



Students' Perception Towards the Use of ELSA Speak App for Speaking Practice

Alsuna Nabilah¹, Davina Azhaar², Annindya Putri Syarifatunnisa³, Tahira Az-Zahra⁴, Atik Yuliyani⁵

alsunanabilah2002@gmail.com

¹Pendidikan Bahasa Inggris, Universitas Syarif Hidayatullah Jakarta, Banten

² Pendidikan Bahasa Inggris, Universitas Syarif Hidayatullah Jakarta, Banten

³ Pendidikan Bahasa Inggris, Universitas Syarif Hidayatullah Jakarta, Banten

⁴Pendidikan Bahasa Inggris, Universitas Syarif Hidayatullah Jakarta, Banten

⁵Pendidikan Bahasa Inggris, Universitas Syarif Hidayatullah Jakarta, Banten

Received: 2023-12-29 Accepted: 2024-05-01

DOI: 10.24256/ideas.v12i1.4742

Abstract

The rapid advancement of technology in recent years has integrated into language learning. Therefore, this study investigates the students' perception of the use of the ELSA App in speaking practice skills. A qualitative design was chosen for this research and the data were collected through a close-ended and open-ended questionnaire. This research used a random sampling of participants from the English Education Department in UIN Syarif Hidayatullah Jakarta who use the ELSA Speak App to improve their speaking skills. The result of this study showed a positive perception in the use of the ELSA Speak App that the ELSA App's features are able to help students in speaking practice.

Keywords: *ELSA Speak; perception; speaking practice*

Introduction

In the 21st century, English has been deemed important, widely spread worldwide, and developed as an international language for educational, economic, social, and technological purposes. English plays a vital role in international communication skills as a global language. Bangun (2018), mentioned that one of the essential aspects of communication is the mastery of language, especially mastery of the speaking skills, which are to be mastered by L2 students in English as part of the four skills. According to verbal language, it includes speaking, which

involves interaction with humans. Generally, speaking is defined as the expression of something in spoken language. Brown (2001), stated that speaking is a cooperative procedure of creating meaning that includes the creation, confirmation, and handling of information. Learning speaking is the most crucial ability for learning a foreign or second language among the four essential language abilities. This is in line with Antonio et al., (2006), who stated "Speaking is considered the most important of the four language skills of English." Brown & Yule (1983), stated that "Speaking is the skill that the students will be judged upon most in real life situations".

However, in Indonesia which uses English as a foreign language, students still face many challenges that constrain their English-speaking development such as a lack of self-confidence, do not dare to speak in English, afraid of being wrong, and the environment that does not support learning process (Prayudha.S & Pradana, 2023). In practicing speaking skills, learners tend to feel a lack of confidence in performing their conversation in English especially, practice in front of the class. As Inayah & Lisdawati (1970), stated learners are formed with no motivation to learn English because of their low self-confidence. In addition to the learners feel a lack of confidence, most learners are not being brave in speaking English. This is caused by having little experience and there are no habits so learners do not have good preparation in showing their speaking ability. Most students also feel afraid of being wrong in showing their speaking ability. Prayudha.S & Pradana (2023), stated that speaking in English is felt by students to make it seem as if mistakes are being made, so they are afraid to speak and practice in English. This connects with the findings of Fatimah et al., (2021), who mentioned that fear of starting a conversation in English was experienced by many students due to the difficulty in pronouncing English words arising from differences in the pronunciation of the alphabet or words between Indonesian and English, leading them to be afraid to speak English. In practicing English conversation, learners tend to feel difficulty because the environment does not support their speaking practice process. Students' habits in practicing the use of English are greatly influenced by a good learning environment (Prayudha.S & Pradana, 2023) but in reality, practicing speaking skills only occurs in schools and causes little opportunity to practice their speaking skills (Sormin, 2018). These are some of the challenges that students face in their process of practicing and mastering speaking.

