To Use or Not to Use ChatGPT in Abstracting? AI Usage among Lecturers

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Abstract: This study delves into the integration of ChatGPT, an advanced AI language model, in academic writing among lecturers in Aceh Province, Indonesia, specifically focusing on its application in crafting article abstracts. Through semi-structured telephone interviews with six lecturers, categorized into different user types, including Enthusiastic, Cautious, Positive, Challenged, Complicated, and Unconfident Users, this research unveils a spectrum of attitudes and experiences regarding AI adoption in scholarly communication. Findings reveal diverse perspectives, ranging from enthusiastic endorsement to cautious apprehension, showcasing the nuanced nature of AI integration in academic writing practices. Enthusiastic users' express interest in ChatGPT's potential to boost productivity and simplify abstract writing, while cautious users approach it warily due to concerns about accuracy and plagiarism. Positive users report favorable experiences, commending ChatGPT's user-friendliness and productivity-enhancing features. Challenged users face issues related to accuracy and language nuances, complicating their adoption experience. Complicated users exhibit mixed feelings, balancing utility with concerns about over-reliance and loss of individual voice. Unconfident users display minimal usage, favoring manual methods for authenticity assurance. These insights highlight the need for tailored support and training programs to address users' needs and concerns, facilitating effective AI integration while navigating ethical considerations. This study contributes to understanding AI adoption in academic settings, emphasizing the importance of a balanced approach to leverage benefits while addressing limitations and ethical concerns.

Keywords: ChatGPT; academic writing; AI adoption; lecturers; abstracts

INTRODUCTION

In the realm of academic writing, the integration of artificial intelligence (AI) tools has emerged as a promising avenue for enhancing productivity and efficiency, either computer-based or mobile-based (Kamarullah et al., 2016). With the advent of advanced language models such as ChatGPT, developed by OpenAI, new opportunities have arisen for leveraging AI in various facets of scholarly communication. Traditionally, crafting an abstract—a concise summary of a research paper's key findings—has been a labor-intensive task for scholars, requiring meticulous attention to detail and clarity of expression. The emergence of AI-powered tools like ChatGPT offers the potential to streamline this process, enabling researchers to generate informative abstracts more efficiently. Despite the potential benefits, the extent to which lecturers in Aceh Province utilize ChatGPT for abstract writing remains largely unexplored. Too, previous studies have highlighted the labor-intensive nature of crafting abstracts and have explored various computational methods for automating this process. Mondal and Mondal (2023) advocate for the judicious application of ChatGPT, emphasizing the indispensable role of human judgment alongside AI technologies to ensure the quality and integrity of academic writing. This underscores a critical consideration in the adoption of AI tools, particularly in maintaining academic standards and authenticity.

Meanwhile, Jarrah et al. (2023) draw attention to the importance of proper citation practices as a means to prevent plagiarism when incorporating AI-generated content. This highlights a key challenge in leveraging ChatGPT effectively, wherein the ethical and legal implications of AI-generated text must be carefully navigated to uphold academic integrity. Osama and Afridi (2023) offer insights into the potential advantages of ChatGPT, citing its ability to generate realistic and intelligible text, as well as its quick response time (Kumar, 2023). Additionally, Jacob et al. (2023) contribute a perspective on the role of ChatGPT in supporting language learners in academic writing contexts. Acknowledging its potential to enhance writing proficiency, Jacob et al. (2023) emphasizes the importance of preserving individual authenticity and voice, suggesting that ChatGPT can serve as a valuable aid without overshadowing the unique contributions of learners. Neumann et al. (2023) and Rudolph et al. (2023) offer insights into the potential benefits of ChatGPT, emphasizing its capacity to support assessment preparation and scientific writing processes. However, they also raise pertinent concerns regarding its broader implications for learning, teaching, and assessment methodologies. These findings underscore the multifaceted nature of the debate surrounding ChatGPT's integration into higher education, highlighting the need for a nuanced approach that considers its potential impact on pedagogical practices and student learning outcomes. Nevertheless, ChatGPT as an AI-based writing assistant often face limitations related to accuracy, linguistic complexity, and user acceptance. Kumar (2023) also identifies limitations such as shallow analysis and referencing errors, underscoring the need for critical evaluation and refinement of AI-generated content.

