

## STUDENTS' EXPERIENCES, CHALLENGES, AND PERCEPTIONS ON U-DICTIONARY TO IMPROVE ENGLISH PRONUNCIATION

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### ABSTRACT

This study explored the experiences, challenges, and perceptions of Indonesian senior high school students, specifically those with Sundanese mother tongue backgrounds, as they utilized the "U-Dictionary" app to enhance their English pronunciation. Employing a qualitative case study approach with interviews and observation, the research investigated students' experiences with the app, their challenges, and their perceptions of its features and effectiveness. Grounded in Kolb's experiential learning cycle, the analysis focused on how the app's functionalities, including pronunciation assistance, translation tools, and interactive feedback, contribute to pronunciation development. The findings indicated that students appreciated the app's interactive and user-friendly features, which facilitated their pronunciation practice and increased their confidence in speaking English. However, they faced challenges in accurately mimicking native pronunciation due to phonological differences and occasional inconsistencies in the app's feedback. Generally, students also perceived U-Dictionary as a powerful tool for pronunciation practice besides suggesting improvements in feedback accuracy and the inclusion of more tailored exercises. This study highlighted the potential of mobile technology in supporting language learning for non-native speakers with specific linguistic backgrounds, providing valuable recommendations for app developers to enhance the app's functionalities and for educators to integrate such tools effectively into their teaching practices.

**Keywords:** Mobile-assisted pronunciation learning, Sundanese learners, experiential learning, cultural influence

## INTRODUCTION

Proficiency in the English language encompasses a variety of skills, which are commonly segmented into listening, speaking, reading, and writing. Pronunciation is a crucial component of speaking, ensuring clear communication. It involves producing sounds and intonation accurately so others can understand spoken language. Mastering pronunciation requires understanding phonetic elements and executing them with oral-motor skills. Non-native speakers may find it challenging due to differences between their native language and English (S. Wulandari, 2019).

In the context of Indonesian senior high schools, students frequently encounter difficulties in pronunciation. This challenge is particularly acute due to the distinct phonetic characteristics of the local languages, which can significantly differ from those of English (S. Wulandari, 2019). As pronunciation is a cornerstone of oral communication, any hindrance in this skill can impair students' overall ability to express themselves in English (D. Wulandari & Handayani, 2020), thereby affecting their confidence and fluency.

Improving pronunciation is crucial for Indonesian EFL students. It's not just about correct sounds but also about being understood globally. Good pronunciation boosts confidence, speaking skills, and overall English proficiency. This positively impacts academic and career opportunities in today's interconnected world. Research highlights the importance of pronunciation in speaking and offers pedagogical strategies to address the challenges faced by Indonesian EFL learners.

Mobile technology has positively impacted English pronunciation among EFL learners. Researchers found that digital tools like CDs, digital books, and online resources lead to better pronunciation than traditional methods (Abdely, 2023). MALL has been well-received by

students who find it effective for improving pronunciation (Šimáčková & Podlipský, 2022). Mobile technology's flexibility allows for practice outside the classroom (Nasim et al., 2022). However, challenges like connectivity issues and device performance disparities exist (Aratusa, 2022). Overall, mobile technology integration holds promise for enhancing pronunciation skills and expanding learning opportunities.

Mobile apps have become increasingly popular for language learning (UNESCO, 2019). However, research on the effectiveness of specific apps like U-Dictionary for improving English pronunciation among Indonesian EFL students is limited. This study focuses on senior high school students in Indonesia, a crucial stage where English is a compulsory subject and important for future education and careers. During their English education, these students use various materials, including textbooks and digital media, to develop comprehensive language skills, including pronunciation.

Indonesian EFL students often face two challenges when learning pronunciation: first, the inherent difficulty of mastering a non-native language's phonetics (Pratolo et al., 2019), and second, the limited effectiveness of educational materials and instruction in addressing the phonetic distinctions between Bahasa Indonesia and English (Kosasih, 2021). This can lead to a significant gap in pronunciation competency, hindering communicative and academic progress. Teachers also struggle with addressing diverse learner needs while limited resources and varying levels of phonetic expertise.

In this setting, U-Dictionary emerges as a potential tool for improvement, yet its specific impact on English pronunciation among this demographic is under-researched. Preliminary studies in other contexts, like those conducted by Mohamad et al (2017) that explored the advantages of e-dictionaries towards ESL learners together with the difficulties faced



when using e-dictionaries. Moreover, D. Wulandari & Handayani (2020) conducted the study applying the use of U-Dictionary as a learning media to increase the students' vocabulary in teaching speaking.

Existing studies don't address Indonesian learners' unique phonetic challenges or U-Dictionary's specific features. A focused investigation into how Indonesian EFL students use U-Dictionary to improve pronunciation, the problems they encounter, and how the app mediates these challenges is essential.

Despite the growing popularity of mobile apps for language learning, research on U-Dictionary's effectiveness in improving English pronunciation for Indonesian EFL students remains limited. While studies have shown the potential of mobile apps, more research is needed to understand the challenges and experiences of students using these tools. Although some research has examined the effectiveness of mobile apps in language learning, few studies have specifically focused on U-Dictionary and English pronunciation improvement among Indonesian EFL students. For instance, (Wongsuriya, 2020) found that mobile apps can enhance pronunciation skills. Chen, (2016) investigated the affordances of English language learning apps for adult learners, contributing to the literature on mobile learning for adults and broadening the understanding of integrating mobile learning into ELL classes.

