UTILIZING AI FOR TEACHING ENGLISH PRONUNCIATION IN FILIPINO STUDENTS' CLASSES

A THESIS

By

Akromu Wajihan

Student Number: 06011282126065

English Education Study Program

Language and Arts Education Department

FACULTY OF TEACHER TRAINING AND EDUCATION

SRIWIJAYA UNIVERSITY

2025

APPROVAL

UTILIZING AI FOR TEACHING ENGLISH PRONUNCIATION IN FILIPINO STUDENTS' CLASSES

A THESIS

By

Akromu Wajihan

Student Number: 06011282126065

English Education Study Program

Language and Arts Education Department

FACULTY OF TEACHER TRAINING AND EDUCATION SRIWIJAYA UNIVERSITY

Approved by,

Advisor

Dr. Rita Inderawati, M.Pd.

NIP. 196704261991032002

Certified by,

Coordinator of English Education Study Program,

Eryansyah, M.A, Ph.D.

NIP. 196907181995121001

COMMITTEE APPROVAL

UTILIZING AI FOR TEACHING ENGLISH PRONUNCIATION IN FILIPINO STUDENTS' CLASSES

Akromu Wajihan

Student Number: 06011282126065

This Thesis was defended by the researcher in the final program examination and was approved by the examination committee on:

Day : Wednesday
Date : March 26, 2025

EXAMINATION COMMITTEE APPROVAL

1. Chairperson : Dr. Rita Inderawati, M.Pd. ( )

2. Member : Amrullah, M.Pd., P.Hd. ( )

Palembang, March 2025

Certified by,

Coordinator of English Education Study Program,

Eryansyah, M.A, Ph.D.

NIP. 196907181995121001

DECLARATION

I, the undersigned,

Name : Akromu Wajihan

Student Number : 06011382126065

Study Program : English Education

Certify that the thesis entitled "Utilizing AI for Teaching English Pronunciation in Filipino Students' Classes" is my own work and I did not engage in any plagiarism or inappropriate quotation contrary to the ethics and regulations set forth by the Ministry of Education of the Republic of Indonesia, Number 19, 2010, regarding plagiarism in higher education. Therefore, I acknowledge that I deserve to face legal consequences if I am found to have plagiarized this work.

Palembang, April 2025

The undersigned

Akromu Wajihan

NIM. 06011382126065

DEDICATIONS

This thesis is dedicated to my cherished family: Alm K.H Muslih Qori as my father, Almh Hj. Asiah Yazid as my mother, Muhammad Al-Mujawwad as my brother, Mafazan Maqdiah as my sister, and mu dearest friends. For your unwavering support and boundless love, I am forever grateful. Your encouragement has been my guiding light, illuminating the path to this achievement. Thank you for being my constant source of strength and inspiration.

MOTTOS

"Yesterday is history, tomorrow is a mystery, today is a gift. That's why we call it present."

-Oogway "KungFu Panda"

"Do not be sorry, be better."

-Kratos "God of War"

ACKNOWLEGMENTS

This thesis is intended to fulfil one of prerequisites for the Undergraduate Degree (S1) in English Education Study Program, Faculty of Teacher Training and Education, Sriwijaya University. At first, the writer wisher to express his heartfelt gratitude to Allah Subhanahu Wa Ta'ala, the Most Gracious and Merciful, for His blessings, mercy, abd guidance that permitted this thesis to be completed. In finishing this thesis, the writer would like to express his heartfelt gratitude to:

First, Dr. Rita Inderawati, M.Pd. as his Advisor, who always helped, guided, and motivated him in finishing this thesis.

Second, the Dean of Faculty of Teacher Training and Education of Sriwijaya University (Dr. Hartono, M.A.), the Head of Language and Arts Education Department (Prof. Soni Mirizon M.A, Ed.D), the Coordinator of English Education Department (Eryansah, M.A., Ph.D.), and all lecturers and staff members of the English Education Study Program of Sriwijaya University. All knowledge and experience that has been given are very useful of the writer.

Third, all research participants who have been willing to help the writer to collect data.

Fourth, all of writer's friends from Indralaya and Palembang class, who have accompanied the writer from the beginning to the end.

Fifth, dearest parents, brother, and sister who always care, gives strength, and never ending pray. Without them, the writer will never be reached this point of his life.

