions. At this stage, participants were motivated to develop a strong desire to learn AI technology, specifically Gemini AI. The output of this solution was a presentation

slide and a video tutorial on Gemini AI. The activity indicator was the participants' understanding of the Gemini AI material, with the criteria being an increase in understanding of how to use the AI. A questionnaire was administered to participants after the activity to assess their level of understanding.

3) Providing Training on the Use of Gemini AI.

The training consisted of two activities: Gemini AI socialization and hands-on training using Gemini AI. Gemini AI socialization introduced Gemini AI to students. The output of this solution is an understanding and mastery of the use of Gemini AI, an artificial intelligence (AI), for English language learning. The indicators of this activity are participants' skills in using Gemini AI optimally and independently, and the students' effectiveness and efficiency in learning.

4) Follow-up in the form of Evaluation

The Gemini AI training is expected to provide assistance and training in mastering the latest AI technology. Learning and practicing using Gemini AI can improve the technology skills of our students. Furthermore, practicing using Gemini AI can prepare them for future competition. This activity aims to introduce AI technology to participants, creating technology-savvy students who maintain a concern for their environment and the school environment. Our students can even create new innovations through mastery of Gemini AI. The output of this solution is the skills of our students, which can be used to improve their own skills and help the younger generation, our students. The indicator of this activity is our students' skills in AI with the latest technology.

2 | METHOD

The community service procedures assist in the implementation of the proposed methods, which are outlined in the community service schedule for the Community Service Program (PKM) prepared by the team. The training phase includes: Gemini AI training on laptops or computers for 27 female (akwat) students at the partner school, Imam Syafi'i 2 Pekanbaru Islamic Senior High School (SMA Terpadu Islam Imam Syafi'i 2 Pekanbaru) for one day training of AI Gemini. Gemini AI training with students at the partner school will include Gemini AI operational training at the partner school, Gemini AI training for the partner students, and Gemini AI training by assessing the skills of the partner students through hands-on Gemini AI use during the training. The following is a diagram of the work procedures to be carried out in this PKM:

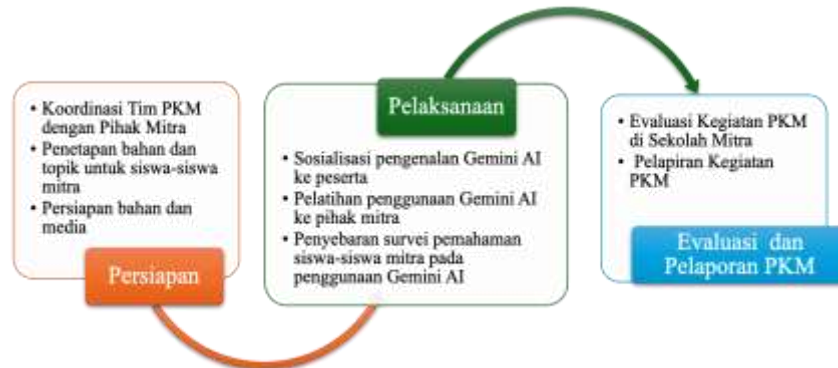


Figure 1. PKM Procedure

The figure 1 above is the description of PkM procedures as follows. The implementation mechanism begins with an activity plan that outlines the steps to address the problems in two aspects. The first is the Partner Situation and Condition Analysis Stage, where the implementation team conducts surveys, collects data, identifies partner problems, and carries out observations and interviews with partners to determine the PKM activity schedule. The next stage is the Training Phase, during which the implementation team begins training activities according to the predetermined schedule agreed upon with the partner. This phase includes several results achieved in the community service program, namely improved skills among the students of Imam Syafi'i 2 Pekanbaru Integrated Islamic Senior High School. These improvements can be measured through three aspects:

- 1) their knowledge of Gemini AI skills, where students at SMA IT Iman Syafi'i Cendikia Pekanbaru Integrated Islamic Senior High School are able to identify and implement existing technologies in education;
- 2) AI skills enhancement, where students understand the rationale for mastering renewable technologies to achieve efficiency and effectiveness in English language learning; and
- 3) fast and quick action, where students demonstrate the ability to take action in certain situations with the aim of developing ideas about the benefits of AI as a renewable technology.