Therefore, there is a need for more research specifically on the use of U-Dictionary for English pronunciation improvement among EFL students in Indonesia. Additionally, while some studies have shown promising results for mobile app use in language learning (Wongsuriya, 2020) (D. Wulandari & Handayani, 2020), evaluating the use of mobile apps to assist English language learning (Chen, 2016) other studies have reported students' perception of using U dictionary (Juwita et al., 2020)

challenges related to learners' motivation and engagement (S. Wulandari, 2019). Thus, it is important to examine not only the effectiveness of U-Dictionary for English pronunciation improvement but also the experiences and challenges faced by EFL students in using the app for language learning.

Understanding the unique challenges faced by Sundanese speakers in learning English pronunciation is essential for developing effective teaching strategies in Indonesian senior high schools. Research by (S. Wulandari, 2019) reveals that Sundanese speakers struggle with the dental fricative sounds [θ] and [ð], often substituting them with [t] and [d], which can lead to communication misunderstandings. Additionally, Sundanese speakers tend to add vowel sounds at the end of consonants, altering words like "book" to "bookuh." These phonetic challenges hinder accurate pronunciation and fluency. By studying these specific difficulties, educators can create targeted phonetic training programs that address the unique needs of Sundanese learners. This will enhance their overall English proficiency and confidence in communication.

This study investigates the use of U-Dictionary by senior high school EFL students in Indonesia, focusing on Sundanese students' experiences and challenges in using it for English pronunciation practice. It also examines their perceptions and attitudes towards using the app for language learning.

## METHOD

This study employed a qualitative approach using case study, as detailed by (Creswell, 2015) in his extensive work on case study research. This approach is particularly well-suited for exploring the complex, multifaceted experiences of tenth-grade Indonesian Senior High School students. This methodology allows for an in-depth examination of their learning



experiences, the challenges they face, and their perceptions of the app's effectiveness.

This study focuses on tenth-grade Indonesian Senior High School students who have used the U-Dictionary app to improve their English pronunciation. Nine Sundanese participants were selected based on their ethnic background and prior experience with the app, ensuring a culturally relevant sample.

Purposive sampling was used, with English language teachers assisting in identifying eligible students. These students participated in semi-structured interviews to explore their experiences and challenges with the app.

Choosing Sundanese students was motivated by the unique phonological characteristics of the Sundanese language, which may influence English pronunciation learning. Understanding these challenges can provide insights into the effectiveness of U-Dictionary for learners with similar linguistic backgrounds.

The selection process adhered to ethical considerations. Potential participants were approached and informed about the study's objectives, procedures, risks, and benefits. Informed consent was obtained from those willing to participate. Privacy and voluntary participation were ensured throughout the process.

The research instruments for this study consisted of semi-structured interview guides and observation rubrics, designed to gather in-depth information about participants' experiences, challenges, and perceptions of the app. The interview and observation rubric guides were pre-tested with a small group of participants to ensure clarity and effectiveness.

Data collection involved selecting a sample of tenth-grade Indonesian Senior High School students and inviting them to participate in interviews. The data collection process was conducted with sensitivity to ethical considerations, including obtaining informed

consent, protecting participant privacy, and ensuring data confidentiality.

The data were analyzed using a data organization process and NVivo software, a specialized program for efficient data management. This facilitated coding, sorting, and data storage, making the process more systematic.

1. Initial Coding: Key phrases and concepts related to the research questions were identified, focusing on significant parts of the data relevant to the study's objectives.
2. Open Coding: New themes and patterns were uncovered through an exploratory analysis of the data.
3. Axial Coding: The data were categorized into cohesive groups that encapsulated the prominent themes and patterns, organizing the data into meaningful categories.
4. Formation of Core Categories: These core categories provided a structured way to interpret the findings and form well-grounded conclusions based on the data analysis.
5. Iterative and Reflective Analysis: The analysis was ongoing and reflective, ensuring the validity and reliability of the findings through continuous scrutiny and introspection.
6. Triangulation: To enhance credibility, triangulation was employed, corroborating findings through interviews and observations.
7. Presentation of Findings: The study's findings were presented clearly and concisely, supported by relevant quotes and data-driven examples.

## FINDINGS AND DISCUSSION

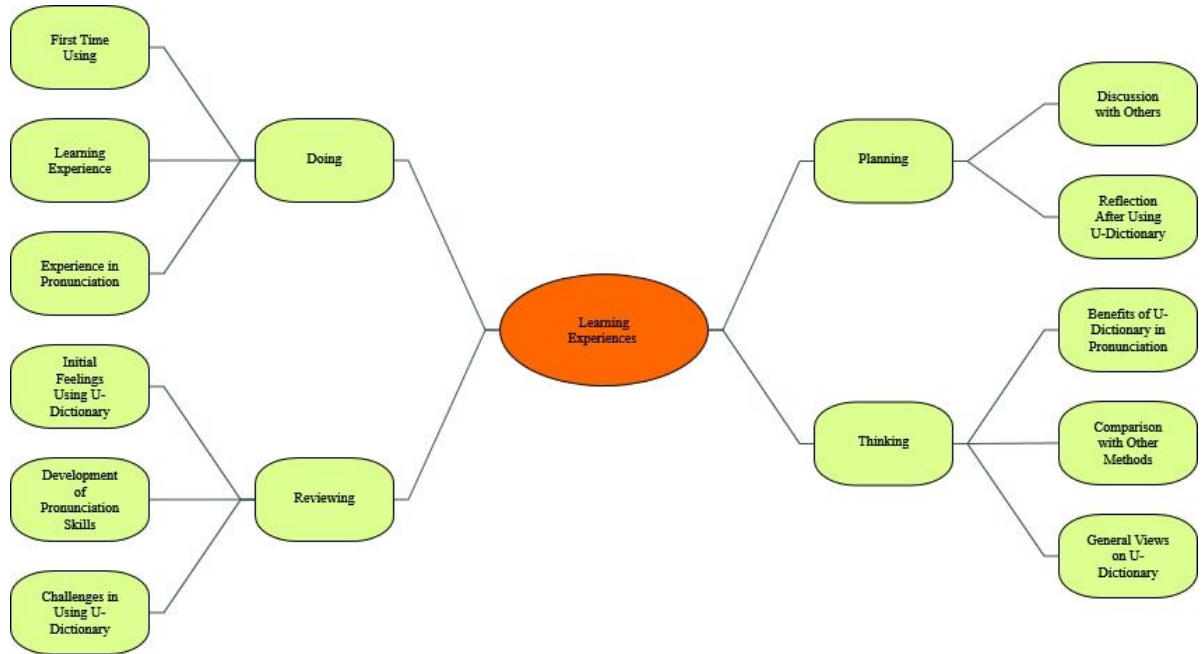
### 1. Learning Experiences Using U-Dictionary

