



Phonetic Integration in Google Dictionary: Shaping English Pronunciation from the TESL Students' Perspective in Universiti Selangor

Fasihah Raihani Binti Abdul Rahman, Manivanan Bala Saravanan, Keisha Jambulingam, Rus Shafrena Binti Sapee Shafie, Siti Noor Azilah Binti Abdullah

Department of Language, Universiti Selangor, Malaysia

Email: fasihahraihani@unisel.edu.my

Received: 09 Jul 2024; Received in revised form: 13 Aug 2024; Accepted: 25 Aug 2024; Available online: 31 Aug 2024

©2024 The Author(s). Published by Infogain Publication. This is an open-access article under the CC BY license

<https://creativecommons.org/licenses/by/4.0/>.

Abstract— This study investigates the influence of phonetic integration in Google Dictionary on English pronunciation from the perspective of TESL students at Universiti Selangor. The study used a quantitative approach with a descriptive design to determine if there is a link between how often TESL students use Google Dictionary and how well they pronounce words. It also examines how different features of Google Dictionary affect their pronunciation skills. The sample comprised 120 students from the Foundation in TESL, Diploma of Education (TESL), and Bachelor of Education (TESL) programs. Data was collected through a survey administered via Google Forms and analysed using SPSS with descriptive statistics. The instrument demonstrated high reliability, with a Cronbach's alpha of 0.951 across 22 items. The result indicated that Google Dictionary is an effective tool for pronunciation learning and positively impacts TESL students. It helps the students improve their English pronunciation. The phonetic features integration in Google Dictionary significantly aids TESL students in enhancing their pronunciation skills. This study highlights the importance of utilising digital tools in language learning and suggests that educators should encourage students to use such resources to support their pronunciation practice.



Keywords— pronunciation, TESL, phonetics features, digital tool, Google

I. INTRODUCTION

In recent years, the integration of phonetics into digital platforms has emerged as a potentially effective method for enhancing language skills. According to Nasim et al. (2022), researchers hypothesised that the use of digital technology tools could enable students to improve their pronunciation abilities more effectively than traditional instructional approaches. This hypothesis underscored the impact of digital tools, such as Google Dictionary, on the English Language skills of students enrolled in tertiary education programmes as well as primary and secondary education.

Undergraduate students frequently encountered difficulties with pronunciation accuracy, which could impede both

their academic and professional performance (Sattar & Algamdi, 2023). Moreover, Khalid et al. (2023) identified that ESL students often make pronunciation errors due to a combination of phonological and psychological factors, despite the availability of digital tools. This research focused on Google Dictionary as a tool for phonetic integration to examine its potential to address these issues and enhance linguistics competence among students of English as a Second Language (ESL) and Teaching English as a Second Language (TESL). The study found that Google Dictionary proved to be an effective tool for improving pronunciation in Universiti Selangor (UNISEL) context.

1.1 Problem Statement

The problem lies in a lack of understanding of how TESL students in Universiti Selangor perceive the use and efficacy of phonetic integration in Google Dictionary for enhancing their English pronunciation. There is a lack of knowledge about how these students view phonetic features in online dictionaries, such as Google Dictionary, for language learning and speech practice. This gap in understanding impedes educators and administrators from making informed decisions on effectively incorporating phonetic aids into English pronunciation instruction courses.

1.2 Research Gap

The research into the use of Google Dictionary's phonetic features to influence English pronunciation remains limited, particularly for TESL (Teaching English as a Second Language) students in Universiti Selangor (UNISEL). The widespread availability of smartphones and internet access has facilitated language learners' use of free, readily accessible dictionaries, thereby supporting their academic pursuits, notably in learning English (Collins, 2016). Nonetheless, there is a knowledge gap in understanding the perceptions and attitudes of TESL students in UNISEL regarding the effectiveness of Google Dictionary's phonetic features in enhancing their pronunciation skills. This gap hinders our understanding of the extent to which TESL students rely on Google Dictionary for pronunciation guidance, as well as their satisfaction with and perceived efficacy of the service's phonetic features. By completing this study, we get to know how phonetic assistance in Google Dictionary helped the TESL students to improve their pronunciation skills and got a piece of knowledge to enhance the language practices in UNISEL and within Malaysia's broader educational context.

1.3 Research Objective

This research aimed to pursue two primary objectives: Initially, it seeks to determine the extent to which frequent use of Google Dictionary influences the English language. The pronunciation abilities of TESL students are impressive. Consequently, it seeks to analyse the impact of various features integrated into the Google Dictionary. The dictionary focuses on the pronunciation competence of TESL learners.

1.4 Research Question

1. Does the frequency of TESL students using Google Dictionary affect their English pronunciation?
2. What is the impact of Google Dictionary features on TESL students' pronunciation?

1.5 Significance of Study

This study has significant implications for both language learners and educators because it addresses a notable gap in understanding the influence of phonetic integration within language tools such as Google Dictionary on English pronunciation. Perez (2014) suggested that digital dictionaries have the potential to be beneficial for students who are practicing and seeking to strengthen their English pronunciation skills. ESL teachers find it essential to employ freely available resources to teach appropriate pronunciation without making the learning process too complex for students (Sinta et al., 2021) as this Google Dictionary is a free online tool. This study offers information on the effectiveness of tools for ESL teachers, students, and researchers looking to enhance their methods for teaching and mastering pronunciation skills. This research can immediately aid ESL learners, particularly tertiary students in TESL programmes in UNISEL and other higher education institutions in Malaysia, by improving their pronunciation and efficient communication.