Therefore, technology emerges to be one of the solutions to these challenges. The rapid advancement of technology in recent years has opened up new horizons for educators, enabling them to leverage technology for educational purposes. This trend has led to the widespread integration of technology, particularly smartphones, into language learning. These phenomena underscore the transformative impact of technology on education and its growing significance in the lives of learners worldwide such as in the field of English Education. ELSA (English Language Speech Improvement Assistant) Speak App is one of the technology examples used for educational purposes. The widespread availability of this app enables the users to engage in learning activities at any location and any given moment, especially for EFL learners who face difficulties in demonstrating their oral proficiency and encounter many challenges, such as the complex process of locating a suitable partner or tools to practice their speaking skills easily. ELSA Speak App provides many features such as daily conversation, improved pronunciation from basic to advanced levels, and practice speaking with the topic we are interested in. It also provides AI technology that is very interactive and can give questions and feedback. It has two sides that offer serious or fun content for practicing students' speaking skills.

As individuals engaged in the process of language learning, we encounter challenges in locating suitable conversational partners to enhance our oral proficiency. The ELSA App offers a range of functionalities that facilitate the development of language learners' speaking abilities. Among the other facilities provided are: the variety and interesting of learning topics as practice material that can be adjusted to the English skill level of the users. This application also offers constructive feedback through AI features to assist learners in enhancing their speaking skills, rather than solely relying on individual practice. It seeks to demonstrate that utilizing this tool can facilitate as a partner in English-speaking practice.

What has been done by several researchers in previous research about the perception of the ELSA Speak App, such as Dini et al., (2021), only emphasizing students' motivation and how students engage in the classroom when using the application for speaking. The other researchers also more concerned about how the application works on pronunciation, such as Nguyen & Pham (2022), focusing on feedback from ELSA speak in the form of correct pronunciation correction if there is a pronunciation that needs to be repeated to the user. However, there is no specific explanation of how the ELSA Speak app is used in practicing speaking based on students' views of points. Moreover, this research aims to know students' perceptions of the use of the ELSA Speak App for speaking practice by addressing

a question (1) How is students' perception of using the ELSA Speak App for practicing speaking?

Method

The study designs

The research used the qualitative design to discover the students' perception towards the use of the ELSA Speak App for speaking practice. Creswell & Poth (2017), defines qualitative research design as the collection and analysis of measures of specified factors within a research problem using a set of methods and processes. The methodology of the research encompasses the categorization of the study into various types such as descriptive, correlational, semi-experimental, experimental, review, and meta-analytic. It also includes the specification of the sub-type, such as descriptive-longitudinal case study, as well as the identification of the research problem, hypotheses, independent and dependent variables, experimental design, and, if relevant, the methods for collecting data and the statistical analysis plan.

The subject of the research

Ten students from the English Education Department in UIN Syarif Hidayatullah Jakarta who used the ELSA Speak App for speaking practice are selected based on criteria of minimal usage of the application for one week.

Data collection techniques and instrument development

Data was taken using a questionnaire is a method used to collect data by posing a series of questions to participants with the purpose of acquiring information. This study used an online questionnaire using Google Forms. An online questionnaire was used due to its practicality and could be filled at any time and in any place, and our participants could take time for them to read each questionnaire and answer them meticulously. A close-ended questionnaire was employed to gather replies from the participants, which are very likely to reflect their perspectives. The questionnaires are divided into two parts as follows:

In the first part, the participants were asked to fill in their personal information including name, student ID, semester, WhatsApp number, and email address. Next, participants were asked about their perception of the use of the ELSA for speaking practice. This part used a five-point Likert scale (5 for strongly agree, 4 for agree, 3 for neutral, 2 for disagree, and 1 for strongly disagree). Following each Likert-scale inquiry, participants are also presented with the open-

ended query: "Why did you choose the answer?"

The Likert scale questionnaire part contained 15 items from two sub-indicators consisting of the experience of using the ELSA Speak App (10 items), and the speaking English practice impact while using the ELSA Speak App (5 items). The statements are adapted from Shafira & Rosita (2022). The questionnaire was written in English as our participants are students from the Department of English Education, and they already have fairly high knowledge to understand and respond to English-based questionnaires.

Data analysis techniques

The researcher used Thematic analysis (TA) because these techniques are suitable for our research. According Clarke & Braun (2017). Thematic analysis (TA) is a method for identifying, analyzing, and interpreting patterns of meaning ('themes') within qualitative data. Thematic analysis (TA) can be used to identify patterns within and across data concerning participants' lived experiences, views and perspectives, and behavior and practices; 'experiential' research which seeks to understand what participants think, feel, and do. This method relates to this research purpose to know Students' perception towards the use of the ELSA App in speaking practice.