To get in-depth understanding students' answers in interview due to their learning experiences in using U Dictionary, the researcher has classified their answers into some themes based on the



theories of Kolb’s Reflective Model (Morris, 2020).

Figure 1. Learning Experience



**a. Concrete Experience (Doing)**

The app offered interactive, gamified activities, boosting motivation and user satisfaction. It was adaptable, integrating modern features like voice recognition and camera-based translation, and provides a tailored approach to pronunciation, ensuring tangible benefits for users as the following findings.

*1) First time using U-Dictionary*

The students’ initial experiences with U-Dictionary were predominantly positive, with a significant number of them crediting their introduction to the app to either their teachers or recommendations from their peers and the prevailing feeling expressed was one of gratitude for the tools capacity to facilitate precise and accurate pronunciation. Significantly, a considerable number of students expressed that U-Dictionary

facilitated their pronunciation practice and translating as the following statement:

*MA: " My first encounter with U Dictionary was thanks to a tip from my English teacher during English class. "*

*DN: "It was quite useful in pronouncing and translating English. "*

This finding supported by Aprilia and Ahmad (2020) found that r the significant influence of U-Dictionary can improve vocabulary and mastering pronunciation, establishing it as a highly beneficial resource in the English as a Foreign Language (EFL) setting.

*2) Learning Experience with U-Dictionary*

U-Dictionary provided immediate feedback and scores, which served as a source of motivation to improve students’ skills. The practicality of the applications capabilities, which include voice functionality and camera-based translations, was highly praised by the





students that they should not write words to translate and pronounce as the following:

*DM: "When I use the U Dictionary, the practice activity or project that I do is that I say word for word and then the U Dictionary confirms it; it's very simple, there will be a score afterwards, and I will also know better. How's my performance going? In English, and I am overjoyed since U Dictionary has significantly enhanced my skills."*

*DV: "The U Dictionary program allows us to learn how to pronounce a language, use the voice function, and translate English into Indonesian, Indonesian into English, and other languages. Not only that, but we can also use the camera feature to translate without having to type."*

This finding supported that U-Dictionary was as a valuable learning tool that was available to students of all academic levels and it could help them how to pronounce and translate English. Levels as found by D. Wulandari & Handayani (2020) that U-Dictionary goes beyond being a simple dictionary, as it provides a comprehensive linguistic resource that includes definitions and pronunciations. One notable finding was the significant rise in student's lexical repertoire following the intervention, during which they acquired a minimum of one hundred novel lexical items encompassing several word classes such as nouns, adjectives, verbs, and adverbs. This study highlights the effectiveness of U-Dictionary in enhancing the student's lexical knowledge.

### 3) Specific Experience with Pronunciation

*DV: "My more specific experience with U Dictionary is that it aids in the practice of my English pronunciation, which is a good experience for me."*

By aligning to its stages, it could be justified that the participants' initial encounters with U-Dictionary and their first-

time use of the app were evidence of the Concrete Experience stage.

This finding was in line with the application of the theory of experiential learning is employed (Morris, 2020) that the concept of learning revolves around the process of acquiring knowledge through personal experiences and it as a pedagogical approach that emphasizes experiential learning. The incorporation of English pronunciation into their educational experience served as a concrete illustration of the concepts of experiential learning (Morris, 2020).

### b. Reflective Observation (Reviewing)

Participants were impressed by the app's potential to transform lives, its ability to address significant challenges, and the profound emotional impact.

#### 1) Challenges in Using U-Dictionary

*MA: "My sentiments when I first met U Dictionary were definitely extremely joyful since this program was really helpful, and this application truly helped me to correct my pronunciation when practicing pronunciation."*

When English as a Foreign Language (EFL) students initially experimented with U-Dictionary, it reflected their tentative exploration of an unfamiliar domain. The individuals in question generally formed positive initial perceptions. Many individuals became aware of the application through either their educators or acquaintances. They did not have problem to use it. This finding was in line with Aprilia et al (2020) found that naturally not all aspects proceeded without difficulties (Aprilia et al., 2020)

#### 2) Development of Pronunciation Skills



*SP: "My English pronunciation was poor before I used U Dictionary, but it gradually improved once I started using it."*

Based on that, U-Dictionary offered students the opportunity to improve their accurate pronunciation gradually through engaging in practical application. Morris (2020) said that the process of trial and error, along with the feedback loop, constitutes the fundamental essence of experiential learning (Morris, 2020). Besides that, Aprilia et al (2020) found that the notable aspect of U-Dictionary is its ability to motivate individuals to persevere and make further attempts that could facilitate their gradual enhancement.