In the context of higher education, the integration of ChatGPT, particularly in the realm of writing journal articles, presents both opportunities and challenges that necessitate careful consideration. A study of Iqbal et al. (2022) sheds light on faculty members' cautious approach to ChatGPT, highlighting concerns surrounding issues of academic integrity, including cheating and plagiarism. This underscores the importance of addressing ethical considerations and establishing clear guidelines for its responsible use in academic settings. Lecturers as the primary subjects who become the model of academic writing, cannot avoid the prevalence of AI-generated text detection tools in academic discourse, as highlighted by Liu et al. (2023). This underscores the significance of investigating lecturers' experiences and perceptions regarding the integration of AI technologies in academic writing practices, particularly in addressing the gaps and challenges identified in existing literature. Firaina (2023) provides a more optimistic perspective, suggesting that lecturers perceive ChatGPT as a valuable tool for information retrieval and productivity enhancement. Nevertheless, the importance of fostering critical thinking skills and verifying information generated by ChatGPT is emphasized, indicating the necessity of promoting digital literacy and responsible AI usage among educators and students alike.

As the grounded basis, the researchers refer to the users' engagement proposed by Nguyen and Ha (2022), which covers four aspects, namely belief structures (perceived compatibility (PC), self-efficacy (SE), and subjective norm (SN)), behavioral adaptation (BA), satisfaction (SA), and continuance intention (CI). The details are presented in Table 1.

Table 1. Users' Engagement toward Digital Platforms (Nguyen & Ha, 2022)

Users' Engagement	Descriptions
Belief structures	
Perceived compatibility (PC)	Getting compatibility of digital platforms toward work aspects
Self-efficacy (SE)	Relying, having confidence and accessibility of digital platforms toward work aspects
Subjective norm (SN)	Getting recommendation of digital platforms
Behavioral adaptation (BA)	Spending time and energy using digital platforms

Satisfaction (SA)	Feeling satisfied with the use of digital platforms
Continuance intention (CI)	Having intentions to keep using digital platforms

Collectively, these studies underscore the complex interplay between ChatGPT's potential benefits and associated challenges in the higher education landscape. While ChatGPT holds promise for enhancing productivity and supporting learning processes, its integration must be approached with caution, accompanied by robust frameworks for ethical usage, critical thinking development, and information verification. This article seeks to address this gap by investigating the adoption of ChatGPT among lecturers in Aceh Province for crafting article abstracts.

Aceh Province, situated on the northern tip of Sumatra Island, Indonesia, boasts a rich blend of traditional culture, Islamic heritage, and ongoing post-conflict recovery efforts. Despite its natural beauty and cultural diversity, Aceh faces challenges in technological adoption and infrastructure development, particularly in remote areas. This lag in technological advancement extends to the educational sector, where limited resources and infrastructure hinder the integration of innovative teaching methods and emerging technologies like AI. Consequently, the adoption of AI tools such as ChatGPT for academic writing practices may be impeded by factors such as limited awareness, resources, and training opportunities for educators in Aceh Province. Moreover, the region's cultural and linguistic diversity, including significant populations of native Acehnese speakers, poses additional challenges in adapting AI technologies to accommodate local language variations and cultural contexts. Given these contextual complexities, there is a clear imperative for research to explore the adoption and implications of AI technologies in academic writing practices among lecturers in Aceh Province. Such research can provide vital insights into the specific challenges and opportunities faced by educators in leveraging AI tools for scholarly communication, while also informing strategies to enhance digital literacy and innovation in the region's higher education sector.