Last, Annisa Salsabila who has helped, motivated, and inspired the writer to work on his thesis.

Indralaya, 26 March 2025

The Writer

Akromu Wajihan

TABLE OF CONTENTS

LIST OF TABLES

LIST OF APPENDICES

ABSTRACT

Proper pronunciation skills in English are essential for fluent communication and academic and professional success. However, Filipino students often face challenges in mastering pronunciation due to the differences in phonetic systems between English and their native language. On the other hand, the development of artificial intelligence (AI) has brought innovations in language learning, especially in pronunciation teaching. Various AI applications are now being used to analyze and provide real-time feedback on students' pronunciation, which is expected to improve their pronunciation accuracy. This study aims to explore the effectiveness of AI-based tools in improving Filipino students' English pronunciation. Then, identify the challenges and opportunities in applying AI to English pronunciation teaching. Then, understand the extent to which AI technology can support students' self-directed learning in improving pronunciation. This study uses a qualitative approach with a case study method. Data were collected through semi-structured interviews using Zoom with six Filipino students who have used AI-based tools in English learning. Then, the data were analyzed through data condensation, data presentation, and conclusion drawing and verification. The results showed that AI is effective in improving Filipino students' English pronunciation by improving intonation, articulation, and confidence through direct feedback. However, challenges such as technological issues, unclear feedback, and lack of cultural awareness in AI need to be addressed to better suit the language and cultural backgrounds of students. Although AI has great potential in language acquisition, technological limitations and cultural relevance can hinder its effectiveness. With careful data analysis ensuring the reliability of the findings as well as providing in-depth insights into students' experiences in using AI. It can be concluded that AI has great potential in improving Filipino students' English pronunciation learning.

Keywords: *AI, English Language Teaching, Pronunciation, Filipino Students*

A thesis by an English Education Study Program student, Faculty of Teacher Training and Education, Sriwijaya University

Name : Akromu Wajihan

Student Number : 06011382126065

Certified by,
Head of English Education Study Program

Eryansyah, M.A., Ph,D.
NIP.196907181995121000l

Approved by,
Advisor

Dr. Rita Inderawati, M.Pd.
NIP.196704261991032002

INTRODUCTION

Background

Accurate pronunciation of the English language is a prerequisite for fluent communication and language proficiency. Students from the Philippines face significant challenges that may impact their academic and career prospects due to the fact that English and Filipino use distinct phonetic systems. According to Walker (2023), the way speakers pronounce words has a significant impact on how their audience perceives them.

Artificial intelligence (AI) has introduced innovative approaches to language learning, especially in the area of pronunciation teaching. The potential for tailored learning pathways and feedback mechanisms to revolutionize artificial intelligence is highlighted by Son, Ruzic, and Philpott (2023). Beyond the limitations of traditional classroom settings, voice recognition software and interactive platforms provide engaging learning possibilities by providing essential practice and immediate feedback.

In order to teach students proper pronunciation, AI applications often use intricate algorithms to analyze and grade their speech. Accurate and consistent feedback is necessary for pronunciation mastery, as pointed out by Mubarok and Azies (2024), and AI systems provide just that. As an example, ELSA Speak, a well-known AI-powered language learning tool, evaluates pronunciation using deep learning and offers immediate fixes. Students are able to better understand and correct their pronunciation with the aid of this instant feedback loop, as opposed to more conventional approaches.

Plenty of research in the last several years has focused on how well AI works for language instruction. Research has shown that the use of artificial intelligence (AI) technologies may greatly improve the results of language acquisition, especially when it comes to pronunciation. Karataş et al. (2024) found that when students utilized tools driven by AI, their pronunciation accuracy increased dramatically. According to the research, "the dynamic aspect of AI tools engages learners while providing them with a helpful, direct method for mastering pronunciation."

Artificial intelligence (AI) is a great tool for teaching Filipino students proper pronunciation. There is a significant difference between the phonetic systems of English and Filipino languages like Tagalog and Cebuano. Because of this disparity, Filipino students of English may struggle to accurately enunciate several sounds. Artificial intelligence techniques that tailor workouts to individual students' phonological difficulties may help with these issues. In addition, as pointed out by Abdel-Reheem (2024), AI algorithms may be modified to tackle the specific pronunciation challenges that students from diverse cultural backgrounds encounter.

