AI Integration in English Language Oral Proficiency: A Study of Diploma Students' Readiness in a Malaysian Public University

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ABSTRACT

The study investigates the readiness of diploma students at a Malaysian public university to integrate Artificial Intelligence (AI) into English language oral proficiency learning. As AI technologies rapidly advance, educational institutions are exploring innovative methods to enhance language learning experiences. This research focuses on students' understanding of AI, their comfort levels with technology, concerns regarding AI implementation, and expectations for AI-assisted language learning. Through qualitative focus group interviews with 15 diploma students, the study reveals varying degrees of familiarity and comfort with AI, alongside significant concerns about over-reliance on technology. The findings highlight the need for tailored educational strategies that address these concerns while leveraging AI's potential to improve oral proficiency.

Keywords: Artificial Intelligence (AI), English language learning, oral proficiency, student readiness, technology integration.

INTRODUCTION

The rapid advancement of Artificial Intelligence (AI)—the simulation of human intelligence in machines programmed to think and learn—has ushered in a new era of technological integration across various sectors, with education emerging as a significant frontier for innovation (Smith & Johnson, 2023). In the realm of language learning, AI integration has shown promising potential to revolutionize traditional pedagogical approaches, particularly in enhancing oral proficiency skills, defined as the ability to speak clearly, fluently, and effectively in a given language (Chen et al., 2022). For diploma students in Malaysian public universities, proficiency in English oral communication is not merely an academic requirement but a crucial skill for future career prospects in an increasingly globalized job market (Ahmad & Lim, 2021).

AI integration in language learning environments offers unprecedented opportunities for personalized instruction, real-time feedback, and immersive practice scenarios (Wang, 2024). However, the success of these technological interventions relies heavily on the readiness and receptivity of the student population. While AI applications in education continue to expand, understanding students' preparedness for this shift is essential to fully harness its benefits. Despite a growing body of research on AI in education, researchers have yet to thoroughly examine how prepared diploma students in Malaysian public universities are for AI-integrated English oral proficiency learning (Lai et al., 2024).

This study aims to bridge this knowledge gap by exploring the readiness of diploma students for AI integration in their English oral proficiency learning journey. Specifically, it seeks to uncover students' understanding of AI, their comfort levels with technology, concerns about AI integration, and expectations for AI-assisted language learning. By focusing on students in their third semester across various diploma courses at Universiti Teknologi MARA (UiTM) Cawangan Kelantan, this research provides a targeted examination of a critical demographic in the Malaysian higher education landscape.

The significance of this study lies in its potential to inform educational policies and practices for incorporating AI into language learning curricula. Lai et al. (2024) emphasises in their study on AI readiness in higher education that understanding students' perspectives is crucial for developing effective, user-centered digital learning environments. Their research underscores the importance of assessing students' familiarity with AI

concepts, their attitudes towards its role in education, and their perceptions of the benefits and challenges of this technology in academic settings.

Furthermore, Veerachaisantikul and Chootarut (2023) underscore the critical need to assess students' readiness for AI integration to ensure successful implementation and maximize learning outcomes. Their study on AI readiness in Thai higher education provides valuable insights into the factors influencing students' acceptance of AI in learning, including perceived usefulness, ease of use, and social influence. By delving into students' perceptions and experiences, our research builds upon these findings and contributes valuable insights that can guide educators, policymakers, and technology developers in tailoring AI-based language learning tools to meet the specific needs and expectations of Malaysian diploma students.

Moreover, this study's focus on oral proficiency addresses a critical aspect of language learning that is often challenging to practice and assess in traditional classroom settings. AI-integrated technologies offer innovative solutions to these challenges, but their successful implementation requires a nuanced understanding of student readiness (Zhang & Li, 2023). By examining this readiness through qualitative focus group interviews, this research provides a rich, contextual understanding that quantitative studies alone may not capture.

In an era where technological literacy is closely linked with language skills, this study bridges educational technology and language teaching. Its findings could improve English education in Malaysian public universities and contribute to the broader conversation on using AI in higher education across diverse cultural and linguistic settings.

LITERATURE REVIEW

AI Integration in Language Learning

The integration of Artificial Intelligence (AI) in English language education has gained traction worldwide, transforming traditional teaching and learning models. Recent studies highlight AI's potential to offer tailored learning experiences, instant feedback, and adaptive content in language learning contexts (Li et al., 2021). For example, Chen and Liu (2022) demonstrated through experimental trials how AI-powered chatbots enhanced conversational practice, significantly improving learners' fluency and confidence.