### 3) Initial Feelings Using U-Dictionary

*MA: "My sentiments when I first met U Dictionary were definitely extremely joyful since this program was really helpful, and this application truly helped me to correct my pronunciation when practicing pronunciation."*

The initial stage of experiential learning involves the introduction to a novel concept or experience, prompting individuals to make a conscious decision to delve into its exploration. It supported experiential learning that was found by Morris (2020) that the process of acquiring knowledge is through personal experiences as a pedagogical approach that emphasizes experiential learning.

By aligning to its stages, it could be justified that the participants' thoughts, feelings, and reflections on their experiences with U-Dictionary demonstrated the reflective observation stage.

### c. Abstract Conceptualization (Thinking)

It showed participants' perspective on the advantages of the application, emphasizing its superiority compared to conventional approaches and its extensive range of

capabilities within the context of English pronunciation acquisition.

*1) Benefits of U-Dictionary in Pronunciation  
MA: "The relationship of enhancing pronunciation using the U Dictionary tool is highly beneficial since the pronunciation becomes more correct and clearer with U Dictionary."*

### 2) Comparison with Other Methods

*DN: "My view of the U Dictionary is that it is very helpful in translating English and its pronunciation because before I learned about the U Dictionary, I used a conventional dictionary manually in translating, which wasted a lot of time and occasionally didn't locate the word I was looking for."*

The students were more helpful in using U-dictionary than using conventional dictionary. D. Wulandari & Handayani (2020) found that student preferred U-Dictionary than traditional dictionaries, and the result was the act of engaging with a language extends beyond mere lexical consultation, encompassing a holistic immersion in its various facets. Moreover, a significant number of students are engaged in discussions with their peers regarding the difficulties they encountered in pronunciation. It indicated that the process of learning was not solely an individual endeavor but rather a collective experience. Ultimately, U-Dictionary had a purpose beyond being an ordinary application for these young people.

### 3) General Views on U-Dictionary

*DM: "According to several sources, the U Dictionary program is one that makes it very easy for us to speak English. There are numerous Play Store apps that rate the U Dictionary app 5 stars".*

*PH: "In today's modern digital world, the U Dictionary application, in my opinion, can be*



used as a study guide in language acquisition, particularly English.”

DV: “It is more complex since it includes features like example phrases for the words we are looking for, instructions on how to pronounce them, and a means to evaluate if the sentences we say are correct or incorrect.”

By aligning to its stages, it can be justified that the participants' understanding of the benefits of U-Dictionary, comparisons with other methods, and general views on the app represent the Abstract Conceptualization stage.

**d. Active Experimentation (Planning)**

It highlighted how participants valued peer feedback, emphasizing a learning environment that blended self-reliance with collaboration, where mistakes were seen as opportunities for shared growth.

*1) Discussion with Others*

MA: “Of course, I talked about it and sought advice from those who could pronounce it better.”

DN: “When I utilize the U Dictionary and encounter pronunciation challenges, I keep

trying my hardest, but when I receive a poor score or star, I consult with others who are more knowledgeable about English pronunciation.”

DM: “When I discussed it with others and considered how to overcome it, particularly by learning to enunciate the words, my friends assisted me in pronouncing these words, which they then corrected. Wrong and correct are quite common since we all learn together.”

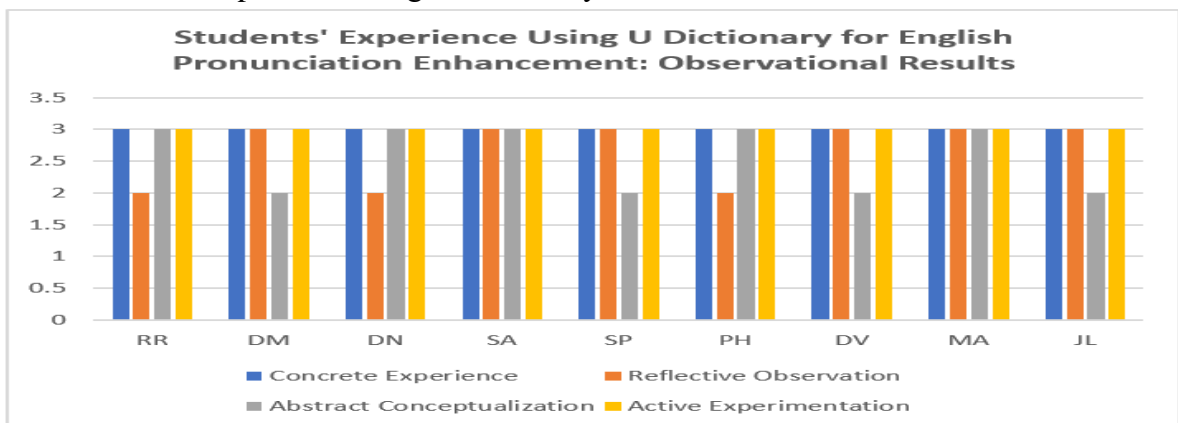
*2) Reflection After Using U-Dictionary*

JL: “After using U-Dictionary for pronunciation practice, did you have any reflections or discussions with peers about your experience? What did you notice or learn from these reflections?”

By aligning to its stages, it could be justified that the participants' discussions with others about pronunciation challenges and their attempts to overcome them exemplify the Active Experimentation stage.

Besides that, the study observed students' experience using U Dictionary for English pronunciation enhancement as the following chart:

Figure 2. Students' experience using U Dictionary



By gaining the data from the observation, it can be conclude that:

**a. Concrete Experience**

In this stage, Frequency of feature usage in the U-Dictionary application were observed. The result was the students frequently use U-





Dictionary and regularly integrated it into their learning activities, effectively and efficiently utilizing its various features.