Using AI in language classrooms is not without its difficulties. In spite of certain challenges, Son et al. (2023) note that there are several benefits of integrating AI into language training, leading to more engaging and effective classroom settings. Concerns about cost, accessibility, and the need for specialized IT infrastructure may prevent the broad use of AI technologies in some classrooms. Still, AI has great promise as a tool for language instructors due to its ability to improve pronunciation.

Numerous AI-based language-learning programs have emerged in recent years. As an example, research has shown that pronunciation training is more successful when AI is used in voice recognition technology. In spite of these challenges, Son et al. (2023) highlight the many benefits of AI in language training, including the potential for more engaging and effective classroom settings. Accurately recording spoken language and evaluating and modifying pronunciation is possible using tools like Amazon Transcribe and Google's Speech-to-Text.

Online language instructors are an innovative application of AI. Artificial intelligence systems that simulate real-life interactions provide students with an authentic setting in which to practice speaking. Because they can adapt to each student's skill level and provide specific comments, virtual tutors are great for language acquisition. Virtual tutors, according to Chen et al. (2024), provide students with a safe space to practice public speaking while also allowing for more classroom engagement.

The influence of AI on language instruction extends well beyond the realm of phonetics. Wang and He (2023) state that personalized learning programs driven by artificial intelligence may greatly increase student engagement and improve academic outcomes. Also, with the help of AI, we can tailor lessons to the specific requirements of each learner. Artificial intelligence systems can analyze student progress data and identify areas for improvement, allowing for the creation of individualized workouts and projects that target specific abilities. The adaptable

approach to instruction ensures that each student gets the personalized attention they need to achieve their language goals.

One promising use of AI in language learning is the possibility of expanding access to high-quality instructional materials. By offering high-quality instruction at a much cheaper cost than conventional language courses, AI technologies have lowered the barrier to entry for language learners. Important in any country, but especially so in underdeveloped nations when resources for education are few. Lim et al. (2023) points out that students from all walks of life may benefit from AI's ability to help them overcome the achievement gap and improve their language skills.

Finally, there are a number of advantages to using AI into language learning, especially when it comes to teaching pronunciation. For Filipino students, mastering English pronunciation is a particular problem. AI solutions that provide tailored, engaging, and effective learning experiences might be a great assistance. Artificial intelligence (AI) might be a useful tool for language instructors, despite obstacles to its broad use in the classroom. This study adds to the expanding literature on the use of technology in language acquisition by assessing the efficacy of AI systems in instructing Filipino students in the proper English pronunciation of words.

The Problems of the Study

In relation to the background of this study, three research problems are formulated to research question below:

1. How effective are AI-based tools in enhancing the English pronunciation of Filipino students?
2. What are the challenges and opportunities in implementing AI for teaching English pronunciation in the classroom? How do teachers and students perceive the use of AI in learning English pronunciation?
3. To what extent can AI technology support independent learning for students in improving their pronunciation?

The Objectives of the Study

From the problems of the study, this study aims to explore these objectives below:

1. To Evaluate the Effectiveness of AI-based tool in enhancing the English Pronunciation Skills of Filipino students.
2. To identify the challenges and opportunities in implementing AI for teaching English Pronunciation in classrooms.
3. To Examine the role of AI Technology in supporting independent learning for students striving to improve their pronunciation.

Significances

The result of this study can be beneficial for future researchers, lecturers, and students.

For future researchers, The findings of this study provide valuable data that may be used by researchers in the future to develop AI systems that can assist Filipino students in improving their English pronunciation. Additional research on the effects of AI in educational settings on pronunciation learning outcomes may build on these findings. In order to better understand AI's role in language training, the study also outlines potential issues and solutions that might guide future research in this area.

For educators, knowing how well AI tools can improve English pronunciation can assist teachers in creating more successful lesson plans. The study's conclusions can help develop and execute AI-assisted pronunciation training programs that are better suited to students' requirements and preferences. The results can also be used by teachers to help students use AI tools more successfully, which will raise the standard of pronunciation instruction as a whole.