Results

Students perceive the use of the ELSA Speak App in their speaking practice

Table 2. *Students "Perception Towards the Use of The ELSA for Speaking Practice*

No.	Statement	Response					Short Explanation
		SD	D	N	A	SA	
1.	The variety of learning topics offered by ELSA Speak is diverse and interesting	0%	0%	0%	70%	30%	The participants agree that the ELSA App provides a diverse and interesting topic that they can use in practicing speaking skills.

2.	The ELSA Speak App provides Time Flexibility. Offer you the duration and study hours that can be freely selected	0%	10%	10%	40%	40%	The participants most likely felt the freedom to choose the time when they wanted to practice and not which was easy and free to use.
3.	There is satisfaction in the variety of exercises and content availability	10%	0%	20%	20%	50%	The participants almost certain to strongly agree that they get satisfaction in diverse topics provided by the ELSA app which are related to real-context life.
4.	You find the ease of using the application for speaking practice	0%	0%	0%	40%	60%	The Participants agreed that it was easy to use the ELSA Speak App for speaking practice.
5.	The ELSA Speak App can replace a human speaking partner	10%	30%	20%	30%	10%	The Participants think that the ELSA App aids practice but can't replace the depth of human interaction for speaking practice.

6.	The ELSA Speak App study time reminder makes you feel disturbed	20%	30%	30%	10%	10%	The participants most likely think that the ELSA app provides non-intrusive progress reminders.
7.	The ELSA Speak App subscription offer is too expensive for you	10%	0%	10%	50%	30%	The participants find the ELSA App is expensive but worth the high cost due to its value standard features.
8.	You feel bored when using the ELSA Speak App in the long term	10%	50%	10%	30%	0%	The participants are not going to be bored because the ELSA App provides a diverse subject and activities that can hinder boredom in the use of the app.
9.	You find it difficult for the operational use of the ELSA Speak App	40%	60%	0%	0%	0%	The ELSA App is generally easy to use and accessible for all users.
10.	The ELSA Speak App often experiences technical problems or errors	50%	30%	20%	0%	0%	The participants never have encountered any errors while

							using the ELSA App
11.	There are many inaccuracies or inconsistencies in the feedback provided by the ELSA Speak App	30%	50%	10%	10%	0%	In most of the ELSA app feedback, there are no inaccuracies and inconsistencies provided.
12.	The ELSA Speak App made you more confident in your English-speaking ability	0%	20%	20%	30%	30%	The participants are likely to see the progress and feel confident in producing English words.
13.	The ELSA Speak App encourages you to improve your English pronunciation and fluency	10%	0%	10%	30%	50%	The participants strongly agree that the ELSA Speak App encourages them to improve their English Pronunciation and fluency.
14.	You feel frequently unmotivated in practice speaking English using the ELSA Speak App	30%	10%	40%	10%	10%	The participants possibly hold differing opinions regarding their lack of motivation in utilizing the

ELSA Speak App, which can be caused by restricted access to its features and external commitments.

15.	You will recommend the ELSA Speak App to other English learners for speaking practice	10%	0%	10%	20%	60%	Participants strongly agree that they will recommend the ELSA Speak app to other English learners for speaking practice.
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Based on the questionnaire results, the ELSA App has a positive impact in students' experience. The participants strongly agree that the ELSA App provides a diverse and interesting topic that they can use in practicing speaking skills including ELSA AI, practice daily lessons, focusing on pronunciation, and plenty of games that can entertain them while learning. In learning flexibility, there are no limitations on time to use it. Moreover, they find independence in selecting the time and no need for money or a premium plan to set the timeline. Regardless of selecting a free time, most of the participants are also aware from what the questionnaires showed that the topics are diverse and related to real-life context, structurally, and there is an entertainment side that makes learning exciting. The ELSA Speak App is generally easy to handle and use. It is user-friendly and very accessible, even for older individuals. On the other hand, the participants choose to be neutral about statement that said that ELSA Speak App can replace human speaking partner. The ELSA Speak App aids practice but can't replace the depth of human interaction for speaking practice.