II. LITERATURE REVIEW

2.1 Previous Study

2.1.1 Suprasegmental Features

Suprasegmental features in speech are essential components of phonetics that extend beyond individual phonemes (consonants and vowels) to impact larger linguistic units such as phrases, words, or syllables. While segmental features concentrate on the distinct sounds within words, suprasegmental features shape spoken language's organization and perception. Key aspects of suprasegmental features include prosody, stress, intonation, and rhythm. Prosody encompasses the rhythm, stress, and intonation of speech, contributing to the natural flow and emotional tone of spoken language (Ladefoged & Johnson, 2021). The emphasis on certain syllables or words, known as stress, plays a crucial role in distinguishing meanings and ensuring clarity in communication (Schaefer et al., 2023). Intonation involves the rise and fall of pitch throughout a sentence, which is essential for conveying questions, statements, and emotional nuances (Gick, 2022). Rhythm pertains to the pattern of sounds and silences in speech, necessary for maintaining a natural and comprehensible flow (Hirschfeld et al., 2023).

According to recent research, focusing on suprasegmental features significantly enhances the clarity and comprehensibility of English speech. Prosody, stress, and intonation contribute to making speech more

understandable to both native and non-native speakers. Proper application of these features helps listeners process and interpret speech more effectively, thereby aiding communication (Gick, 2022; Schaefer et al., 2023). Mastery of suprasegmental aspects also improves overall speaking proficiency, allowing speakers to convey meaning more effectively, control their emotional tone, and produce language patterns that sound natural (Ladefoged & Johnson, 2021).

In the context of language learning, integrating suprasegmental training into educational programmes can offer significant benefits. For TESL students, this involves emphasising stress patterns, intonation, and rhythm in instructional activities. Teachers can provide practical exercises and feedback to help students improve these aspects of their speech. Moreover, teachers can utilise educational technology like Google Dictionary, which offers phonetic transcriptions and pronunciation guides, to demonstrate and practice suprasegmental features (Collins, 2023). Audio pronunciations available through such tools can assist the students in understanding and applying these features effectively. Assessments of speaking skills should also include an evaluation of suprasegmental features in addition to segmental pronunciation to provide a comprehensive measure of students' speaking abilities (Schaefer et al., 2023).

Overall, focusing on suprasegmental features is crucial for developing clear and effective English speech. Enhancing these aspects contributes to better pronunciation, reduced accents, and improved overall speaking proficiency, making it an essential area of study and practice for language learners.

2.1.2 Online Dictionaries

According to Mahbub (2020), technology is inextricably linked to the learning styles of our students in the twenty-first century; it is an integral part of their daily lives and provides them with limitless educational experience and knowledge that enables them to compete globally. Digital technology has brought variety of tools designed to help with phonetics integration, providing learners with exceptional resources to improve their language abilities. Online dictionaries are useful tools for practicing and enhancing pronunciation, especially for learners at an intermediate level. Yusof et al. (2022) emphasised the usefulness of online dictionaries for instantly reproducing word pronunciation in audio format and providing quick access to phonological transcription instructions in written material. According to Yusof et al. (2022), online monolingual dictionaries offer users diverse learning experiences by giving thorough linguistic information,

including grammatical, lexical, and pronunciation characteristics.

Due to globalisation, the integration of classroom technology in education has sped up language learning, necessitating the use of online and e-dictionaries in pronunciation training, particularly for intermediate-level learners. Sattar and Alghamdi (2023) highlighted the growing significance of e-dictionaries in helping intermediate students appropriately pronounce phonemes during speech, which aids in faster language learning in today's educational environment. Roach et al. (2011) emphasised the usefulness of online dictionaries that include pronunciation guides tailored for intermediate learners to improve pronunciation via the auditory perception of word pronunciations.

Modern electronic and online dictionaries enable English learners to visually perceive, auditorily stimulate, and model the pronunciation of any given word in a matter of seconds. According to Metruk (2017), who stated in the study that dictionaries typically offer the pronunciation of the two most widely taught pronunciation varieties, such as BBC pronunciation, which is the standard British pronunciation, and General American pronunciation, which is the standard American pronunciation, Students of English as a Foreign Language (EFL) have the advantage of auditory exposure to the pronunciation of words and phrases in their desired dialect, enabling them to discern the fundamental distinctions between accents such as those found in BBC English and General American (GA).

2.1.3 Mobile-Assisted Language Learning (MALL) and Computer-Assisted Language Learning (CALL)

Miqawati (2020) did a study called 'Pronunciation Learning, Participation, and Attitude Enhancement through Mobile Assisted Language Learning (MALL), to see if this way of teaching worked to improve English pronunciation, get more people involved, and make people feel better about using technology to learn. The research involved thirty students enrolled in an English Study Programme Politeknik Negeri Jember pronunciation course, who participated in collaborative classroom action studies. The results highlighted the significant impact that MALL, particularly the resources and exercises included in the Tflat coursework, had on enhancing students' pronunciation learning experiences. Furthermore, the research unveiled the potential of MALL to foster active student participation in classroom exercises and enable them to track their own educational advancement.

Online dictionaries are an essential component of mobile-assisted language learning (MALL). Juwita et al. (2020) suggested that using a smartphone may substantially transform teaching and learning methods, serving as an

engaging tool to motivate students to enhance their speaking abilities rapidly. Online dictionaries, or e-dictionaries, are tools students can easily access from their mobile devices. These include e-dictionaries, which are available online, and dictionary apps, which are available on most hand-held devices and mobile phones. This provides learners with instant access to pronunciation guidelines, definitions, and sample sentences, improving language learning and pronunciation abilities using portable digital devices. These dictionaries provide learner with a wide range of linguistic materials, including audio pronunciations, to enhance their language learning efforts, and they are accessible on different platforms. The incorporation of phonetics into user-friendly online resources like Google Dictionary aligns strategically with MALL principles, enhancing the instructional environment for language learners.

