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PRACTICES AND EXPERIENCES OF ENGLISH TEACHERS IN USING SPEECH RECOGNITION SOFTWARE FOR LEARNERS' PHONOTACTIC DEVELOPMENT: BASES FOR A TRAINING-WORKSHOP

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ABSTRACT

This study was conducted to explore the practices and experiences of English teachers in using Speech Recognition Software (SRS) for learners' phonotactic development. The study used a qualitative phenomenological research design. Six (6) high school English teachers from a private university in Iloilo City participated during the School year 2025–2026. Data were collected through semi-structured in-depth interviews and analyzed using thematic analysis. Findings showed that teachers use SRS for structured pronunciation practice, real-time feedback and independent learning, and planned integration of SRS while they experienced high student engagement and positive classroom environment, improve student's confidence and speaking skills, and positive emotional experiences. Facilitating factors include teachers' technological competence and convenient and stable access to SRS tools. However, hindering factors include, linguistic and accent-related challenges, technical and environmental barriers, teacher-side barriers, and individual student limitations. Based on the findings, a training workshop was designed to improve teachers' effective use of SRS for phonotactic instruction.

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INTRODUCTION

In recent years, technology has transformed language teaching, with Speech Recognition Software (SRS) tools—such as Google Speech-to-Text, ELSA Speak, Rev, and SpeechAce—gaining popularity for their ability to provide real-time feedback on pronunciation. These tools support students' phonotactic development, thus helping them perceive and produce permissible sound sequences in English, and have been integrated into computer-based assessments like the Pearson Test of English and Cambridge English Qualifications. Despite their potentials, the knowledge, experiences, and teaching practices of English teachers in using SRS for phonotactic development remain underexplored.

Phonotactics, a key aspect of phonology, guides how sounds are arranged within words and syllables. Non-native learners often struggle with these constraints, thereby affecting intelligibility and fluency. Research highlights the benefits of SRS, including increased engagement, immediate feedback, and self-paced learning, but also notes challenges such as technical inaccuracies, accent biases, and insufficient teacher training. Understanding how teachers integrate SRS into their practice is therefore critical to addressing these issues and improving instructional strategies.

In the Philippines, English is widely used in education, business, and government, yet pronunciation and phonotactic accuracy remain challenging for learners, particularly due to

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differences between English and Philippine languages (iSupport Worldwide, 2024). At a private university in Iloilo City, English teachers are actively exploring innovative methods to enhance students' pronunciation skills.

However, the extent to which they utilize SRS for phonotactic development, the specific strategies they employ, and the obstacles they encounter remain largely undocumented. Investigating teachers' experiences can provide valuable insights into their instructional decisions, the effectiveness of SRS in the classroom, and the kinds of support or training that would be most beneficial.

By examining these practices and experiences, this study was able to design a training workshop that addresses teachers' needs, enhances their confidence in integrating technology, and ultimately improves students' phonotactic and pronunciation skills.

MATERIALS AND METHODS

Research Methodology

This chapter presents the research method, research design, respondents of the study, data-gathering procedures, research instrument, and data analysis used in the study.

The purpose of this study was to explore the practices and experiences of English teachers in using Speech Recognition Software for learners' phonotactic development as a bases for a training-workshop.

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Research Method

This study employed a qualitative research approach, using in-depth interview guide, specifically a phenomenological design, to explore the practices and experiences of English teachers in using Speech Recognition Software (SRS) for learners' Phonotactic Development. This method was appropriate as it would allow for an in-depth understanding of the teachers' instructional strategies, challenges, and reflections while using SRS in their lessons.

This process ensured that all participants had direct and recent lived experiences with the phenomenon, which is essential in phenomenological research (Qutoshi, 2022).

Through qualitative inquiry, this study focused on capturing the lived experiences of teachers rather than numerical data or statistical analyses. It provided a detailed exploration of how teachers would navigate the use of SRS in their classrooms, adjust their teaching methods, and perceive its impact on student learning. Data were collected through a semi-structured interview.