**b. Reflective Observation**

The researcher observed students' ability to reflect on their experiences in using the U dictionary application. As the result, students were able to analyze the advantages and disadvantages of U-Dictionary.

**c. Abstract Conceptualization**

In this stage, the researcher observed students' ability to make conclusions from their experiences in using the U dictionary application. The result was that students could make generalizations that were relevant to language learning.

**d. Active Experimentation**

In this stage, students' ability to apply the knowledge they have acquired were observed, and students could apply knowledge in various learning situations

After considering the finding, the researcher assumed that U-Dictionary, significantly influenced the pronunciation and general language ability of English as a Foreign Language (EFL) students as stated by Falloon (2019). The substantial amount of favorable feedback received from the students suggested a clear association between the utilization of U-Dictionary and the improvement of English pronunciation abilities as found by Morris (2020). The presence of both peers and educators in the

introduction of the tool served as evidence that the process of learning was not solitary, but rather flourishes within a communal environment. The function of digital applications in the field of education was through a process of transformation. U-Dictionary, for instance, functions not only as a mere tool, but rather as an extensive learning platform that supported the finding of D. Wulandari & Handayani (2020). The frequent reference to its attributes, such as voice feedback and camera translations, along with the notable enhancement in vocabulary and pronunciation abilities, indicated that experiential learning, often known as learning by doing, was very effective as Morris (2020) found. The presence of interactive opportunities, feedback provision, and real-time adjustments appeared to have a substantial impact on the rate of comprehension and retention among learners. Moreover, the significance of collaborative learning was underscored by the discussions held among students regarding the difficulties they encounter, thereby emphasizing the essential role of peer interaction in the educational journey.

**2. Challenges in Using U-Dictionary**

To gain an in-depth explanation, the word cloud below provided a graphical representation of the challenges encountered by tenth-grade English as a Foreign Language (EFL) learners when they utilized the U-Dictionary tool to improve their English pronunciation skills.

Figure 3. Word Cloud





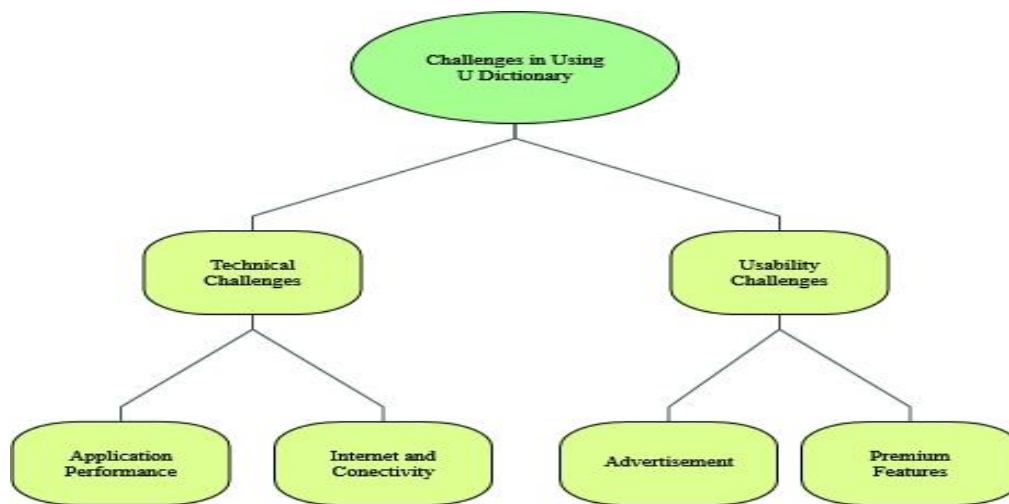


a. **Challenge Category**

The Figure below demonstrated a systematic diagram that classifies the challenges experienced by students when utilizing U-Dictionary as a means to enhance their English pronunciation skills. Located at the

very top of the diagram was the overall subject denoted as challenges in utilizing u dictionary, which subsequently diverged into two principal issues, namely technical challenges and usability challenges.

Figure 4. Challenges in Using U Dictionary



1) **Technical challenges**

Under technical challenges, there were two further sub-categories. one aspect to consider is the application performance, which encompassed the efficiency, responsiveness, and precision of the U-Dictionary apps functionality. The second sub-category, called internet and connectivity, encompasses difficulties pertaining to internet accessibility, speed, and reliability, all of which were

crucial for the uninterrupted utilization of web-based services.

a) *Application performance*

It encompassed the efficiency, responsiveness, and precision of the U-Dictionary app's functionality.

SA: “Perhaps my only issue is that my phone frequently lags or freezes when I use the

*application because the size is pretty enormous for my phone.”*

*DV: “Even though I used the speaker option, it is difficult to enunciate phrases or sentences that I have encountered.”*

*JL: “The greatest issue for me when using U Dictionary is that the application occasionally crashes when I’m training, and the connection is always lost.”*

#### *b) Internet and connectivity*

It encompassed difficulties in internet accessibility, speed, and reliability, all of which were crucial for the uninterrupted utilization of web-based services.

*DM: “The obstacle and difficulty I encountered when using U Dictionary was that the internet connection was quite difficult because this application is an online application that requires a strong signal before you can access it.”*

*JL: “The thing that keeps me from utilizing U Dictionary is a signal issue or a connection that frequently fails. That is my primary issue with the U Dictionary.”*

U-Dictionary presented a wide range of features aimed at facilitating language acquisition; nonetheless, users encountered technical obstacles that hindered their overall learning experience. It was vital to confront these issues in order to facilitate learners in fully utilizing the apps capabilities without encountering any obstacles.