In Malaysia, AI integration in language education is still in its early stages but shows encouraging results. A study by Rahman et al. (2023) assessed AI-driven pronunciation tools in Malaysian universities, revealing measurable improvements in students' pronunciation accuracy and oral proficiency. In addition, Lai et al. (2024) investigated Malaysian students' preferences for AI tools to enhance English oral presentation skills. Using surveys and interviews, they found a strong preference for AI-assisted learning, particularly in pronunciation practice and real-time feedback during presentations.

While these results appear promising, broad implementation of AI in language education faces significant hurdles. Challenges such as inadequate technological infrastructure, the need for teacher training, and ethical considerations—such as student privacy and data security—are central to effective integration (Wang & Zhang, 2023). Addressing these obstacles is essential for AI to fulfill its potential in enhancing language education.

Oral Proficiency in English

Developing oral communication skills is essential for ESL learners, especially in higher education and for future career success. Oral proficiency includes key components such as pronunciation, fluency, vocabulary use, and engagement in meaningful dialogue (Brown & Lee, 2021). Effective oral communication is increasingly recognized as critical in academic and professional settings; for example, Johnson et al. (2022) found that strong oral skills correlated positively with academic success and job placement rates among university graduates.

In Malaysia, oral proficiency in English is particularly vital for employability. Ahmad and Lim (2021) highlight that English-speaking skills significantly enhance Malaysian graduates' career prospects.

Nevertheless, achieving this proficiency is often challenging for ESL learners, with anxiety playing a notable role. In a study of Mainland Chinese postgraduates at a Malaysian university, Lai et al. (2024) found that language anxiety had a measurable negative impact on oral performance, emphasizing the need for supportive learning environments and anxiety-reducing strategies in language instruction.

Student Readiness for Technology in Learning

As education technology evolves, understanding student readiness for AI-driven innovations is critical. Research has identified several factors that influence students' acceptance and readiness for AI-integrated learning. Veerachaisantikul and Chootarut (2023), for instance, conducted a survey-based study to assess student readiness for AI integration in higher education, identifying perceived usefulness, ease of use, and social influence as key factors in shaping student readiness. Similarly, Martinez and Garcia (2022) found that students' prior experience with technology and attitudes toward AI significantly affected their readiness to engage with AI-powered tools.

In the language learning context, Lai et al. (2024b) specifically explored Malaysian students' preferences for AI tools to improve their English oral presentation skills. Their survey results indicate a general openness to AI-assisted learning, particularly in areas like pronunciation practice and immediate feedback. This suggests a growing preparedness among students to incorporate AI tools into language learning.

However, ensuring equitable access and readiness across diverse student populations remains a challenge. Thompson et al. (2023) highlighted disparities in technological readiness among students from varying socioeconomic backgrounds, stressing the importance of targeted support and interventions to bridge these gaps.

As AI integration continues to permeate education, fostering student readiness is crucial for successful implementation. In the context of English language learning, AI tools hold significant potential to enhance oral proficiency development, but this potential can only be fully realized when students are well-prepared and adequately supported.

METHODOLOGY

This study employs a qualitative research design to explore diploma students' readiness for AI integration in English language oral proficiency learning at a Malaysian public university. The methodology is structured to gather in-depth perceptions and experiences from the participants through focus group interviews.

Research Design

This section outlines the rationale behind the study's qualitative approach and explains why focus group interviews were selected as the primary data collection method. A qualitative approach was chosen due to its ability to provide rich, contextual data on students' perspectives and experiences (Creswell & Poth, 2023). Specifically, focus group interviews allow for dynamic interaction among participants, encouraging the emergence of diverse viewpoints and the exploration of shared experiences (Morgan, 2022).