Developed nations are increasingly employing computers in language-learning contexts. Haider (2013) describes the integration of computers and English Language Teaching (ELT) using various terms, such as Computer-Assisted Instruction (CAI), Intelligent Computer-Assisted Language Learning (ICALL), Computer-Enhanced Language Learning (CELL), and Technology-Enhanced Language Learning (TELL), with Computer-Assisted Language Learning (CALL), being the most commonly used term. Furthermore, the classroom uses CALL because of its numerous advantages (Haider, 2013, p.205). In their study, Kumar and Madhavi (2012) evaluated the benefits of utilising a computer-assisted language learning (CALL) lab. Pronunciation Power 2 and the Cambridge Advanced Learners' programmes used in this investigation.

2.2 Framework (Theoretical Framework)

The theoretical framework underpinning this research is the Technology Acceptance Model (TAM), originally developed by Fred Davis in the late 1980s. TAM has become a foundational theory in the field of information systems, particularly regarding how users come to accept and use new technologies. According to this model, two primary factors influence an individual's intention to use a particular technology: their perceived ease of use and its perceived usefulness. The model posits that these perceptions significantly shape an individual's attitude towards the technology, which in turn impacts their actual usage behaviour.

In this study, the focus is on TESL students and their engagement with Google Dictionary as a tool for improving their English pronunciation. Applying TAM to this context, the study examines how students' perceptions of the dictionary's usability and effectiveness influence their likelihood of integrating it into their language

learning practices. According to TAM, if students find Google Dictionary to be both simple to use and beneficial for enhancing their pronunciation skills, they are more likely to incorporate it into their learning routine.

Perceived usefulness, as defined by Tao et al. (2020), refers to the extent to which individuals believe that using a technology will enhance their performance in a particular task. For TESL students, this means that the perceived value of Google Dictionary hinges on its ability to support pronunciation improvement, provide relevant examples, and offer other features that contribute to their language learning objectives. Similarly, perceived ease of use pertains to how effortless the students find the technology to operate. Students are more likely to use the dictionary frequently if they perceive it as user-friendly.

When we examined the alignment of the survey questionnaires with the Technology Acceptance Model (TAM), we identified several items that closely aligned with TAM's core constructs: perceived ease of use (PEOU) and perceived usefulness (PU). The TAM framework asserted that technology's ease of use and usefulness significantly influence an individual's acceptance and usage. This alignment is critical when assessing Google Dictionary's effectiveness in enhancing English pronunciation among TESL students.

2.2.1 Section B: The Frequency of TESL Students Using Google Dictionary and Its Effect on English Pronunciation

Several questionnaires in this section relate directly to TAM's constructs. For instance, the questionnaire "I have used Google Dictionary" addresses the basic level of engagement with the technology, which is crucial for understanding its usage pattern. Similarly, the questionnaires "I often use Google Dictionary" and "I use Google to practice or improve my pronunciation every day" measure the frequency of use, indicating the perceived usefulness of the tool. These questionnaires help measure how frequently the students engage with the dictionary, a factor that can influence their perception of its utility in improving pronunciation.

The statements "I know what a Google Dictionary is" and "I have an online dictionary app on my phone" reflect the students' awareness and accessibility of the technology, which indirectly impacts their perceived ease of use. Questionnaires such as "When I look up a word in the Google Dictionary, I frequently check its pronunciation" and "I like using Google Dictionary" offer insights into the students' attitudes towards the ease of use and their perception of its benefits. These items align with TAM's focus on understanding how user engagement with technology shapes their perceptions of its ease of use and usefulness.

2.2.2 Section C: The Impact of Google Dictionary Features on TESL Students' Pronunciation

This section delves into how specific features of Google Dictionary influence pronunciation skills, aligning closely with TAM's concept of perceived usefulness of the technology by giving questionnaires like "The online Google Dictionary can help me improve my pronunciation by listening to the word's sound" and "The online Google Dictionary is an effective tool to improve my pronunciation skills." These items assess how well students believe the dictionary supports their pronunciation improvement, a key aspect of TAM's focus on perceived utility.

Items like "When I check a word's pronunciation, I look at both the pronunciation and the accent" and "I frequently repeat a word's pronunciation after listening to the pronunciation audio" also reflect on the perceived effectiveness of the technology features. They gauge how students utilise specific features of Google Dictionary to enhance their pronunciation, thus providing insights into the perceived benefits of these features.

Furthermore, questionnaires such as "I like the online Google Dictionary as a reference for learning English" and "The Google Dictionary I use helps me learn English pronunciation" are indicative of the overall perception of usefulness and satisfaction with the technology. These statements help determine how well students perceive the dictionary as a supportive tool in their language learning process.

In summary, TAM's constructs are largely consistent with the survey questions about the frequency of use and impact of Google Dictionary on pronunciation. They effectively capture students' perceptions of ease of use and usefulness, providing a comprehensive view of how these factors influence their engagement with the technology. This alignment is essential for understanding the role of Google Dictionary in enhancing English pronunciation skills among TESL students at Universiti Selangor.

III. METHODOLOGY

3.1 Research Design/Approach

The approach of this research was a quantitative approach with a descriptive design. In research, a quantitative approach with a descriptive design is a methodology that uses numerical data collection to characterize a behaviour or phenomenon. This strategy typically employs observational methods, surveys, or questionnaires to collect data that can be statistically analysed to make inferences about the population under study. A quantitative survey involves a large-scale survey to collect data. In this

instance, we obtained our results with greater precision across a wider population (JMander, 2022).

The target population for this quantitative research method was the TESL students of the University Selangor, whom we surveyed using questionnaires. A structured questionnaire served as a useful tool for gathering data from a large number of participants. By utilizing a well-designed questionnaire, we were able to capture an all-round of responses and ensure that the data collected was comprehensive and representative of the TESL student population.

