

ARTIFICIAL INTELLIGENCE (AI) BASED JOURNAL ARTICLE WRITING TRAINING FOR COMPUTER COURSE PARTICIPANTS AT LKP GUNA RAYADI ILMU BANDA ACEH

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Abstract

The development of Artificial Intelligence (AI) technology has provided new opportunities in the world of education, especially in supporting scientific writing activities. However, most computer course participants still have limitations in understanding journal article writing techniques that comply with scientific principles and the effective and ethical use of AI. This community service activity aims to improve the competence of computer course participants in writing AI-based journal articles at LKP Guna Rayadi Ilmu Banda Aceh. The method of implementing the activity includes the preparation stage, training implementation, direct practice, mentoring, and evaluation. The participants numbered 25 people from various educational backgrounds. The material provided included an introduction to AI in scientific writing, reference search techniques using Google Scholar, the use of ChatGPT for compiling article outlines, the use of Mendeley in reference management, and the ethics of using AI in academic writing. The results of the activity showed an increase in participants' understanding of the structure of journal articles and the use of AI as a writing aid. Eighty-eight percent of participants were able to draft simple scientific articles in journal format, while 92% stated that the training was very beneficial in improving their academic skills. This activity demonstrates that the appropriate use of AI can improve the effectiveness and efficiency of the scientific article writing process.

Keywords: Artificial Intelligence, Journal Articles, Training, Digital Literacy, Community Service

INTRODUCTION

Digital transformation has brought significant changes to various aspects of life, including education. One of the most prominent technological developments today is Artificial Intelligence (AI), which can assist users in various activities such as information retrieval, data analysis, document preparation, and scientific writing (Zawacki-Richter et al., 2019; Holmes et al., 2022). The presence of generative AI technologies such as ChatGPT provides new opportunities for students, teachers, and the general public to increase academic productivity (Kasneci et al., 2023). AI can assist the brainstorming process, writing outlines, grammar correction, and even searching for scientific references if used appropriately and responsibly (Tlili et al., 2023; Lo, 2023).

In the context of education and training , the ability to write scientific articles is one of the important competencies that students must possess . However , many computer course participants still experience difficulties in writing scientific articles due to limited understanding of article structure , reference search techniques , citation use , and bibliography management . This condition results in low interest and ability to produce quality scientific work (Cargill & O'Connor, 2013; Swales & Feak , 2012).

As a non-formal educational institution specializing in computer training , LKP Guna Rayadi Ilmu Banda Aceh plays a strategic role in improving the digital competence of the community. As AI technology advances , course participants need to be equipped with the skills to utilize it productively to support academic and professional activities (UNESCO, 2023; Holmes et al., 2022).

Various previous studies and community service activities have shown that training in the use of AI in scientific writing can improve writing skills , accelerate the process of compiling articles , and increase participants' digital literacy (Kasneci et al., 2023; Tlili et al., 2023; Lo, 2023). However , the use of AI must still pay attention to the principle of academic integrity so that AI functions as an aid , not as a substitute for the author's critical thinking skills (UNESCO, 2023; Cotton et al., 2024).

Based on these conditions , the community service team carried out the activity " Artificial Intelligence (AI) Based Journal Article Writing Training for Computer Course Participants at LKP Guna Rayadi Ilmu Banda Aceh" with the aim of improving participants' ability to utilize AI to compile scientific articles effectively , ethically , and in accordance with academic principles .

METHOD

Partners and Activity Participants

The partner in this community service activity is the Guna Rayadi Ilmu Banda Aceh Course and Training Institute (LKP) , which specializes in computer training and information technology skills development for the community . LKP actively organizes various training programs in basic computers , office applications , graphic design , and digital literacy aimed at school , college , and the general public .

The activity involved 25 participants , consisting of active computer course participants at LKP Guna Rayadi Ilmu Banda Aceh. Participants came from various educational backgrounds , including high school students / equivalent , university students , and the general public who were interested in improving their skills in utilizing digital technology , particularly Artificial Intelligence (AI) to support scientific writing . The selection of participants was based on their willingness to participate in the entire training series and their basic computer skills .



Figure 1. Training Activities at the LKP LKP Guna Rayadi Ilmu Banda Aceh

This community service activity was carried out at the Guna Rayadi Ilmu LKP Banda Aceh in May 2026. The method used was participatory training that combined lectures, demonstrations, hands-on practice, and intensive mentoring. This approach was chosen so that participants not only gain a theoretical understanding of AI-based scientific article writing but also are able to apply it directly. The implementation of the activity was carried out through four main stages, namely:

1. Preparation Stage

At this stage, the community service team coordinated with the LKP Guna Rayadi Ilmu Banda Aceh to identify participant needs and determine relevant training materials. In addition, the team also developed training modules, prepared evaluation instruments in the form of pre- and post-tests, and prepared supporting facilities such as a computer laboratory, internet network, Artificial Intelligence applications, Google Scholar, and Mendeley reference management software.