Participants

This section details the participant selection process and criteria. The study involved 15 diploma students from Universiti Teknologi MARA Cawangan Kelantan (UiTMCK). Participants were selected using purposive sampling to ensure a diverse representation across various diploma programs. The selection criteria were as follows:

i. Enrolled in semester 3 of a diploma program at UiTMCK

ii. Representation from different diploma courses offered in UiTMCK (e.g., Business Management, Accounting, Arts and Design, Public Administration, Information Management, Statistics, Computer Science, and Mathematical Sciences)

iii. Varied levels of English language proficiency and technology exposure

The participants were divided into three focus groups, each consisting of five students. This group size was chosen to facilitate meaningful discussion while allowing all participants ample opportunity to share their views (Krueger & Casey, 2021). A sample size of 15 is considered appropriate for qualitative research, as it allows for in-depth exploration of participants' perspectives while ensuring a rich diversity of experiences and insights.

Data Collection

This section describes the data collection process, including the format and structure of the focus group interviews. Data collection was conducted through three separate focus group interview sessions, each lasting approximately 90 minutes. The interviews were held in a quiet, comfortable setting on the university campus to ensure privacy and encourage open discussion.

A semi-structured interview guide was developed, focusing on the following key areas:

3.3.1 Students' understanding of AI and its potential applications in language learning

3.3.2 Comfort level with technology in educational settings

3.3.3 Concerns about AI integration in language learning

3.3.4 Expectations for AI integration in oral proficiency development

Sample open-ended questions included:

- "What comes to mind when you think about AI in language learning?"
- "How comfortable are you with using technology for learning English?"
- "What concerns do you have about using AI for developing oral proficiency?"
- "How do you think AI could help improve your English speaking skills?"

The interviews were conducted in English, with the option for participants to clarify or elaborate in Bahasa Malaysia if needed. All sessions were audio-recorded with participants' consent, and a research assistant took additional notes to capture non-verbal cues and group dynamics.

Data Analysis

This section outlines the data analysis process utilized in the study. The data analysis process followed a thematic analysis approach, as outlined by Braun and Clarke (2022). Thematic analysis was chosen for its flexibility and suitability in capturing complex patterns and themes within qualitative data, allowing for a rich and detailed understanding of participants' experiences and perspectives. The following steps were taken:

3.4.1 Familiarization with the data: Transcribing the audio recordings and reading through the transcripts multiple times.

3.4.2 Generating initial codes: Systematically coding interesting features across the entire data set.

3.4.3 Searching for themes: Collating codes into potential themes and gathering all relevant data for each potential theme.

3.4.4 Reviewing themes: Checking if the themes work in relation to the coded extracts and the entire data

set.

3.4.5 Defining and naming themes: Ongoing analysis to refine the specifics of each theme and the overall story the analysis tells.

3.4.6 Producing the report: Selection of vivid, compelling extract examples, final analysis of selected extracts, and relating back of the analysis to the research question and literature.

To ensure reliability, two researchers independently coded a subset of the data and compared their coding schemes. Any discrepancies were discussed and resolved to establish a consistent coding framework.

Ethical Considerations

This section outlines the ethical measures taken to protect participants' rights and ensure research integrity. The following steps were implemented:

3.5.1 Informed Consent: All participants were provided with a detailed information sheet explaining the study's purpose, procedures, and their rights. Written consent was obtained from each participant before the focus group interviews.

3.5.2 Confidentiality: Participants' identities were protected through the use of pseudonyms in all transcripts and reports. Any potentially identifying information was removed or altered.

3.5.3 Voluntary Participation: Students were informed that their participation was entirely voluntary and that they could withdraw from the study at any time without any negative consequences.

3.5.4 Data Protection: All audio recordings and transcripts were stored securely on password-protected devices, accessible only to the research team.

3.5.5 Institutional Approval: The study received approval from the UiTM Research Ethics Committee before commencement.

3.5.6 Respectful Conduct: The researchers maintained a respectful and non-judgmental atmosphere during the focus group interviews, ensuring that all participants felt comfortable sharing their views**.**

FINDINGS

The findings are organized into four key themes: Diverse Understandings of AI and Its Educational Potential, Mixed Comfort Levels with AI Technology, Concerns About Over-Reliance on AI in Learning, and High Expectations for AI Integration. These themes collectively illustrate how students perceive AI's role in enhancing their language learning journey, highlighting both its potential benefits and challenges.

Theme 1: Diverse Understandings of AI and Its Educational Potential

The study revealed that students exhibited varying levels of familiarity with artificial intelligence (AI) and its applications in education. Some participants expressed a solid understanding of AI, identifying it as a tool that could enhance their language learning experience. One student stated:

“AI can give us personalized feedback that we don’t always get from teachers. It’s like having a tutor available 24/7.”