Furthermore, the use of a quantitative approach enabled us to analyse the data using statistical methods, providing a more objective and precise understanding of the relationship between Google Dictionary usage and English competence among the TESL students. The statistical analysis allowed us to identify patterns and correlations within the data, offering insights that could be generalised to the larger population of TESL students at the University Selangor. Overall, the quantitative approach with a descriptive design provided a robust framework for exploring the research questions and achieving the objectives of this study.

3.2 Sampling

In the context of research, sampling was the process of choosing a group of people or objects to represent a wider population. The choice of sampling method depended on the research question, resources available, and the population being studied. Due to the large number of students at the University Selangor, the sampling design for this study was systematic sampling. According to Smith (2020), systematic sampling provides a systematic and unbiased approach to selecting samples from a population, thereby ensuring representative results. The sample size for this research study consisted of 100 to 130 students who were currently enrolled in the Foundation, Diploma, or Degree in TESL program at the University Selangor. We readily gathered data from a large population of students by using a systematic sampling technique.

3.3 Instrument

The instrument of this study was a survey. A survey is a systematic method of collecting data from a specific population or sample by asking individuals a series of standardized questions. Surveys are intended to gather data on attitudes, opinions, behaviors, demographics, and other variables relevant to the research objectives. This instrument enabled researchers to quantify and analyse responses in order to reach conclusions and insights about the topic under investigation. In this study of TESL students at the University Selangor, we created a survey

instrument with a set number of questions aimed at determining their understanding and perceptions of using Google Dictionary to improve pronunciation skills.

3.4 Data Collection

Data collection in this research was the process of gathering information or observations that were relevant to the research objectives. It was a critical step in the research process that entailed collecting data from various sources or subjects to answer research questions, test hypotheses, or achieve research goals. In this study, questionnaires served as the primary data collection method. After completing the questionnaire phase, the goal was to compile all the collected data and evaluate it using the fixed variables established for the study.

The questionnaire included questions designed to obtain quantitative data about students' perceptions and experiences with Google Dictionary's phonetic integration features. The questionnaires for the survey were adopted and adapted from two key articles: "The Influence of Online Cambridge Dictionary Toward Students' Pronunciation and Vocabulary Mastery" by Rosita Ambarwati and Berlinda Mandasari, and "The Use of Electronic Dictionaries for Pronunciation Practice by University EFL Students" by Rastislav Metruk. These articles provided a basis for developing the survey items to ensure they were relevant and effective for the study's objectives.

The data collection process involved administering the questionnaires to the selected TESL students at the University Selangor. The responses were systematically recorded and compiled, ensuring that the dataset was comprehensive and suitable for subsequent analysis. The compiled data were then evaluated using the fixed variables established for the study, providing insights into the students' experiences and perceptions of the phonetic integration features in Google Dictionary.

3.5 Data Analysis

Data analysis primarily used descriptive statistics to investigate students' perceptions and experiences with phonetic integration in Google Dictionary and its impact on their pronunciation. The primary analytical tool for the quantitative data obtained from the questionnaires was descriptive statistics. Students' responses about how they felt and experienced phonetic integration in Google Dictionary were summarized using descriptive statistics like mean (average), median (middle value), mode (most common value), standard deviation (spread of data), and frequency distributions. The data were analysed using SPSS Statistics software, which facilitated the calculation and interpretation of these descriptive statistics. This

analysis provided an overview of students' attitudes, preferences, and usage patterns related to the tool.

IV. RESULT AND FINDINGS

4.1 Findings

This section addresses the research questions by presenting the findings and discussing the insights derived from the research data. The researchers employed a structured questionnaire to capture the data, dividing it into two sections: the first contained 10 Likert-scale questions, and the second included 12 Likert-scale questions. The results of the initial section of the questionnaire, which consisted of 10 Likert-scale questions, are as follows:

Table 1: The Frequency of Using Google Dictionary Influences the English Pronunciation

NO	Questionnaires	M	MD	Mode	SD	Range
1	I can live without the internet.	2.76	3.00	3	1.216	4
2	I have used an online dictionary.	4.20	4.00	5	.904	4
3	I like using online dictionaries.	4.07	4.00	5	.994	4
4	I have an online dictionary app on my phone.	3.04	3.00	2	1.399	4
5	I know what a Google Dictionary is.	4.22	4.00	5	.989	4
6	I have used Google Dictionary.	4.24	4.00	5	.987	4
7	I like using Google Dictionary.	3.96	4.00	5	.999	4
8	I often use Google Dictionary.	3.96	4.00	4	1.048	4
9	When I look up a word in the Google Dictionary, I frequently check its pronunciation.	4.14	4.00	5	.955	4
10	I use Google Dictionary to practice or improve my pronunciation every day.	3.82	4.00	5	1.137	4

*The N = Valid 120 respondents

The questionnaire answers provide valuable insights into the digital habits and preferences of TESL students at Universiti Selangor. The data reveals a significant reliance on the internet, as indicated by a mean score of 2.76 (SD = 1.216) for the statement "I can live without the internet". This suggests that most students consider the Internet essential and cannot imagine life without it. The respondents widely utilise online dictionaries, as indicated by a high mean score of 4.20 (SD = 0.904) for "I have used an online dictionary" and a mean score of 4.07 (SD = 0.994) for "I like using online dictionaries." This suggests a strong liking for these digital resources.

Notably, the presence of online dictionary applications on students' smartphones exhibits greater variation, with an average score of 3.04 (SD = 1.399). Despite the widespread use of online dictionaries, not all students have instant access to them through mobile applications. There is a significant level of awareness and use of Google Dictionary when it comes to specific technologies. The statements "I know what a Google Dictionary is" and "I have used Google Dictionary" both received high mean scores of 4.22 (SD = 0.989) and 4.24 (SD = 0.987), respectively. In addition, students have a positive attitude toward using Google Dictionary, as indicated by a mean score of 3.96 and a standard deviation of 0.999. Furthermore, they regularly employ this tool, with a mean score of 3.96 and a standard deviation of 1.048.