## **2) Usability challenges**

The U-Dictionary app users encounter a number of challenges, with usability issues emerging as one of the main areas of concern. These difficulties can be further categorized into two main sub-themes: the invasive characteristics of adverts and concerns pertaining to premium features.

#### *a) Advertisements*

The inclusion of advertisements within the application might cause disruptions to students' educational experiences.

*SP: “The primary issue I had was with advertising since my cellphone had a problem after the advertisement showed.”*

*DN: “As a student, I have the following issues and difficulties: first, it is too expensive to activate so that the application becomes premium; second, so many advertising shows, disrupt my attention while using the application.”*

*DN: “One of the problems and challenges of the U Dictionary application is the abundance of ads.”*

*PH: “In my opinion, U Dictionary should greatly improve its functionality and remove the adverts because they are quite unpleasant.”*

*RR: “Lots of advertisements, and its slow if your phone doesn’t support it well enough.”*

#### *b) Premium Features*

Specific advanced or advantageous functionalities were restricted to users who have paid for access, presenting difficulties for students unable to utilize these capabilities due to financial limitations or other factors.

*DN: “As a student, I have the following issues and difficulties: first, it is too expensive to activate so that the application becomes premium; second, so many advertising shows, disrupt my attention while using the application.”*

*PH: “In my opinion, U Dictionary should greatly improve its functionality and remove the adverts because they are quite unpleasant.”*

The combination of invasive advertisements and restricted access to premium features creates a less-than-ideal user experience for U-Dictionary students. These usability challenges can hinder the



effectiveness of the app as a learning tool and may discourage students from continued use.

Regarding the findings, several prior research emphasized the potential of the U-Dictionary application as a tool for facilitating English language acquisition among students. It is easy to use either to increase the vocabulary or to improve the ability in pronouncing English word because U-Dictionary not only provides the meaning of a word but also giving the spell of a word. With U-Dictionary, Students not only can translate words and short phrases, but also practice the skills in any language. Moreover, it can be used as an effective learning media to increase the students' vocabulary (D. Wulandari & Handayani, 2020). Specifically, they heavily utilize features such as lock screen vocabulary and the ability to translate between English and Bahasa. Nevertheless, the research emphasizes that a considerable number of students may possess limited knowledge or fail to successfully use the complete variety of features at their disposal. The limited application of these skills might hinder their ability to enhance other aspects of English proficiency. Hence, students have the potential to enhance their educational experience by actively engaging with and utilizing additional functionalities offered by the application.

In contrast, Juwita et al (2020) highlights the advantages of U-Dictionary in facilitating the acquisition of speech skills among English language learners. The application is generally seen in a positive light, particularly due to its inclusion of the perfect English pronunciation feature, which provides users with an engaging and enjoyable method for improving their pronunciation skills. This indicates that students value elements that cater to their immediate requirements, such as vocabulary enrichment. However, Juwita et al. (2020)

also discuss the obstacles encountered by students, including signal issues that impact the response time of the application and the accuracy of pronunciation scores. Furthermore, participants expressed dissatisfaction with the presence of advertisements and the presence of imprecise original speaker sounds. Notwithstanding these obstacles, the prevailing viewpoint is that contemporary electronic programs such as U-Dictionary possess noteworthy attributes that can enhance the experience of studying English, rendering it both pleasurable and efficacious (Juwita et al., 2020).

In light of the issues delineated in the first findings, it is evident that although the U-Dictionary application presents a multitude of advantageous characteristics, specific technological and usability obstacles hinder its efficacy. Both studies (Juwita et al., 2020); (Safina & Rahardiyanto, 2019) emphasize the impact of advertisements on user experience, underscoring the significance of effective ad management in instructional aids of this nature. Moreover, the significance of a reliable internet connection highlights the essentiality of uninterrupted connectivity in ensuring optimal performance of applications.

The analysis of the difficulties encountered by pupils when utilizing the U-Dictionary application can be examined within the framework of educational theories. Two prominent theories, namely Jean Piaget's cognitive development theory (Lefa, 2014) and Lev Vygotsky's Zone of Proximal Development (ZPD) (Gehlot, 2021), offer valuable perspectives on the process of learning and the role of tools in facilitating this process. According to Piaget's cognitive development theory (Lefa, 2014), individuals progress through distinct phases of cognitive development, and optimal learning occurs when instruction is customized to align with the individuals present stage of development.





The U-Dictionary app provided technical and usability problems that could potentially hinder students seamless progression through these phases (See Figure 4).

The Zone of Proximal Development (ZPD) proposed by Vygotsky highlights the distinction between learners' independent capabilities and their potential accomplishments with instructional support (Gehlot, 2021). The U-Dictionary application functions as an intermediary tool, effectively bridging the existing gap by offering prompt support to learners, particularly in the domains of pronunciation and vocabulary enrichment. Nevertheless, the aforementioned obstacles such as interruptions caused by advertisements, signal inconsistencies, and difficulties in comprehending native pronunciations could potentially impede students' ability to access and utilize this tool effectively within their Zone of Proximal Development (ZPD). If the educational tool designed to facilitate learning becomes a cause of annoyance or perplexity, students may encounter difficulties in transitioning from independent tasks to collaborative endeavors. In essence, the theories proposed by Piaget (Lefa, 2014) and Vygotsky (Gehlot, 2021) hold relevance in the examination of the difficulties encountered by students in utilizing the U-Dictionary.

After considering the findings, previous researches and relevant theories, the researcher assumed that the examination of

the U-Dictionary application and its efficacy among English as a Foreign Language (EFL) students brought attention to the complexities involved in utilizing electronic resources for educational objectives.