The implementation methods to address partner student skills issues include training on the use of Gemini AI and the

presentation of training reports. This training is guided by several Gemini AI content videos and trainers from the implementation team, and the report on Gemini AI training activities is presented at the partner school, SMA IT Iman Syafi'i Cendikia Pekanbaru Integrated Islamic Senior High School. The second component of the procedure is PKM Evaluation, where the team conducts an evaluation to identify obstacles and problems that arise in the field. If obstacles or problems appear, further evaluation is carried out, and solutions are sought to ensure that the program continues to run smoothly as expected. The third aspect is Partner Participation, which involves several parties in the community service program at Imam Syafi'i 2 Pekanbaru Integrated Islamic Senior High School. These include the Principal, who has the authority to grant permission for the implementation of PKM activities at the partner school; the Department of Education and Culture, which serves as advisors; and the staff and students of SMA IT Iman Syafi'i Cendikia Pekanbaru Integrated Islamic Senior High School, who act as the target group of the community service program. The fourth part is the Evaluation of Program Implementation and Sustainability in the Field after the PKM Activity is Completed. This evaluation involves partners such as the DPPM (Regional Leadership Development Agency) of Universitas Islam Riau and the English Language Education Study Program of the Faculty of Teacher Training and Education (FKIP) of UIR. The evaluation is conducted using questionnaires and by assessing the extent of technology implementation by partners in the form of Usability Testing. The evaluation continues even after the PKM activity is completed, with ongoing monitoring of reports on improvements in the use of available technology by managerial staff.

3 | RESULT AND DISCUSSION

3.1 Result

The community service program at SMA IT Iman Syafi'i Cendikia Pekanbaru was opened by the Principal Bapak Gino Gumara, SS. Gr. The teachers of SMA IT Iman Syafi'i Cendikia Pekanbaru warmly welcomed the Community Service Program (PKM) team from Universitas Islam Riau. They commented that this activity improved their skills and broadened their knowledge in using Gemini AI. The community service program at SMA IT Iman Syafi'i Cendikia Pekanbaru provided material on the use of Gemini AI for the students. Practically, this activity provided the following benefits to the teachers at SMA IT Iman Syafi'i Cendikia Pekanbaru:

1) Implementation Stage

a) Analysis of Partner Situations and Conditions

In this stage, the implementation team conducted surveys, collected data, identified partner problems, and conducted Focus Group Discussions (FGDs) with partners to determine the PKM activity schedule.



Figure 1. Socialization of the Gemini AI

b) Training Phase

In this phase, the implementation team conducted training activities according to a predetermined schedule agreed upon with the partners. The results achieved in this community service program were an increase in the skills of SMA IT Iman Syafi'i Cendikia Pekanbaru students, measured by three aspects: (1) their knowledge of Gemini AI usage skills, where partner teachers at SMA IT Iman Syafi'i Cendikia Pekanbaru were able to identify and implement existing technology in education; (2) the second component, the addition of AI skills, where teachers at partner schools gained insight and understanding of the reasons for mastering renewable technology to achieve efficiency and effectiveness in scientific writing; and (3) the third component, fast and quick action, where partner school teachers had the ability to take action in certain situations with the aim of developing ideas about the benefits of AI as a renewable technology

for school advancement, through behaviors that were aware of environmental situations, understood events, and then evaluated the existing educational management information system that had been mastered verbally and in writing.



Figure 2. Training Session

2) Evaluation Stage

At this stage, the team conducts an evaluation and identifies any obstacles and problems that arise in the field. An evaluation was then conducted if any obstacles or problems arise, and solutions were sought to ensure the program continue to run smoothly as expected. The obstacles and problems found during PkM was the instability of wifi, HP support application, and internet package. The impact of this problems made the PkM activity spent a lit bit more time as per schedule for 27 akwat students and PkM team members. Evaluation of the PKM implementation and the program's sustainability after the PKM program concluded that the involvement partners, including the LPPM (Institute for Community Service) of Univresitas Islam Riau and the English Language Education Study Program of the Faculty of Teacher Training and Education (FKIP) of UIR. The evaluation is conducted using a questionnaire and assesses the extent of technology implementation by the partners. Evaluation continues even after the PKM program was completed, with reports of improvements in managerial staff's use of available technology and Gemini AI training provided to partners.

3) The Satisfaction Result on PkM Activity

The satisfaction result data was taken from questionnaire distributed to twenty-seven female students. Based on the results of the Community Service Program (PKM) evaluation questionnaire administered at the end of the community service program, the following data was obtained:

Table1. Satisfactory Level towards PkM Activity

Components	Percentage (%)	Remarks
Community Service Program (PKM) materials meet the needs of partners/participants	92%	Participants satisfied with the materials presented during PkM
PkM activities were implemented in accordance with Partners' expectations	95%	Participants satisfied the preparation of PkM
Method of Presenting the PkM Material is Engaging	90%	Presentation was interesting
The time provided is appropriate	91%	Time consumed appropriate
Positive Involvement from participants	95%	Positive respond from participant
Responses to Partner Complaints/Questions/Problems	93%	Responses were responded well

4) The Problems and Obstacle during PkM activity

Some problems occurred during PkM activity like the instability of wifi, HP support application error, and the shortage of internet package data. The impact of these obstacles made the PkM activity lengthen the time and the students waited for certain time to accommodate the activity. Below is the graph of problem and obstacle faced by PkM team.