Moreover, the results emphasise the significance of Google Dictionary in improving speech and pronunciation skills. The average score for the statement “When I look up a word in the Google Dictionary, I frequently check its pronunciation” was 4.14 (SD = 0.955), suggesting that pronunciation elements are an important aspect of its usage. The statement “I use Google Dictionary to practice or improve my pronunciation every day” had a mean score of 3.82 (SD = 1.137), indicating that a substantial proportion of students incorporate this tool into their daily learning regimens.

Table 2: The Effects of Diverse Features Incorporated into the Google Dictionary on Pronunciation

NO	Questionnaires	M	MD	Mode	SD	Range
1	I am familiar with the Google Dictionary application.	3.69	4.00	4	.994	4
2	The online Google Dictionary can help me improve my pronunciation by listening to the word's sound.	4.19	4.00	5	.919	4
3	When I check a word's pronunciation, I look at both the pronunciation and the accent.	4.03	4.00	5	1.025	4
4	When I check a word's pronunciation, I usually check the British pronunciation.	3.91	4.00	4	1.045	4
5	When I check a word's pronunciation, I usually check the American pronunciation.	3.58	4.00	3	1.089	4
6	When I check a word's pronunciation, I usually check both British and American pronunciations.	3.84	4.00	5	1.004	4
7	I frequently repeat a word's pronunciation after listening to the pronunciation audio.	4.22	4.00	5	.891	4
8	The online Google Dictionary is an effective tool to improve my pronunciation skills.	4.20	4.00	5	.904	4
9	After learning words using an online Google Dictionary, I can pronounce them easily.	4.09	4.00	4	.917	4
10	The online Google Dictionary can influence my pronunciation skills in a better way.	4.12	4.00	4	.927	4
11	I like the online Google Dictionary as a reference for learning English.	4.18	4.00	5	.923	4
12	The Google dictionary I use helps me learn English pronunciation.	4.18	4.00	5	.907	4

*The N = Valid 120 respondents

The questionnaire responses provide useful insights into the effectiveness of the Google Dictionary application in enhancing pronunciation skills among TESL students. The results indicate a high level of familiarity with the application, with a mean score of 3.69 (SD = 0.994) for the statement “I am familiar with the Google Dictionary application”. Respondents believe that the application helps improve their pronunciation by allowing them to listen to words, as shown by a high mean score of 4.19 (SD = 0.919) for the statement “The online Google Dictionary can help me improve my pronunciation by listening to the word's sound”.

When checking pronunciation, respondents tend to look at both pronunciation and accent, reflected in mean score of 4.03 (SD = 1.025) for the statement “When I check a word's pronunciation, I look at both the pronunciation and the accent”. There is a notable preference for British pronunciation (mean score of 3.91) for the statement “When I check a word's pronunciation, I usually check the British pronunciation” compared to American pronunciation (mean score of 3.58) for the statement “When I check a word's pronunciation, I usually check the American pronunciation”. Many users check both British

and American pronunciations, with a mean score of 3.84 (SD = 1.004) for the statement “When I check a word's pronunciation, I usually check both British and American pronunciations”.

Repeating a word's pronunciation after listening to it is a common practice among users, with a mean score of 4.22 (SD = 0.891) for the statement “I frequently repeat a word's pronunciation after listening to the pronunciation audio”, which likely helps reinforce correct pronunciation. Respondents view the Google Dictionary as an effective tool for improving pronunciation skills, indicated by a mean score of 4.20 (SD = 0.904) for the statement “The online Google Dictionary is an effective tool to improve my pronunciation skills”, and report being able to pronounce words more easily after using it, as reflected in a mean score of 4.09 (SD = 0.917) for the statement “After learning words using an online Google Dictionary, I can pronounce them easily”. Users believe the application positively influences their pronunciation skills, as shown by a mean score of 4.12 (SD = 0.927) for the statement “The online Google Dictionary can influence my pronunciation skills better”. There is a strong preference for using the Google Dictionary as a reference for learning English, with a mean score of 4.18 (SD = 0.923) for the statement “I like the online Google Dictionary as a reference for learning English”. Overall, respondents find the application helpful for learning English pronunciation, reflected in a mean score of 4.18 (SD = 0.907) for the statement “The Google Dictionary I use helps me learn English pronunciation”.

This study provides significant insights into how students use Google Dictionary to improve their English Pronunciation based on the data from Table 3:

Table 3: The Percentage of Using Google Dictionary Influences the English Pronunciation

NO	Questionnaires	SD	D	N	A	SA
1	I can live without the internet.	16.7%	27.5%	30.0%	15.0%	10.8%
2	I have used an online dictionary.	1.7%	2.5%	15.0%	35.8%	45.0%
3	I like using online dictionaries.	3.3%	2.5%	18.3%	35.8%	40.0%
4	I have an online dictionary app on my phone.	12.5%	33.3%	15.8%	14.2%	24.2%
5	I know what a Google Dictionary is.	4.2%	0.8%	12.5%	34.2%	48.3%
6	I have used Google Dictionary.	4.2%	2.5%	6.7%	38.3%	48.3%
7	I like using Google Dictionary.	2.5%	3.3%	26.7%	30.8%	36.7%
8	I often use Google Dictionary.	3.3%	6.7%	16.7%	37.5%	35.8%
9	When I look up a word in the Google Dictionary, I frequently check its pronunciation.	2.5%	3.3%	14.2%	37.5%	42.5%
10	I use Google Dictionary to practice or improve my pronunciation every day.	4.2%	10.0%	20.0%	31.7%	34.2%

*Strongly Degree = SD, Disagree= D, Neutral = N, Agree = A, Strongly Agree = SA

The findings suggest a mixed reliance on online resources for pronunciation aids. Specifically, 30% of the respondents feel neutral about living without the internet, while a significant proportion (43%) could not agree that they could live without it, highlighting the essential role of online tools in their daily academic and personal lives.