The statement about the ELSA Speak App study reminder is disturbing, the participants tend to disagree. 3 participants disagree that the study reminder is disturbing, and 3 other participants feel neutral about the statement. The ELSA app

provides non-intrusive progress reminders. These reminders may be easily managed by users which can be adjusted to their need, designed to track learning progress and time spent on the course without causing any significant disruption. On the statement about the ELSA Speak App subscription offer, the participants are tending to agree that the offer is too expensive for them. 5 out of 10 participants said that they agree with the statement. The participants are university students who mostly do not have a salary yet so they said that the offer is not worth it. Despite the high cost of the ELSA app's membership, some participants still find it beneficial to use the app because of its valuable standard features. On the statement about the ELSA Speak App creating boredom for long-term use, the participants are most likely to disagree with the statement. 5 out of 10 participants disagree that the ELSA Speak App can create boredom for a long period of time. The ELSA app provides a diverse range of subjects and activities, creating an interesting experience and decreasing boredom. On the statement that the ELSA Speak App is difficult to use, most of the participants disagree. 6 of 10 participants disagree that the operation of the ELSA Speak App is difficult to use. On the statement about the technical problem in the application, most participants are mostly tending to very disagree with the statement. Most of the participants never encountered any errors while using the ELSA App.

In the feedback case of the ELSA app, the questionnaire demonstrates that the users experience having a suitable income for what they are being required. The ELSA speak app provides interactive lessons that use speech recognition technology to analyze the users' pronunciation and provide feedback on how to improve it which is very good based on participants' responses to this feature. The participants tend to agree the ELSA app gives confidence in generating English words because the ELSA app also focuses on pronunciation and teaches them to speak like actual native speakers. Besides that, the ELSA app encourages people to be fluent in pronouncing words. The questionnaire proves that from 10 participants, 4 of them stated neutral and 3 of them strongly disagreed with feeling unmotivated in practice speaking using the ELSA app. There are internal and external factors that affect the participants' feeling unmotivated when using the ELSA Speak App. Internal Factors: the features in ELSA Speak App not all can be accessed so they are limited in exploring the material for practice. External Factors: They felt busy and seldom used the ELSA speak app for practice. Even though not all features can be accessed, the participants found the ease of using the learning application. On the last statement that the ELSA Speak App is recommended for other English learners for speaking improvement by the participants, most of the

respondents strongly agree. 6 of 10 participants strongly agree that they will recommend the ELSA Speak App to other English learners for speaking skills improvement where ELSA Speak App may provide teaching elements in the application that help users in their practice.

Discussion

The findings of the present study from qualitative data revealed that the majority of the respondents have positive perceptions of using ELSA speak to be their English-speaking practice. The ELSA App provides a diverse and interesting topic that they can use in practicing speaking skills. The participants mostly agree with this statement, a lot of features are provided by the ELSA speak app, especially in practicing speaking skills. The application suggests from the first step like being fluent in pronunciation. Therefore, the speaking skill will come up in developing English skills. Moreover, the topics are also diverse and interesting which relate to our real-life context. This is supported by Rolisda & Agnira (2022), who stated that the ELSA App has interesting designs, various features, and an interactive user interface, so the users will feel less bored and more motivated during the learning process. Sarmita Samad & Aminullah (2019), in their research also stated that ELSA Speaking is one flexible program that provides some interesting features, such as it is designed to exercise the learners to say the words correctly such as vowels, consonants, and word stress.

Additionally, there are no inaccuracies or inconsistencies in the feedback provided by the ELSA Speak App. ELSA Speak App may correct the mistakes that are suitable for what the users are required to do. The participants stated the ELSA application's feedback usually even corrects the mistakes you make without failing to detect them. This is in line with Dini et al., (2021) showing that Elsa Speak is particularly useful in terms of the instant feedback provided to the users. Rolisda & Agnira (2022), in their research, also stated that ELSA Speak could help them identify their weaknesses in pronunciation as they would get precise feedback instantly from the application. This immediate feedback is highlighted as valuable aspect by participants. Moreover, with the suitability of the feedback acceptance, the ELSA Speak application show can make the users more confident in their English-speaking skills. This shows that respondents find it easy to practice their speaking skills with the help of the ELSA App as a practicing partner which makes them feel self-confident about speaking in English. This is in line with Karim et al., (2023) in his research that said ELSA Speak is an excellent tool for learning English which can improve the users' speaking ability, and make them feel more self-

confident in their English-speaking abilities due to this app as their partner in practicing speaking.