For students, Students may benefit from the study's findings by learning how to utilize AI technologies to enhance their English pronunciation. By detailing the benefits and drawbacks of this strategy, the research helps students make educated choices about incorporating AI-assisted instructional materials into their learning processes. Learners may maximize the benefits of AI throughout their language learning process, due to the study that gives solutions for overcoming potential obstacles. Students may take initiative in their education and work on their pronunciation using this information.

REFERENCES

Abdel-Reheem Amin, Eman. "EFL Students' Perception of Using AI Text-to-Speech Apps in Learning Pronunciation." *SSRN Electronic Journal*, 2024. *DOI.org (Crossref)*, https://doi.org/10.2139/ssrn.4746800.

Bashori, Muzakki, dkk. "*AI Based Pronunciation Feedback*" *Innovation in Language Learning and Teaching*, vol. 18, no. 5, Oktober 2024, hlm. 443–61. *DOI.org (Crossref)*, https://doi.org/10.1080/17501229.2024.2315101.

Chen, X., dkk. "The effectiveness of virtual tutors in language learning." *Computer Assisted Language Learning*, vol. 37, no. 2, hlm. 155–73.

Creswell, John W. *Qualitative Inquiry & Research Design: Choosing among Five Approaches*. 2nd ed, Sage publ, 2018. *BnF ISBN*, https://books.google.co.id/books?id=DLbBDQAAQBAJ&printsec=frontcover&hl=id#v=onepage&q&f=false.

Davis, Fred D. "Perceived Usefulness, Perceived Ease of Use, and User Acceptance of Information Technology." *MIS Quarterly*, vol. 13, no. 3, September 1989, hlm. 319. *DOI.org (Crossref)*, https://doi.org/10.2307/249008.

Dennis., N., K. . "Using AI-Powered Speech Recognition Technology to Improve English Pronunciation and Speaking Skills." *IAFOR Journal of Education,* vol. 12, no. 2, Agustus 2024, hlm. 107–26. DOI.org (Crossref), https://doi.org/10.22492/ije.12.2.05.

Derwing, Tracey M., dan Murray J. Munro. *Pronunciation Fundamentals: Evidence-Based Perspectives for L2 Teaching and Research*. John Benjamins Publishing Company, 2015. *DOI.org (Crossref)*, https://doi.org/10.1075/lllt.42.

Fouz-González, J. "Pronunciation Instruction through Online Resources: The Case of English Idioms." *Journal of Second Language Pronunciation*, *Language Learning*, vol. 69, no. 3, September 2019, hlm. 652–708. *DOI.org (Crossref)*, https://doi.org/10.1111/lang.12345.

Gökçearslan, Şahin, dkk. "Benefits, Challenges, and Methods of Artificial Intelligence (AI) Chatbots in Education: A Systematic Literature Review." *International Journal of Technology in Education*, vol. 7, no. 1, Februari 2024, hlm. 19–39. *DOI.org (Crossref)*, https://doi.org/10.46328/ijte.600.

Hardinansyah, V., dan F. N. Hamidah. “Improving English Pronunciation Skills through AI-Based Speech Recognition Technology. .” *Ethical Lingua: Journal of Language Teaching and Literature*, vol. 11, no. 2, 2024, hlm. 1–10, https://doi.org/https://doi.org/10.30605/25409190.747.

Huang, X., dkk. “Innovating College English Speaking Instruction through Generative AI: Insights into Pronunciation and Confidence Building.” *Clausius Scientific Press, Canada*, 2024.

Jenkins, J. *The Phonology of English as an International Language*. 2000, https://books.google.co.id/books?id=0TvHACfrUjEC&printsec=frontcover&hl=id#v=onepage&q&f=false.

Karatas , F., dkk. “Incorporating AI in foreign language education: An investigation into ChatGPT’s effect on foreign language learners.” *Education and Information Technologies*, 2024, https://link.springer.com/article/10.1007/s10639-024-12574-6.

Levis, J. M. “Intelligibility, Oral Communication, and the Teaching of Pronunciation.” *Cambridge University Press*, vol. 44, no. 5, 2018, hlm. 679–94, https://doi.org/https://doi.org/10.1017/9781108241564.