However, others were less aware of its potential benefits, with a participant remarking:

“I’ve heard of AI, but I’m not sure how it can help me learn English. I need to learn more about it.”

This disparity highlights the need for educational institutions to improve awareness and accessibility of AI

technologies among students, aligning with findings from Luckin et al. (2016), which emphasize the necessity of integrating technology education in curricula.

Theme 2: Mixed Comfort Levels with AI Technology

Participants reported a varied comfort level regarding their ability to use AI tools effectively. While some students felt confident in their technological skills and expressed enthusiasm about integrating AI into their learning, others voiced concerns about their proficiency. One participant shared:

"I love technology, but I'm worried I won't know how to use AI tools properly. It seems complicated."

This sentiment was particularly pronounced among students with less exposure to digital tools, who feared they might struggle to adapt.

Another student noted:

"Sometimes I feel lost when trying to use new apps; I wish we had more training."

Previous research by Bandura (1997) suggests that self-efficacy significantly influences students' willingness to engage with new tools. Thus, the findings suggest that comfort with technology is crucial for successful AI integration, indicating a need for targeted training programs to bolster students' self-efficacy in using these tools (Creswell & Poth, 2023).

Theme 3: Concerns About Over-Reliance on AI in Learning

A significant theme that emerged from the focus group discussions was the concern regarding over-reliance on technology. Participants expressed fears of becoming too dependent on AI tools, believing this could hinder their ability to develop essential language skills independently.

One student expressed:

"If we rely too much on AI, we might forget how to speak on our own. I don't want to lose my skills."

Additionally, some students worried about AI replacing traditional learning methods and the personal interaction that comes with them. Another participant noted:

"AI is great, but we still need our teachers to guide us. Technology shouldn't take the place of human connection."

These concerns echo the literature on the balance between traditional teaching methods and technological integration, highlighting the importance of maintaining personal interaction in learning environments (Heffernan & Heffernan, 2014).

Theme 4: High Expectations for AI Integration

Students articulated high expectations for how AI might enhance their learning experience, particularly in improving their oral proficiency. Many participants hoped that AI could provide tailored practice opportunities, such as simulated conversations with virtual tutors or instant feedback on speaking performance.

For instance, one participant noted:

"It would be great to practice speaking with an AI that can correct my pronunciation in real time. I need that immediate feedback."

Specific areas identified where they believed AI could be beneficial included pronunciation correction, vocabulary expansion, and real-time language practice.

Another student added:

"If AI can help me learn new words and use them in conversations, I'd be really excited about that."

These insights suggest that students are not only open to the integration of AI but also envision its potential to significantly enrich their language learning journey.

In conclusion, the findings indicate that while diploma students at Universiti Teknologi MARA Cawangan Kelantan are generally optimistic about the integration of AI in English language oral proficiency learning, there are critical areas of concern and varying levels of readiness that must be addressed to facilitate effective implementation.

DISCUSSION

The findings of this study provide valuable insights into diploma students' readiness for AI integration in English language oral proficiency. The students' varying levels of familiarity with AI echo previous research highlighting a general lack of awareness about AI applications in educational contexts (Luckin et al., 2016). While some participants recognized AI's potential to enhance language learning, others exhibited hesitance due to limited exposure to specific tools. This aligns with Kukulska-Hulme's (2020) findings, which indicate that, although students are generally optimistic about technology's role in education, significant gaps remain in their understanding of how to effectively utilize these tools.

Additionally, the mixed comfort levels reported by participants resonate with findings from other studies. Bandura (1997) emphasized that self-efficacy and prior experience with technology significantly influence students' willingness to engage with new tools. In this study, students expressed varied confidence levels in using AI technologies, suggesting that effective integration relies on building familiarity and competence. For instance, a participant's concern about struggling with new applications underscores the importance of providing adequate training and support, as indicated by the literature (Ertmer & Ottenbreit-Leftwich, 2010).

The concerns raised about over-reliance on technology and fears of losing personal interaction in learning environments reflect broader apprehensions documented in the literature regarding the balance between traditional teaching methods and technological integration (Heffernan & Heffernan, 2014). This balance is essential in promoting a learning environment that values both technological advancements and interpersonal engagement.