However, instead of just focusing the speaking skills, the ELSA App shows pronunciation improvement, based on the students' questionnaire this is in line with Kholis (2021), in his research affirmed that ELSA Speak could engage the students in learning pronunciation and thus effectively improve their pronunciation skills as the crucial aspect in speaking skill. This is in line with Srakaew (2021), in his research, which stated that pronunciation is an important part of the English language which helps in communicating well, helps in achieving success in the US classroom, boosts language learners' confidence, and even helps their children's socialization. Using the ELSA Speak application can be used to help students in pronunciation practice. The participants not only agreed in the knowledge field but also they found the ease of using this application, feel engaging, and enjoyable, making it an effective learning tool, and this is in line with Rismawati et al., (2022) in her research that stated ELSA Speak app also could make the users more easily practice some words and sentences where they were more enjoyable to learn the material and it was easy to play with this app.

From the advantages of ELSA that have been mentioned, it has been shown that The ELSA Speak App is highly recommended by the respondents for other learners who need tools as a partner in speaking practice. This is in line with Karim et al., (2023), in their research the result indicated that the ELSA Speak App is a great tool and highly recommended by the respondents to other students who wish to enhance their pronunciation and improve their speaking performance. The ELSA Speak app has been proven to help non-native English speakers improve their language skills, therefore students should further explore the impact of long-term use, compared to other tools, and its effectiveness on various learner populations to understand its efficacy in English autonomously. Taqy (2021), emphasized that the ELSA Speak is an application that is suitable for autonomous learning which providing students with the opportunity to improve their language skill independently.

Conclusion

English Foreign Language learners face challenges in demonstrating oral proficiency. The ELSA Speak App's multifaceted features, including customized speaking practice, pronunciation enhancements, AI-guided interactive feedback, and a wide selection of content, address the complexities faced by learners who want to improve their speaking skills with additional practice tools. With the

emphasis on using ELSA in speaking contexts, this research underlines the important role of this application as a tool to practice and improve students' English-speaking skills. This research highlights the overwhelmingly good comments for the ELSA Speak App, specifically emphasizing its wide range of topics, extensive functionality, and accurate feedback. Users value its emphasis on pronunciation, supported by prior research. This research recommends that learners who want to enhance their speaking skills should investigate the long-term effects and possibility of using it as a speaking partner. These findings are consistent with earlier research. The survey of the participants demonstrated that the ELSA speak app is helpful in practicing speaking skills, which includes the features of the app and the contents. In addition, other future researchers can consider using an experimental research design to see the perception in students' speaking performance after using the ELSA Speak App. The research can use the same context which is at the English Education Department of UIN Syarif Hidayatullah Jakarta. The study may shed some light on the continuity and success of speaking learning in the English Education Department.

References

- Antonio, B., Daniel, M., & Neil, M. (2006). *TEFL in Secondary Education*. Granada: Editorial Universidad de Granada.
- Alfatihah, A., Ismayanti, D., Syam, A. T., & Santaria, R. (2022). Teaching Speaking Skills through Project-Based Learning for the Eighth Graders of Junior High School. *IDEAS: Journal on English Language Teaching and Learning, Linguistics and Literature*, 10(1), 152-165.
- Aini, N., Amalia, F., & Ningrum, A. (2022). Improving Students' Speaking Skill Using Hello English Application as a Medium of Learning from Home. *IDEAS: Journal on English Language Teaching and Learning, Linguistics and Literature*, 10(1), 730-745. doi:<https://doi.org/10.24256/ideas.v10i1.2533>
- Bangun, B. K. (2018). Improving Students' Speaking Skill By Using Show And Tell Method: A Classroom Action Research. *International Journal of Language Teaching and Education*, 2(1), 41-48. <https://doi.org/10.22437/ijolte.v2i1.4517>
- Brown, G., & Yule, G. (1983). *Teaching the spoken language*. Cambridge University Press.
- Brown, H. D. (2001). *Teaching by Principles: An Interactive Approach to Language Pedagogy*. Longman.
- Clarke, V., & Braun, V. (2017). Thematic analysis. *The Journal of Positive Psychology*, 542