A semi-structured interview guide was appropriate to explore teachers' practices and lived experiences, including the hindering and facilitating factors, in using Speech Recognition Software. This method allowed for flexibility in responses while ensuring that key topics related to phonotactic development and speech recognition technology was addressed (King & Horrocks, 2022).

The collected data were analyzed using thematic analysis, following the framework of Braun and Clarke (2022).

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Research Design

This study employed a qualitative phenomenological research design (Creswell & Creswell, 2023; Qutoshi, 2022). Phenomenology focuses on understanding the individuals' lived experiences and how they make meaning of a particular phenomenon.

In this study, the phenomenon under investigation is the use of Speech Recognition Software for learner's phonotactic development in the English language.

The phenomenological approach was deemed appropriate because the study sought to explore teachers' practices and lived experiences and practices rather than to measure effectiveness or test hypotheses.

By capturing teachers' narratives, reflections, and interpretations, the study aimed at understanding how SRS is experienced and applied in real classroom contexts (Qutoshi, 2022).

Participants of the Study

The participants in this study were six (6) English teachers teaching at the high school level (Junior High School and Senior High School). The selection of the participants followed these criteria: (a) currently teaching English at the high school level; (b) handling lessons related to pronunciation, oral communication, or speaking skills; (c) willingness to use Speech Recognition Software during the research period; and (d) willingness to participate in an in-depth interview.

Prior to the conduct of the study, the participants had already been integrating speech recognition–based features or applications (e.g., pronunciation checkers, voice input tools, or

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automated speech feedback) in their lessons. However, they were unaware that these tools fall under the broader concept of Speech Recognition Software (SRS).

Sampling Design

This study utilized purposive sampling, a non-probability sampling technique commonly employed in qualitative research to select participants who have direct experience with the phenomenon under investigation (Patton, 2022; Creswell & Creswell, 2023).

This flexibility in participant selection was necessary because SRS has not yet been widely implemented in language instruction. By including teachers who have used SRS in various contexts, this study gathered valuable insights into how they perceive its potential application in phonotactic development and the challenges they anticipated when using it in their English classes.

Research Instrument

This study utilized a semi-structured interview guide as the research instrument to gather data on the practices and experiences of English teachers in using Speech Recognition Software (SRS) for Learners' Phonotactic Development.

The semi-structured interview guide consisted of open-ended questions, thus allowing participants to share their practices and experiences in using Speech Recognition for their Learners' Phonotactic Development.

The interview questions were designed on the basis of the study's objectives. They were reviewed and validated by experts in language education and qualitative research to

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ensure their clarity, relevance, and effectiveness in capturing meaningful insights from the participants.

Voice recorders were used to capture all proceedings during the in-depth interview.

Validity of the Research Instrument

To ensure the validity of the instrument, the initial draft was reviewed by the thesis adviser and presented for face and content validation to a panel of experts in language education, tests and measurements, and statistics.

The panel evaluated each item based on its appropriateness, relevance, clarity of language, grammatical accuracy, and overall suitability for the study.

Data Gathering Procedures

Prior to data collection, the researcher secured approval from the thesis adviser and the dean. A formal letter was submitted to the principal requesting permission for both the teachers' participation and the implementation of the study. An orientation was conducted to the participants to explaining how their participation and responses shall be kept confidential and solely used for the purpose of this study.

During the orientation phase of the study, the researcher introduced and clarified the concept of SRS. Following this clarification, the participants were asked to intentionally integrate SRS into their lessons, thus allowing them to consciously reflect on and relive their prior experiences while using SRS with greater awareness.

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Additionally, participants were informed about the purpose of the study, the voluntary nature of participation, confidentiality measures, and their right to withdraw at any time.

Data were gathered through one-on-one semi-structured interviews. Each interview lasted approximately 10–15 minutes. With the participants' permission, the interviews were audio-recorded to ensure accuracy of transcription.