Lim, S., dkk. “Bridging Educational Gaps in Duchenne Muscular Dystrophy.” *The American Journal of the Medical Sciences*, vol. 365, Februari 2023, hlm. S379–80. *DOI.org (Crossref)*, https://doi.org/10.1016/S0002-9629(23)00696-1

Li, Y., dan S. Zhang. “An Intelligent Pronunciation Training System for Mandarin Chinese Using HMM-based TTS and ASR.” *Journal of Phonetics*, vol. 74, 2019, hlm. 86–99, https://doi.org/https://doi.org/10.1111/jcal.12380.

Liu, Xuehong, dan Xuefeng Ding. “Integration Method of Wireless Sensor Network Ciphertext Database Based on Internet of Things.” *International Journal of Autonomous and Adaptive Communications Systems*, vol. 15, no. 2, 2022, hlm. 154. *DOI.org (Crossref)*, https://doi.org/10.1504/IJAACS.2022.123456.

Lyu, C., dan L. Zhang. “The role of speech recognition technology in pronunciation training. .” *Journal of Applied Linguistics*, vol. 31, no. 3, hlm. 445–62.

Miguel A. Cardona, Ed.D, dkk. *Artificial Intelligence and the Future of Teaching and Learning*, 2023, hlm. 1–64, https://www.ed.gov/sites/ed/files/documents/ai-report/ai-report.pdf.

Miles, M. B., dkk. *Qualitative Data Analysis: A Methods Sourcebook.* SAGE Publications,https://books.google.co.id/books?id=3CNrUbTu6CsC&printsec=frontcover&hl=id#v=onepage&q&f=false.

Mubarok, M. Z., dan F. Aziez. "AI and non-AI Tools in Teaching English Pronunciation to EFL Learners." *Canadian Journal of Language and Literature Studies*, vol. 4, no. 5, 2024, hlm. 178, https://cjlls.ca/index.php/cjlls/article/view/178.

Neri, A., dkk. "The Effectiveness of ASR-based Systems in Pronunciation Training for Foreign Language Learning." *Journal of Computer Assisted Learning*, vol. 36, no. 1, 2020, hlm. 44–59, https://doi.org/https://doi.org/10.1017/S0958344023000265.

Nguyen, Thi-Huyen, dkk. "Self-Experienced Storytelling in an Authentic Context to Facilitate EFL Writing." *Computer Assisted Language Learning*, vol. 35, no. 4, Mei 2022, hlm. 666–95. *DOI.org (Crossref)*, https://doi.org/10.1080/09588221.2020.1744665.

Russell, S., dan P. Norvig. *Artificial Intelligence: A Modern Approach* . 4th Edition, Pearson, https://aima.cs.berkeley.edu/newchap00.pdf.

Schroeter, J., dkk. "Improving Pronunciation with Visual Feedback: A Multimodal Perspective." *Speech Communication*, vol. 122, 2020, hlm. 11–20, https://doi.org/https://doi.org/10.1016/j.specom.2019.12.002.

Son, Jeong-Bae, dkk. "Artificial Intelligence Technologies and Applications for Language Learning and Teaching." *Journal of China Computer-Assisted Language Learning*, September 2023. *DOI.org (Crossref)*, https://doi.org/10.1515/jccall-2023-0015.

Vančová, Hana. "AI and AI-Powered Tools for Pronunciation Training." *Journal of Language and Cultural Education*, vol. 11, no. 3, Desember 2023, hlm. 12–24. *DOI.org (Crossref)*, https://doi.org/10.2478/jolace-2023-0022.

Verma, Nikita. *How Effective is AI in Education? 10 Case Studies and Examples*. AxonPark, 8 Februari 2023, https://axonpark.com/how-effective-is-ai-in-education-10-case-studies-and-examples/.

Vygotsky, L. S. *Mind in Society: The Development of Higher Psychological Processes*. Harvard University Press, 1978, https://books.google.co.id/books?id=RxjjUefze_oC&printsec=frontcover&hl=id#v=onepage&q&f=false.

Walker, P. “The role of pronunciation in second language acquisition.” *Journal of Linguistic Studies*, vol. 29, no. 4, 2023, hlm. 456–72.

Wang, D., dan Q. He. *Personalized learning plans in language education: An AI approach*. no. 6, 2023, hlm. 789–807, https://doi.org/https://doi.org/10.1111/ijet.25609