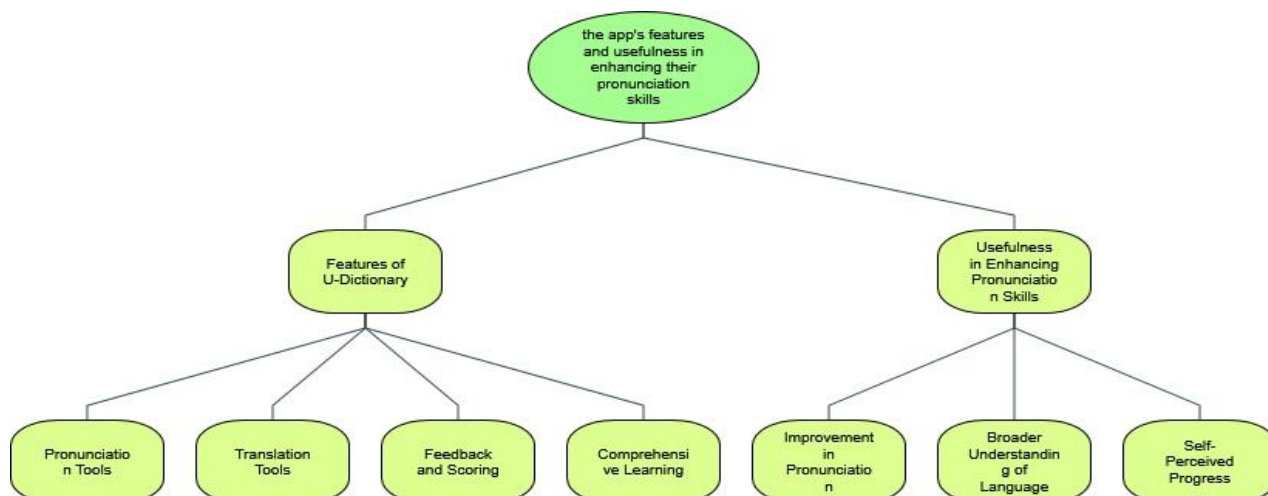
On the other hand, the observations obtained from this discourse underscored the significance of ongoing adaptation and enhancement in educational instruments (See figure 2) as Safina & Rahardiyanto (2019) and Juwita et al. (2020) found that it is apparent that students possess a discerning awareness and admiration for the inherent worth of language-learning applications such as U-Dictionary. It can effectively enhance student's lexical repertoire and refine their pronunciation skills. Nevertheless, the optimal utilization of it can only be realized when their design is closely aligned with the requirements of users and the fundamental principles of efficient learning. Fundamentally, the effectiveness of contemporary educational technologies relied on adopting a comprehensive approach that took into account both the instructional effectiveness and the total user experience.

### 3. Perception in Using U-Dictionary

By investigating the verbatim of interview, the researcher found some themes in relation to students' perception of app feature and its usefulness as shown in the figure below.

Figure 5. App Features and Usefulness in Enhancing Pronunciation Skill





### a. Application Characteristics

These were the specific features of the U-Dictionary app and their roles in enhancing pronunciation skills.

#### 1) Pronunciation Tool

It provided tools such as audio playback or phonetic assistance to improve speaking skills.

*DV: "The U Dictionary program allows us to learn how to pronounce a language, use the voice function, and translate English into Indonesian, Indonesian into English, and other languages."*

*RR: "Yes, it's really simple; simply hit the voice button and utter the word you want to say, not only how to read it, but also the appropriate sentence for the word I say."*

#### 2) Translation Tool

It helped students with translating words or sentences, accurate articulation and contextual comprehension.

*DV: "Not only that, but we can also use the camera feature to translate without having to type."*

#### 3) Feedback and Scoring

U Dictionary provided a mechanism for evaluating pronunciation skills and offering immediate feedback.

*DM: "When I use the U Dictionary, the practice activity or project that I do is that*

*I say word for word and then the U Dictionary confirms it; it's very simple, there will be score afterwards, and I will also know better."*

#### 4) Comprehensive Learning

It Offered a more integrated learning experience that includes additional language competencies such as reading and listening.

*DV: "It is more complex since it includes features like example phrases for the words we are looking for, instructions on how to pronounce them, and a means to evaluate if the sentences we say are correct or incorrect."*

The combination of these features in U-Dictionary makes it a valuable tool for improving pronunciation skills. By providing tools for audio playback, phonetic assistance, translation, feedback, and a comprehensive learning experience, U-Dictionary can help learners develop accurate and confident pronunciation.

### b. Advantages

There were the perceived benefits of using the U-Dictionary app for improving pronunciation skills.

### 1) Enhancement of Pronunciation

Students experienced noticeable improvements in their pronunciation abilities after using the app.

*PH: "When I learn from this application, I try to practice pronouncing some English words. I'm getting a better understanding of how to pronounce various English words."*

- *DM: "When I first encountered U Dictionary, I was overjoyed because it would make it easier for me to learn English. When I practice, I speak words and discover that there are still many flaws, which I rectify in the U Dictionary."*

### 2) Broader Understanding of Language

It facilitated a deeper and more nuanced understanding of the English language beyond just pronunciation.

*PH: "In today's modern digital world, the U Dictionary application, in my opinion, can be used as a study guide in language acquisition, particularly English."*

*MA: "The relationship of enhancing pronunciation using the U Dictionary tool is highly beneficial since the pronunciation becomes more correct and clearer with U Dictionary."*

### 3) Self-Perceived Progress

It allowed students to recognize and appreciate their own progress in developing pronunciation skills.