One-on-one interviews were chosen instead of focus group discussions to allow the participants to freely express their personal experiences, challenges, and reflections without peer influence or social pressure (Merriam & Tisdell, 2022).

Data Analysis

The obtained data were analyzed using thematic analysis, following the six-phase process proposed by Braun and Clarke (2022), which includes familiarization with the data, coding, theme development, reviewing themes, defining themes, and producing the final report.

This systematic approach ensured that the findings were well-organized and accurately represented the teachers' lived experiences and practices in using SRS for learner's phonotactic development.

The data analysis process started with transcribing the recorded interviews verbatim to ensure accuracy. The transcripts were reviewed multiple times to gain familiarity with the

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data. Initial codes were generated by identifying significant phrases, ideas, and recurring responses. These codes were grouped into categories based on similarities and relationships.

Themes were developed from these categories, thereby ensuring that they reflect the essential aspects of teachers' lived experiences and practices, including hindering and facilitating factors in using SRS.

The themes were refined and reviewed to ensure they align with the study's objectives. The final analysis provides a comprehensive interpretation of how teachers use SRS in phonotactic instruction, the facilitating and hindering factors, and the implications for a training workshop.

RESULTS AND DISCUSSIONS

This study was conducted to explore the practices and experiences of English teachers in using Speech Recognition Software for Learners' Phonotactic Development as a bases for a training-workshop.

This qualitative research involved six high school English teachers at one of the private universities in Iloilo City during the School Year 2025-2026.

The instrument used was a researcher-made in-depth interview guide to ascertain the English teachers' practices and experiences in using Speech Recognition Software as a bases for a training-workshop. This instrument underwent validation from qualified experts in the field.

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To analyze the responses of the participants, the researcher used thematic analysis. Data were organized and relevant themes were selected and coded.

The study came up with the following findings:

The participants utilized SRS through structured pronunciation practices, use of real-time feedback and independent learning, and planned integration of SRS in teaching activities while they experienced high student engagement and positive classroom environment, improved students' confidence and speaking skills, and gained positive emotional experiences.

Facilitating factors such as English teachers' technological competence and convenient and stable access to digital tools supported the effective integration of the Speech Recognition Software.

However, the study also identified several challenges that hindered the consistent and effective use of SRS. These included linguistic and accent-related recognition errors, technical and environmental barriers, teacher-side limitations such as lack of formal training, and individual student constraints that included anxiety and speech challenges.

Based on these findings, a proposed training workshop was developed to address the identified needs of teachers and to strengthen the pedagogical use of SRS for phonotactic development.

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CONCLUSION

The findings of the study provide important insights into the instructional value and challenges of using Speech Recognition Software for Learners' Phonotactic Development in English.

First, the study highlights that teachers are already engaged in meaningful and intentional use of SRS, even without formal training. This indicates that SRS is a practical and accessible tool that naturally aligns with pronunciation and phonotactic instruction when teachers are given opportunities to explore its use.

Second, the study reveals that real-time feedback provided by SRS plays a crucial role in promoting learner autonomy and self-monitoring. The English teachers observed that students became more engaged and confident when they could immediately hear, see, and correct their pronunciation. This suggests that SRS supports not only phonotactic development but also positive affective outcomes such as reduced speaking anxiety and increased willingness to communicate.

Third, the findings emphasize that challenges in SRS implementation are not solely technical in nature. Linguistic factors, particularly accent-related recognition errors and second-language influence, significantly affect both teachers' and learners' experiences.

Additionally, teacher-side barriers, including unfamiliarity with systematic integration and limited training, further constrain its effective use. These insights underscore the need

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for targeted professional development that addresses both pedagogical and contextual concerns rather than focusing solely on technology use.

Overall, this study demonstrates that while SRS has strong potentials to enhance learners' phonotactic development, its effectiveness depends on teachers' preparedness, contextual adaptability, and sustained instructional support.

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