Usage of online dictionaries is quite prevalent, with a majority of the respondents (80.8%) either agreeing or strongly agreeing that they have used an online dictionary. This trend continues with the specific use of Google Dictionary, which 81.2% of the participants acknowledged using. The preference for Google Dictionary is clear, as 67.3% like using it, and a similar proportion find it helpful regularly.

The frequency of using Google Dictionary also ties directly into its practical benefits for pronunciation. Approximately 80% of the participants agree or strongly agree that they frequently check the pronunciation of words when using Google Dictionary. More importantly, 57.9% use Google Dictionary specifically to practice or improve their pronunciation every day.

These findings indicate that Google Dictionary is not only a frequently used tool among TESL students at Universiti Selangor but also a critical resource for enhancing their English pronunciation and integrating phonetic learning effectively into their language acquisition process. This suggests that digital dictionaries, particularly Google Dictionary, play a substantial role in the phonetic integration of English language learners, facilitating ongoing improvements in pronunciation and overall linguistic competence.

Table 4: The Percentage Distribution of the Impact of Google Dictionary Features on TESL Students' Pronunciation

NO	Questionnaires	SD	D	N	A	SA
1	I am familiar with the features of the Google Dictionary application.	2.5%	8.3%	29.2%	37.5%	22.5%
2	The online Google Dictionary can help me improve my pronunciation by listening to the word's sound.	2.5%	1.7%	14.2%	37.5%	44.2%
3	When I check a word's pronunciation, I look at both the pronunciation and the accent.	3.3%	4.2%	18.3%	35.0%	39.2%
4	When I check a word's pronunciation, I usually check the British pronunciation.	3.3%	5.8%	21.7%	35.0%	34.2%
5	When I check a word's pronunciation, I usually check the American pronunciation.	4.2%	10.0%	33.3%	28.3%	24.2%
6	When I check a word's pronunciation, I usually check both British and American Pronunciations.	1.7%	5.8%	31.7%	28.3%	32.5%
7	I frequently repeat a word's pronunciation after listening to the pronunciation audio.	2.5%	0.8%	13.3%	39.2%	44.2%
8	The online Google Dictionary is an effective tool to improve my pronunciation skills.	2.5%	0.8%	15.0%	37.5%	44.2%
9	After learning words using an online Google Dictionary, I can pronounce them easily.	2.5%	1.7%	17.5%	40.8%	37.5%
10	The online Google Dictionary can influence my pronunciation skills in a better way.	2.5%	2.5%	15.0%	40.8%	39.2%
11	I like the online Google Dictionary as a reference for learning English.	3.3%	0%	15.0%	39.2%	42.5%
12	The Google dictionary I use helps me learn English pronunciation.	2.5%	0.8%	15.8%	37.5%	43.3%

*Strongly Degree = SD, Disagree = D, Neutral = N, Agree = A, Strongly Agree = SA

Based on the survey results, it is evident that a significant majority of TESL students find Google Dictionary to be a valuable resource for improving their pronunciation skills. A substantial 60.8% of respondents reported being familiar with the features offered by Google Dictionary, indicating widespread awareness and usage among the participants. Moreover, an overwhelming 81.7% of students believe that the audio feature of Google Dictionary plays a crucial

role in enhancing pronunciation, as it provides clear and accurate examples of word pronunciation. This high percentage underscores the effectiveness of auditory learning in refining pronunciation skills.

In terms of pronunciation consideration, 74.2% of participants indicated that they take into account both pronunciation and accent variations when using Google Dictionary. This approach reflects a comprehensive learning strategy aimed at mastering the nuances of spoken English. Approximately 69.2% of students tend to check British pronunciation and 52.5% check American pronunciation, a significant 64.2% consult both British and American pronunciations. This dual preference highlights the application's versatility in accommodating different English accents and regional variations.

Additionally, a notable 83.4% of respondents reported that they frequently repeat word pronunciations after listening to the audio provided by Google Dictionary. This practice is crucial for reinforcing correct pronunciation patterns and improving retention of vocabulary.

Furthermore, 78.3% of participants find it easier to pronounce words correctly after using Google Dictionary, suggesting that the application not only aids initial learning but also boosts students' confidence in spoken English. Lastly, a significant 79.2% believe that Google Dictionary positively influences their overall pronunciation skills, indicating a strong endorsement of its educational value.

4.2 Discussion

The study's findings offer valuable insights into the digital behaviours and preferences of TESL students at Universiti Selangor. The significant reliance on the internet, as indicated by the low average score for the capacity to function without it, emphasises the critical importance of digital connectivity in contemporary schooling. Shahroom and Hussin (2018) emphasised the era of IR 4.0, which aligns with the observations made in the source. The findings confirm that having access to the internet is not only a convenience but a requirement for modern learners.

The fact that the participants used and liked online dictionaries a lot backs up what Metruk (2017) said about how important they are for English as a Foreign Language (EFL) learners. The findings from this study corroborate the perspective that digital dictionaries are essential for language acquisition, as they offer students' convenient access to definitions, translations, and pronunciation assistance. Nevertheless, the fluctuation in the accessibility of online dictionary applications on students' mobile devices unveils a novel discovery. This suggests that despite the widespread recognition of online dictionaries' usefulness, challenges like device compatibility or budgetary constraints could hinder their accessibility.

Google Dictionary's widespread recognition and regular usage demonstrated its popularity and efficacy as an educational resource. This conclusion aligns with Singleton's (2016) research, which examined the extensive utilisation and advantages of electronic dictionaries among individuals learning a new language. The popularity of Google Dictionary and its frequent use for verifying pronunciations highlight its significance in improving pronunciation abilities, a crucial component of language acquisition. This study provides comprehensive insights into how students use Google Dictionary on a daily basis to improve pronunciation, a topic that widely recognised as important in digital dictionaries.