By exploring lecturers' practices, attitudes, and experiences regarding the integration of ChatGPT in academic writing, this research aims to shed light on the current landscape of AI adoption in scholarly communication within the region. The novelty of this research lies in its focus on a relatively unexplored area—the use of AI tools for abstract writing—in the context of Indonesian academia. By examining the adoption of ChatGPT among lecturers in Aceh Province, this study contributes to filling the existing gap in knowledge regarding the application of AI in academic writing practices. Moreover, the insights gained from this research can inform the development of strategies to enhance scholarly communication and digital literacy among Indonesian scholars. To bold the research objective, the purpose of this study is to investigate the adoption of ChatGPT among lecturers in Aceh Province for abstract writing, aiming to provide insights that can inform strategies for enhancing scholarly communication and digital literacy within the Indonesian academic community.

METHOD

Research design

This study employs a qualitative research design to explore the adoption of ChatGPT among lecturers in Aceh Province for abstract writing. Qualitative research methods allow for in-depth exploration and understanding of participants' experiences, attitudes, and practices related to the utilization of AI technologies in academic writing. By conducting semi-structured telephone interviews with lecturers, this research aims to gather rich and detailed insights into their usage of ChatGPT, as well as their perspectives on its efficacy, usability, and ethical considerations in the context of abstract writing. The qualitative approach enables

flexibility in data collection, allowing for the exploration of emergent themes and nuances in participants' responses. Through thematic data analysis, patterns, and themes extracted from the interview data will be identified and interpreted to gain a comprehensive understanding of the research phenomenon. This research design facilitates the exploration of complex phenomena and provides valuable insights that can inform strategies for enhancing scholarly communication practices in the digital age.

Data collection

The population for this study comprises lecturers from various academic institutions in Aceh Province, Indonesia. The selection process involved several steps to ensure the representativeness and diversity of the sample. The initial step involved compiling a list of academic institutions in Aceh Province and identifying lecturers who are actively engaged in scholarly activities, including research and publication.

Then, the inclusion criteria for the population selection included lecturers who:

a. Are currently employed at a recognized academic institution in Aceh Province.
b. Have experience in academic writing, particularly in abstract writing.
c. Are willing to participate in the study.

Contrarily, the exclusion criteria were minimal but included lecturers who:

a. Were on leave during the study period and unavailable for participation.
b. Did not have experience or involvement in academic writing activities.

Purposive sampling was utilized to select participants who met the inclusion criteria and represented a diverse range of academic disciplines and institutional backgrounds. Through this method, six lecturers were selected to participate in the study based on their availability, willingness to participate, and relevance to the research objectives (See Table 1). During the selection process, some potential participants were excluded due to non-availability, lack of interest, or insufficient experience in academic writing. However, the number of excluded participants was minimal and did not significantly impact the sample size (See Table 2).

Table 1. Informants' Demographic

Informants' Initials	Age	Sex	Study Program	Faculty	Universities
BS	38	F	English Education	Education	Universitas Muhammadiyah Mahakarya Aceh
MAF	34	M	Teacher Profession	Education	Universitas Samudra
RM	31	F	Madrasah Ibtidaiyah Teacher Education	Education	IAIN Lhokseumawe
AM	47	M	Islamic History and Cultures	Adab and Humanities	Universitas Islam Negeri Ar-Raniry
LAY	34	F	Forestry	Agriculture	Universitas Syiah Kuala
DS	40	M	Sharia Economic Law	Islamic Economy and Business	IAIN Langsa

Table 2. Inclusion and Exclusion of Research Data Sources

Population	Inclusion criteria	Exclusion criteria	Sampling method	Number Excluded

Aceh Province Lecturers	Currently employed at academic institution; Experience in academic writing; Willing to participate	On leave; Lack of interest; Insufficient experience in academic writing	Purposive sampling	Minimal

Instrument

The primary instrument utilized in this study is the semi-structured telephone interview (Cohen et al., 2007). The interview guide was developed based on a thorough review of existing literature on AI adoption in academic writing and abstract writing practices. The questions included in the interview guide were designed to elicit detailed responses from participants regarding their experiences, attitudes, and practices related to the utilization of ChatGPT for abstract writing.