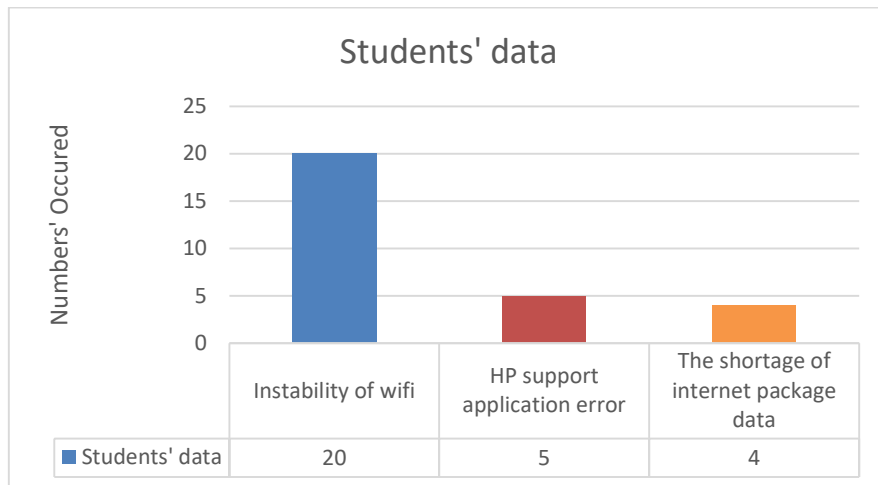


Figure 3. The Problems/Obstacle

The figure 3 above showed that the instability of wifi got high score, it means that the preparation of facility in term of wifi became the highest priority to be solved in the near future.

3.2 Discussion

Based on literature studies, Gemini, as an AI-based tool, is very effective as a support medium for learning English at the high school (SMA) level. This tool has several features that support improving students' understanding of learning materials, especially writing and reading skills. With its modern way, Gemini is an alternative method for teachers in delivering the material and increases student interest in learning Indonesian (Ali, 2024). One of Gemini's advantages is its ability to provide automatic feedback on students' assignments. In terms of writing skills, it allows students to correct their grammar, spelling mistakes, and sentence structure. Gemini's text analysis feature makes it easier for students to find the deeper meaning in the text they read; therefore, it supports critical reading skills. This is in line with the needs of the 21st century where learning requires technology in order to improve the effectiveness and efficiency of the learning process (Wei, 2023). It was found that using AI in education can enhance personalized learning experiences, as well as promote critical thinking and problem-based learning (Arbel, 2024; Wei, 2023). However, the use of this technology cannot be separated from existing challenges such as limited technological infrastructure at schools which are one of the main obstacles to implementing Gemini. Also needs attention is how ready teachers and students are to utilize this technology optimally. To make sure this technology is available and functional requires intensive teacher training as well as provision of supporting devices (Kurtz, 2024). Research shows that successful integration of technology into education depends largely on the readiness and proper training of its users (Kurtz, 2024). This literature review also emphasizes a holistic approach in integrating technology into education. The integration of technologies like Gemini not only brings immediate benefits for learning but also prepares students with essential digital literacy skills in today's world. Therefore, Gemini becomes part of a larger initiative to equip learners with competencies needed for tackling increasingly complex global challenges (Sugianti, 2024). Research shows that AI used in education can help students acquire adaptive skills toward rapid technological changes (Sugianti, 2024). In summary this study reiterated previous findings regarding the positive impact of integrating educational technology within 21st-century learning. As an AI-based tool, Gemini has considerable potential for supporting English language instruction in innovative yet relevant ways; however actual success hinges upon collective efforts toward overcoming existing challenges on both technical fronts as well as user readiness perspectives (Ali, 2024).

4 | CONCLUSION

Gemini AI offers significant potential in supporting English language learning at the high school level with various superior features that can improve the quality of learning in the digital age. Features such as auto-correction, text analysis, and vocabulary development not only simplify the learning process but can also accelerate students' understanding of the material presented. This application has the potential to make learning more interactive, efficient, and engaging, as it provides immediate feedback that can help students refine and improve their language skills. However, Gemini also faces several challenges, such as the need for adequate devices, teacher training, and the suitability of teaching materials for the system. Therefore, for recommendation, although Gemini is a relevant innovation in the context of 21st-century learning,

further study is needed to explore its application in various educational contexts and ensure its benefits are optimally felt by all parties involved in learning English.

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