The study validates the critical importance of online dictionaries and the internet in contemporary language instruction while also identifying distinct usage patterns and preferences among TESL students at Universiti Selangor. The disparity in the availability of dictionary applications and the intricate use of Google Dictionary to improve pronunciation provide novel insights into the role of digital learning aids in language teaching. These observations can guide the creation of more focused teaching materials and approaches to improve learning results for TESL students.

V. CONCLUSION AND RECOMMENDATION

This study investigated the influence of phonetic integration in Google Dictionary on the English pronunciation skills of TESL students at Universiti Selangor. Through a comprehensive quantitative approach, the research revealed several significant findings. Firstly, the frequent use of Google Dictionary has a positive impact on TESL students' pronunciation abilities. The integration of phonetic features within the dictionary, such as audio pronunciations and phonetic transcriptions, plays a crucial role in helping students understand and practice correct pronunciation. These features enable students to discern subtle differences in sounds, leading to a marked improvement in their overall pronunciation accuracy.

Moreover, the study highlighted the high regard TESL students have for Google Dictionary as a pronunciation practice tool. The ease of access, user-friendly interface, and the reliability of information provided by Google Dictionary contribute to its frequent usage among students. This, in turn, makes it an effective resource for enhancing their language skills. The findings underscore the importance of digital tools in modern language learning, emphasizing that tools like Google Dictionary can significantly aid in the development of pronunciation skills when used consistently and effectively. The positive perception and frequent use of Google Dictionary by

students suggest that such digital tools are indispensable in the current educational landscape, particularly in language learning contexts.

Expanding on the findings of this study, several recommendations can be made for future research and practical applications. Firstly, educators and curriculum developers at Universiti Selangor and other institutions should consider integrating digital tools like Google Dictionary more extensively into their language learning programs. This integration can provide students with consistent and effective practice opportunities to improve their pronunciation skills. Additionally, training sessions and workshops can be organised to familiarise both students and teachers with the advanced features of Google Dictionary, ensuring they can make the most of the available resources.

Future research should focus on exploring the impact of specific features within Google Dictionary, such as the speed feature and lip movement animations, on pronunciation enhancement. Investigating the effectiveness of these advanced features can provide deeper insights into how digital tools can be optimised for language learning. For instance, the speed feature could help students practice speaking at different paces, improving their fluency and comprehension. The lip movement animations, on the other hand, could offer visual cues that complement auditory information, aiding in the accurate production of sounds.

Moreover, longitudinal studies could be conducted to assess the long-term benefits of using Google Dictionary and similar digital tools in language learning. These studies could track students' progress over extended periods, providing valuable data on the sustained impact of digital pronunciation aids. Additionally, comparative studies could be undertaken to evaluate the effectiveness of Google Dictionary against other digital and traditional pronunciation tools, offering a broader perspective on the most effective methods for pronunciation training.

REFERENCES

- [1] Nasim, S. M., AlTameemy, F., Ali, J. M. A., & Sultana, R. (2022). Effectiveness of Digital Technology Tools in Teaching Pronunciation to Saudi EFL Learners. *FWU Journal of Social Sciences*, 16(3), 68-82. <http://doi.org/10.51709/19951272/Fall2022/5>
- [2] Sattar, A., & Alghamdi, S. S. (2023). Investigating the Use of E-Dictionaries as Strategy to Improve Speaking Skill through Practical Activities of Precise Phonemes Realization: Case Study of EFL Undergraduate Students of Haripur University, Abatabad University, & Hazara University Mansehra, Pakistan. *World Journal of English Language*, 13(8). <https://doi.org/10.5430/wjel.v13n8p182>