The interview guide underwent several iterations to ensure its relevance and effectiveness in capturing the desired information. It was refined based on feedback from experts in the field of qualitative research and AI adoption, as well as pilot testing with a small group of lecturers. To enhance the validity of the interview guide, efforts were made to ensure that the questions were clear, relevant, and aligned with the research objectives. Additionally, the use of semi-structured interviews allowed for flexibility in probing and follow-up questions, enabling the exploration of emergent themes (Cohen et al., 2007).

While reliability in qualitative research is context-specific and dependent on the consistency of data collection and analysis procedures, steps were taken to enhance reliability by maintaining consistency in interview administration and data interpretation.

Data analysis

Given the qualitative nature of the study, there are no predefined scoring criteria. Instead, responses from participants were transcribed verbatim and subjected to thematic data analysis (Miles et al., 2018). Themes and patterns emerging from the interview data were identified and analyzed to gain insights into participants' experiences and perspectives on the utilization of ChatGPT for abstract writing.

The interview guide focused on qualitative data collection, aiming to capture the richness and depth of participants' experiences and perspectives. As such, measurement in this context pertains to the qualitative assessment of themes and patterns within the interview data, rather than quantitative metrics. Through the utilization of the semi-structured telephone interview as the primary instrument, this study aims to gather rich and detailed qualitative data that offer insights into the adoption and implications of ChatGPT for abstract writing among lecturers in Aceh Province.

RESULTS AND DISCUSSION

Based on the interviews, all informants have different perspectives in using ChatGPT for their article abstracts. Thematically, the informants' excerpts are showcased and categorized based on the four aspects of use engagement toward digital platforms (Nguyen & Ha, 2022), which in this case, ChatGPT, for writing article abstracts.

The first informant, BS, enthusiastically believed that ChatGPT assisting her quite satisfying in completing her tasks (see Excerpt 1).

Excerpt 1 (E1): *"I find ChatGPT incredibly helpful in generating abstracts quickly. It saves me a lot of time, especially when I'm working on multiple research papers simultaneously."* (BS)

BS in E1 found ChatGPT incredibly helpful in generating abstracts quickly, indicating a high level of perceived compatibility with her workflow. E1 aligns with the literature review's findings highlighting the potential benefits of ChatGPT in enhancing productivity and streamlining the academic writing process. It resonates with perspectives shared by Firaina and Sulisworo (2023), who note that lecturers find ChatGPT helpful in improving productivity. However, caution is warranted, as stressed by Iqbal et al. (2022), to ensure the integrity and authenticity of the generated content.

In the meantime, MAF used ChatGPT in abstracting his papers carefully, as highlighted in E2.

E2: *"While ChatGPT has its merits, I approach it with caution. I am concerned about the accuracy of the generated text and the potential for unintended plagiarism. I always double-check and edit the output before using it."* (MAF)

The cautious approach taken by MAF in E2 reflects concerns raised in the literature review regarding ethical considerations and the risk of unintended plagiarism when using AI-generated content. The cautions and manual output verifications, revealed by MAF, demonstrate behavioral adaptation to ensure accuracy and prevent unintentional fraud. Neumann et al. (2023) and Rudolph et al. (2023) underscore the importance of critical evaluation and responsible usage of AI tools in academic writing, echoing MAF's sentiments.

Furthermore, positively speaking, RM revealed her encouraging experiences in using ChatGPT as showcased in E3. Her positive practices with the tool align with the literature review's findings regarding the potential benefits of AI tools in enhancing productivity and facilitating language refinement. In short, RM found the application user-friendly and productive, resulting in satisfactory of the usage. This perspective resonates with studies by Osama and Afridi (2023), and Kumar (2023), who acknowledged ChatGPT's capacity to generate realistic and intelligible text efficiently.