- 12(3), 297–298. <https://doi.org/10.1080/17439760.2016.1262613>
- Creswell, J. W., & Poth, C. N. (2017). *Qualitative Inquiry and Research Design* (Fourth Edi).
- Dini, A. W., Aenida, N. A. N., Fauziah, U., & Saepuloh, A. H. (2021). *UNISSET 2020: Proceedings of the 1st Universitas Kuningan International Conference on Social Science, Environment and Technology, UNiSET 2020, 12 December 2020*.
- Fatimah, F., Wahyuni, S., & Hijjatul, Q. (2021). An Analysis of Students Difficulties in Speaking a Descriptive Study at Second Grade Year Students of SMPN 1 Baitussalam. *Jurnal Ilmiah Mahasiswa*, 2(1). <https://jim.bbg.ac.id/pendidikan/article/view/336/173>
- Inayah, R., & Lisdawati, I. (1970). Exploring Studentsâ€™ Difficulties in Speaking English and Their Attitude In Speaking English. *Acuity: Journal of English Language Pedagogy, Literature and Culture*, 2(1), 12–23. <https://doi.org/10.35974/acuity.v2i1.585>
- Karim, S. A., Hamzah, A. Q. S., Anjani, N. M., Prianti, J., & Sihole, I. G. (2023). Promoting EFL Students' Speaking Performance through ELSA Speak: An Artificial Intelligence in English Language Learning. *Journal of Languages and Language Teaching*, 11(4), 655. <https://doi.org/10.33394/jollt.v11i4.8958>
- Kholis, A. (2021). Elsa Speak App: Automatic Speech Recognition (ASR) for Supplementing English Pronunciation Skills. *Pedagogy: Journal of English Language Teaching*, 9(1), 01. <https://doi.org/10.32332/joelt.v9i1.2723>
- Nguyen, T. D. T., & Pham, V. P. H. (2022). Effects of Using Technology to Support Students in Developing Speaking Skills. *International Journal of Language Instruction*, 1(1), 1–8. <https://doi.org/10.54855/ijli.22111>
- Nasriandi, N., & Masruddin, M. (2021). The Use of British Parliamentary Debate Style in Teaching Speaking Skill. *IDEAS: Journal on English Language Teaching and Learning, Linguistics and Literature*, 9(1).
- Prayudha, S. J., & Pradana, A. (2023). Analysis of Students' Difficulties in English Conversation Practice. *Journal Corner of Education, Linguistics, and Literature*, 2(3), 215–222. <https://doi.org/10.54012/jcell.v2i3.119>
- Rismawati, D., Suryana, Y., & Agustiana, V. (2022). The Effectiveness of ELSA Speaking Application in Improving English Pronunciation. *The Proceedings of English Language Teaching, Literature, and Translation*, 10(1), 177–184. <https://proceeding.unnes.ac.id/elslt/article/view/1329>
- Rolisda, Y., & Agnira, R. (2022). "ELSA SPEAK" IN AN ONLINE PRONUNCIATION

Alsuna Nabilah¹, Davina Azhaar², Annindya Putri Syarifatunnisa³, Tahira Az-Zahra⁴, Atik Yuliyani⁵

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CLASS: STUDENTS' VOICES. *IJEE (Indonesian Journal of English Education)*, 9(1), 160–175. <https://doi.org/10.15408/ijee.v9i1.23033>

Sarmita Samad, I., & Aminullah, A. (2019). Applying ELSA Speak Software in the Pronunciation Class: Students' Perception. *Edumaspul - Jurnal Pendidikan*, 3(1), 56–63. <https://doi.org/10.33487/edumaspul.v3i1.85>

Shafira, R., & Rosita, N. (2022). Students' Perception on the Use of Audio-Visual Materials in Learning English at Senior High School. *Journal of English Language Teaching*, 11(2), 216–229. <http://ejournal.unp.ac.id/index.php/jelt>

Sormin, A. S. (2018). ANALISIS KESULITAN BELAJAR BAHASA INGGRIS MAHASISWA. *LINGUISTIK: Jurnal Bahasa Dan Sastra*, 3(2), 217. <https://doi.org/10.31604/linguistik.v3i2.217-234>

Srakaew, P. N. (2021). The Importance of Pronunciation in English Communication. *Journal of Teaching English*, 2(2), 11–18. <https://so10.tci-thaijo.org/index.php/jote/article/view/491/371>

Taqy, M. R. (2021). *Application as the Media to Learn Pronunciation Autonomously*.