- [3] Khalid, S., & Anwar, B. (2023). An Analysis of Pronunciation Errors of Pakistani ESL Learners at University Level. *Journal of Education and Social Studies*, 4(3), 431-441. <https://doi.org/10.52223/jess.2023.4303>
- [4] Pennington, M. C., Rogerson-Revell, P., Pennington, M. C., & Rogerson-Revell, P. (2019). Using technology for pronunciation teaching, learning, and assessment. *English Pronunciation Teaching and Research: Contemporary Perspectives*, 235-286. <http://dx.doi.org/10.1057/978-1-137-47677-7>
- [5] Rahimi, M., & Miri, S. S. (2014). The impact of mobile dictionary use on language learning. *Procedia - Social and Behavioral Sciences*, 98, 1469-1474. <https://doi.org/10.1016/j.sbspro.2014.03.567>
- [6] Nushi, M., & Orouji, F. (2020). Investigating EFL teachers' views on listening difficulties among their learners: The case of Iranian context. *Sage Open*, 10(2), 2158244020917393. <https://doi.org/10.1177/2158244020917393>
- [7] Foote, J. A., Trofimovich, P., Collins, L., & Urzúa, F. S. (2016). Pronunciation teaching practices in communicative second language classes. *The Language Learning Journal*, 44(2), 181-196. <https://doi.org/10.1080/09571736.2013.784345>
- [8] Tao, D., Shao, F., Wang, H., Yan, M. C., & Qu, X. (2019). Integrating usability and social cognitive theories with the technology acceptance model to understand young users' acceptance of a health information portal. *Health Informatics Journal*, 26(2), 1347-1362. <https://doi.org/10.1177/1460458219879337>
- [9] Ambarwati, R., & Mandasari, B. (2020). THE INFLUENCE OF ONLINE CAMBRIDGE DICTIONARY TOWARD STUDENTS' PRONUNCIATION AND VOCABULARY MASTERY. *Journal of English Language Teaching and Learning*, 1(2), 50-55. <https://doi.org/10.33365/jeltl.v1i2.605>
- [10] Juwita, J., Riadi, A., & Handayani, M. (2020). THE STUDENTS PERCEPTION OF USING U-DICTIONARY IN LEARNING PRONUNCIATION AT STBA PONTIANAK. *Jurnal Ilmiah Spectral*, 6(1), 041-051. <https://doi.org/10.47255/spectral.v6i1.46>
- [11] OSSAI, R. N., Carol, C. O., & Anthonia, N. (2021). Effect of E-dictionary Strategy for Vocabulary Acquisition on the listening and Speaking Skills. *Journal of Research in Humanities and Social Science*, 9(7), 1-14. <http://eprints.gouni.edu.ng/id/eprint/4215>
- [12] El-Sawy, H. E. A. (2019). Electronic and student-created dictionaries for enhancing EFL pronunciation and vocabulary usage. *Theory and Practice in Language Studies*, 9(9), 1088-1099. <http://dx.doi.org/10.17507/tpls.0909.04>
- [13] Metruk, R. (2017). The use of electronic dictionaries for pronunciation practice by university EFL students. *Teaching English with Technology*, 17(4), 38-51. <http://www.tewtjournal.org>
- [14] Suseno, E., & Purwati, O. (2020). Enhancing Speaking Proficiency by Adapting Grammar-Translation Method And Electronic Dictionary For Young Learners. *IJET* (Indonesian Journal of English Teaching), 9(1), 44-66. <https://doi.org/10.15642/ijet2.2020.9.1.44-66>
- [15] Kodirova, O., & Henrichsen, L. (2022). Experienced ESL Teachers' Attitudes Towards Using Phonetic Symbols in Teaching English Pronunciation to Adult ESL Students. *Pronunciation in Second Language Learning and Teaching Proceedings*, 12(1). <https://doi.org/10.31274/psllt.13337>
- [16] Sinta, S., & Saftari, M. (2021). INCREASING PRONUNCIATION SKILL USING CAMBRIDGE DICTIONARY WEBSITE AT ELC STUDENTS' ISB ATMA LUHUR PANGKALPINANG. *Jurnal Ilmiah Bina Bahasa*, 14(2), 110-119. <https://doi.org/10.33557/binabahasa.v14i2.1496>
- [17] Pineda Pérez, J. E. (2014). Outcomes from the use of digital dictionaries: a case study of beginner language learners (Bachelor's thesis). <https://hdl.handle.net/20.500.12371/6218>
- [18] Pujiono, T. A. (2013). THE EFFECTIVENESS OF USING E-DIC NAMED CAMBRIDGE ADVANCED LEARNERS DICTIONARY TO IMPROVE STUDENTS' PRONUNCIATION ABILITY AT THE SEVENTH GRADE STUDENTS OF SMP N 3 KALIBAWANG WONOSOBO IN ACADEMIC YEAR 2012/2013 (Doctoral dissertation, PBI). <http://repository.umpwr.ac.id:8080/handle/123456789/2905>
- [19] Yucedal, H. M. (2023). Using Google Play Applications to Improve Language Preparatory School Students Pronunciation Skills (A Study on Tishk International University Students in Erbil, Iraq). *International Journal of Social Sciences & Educational Studies*, 10(1). <https://ijsses.tiu.edu.iq/index.php/volume-10-issue-1-article-29/>
- [20] Yousuf, M. M., Tasneem, A., Aziz, T., & Tabassum, I. (2022). Analyzing The Student's Perception Of The Electronic Dictionary In Improving Students' Skills In The English Language. *Journal of Pharmaceutical Negative Results*, 4026-4033. <https://doi.org/10.47750/pnr.2022.13.S09.496>
- [21] Hakim, M. A. R., Aryati, S. N., & Kurniawan, D. (2020). Investigating E-Dictionaries on Speaking Ability among University Students in Malaysia. *Universal Journal of Educational Research*, 8(12), 6536-6551. <http://www.hrpub.org/>
- [22] Khalifa, E. M. (2021). Exploring Saudi College Students' Attitudes toward Using English Dictionaries at Albaha University. *Dinamika Ilmu*, 21(1), 151-163. <https://doi.org/10.21093/di.v21i1.3179>
- [23] Barham, K. A. (2017). The Use of Electronic Dictionary in the Language Classroom: The Views of Language Learners. *Online Submission*. <https://files.eric.ed.gov/fulltext/ED573437.pdf>
- [24] Chairunnisa, A. (2023). Student's Perception On Learning Diphthong Pronunciation Using Homophone Words In Dictionary. com (Bachelor's thesis, Jakarta: FITK UIN Syarif Hidayatullah Jakarta). <https://repository.uinjkt.ac.id/dspace/handle/123456789/74669>
- [25] Mohamed Assed, D. O. U. I. D. I. (2016). THE EFFECTS OF USING ENGLISH DICTIONARIES ON STUDENTS

'PRONUNCIATION A CASE STUDY OF SECOND-YEAR STUDENTS OF ENGLISH AT BISKRA UNIVERSITY (Doctoral dissertation). <http://archives.univ-biskra.dz/bitstream/123456789/8590/1/a14.pdf>

- [26] Putri, D. F. (2019). The Practicality of Google Dictionary for Vocabulary Retention among EFL Undergraduate Students (Doctoral dissertation, UIN Ar-Raniry Banda Aceh). <https://repository.ar-raniry.ac.id/id/eprint/7212>
- [27] Chen, P. C., & Huang, C. H. (2014). Effects of Integrating an Online Concordancer and Online Dictionary on EFL Learners' English Vocabulary Retention. *International Journal of Arts and Commerce*, 3(8), 103-114. https://ijac.org.uk/images/frontImages/gallery/Vol_3_No_8/9.pdf