E3: *"I have had a positive experience using ChatGPT for abstract writing. It is user-friendly and produces concise summaries of my research findings. I have noticed a significant improvement in my productivity since incorporating it into my workflow."* (RM)

Then, similar with MAF, AM confronted ChatGPT with challenges in accuracy as shown in E4. The challenges faced by AM regarding accuracy and language nuances echo concerns raised in the literature review regarding the limitations of AI tools like ChatGPT. The statement indicates a lack of confidence in the app's ability to generate accurate text without manual verification. Kumar (2023) also points out limitations such as lack of depth and referencing errors, which may contribute to the challenges experienced by him

E4: *"While ChatGPT is convenient, I've encountered some challenges with accuracy, especially when it comes to technical terminology and language nuances. I often need to manually verify and edit the generated text to ensure accuracy."* (AM)

Meanwhile, as presented in E5, LAY had mixed feelings of operating ChatGPT for abstract writings.

E5: *"I have mixed feelings about ChatGPT. On one hand, it helps me generate abstracts quickly, but on the other hand, I worry about over-reliance on AI tools and the potential for loss of individual voice in academic writing."* (LAY)

In E5, LAT expressed mixed feelings about the application, highlighting concerns about over-reliance on AI tools and potential loss of individual voice in academic writing. While not explicitly stated, these concerns may be influenced by the user's perception of subjective norms within their academic community. LAY's complicated feelings towards the tool resonate with the literature review's findings, which highlights contrasting perspectives on the adoption and implications of AI tools in academic writing. Jacob et al. (2023) indeed emphasize the importance of maintaining individual authenticity, echoing LAY's concerns about over-reliance on AI tools and loss of voice in academic writing.

Then, negatively, DS admitted in E6 that his infrequent use of ChatGPT for writing article abstracts.

E6: *"I have not used ChatGPT extensively for abstract writing. While I recognize its potential benefits, I prefer to write abstracts manually to ensure authenticity and accuracy. However, I am open to exploring its use in the future."* (DS)

DS's limited usage of ChatGPT reflects the cautious approach adopted by some educators in the literature review. While recognizing the potential benefits of AI tools and has not extensively used them, the user like DS might be open to exploring their use in the future. These suggest a potential intention to continue using the tool. Preferences of carrying our manual writing to ensure authenticity and accuracy, somewhat, align with the emphasis of Mondal and Mondal (2023) on the indispensable role of human judgment alongside AI technologies.

These excerpts illustrate how the perspectives and experiences of the lecturers interviewed in Aceh Province resonate with the findings and discussions presented in the literature review and the background of the issue. They highlight the nuanced nature of AI adoption in academic writing and underscore the importance of addressing challenges while harnessing the potential benefits of AI tools like ChatGPT in scholarly communication.

Aspects of the Framework		Excerpt/ Informant	Codes	Indications
	PC	E1/BS	*Incredibly helpful*	Represents compatibility with workflow
Belief	SE	E4/AM	*Challenges with accuracy*	Indicated behavioral adaptation
	SN	E5/LAY	*Mixed feelings*	Indicates satisfaction with usage
BA		E2/MAF	*Approach with caution*	Represents lack of confidence in accuracy
SA		E3/RM	*Positive experience*	Represents influence of subjective norms
CI		E6/DS	*Open to exploring*	Indicates potential intention to continue usage

Classifications of the Users' Adoption of ChatGPT in Writing Abstracts

The findings of this study unveil a spectrum of belief structures and behavioral adaptations among lecturers in Aceh Province regarding the integration of ChatGPT into their article abstract writing practices. Through the analysis of interview excerpts, users are categorized into six distinct groups based on framework aspects of Nguyen and Ha (2022) (see Figure 1). This categorization offers a nuanced understanding of the complexities surrounding the adoption of ChatGPT and its implications for academic writing in the context of Aceh Province.