The practical implications for educators and institutions aiming to integrate AI into English oral proficiency courses are significant. First, there is a clear need for tailored AI tools that address students' specific concerns and expectations. For example, AI-powered platforms such as Duolingo or Rosetta Stone could be integrated into the curriculum to provide personalized language practice and immediate feedback on pronunciation. Additionally, virtual conversation partners, such as Speakly or ELSA Speak, could simulate real-life speaking scenarios, addressing students' desires for practical application of language skills. Educators should consider developing or adopting AI applications that not only enhance language skills but also foster a sense of autonomy and confidence among learners.

Moreover, institutions should focus on creating a supportive environment that encourages experimentation with AI technologies while maintaining traditional pedagogical methods. This balanced approach can help mitigate fears of over-reliance on technology and ensure that students continue to benefit from interpersonal interactions in their learning processes. Additionally, findings from this study may reflect trends in other regions or educational systems, where there is an ongoing global conversation about the role of AI in education. For instance, studies in European and North American contexts have similarly highlighted students' mixed feelings toward technology integration and the need for educator support (García-Sánchez et al., 2020). Understanding these shared challenges can inform more comprehensive strategies for AI implementation in diverse educational settings.

By addressing the specific needs and concerns of students, educators can leverage AI not just as a tool for

language learning, but as a means to create more engaging and personalized educational experiences that prepare learners for the demands of a rapidly evolving digital world.

Limitations

This study acknowledges several limitations. The small sample size of 15 diploma students from a single institution may limit the generalizability of the findings. Additionally, focusing exclusively on diploma students at Universiti Teknologi MARA Cawangan Kelantan (UiTMCK) restricts insights into the broader student population across different educational contexts. Variations in experiences and perceptions may exist among students from other universities or academic programs.

RECOMMENDATIONS FOR FUTURE RESEARCH

Future research should explore several avenues to build upon this study's findings. One potential direction is to frame specific research questions that can guide subsequent investigations, such as:

5.2.1 What factors influence students' comfort levels with various AI tools in language learning?

5.2.2 How do different demographic factors, such as age, prior experience with technology, and field of study, impact students' readiness for AI integration?

5.2.3 What are the long-term effects of using AI tools on language proficiency and learner engagement?

Expanding the research to include a larger and more diverse sample across multiple universities—particularly in varied educational contexts and geographic regions—could provide a more comprehensive understanding of students' readiness for AI integration in language learning. For example, including institutions from urban and rural areas or different educational systems, such as vocational versus academic programs, could yield valuable insights into how contextual factors influence students' perceptions and experiences with AI.

Furthermore, investigating students' actual experiences with AI tools in practice would yield insights into how these technologies impact their learning outcomes and engagement levels. This could involve qualitative studies that document students' interactions with specific AI applications in real learning environments.

Additionally, the potential for intervention studies should be highlighted, assessing the effectiveness of specific AI tools or training programs. For instance, researchers could implement a study where one group of students receives training on using a particular AI tool, while another group does not, allowing for comparisons of language proficiency and engagement over time.

In conclusion, while this study sheds light on diploma students' readiness for AI integration in English language oral proficiency, it also underscores the need for ongoing research to fully understand the complexities involved in this technological transition. By addressing the identified limitations and pursuing further research avenues, educators and institutions can better navigate the challenges and opportunities presented by AI in education.

CONCLUSION

This research highlights the readiness of diploma students at UiTMCK for the integration of AI in English language oral proficiency learning. The findings reveal a complex landscape of perceptions among students, showcasing both optimism about the potential benefits of AI—such as personalized feedback and enhanced practice opportunities—and notable concerns regarding over-reliance on technology and their technological skills.

The overarching message from this study emphasizes the critical need for support in the AI integration process. Addressing students' diverse levels of familiarity with AI and their associated apprehensions is essential for fostering effective integration. This can be achieved by developing tailored strategies that not only introduce

AI tools but also enhance students' confidence and competence in using them.

Educators and institutions must prioritize the creation of supportive learning environments that balance technological innovation with traditional pedagogical approaches. By investing in the development of AI resources and comprehensive training programs, they can help mitigate fears and encourage active engagement with AI in language learning. This proactive approach will ultimately empower students to harness the full potential of AI, enriching their language learning experience and preparing them for future challenges.

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