*SA: I'm a new user, and I've seen a slight improvement in my pronunciation; perhaps if I use this application for a longer period of time, I'll improve even more.*

*SA: In my experience, my English speech improves and gets crisper.*

These findings suggested that U-Dictionary was a valuable tool for improving pronunciation skills and facilitating broader language learning. The app's features and benefits contributed to enhanced pronunciation, a deeper

understanding of the language, and a sense of accomplishment for users.

Consistent with the results of this study, Putri examined the various strategies employed by students when utilizing the features of U-dictionary (Putri, 2021), and she found that the students predominantly utilize the program with the intention of improving their writing abilities and broadening their lexicon. Moreover, Yuliyanti and Siahaan (2022) investigated the efficacy of the U-dictionary as an educational resource, with a particular focus on its utility in enhancing speaking skills and expanding vocabulary. It found that U-Dictionary is as a readily accessible educational resource, which can be obtained from platforms such as the Google Play Store, and is suitable for students at various academic levels. In addition, U-dictionary can facilitate the acquisition of English language skills (Yuliyanti & Siahaan, 2022)

The usage of the U-Dictionary application to improve pronunciation abilities may be analyzed through the lens of Jean Piaget's cognitive development theory (Lefa, 2014), which argues that it serves as a mechanism for learners to acquire and accommodate novel linguistic material. According to Piaget's theory, individuals engage in active knowledge construction through their interactions with the surrounding environment. The U-Dictionary provides users with interactive features and feedback mechanisms that facilitate active engagement with the English language. This platform enables users to effectively incorporate new pronunciation patterns into their pre-existing linguistic frameworks. According to the study conducted by Putri, students engage in the active creation of their linguistic knowledge when utilizing the app

to enhance their writing abilities and broaden their vocabulary (Putri, 2021).

According to Kolb's experiential learning theory (Morris, 2020), the acquisition of knowledge occurs through the process of transforming experience. The learning cycle comprises four stages, namely concrete experience, reflective observation, abstract conceptualization, and active exploration. The features offered by U-Dictionary, including the provision of example sentences, help on pronunciation, and evaluative feedback, are in accordance with the learning cycle. Individuals have a tangible experience when engaging in pronunciation practice, partake in reflective observation by means of feedback and scoring, develop abstract concepts pertaining to accurate pronunciation, and actively experiment through verbal expression and subsequent feedback reception.

In brief, the results and prior scholarly investigations pertaining to the U-Dictionary application are consistent with fundamental educational philosophies. Piaget's theory of cognitive development posits that the application facilitates the construction of knowledge. Kolb's Experiential Learning Theory emphasizes the iterative learning process promoted by the applications features (Falloon, 2019). Additionally, Vygotsky's Zone of Proximal Development underscores the applications role as a supportive scaffold (Gonulal & Loewen, 2018) that assists learners in their journey of acquiring the English language (Gehlot, 2021)

Based on that, U-Dictionary was a powerful tool that adhered to core pedagogical concepts. One might infer from this that the applications functionalities, such as its feedback mechanisms, pronunciation guidance, and translation

utilities, have been designed to mimic the natural progression of learning and cognitive growth. Moreover, the research indicated that learners were not merely passive users of information, but rather active participants in their educational process, utilizing resources such as the U-Dictionary to enhance and broaden their understanding (See chart 2).

The capacity of the U-Dictionary addressed the disparity between a learners existing competency and their prospective development, particularly in the domain of language proficiency (See chart 2). This phenomenon was exemplified by the ability of individuals to rectify their pronunciation inaccuracies and enhance their lexicon. Another notable observation was that although several students perceived the program as advantageous, there existed a potential for them to not fully exploit all of its functionalities (See chart 2). Furthermore, the incorporation of feedback, exemplar sentences, and translation tools provided a comprehensive and immersive learning experience, which aligned with the ideas derived from Piaget's theory of cognitive development and Kolb's experiential learning cycle. Thus, U-Dictionary app provided an effective platform for language acquisition that was in accordance with accepted educational theories.

## CONCLUSION

The result of this study could be concluded in the following statements:

Firstly, referring to the learning experience, EFL students' active involvement with U-Dictionary significantly enhanced their English pronunciation. In addition to offering translation services, the application provided a comprehensive learning



platform. The alignment of this approach with recognized pedagogical concepts enabled it to support not only memorization-based learning but also the natural growth of cognitive abilities. The utilization of the application enabled students to transition from passive recipients to active participants in their language acquisition process. The effectiveness of experiential learning, specifically in the context of U-Dictionary, was notable, particularly in terms of its impact on improving users' pronunciation and vocabulary skills.

Nevertheless, like any other technological tool, problems were bound to arise, specifically when students experienced technical glitches that hindered their educational efforts. In addition, the inclusion of adverts within the program, despite being a method of generating revenue, frequently acted as a source of disruption, hindering the seamless progression of the learning process. Another significant problem lied in the applications reliance on uninterrupted internet connectivity, which might not be universally available to all users. Consequently, this limitation might have an adverse impact on the constant utilization and acquisition of knowledge.

Finally, when considering the perception of the application's features and its utility, it became clear that U-Dictionary was seen as more than just a basic tool. The transformative impact of its features, particularly voice feedback, camera translations, and real-time changes, was widely praised in enhancing the learning experience. Nevertheless, it was evident that certain elements of the application might not be fully utilized, indicating the possibility for enhancement in terms of user orientation or interface design. In addition,

the collaborative elements of the application emphasized the significant significance of peer relationships, suggesting that the process of language acquisition extended beyond individual efforts and encompassed a community aspect.

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