Enthusiastic users (PC), exemplified by BS, express a keen enthusiasm for ChatGPT, viewing it as a valuable tool to enhance productivity and streamline the abstract writing process. Their positive outlook resonates with existing literature emphasizing the potential benefits of AI tools in improving efficiency (Firaina & Sulisworo, 2023). However, it's essential to exercise caution to uphold the integrity and authenticity of the generated content, as emphasized by Iqbal et al. (2022). The enthusiasm suggests a positive perception of its utility in enhancing productivity and streamlining the abstract writing process. This finding may indicate a high level of comfort with technology and a willingness to adopt AI tools to expedite academic tasks. Enthusiastic users may prioritize efficiency and time-saving benefits over concerns about accuracy and authenticity.
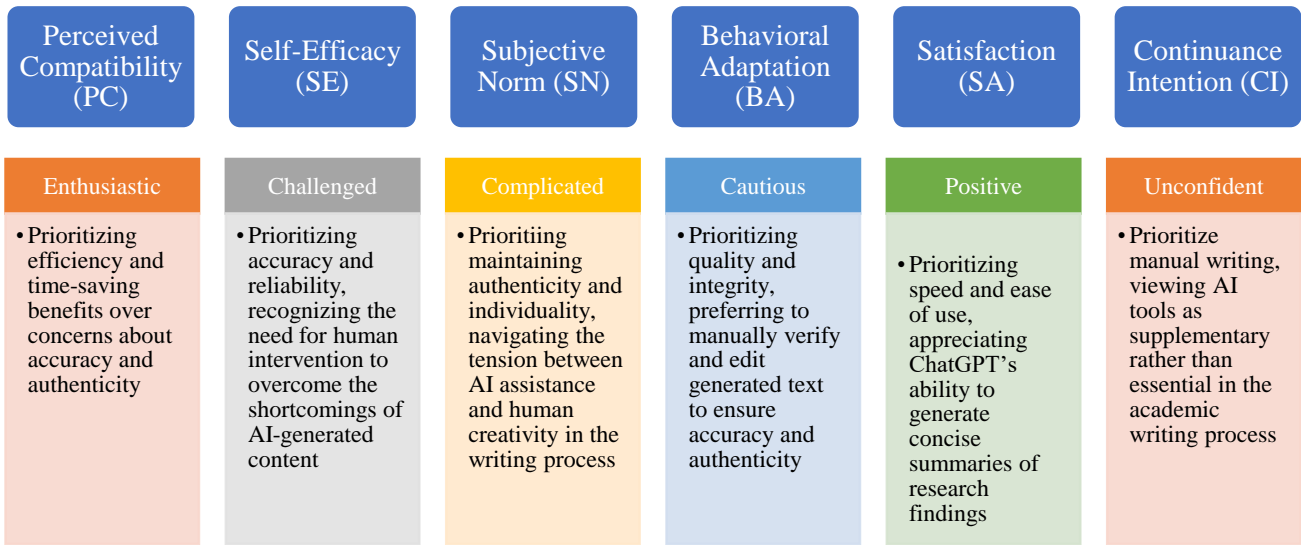

Users in Writing Article Abstracts

Figure 1. Lecturers' Adoption of ChatGPT

Enthusiastic users (PC), exemplified by BS, express a keen enthusiasm for ChatGPT, viewing it as a valuable tool to enhance productivity and streamline the abstract writing process. Their positive outlook resonates with existing literature emphasizing the potential benefits of AI tools in improving efficiency (Firaina & Suliswaro, 2023). However, it's essential to exercise caution to uphold the integrity and authenticity of the generated content, as emphasized by Iqbal et al. (2022). The enthusiasm suggests a positive perception of its utility in enhancing productivity and streamlining the abstract writing process. This finding may indicate a high level of comfort with technology and a willingness to adopt AI tools to expedite academic tasks. Enthusiastic users may prioritize efficiency and time-saving benefits over concerns about accuracy and authenticity.

Furthermore, users facing challenges with ChatGPT (SE), such as AM, encounter issues related to accuracy and language nuances. These challenges echo limitations highlighted in the literature, underscoring the need for refinement and manual verification of generated text (Kumar, 2023). The challenges faced by users like AM, particularly regarding accuracy and language nuances, underscore the limitations of AI tools like ChatGPT. This finding highlights the importance of manual verification and editing to ensure the quality and precision of generated text. The users may prioritize accuracy and reliability, recognizing the need for human intervention to overcome the shortcomings of AI-generated content.