2. Implementation Training

The training was conducted through interactive delivery of materials covering the basic concepts of scientific articles, the structure of journal article writing, scientific reference search techniques, the use of Artificial Intelligence (AI) as a writing tool, and the ethics of using AI in academic activities. In this session, participants were introduced to the use of ChatGPT to

assist in topic identification , article outlining , idea development , and academic language refinement . The training materials included :

- a. Basic concepts of scientific papers and journal articles .
- b. The structure of a scientific article consists of a title , abstract , introduction , method , results and discussion , conclusion , and bibliography .
- c. Utilization of Artificial Intelligence (AI) in the scientific writing process .
- d. Effective prompt construction techniques to generate relevant AI output .
- e. Reference search techniques using Google Scholar.
- f. Using Mendeley for managing citations and bibliographies .
- g. Academic ethics and plagiarism prevention in the use of AI.

3. Practice and Mentoring Stage

After receiving the material , participants were given the opportunity to practice directly using AI in writing a simple scientific article . Each participant was asked to determine the topic of the article according to their respective interests , then compose the title , writing outline , abstract , introduction , and bibliography by utilizing AI responsibly . The community service team provided individual and group guidance to ensure participants were able to understand the article writing process and verify all information obtained from AI using valid scientific reference sources .

4. Evaluation Stage

The activity evaluation was conducted using quantitative and qualitative approaches . The quantitative evaluation used pre- and post-tests to measure participants' knowledge of AI - based scientific article writing . Meanwhile , the qualitative evaluation was conducted through observations during the training , assessments of participant article drafts , and the distribution of questionnaires assessing participant satisfaction with the implementation of the activity . Indicators of activity success include :

1. Increased participants' understanding of the structure and rules for writing scientific articles .
2. Increasing participants' ability to utilize Artificial Intelligence (AI) to support the journal article writing process .
3. Participants' ability to use Google Scholar and Mendeley in the process of searching for references and managing citations .
4. The drafting of a simple scientific article by participants as a training output .
5. The high level of satisfaction of the participants towards the devotional activities carried out .

To measure the effectiveness of the activity , pre-test and post-test results were analyzed descriptively in the form of a percentage increase in participant understanding . In addition , the quality of the article drafts produced by participants was used as an indicator of skill achievement after participating in the training .

RESULTS AND DISCUSSION

Activities

The training was attended by 25 computer course participants from various educational levels. The event lasted for a full day , consisting of theory and practical sessions .

Characteristics of the participants	Number of people)	Percentage (%)
High school students / equivalent	10	40
Student	8	32
General public	7	28
Total	25	100

In the initial session , participants were introduced to the basic concepts of scientific articles and the importance of scientific publications in the academic and professional world . Most participants admitted to having never written a journal article and were only familiar with AI as an information retrieval tool . Next, participants were given training on using ChatGPT to help develop article outlines , formulate problem backgrounds , develop research objectives , and improve academic grammar . Participants were also trained to verify AI output by comparing it to valid reference sources .

Improving Participant Understanding

The evaluation results showed an increase in participants' understanding after attending the training .

Indicator	Before (%)	After (%)
Understanding the structure of journal articles	32	88
Using AI for article writing	20	92
Using Google Scholar	28	84
Using Mendeley	12	80
Understanding the ethics of AI use	24	90

The data shows that the training successfully improved participants' ability to utilize AI technology to support the scientific writing process .

Products

The output of the activity is :

1. A draft of a simple scientific article prepared by the participants .
2. Training module on the use of AI in writing journal articles .
3. Improving participants' digital literacy regarding the responsible use of AI .

These results are in line with various previous community service activities which stated that the use of AI can increase the efficiency of scientific writing and speed up the process of compiling articles if used ethically and in a targeted manner .

Supporting Factors and Constraints

Supporting factors for the activity included the availability of computer facilities , adequate internet connection , and high participant enthusiasm . Challenges encountered included differences in participants' digital skills and limited experience in scientific writing . To address these challenges , the community service team implemented individual mentoring methods so that participants could receive guidance tailored to their individual needs .

CONCLUSION

Journal Article Writing Training Based on Artificial Intelligence (AI) for Computer Course Participants at LKP Guna Rayadi Ilmu Banda Aceh succeeded in improving the competence of participants in compiling scientific articles by utilizing AI technology effectively and responsibly . Participants are able to understand the structure of journal articles , use AI to help draft manuscripts , manage references with Mendeley, and understand the ethics of using AI in the academic world . This activity provides a positive contribution in improving the digital literacy and academic skills of the community , especially computer course participants . In the future , an advanced mentoring program is needed up to the level of publication of articles in scientific journals so that the results of the training can have a wider impact .

THANK-YOU NOTE

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