Next, complicated users (SN), exemplified by LAY, express mixed feelings towards ChatGPT, balancing its utility with concerns about over-reliance and loss of individual voice in academic writing. Their ambivalence reflects contrasting perspectives on AI adoption in academic writing (Jacob et al., 2023). The mixed feelings expressed by users like LAY reflect a nuanced perspective on the adoption of ChatGPT, balancing its potential benefits with concerns about over-reliance and loss of individual voice in academic writing. This finding suggests a critical evaluation of the implications of AI integration in scholarly communication, considering both the advantages and drawbacks. Complicated users may prioritize maintaining authenticity and individuality, navigating the tension between AI assistance and human creativity in the writing process.

On the other hand, cautious users (BA), such as MAF, approach ChatGPT with apprehension, citing concerns about accuracy and unintended plagiarism. Their cautious approach aligns with literature highlighting the importance of critical evaluation and responsible usage of AI tools (Neumann et al., 2023; Rudolph et al.,

2023). The cautious approach reflects a critical stance towards ChatGPT, balancing the potential benefits with concerns about accuracy and plagiarism. This finding suggests a nuanced understanding of the limitations and ethical implications of AI tools in academic writing. These users may prioritize quality and integrity, preferring to manually verify and edit generated text to ensure accuracy and authenticity.

Then, positive users (SA), represented by RM, share encouraging experiences with ChatGPT, praising its user-friendliness and productivity-enhancing features. Their positive practices align with literature emphasizing the potential benefits of AI tools in facilitating language refinement and productivity (Kumar, 2023; Osama & Afridi, 2023). The positive experiences highlight the user-friendliness and productivity-enhancing features of ChatGPT. This finding suggests that positive users may value the efficiency and convenience offered by AI tools, viewing them as valuable aids in academic writing tasks. This type of users may prioritize speed and ease of use, appreciating ChatGPT's ability to generate concise summaries of research findings.

Finally, unconfident users (CI), like DS, exhibit limited usage of ChatGPT for abstract writing, preferring manual methods to ensure authenticity and accuracy. Their cautious approach aligns with literature emphasizing the indispensable role of human judgment alongside AI technologies (Mondal & Mondal, 2023). The kind of users like this indicates a cautious approach towards AI adoption in academic writing. This finding suggests a preference for traditional writing methods to ensure authenticity and accuracy. Unconfident users may prioritize manual writing, viewing AI tools as supplementary rather than essential in the academic writing process.

In light of these findings, personalized support and training programs are needed to address the varied needs and concerns of lecturers regarding ChatGPT usage. Additionally, future research can explore the long-term impact of adoption to the application on academic writing practices and student learning outcomes, further enhancing our understanding of AI integration in higher education settings.

CONCLUSION

In conclusion, this study provides valuable insights into the diverse perspectives and experiences of lecturers in Aceh Province regarding the utilization of ChatGPT for writing article abstracts. Through categorizing users into distinct groups based on user engagements on ChatGPT, covering belief structures and behavioral adaptations, we have identified varying levels of enthusiasm, caution, positivity, challenges, complexities, and confidence towards AI adoption in academic writing. These findings underscore the nuanced nature of AI integration in scholarly communication and highlight the importance of tailored support and training programs to address users' needs and concerns. Moving forward, a balanced approach that leverages the benefits of AI tools while addressing limitations and ethical considerations is essential to foster effective AI integration in academic writing practices.

One limitation of this study is the small sample size of lecturers from Aceh Province, which may limit the generalizability of the findings to other contexts. Additionally, the study relies on self-reported data from interviews, which may be subject to biases and variations in interpretation. Furthermore, the study focuses specifically on the utilization of ChatGPT for writing article abstracts, overlooking potential differences in attitudes towards other AI tools or writing tasks. Future research could address these limitations by incorporating larger and more diverse samples, employing mixed-method approaches for data collection, and exploring a broader range of AI technologies and writing contexts.

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