

CHAPTER II

LITERATURE REVIEW

In this chapter, the researcher discusses the theory and literature related to research. Furthermore, this chapter explains in detail reviews about speaking, the nature of speaking, the types of speaking, improving speaking skills through the media, the definition of Duolingo, features of the Duolingo app, the challenges, and the benefits of using Duolingo.

A. Speaking

1. The Nature of Speaking

Speaking is an important skill in education that shapes students' interactions and learning. According to Simbolon (2014), speaking is the activity of conveying intentions, ideas, thoughts, and feelings. Therefore, mastery of pronunciation, grammar, vocabulary, fluency, and coherent organization of ideas is essential for effective speaking. This skill enables students to actively participate in class discussions, ask questions, and engage deeply with learning materials, thus improving their understanding and retention of knowledge.

The importance of speaking also includes language development, allowing students to practice and perfect their linguistic abilities. According to Setyonegoro (2013), language as a means of communication has implications, which is that speaking proficiency is the main measure of a person's ability to communicate. That is, a person's ability to speak well reflects his or her overall communication skills.

Speaking and English language skills are very important in education because English is often used as a global teaching medium. According to Handayani (2016), English is a key communication tool in the era of globalization that opens up bright career opportunities. By mastering English and speaking skills, students can better understand lessons, participate in discussions, and prepare for a better future.

Therefore, English speaking skills are very important in education. English is often the language of instruction in many educational institutions, good English

speaking skills also improve academic performance, allowing students to excel in exams, presentations, and classroom interactions. In addition, these skills open up international education opportunities such as studying abroad or exchange programs. Ultimately, good English speaking skills prepare students for future career opportunities and increase competitiveness in the world of work

2. Types of Speaking Skills

The types of speaking skills are part of the speaking process. This component is support for every speaking process to speak fluently. According to Rahmawati et al. (2023), there are four aspects of speaking that generally need to be known, namely grammar, vocabulary, pronunciation, and fluency.

a. Grammar

The relationship between grammar and speaking skills is very important in one's verbal communication. Grammar is the rules and structures used in a language to construct sentences and organize the relationship between words. The above statement is supported by (Murti et al., 2024), who have stated that grammar is an essential component in learning a language, particularly English. Therefore, when a person speaks, he or she unconsciously uses grammar rules to construct sentences that have a clear and structured meaning.

Good proficiency in grammar allows one to convey messages effectively and without confusion. This is supported by (Murti et al., 2024), who states that the purpose of using grammar in English is to ensure that the message conveyed is clearly understood by the interlocutor or listener. For example, a strong understanding of grammar allows one to organize the order of words correctly so that the listeners easily understand the sentences. In addition, proper grammar helps one to avoid misunderstandings or wrong interpretations in communication.

Grammar also affects how one uses time and aspect in language to convey the desired meaning. For example, the proper use of tense in English allows one to convey whether an event happened in the past, is happening

now, or will happen in the future. This is important in building a story or explaining an event.

Thus, good speaking skills involve not only the proper use of vocabulary but also a good command of grammar. The ability to combine grammar with proper vocabulary allows one to communicate effectively and persuasively. Therefore, to improve speaking ability, one needs to understand and continuously practice grammar through reading, speaking, and writing in the language they are learning.

b. Vocabulary

Vocabulary and speaking skills are closely related to a person's ability to communicate. This statement is supported by Matondang & Saragih (2021), who assert that vocabulary is utilized to enhance students' speaking abilities, indicating that the effective use of vocabulary can assist students in expressing their ideas and thoughts more clearly. Therefore, vocabulary is the collection of words that a person has in a particular language. When a person speaks, he or she uses the vocabulary to express ideas, thoughts, and emotions to others. So, the broader and more diverse one's vocabulary, the better one's ability to speak.

A rich vocabulary allows one to convey a message more clearly and precisely. For example, if one wants to describe a vacation experience at the beach, having a variety of words to describe the atmosphere, scenery, and activities at the beach will make the story more vivid and interesting. On the other hand, if a person is limited in vocabulary, he or she may have difficulty in explaining important details or nuances in the story.

Good speaking skills involve not only the use of appropriate vocabulary but also a good understanding of grammar, intonation, and other speaking skills. However, a rich vocabulary is an important foundation for building effective speaking skills. Therefore, to improve speaking ability, it is important for one to continuously develop and expand their vocabulary through reading, listening, and practicing speaking in different situations.

c. Pronunciation

The link between pronunciation and speaking ability is a crucial aspect of verbal communication. This is supported by Syahira (2022), who stated that good pronunciation can influence the clarity and accuracy of the spoken voice, making it easier for listeners to understand what is being said. Therefore, good pronunciation allows one to produce clear and accurate sounds when speaking so that listeners can easily understand what is being said. For example, proper emphasis on syllables or keywords in a sentence can help communicate meaning more clearly and distinguish between words that have different meanings. In addition, proper intonation can also help in conveying emotion, coincidence, or desired emphasis in a conversation, which can enrich the communication experience.

Furthermore, good pronunciation also affects the overall impression that a speaker makes on the listener. A clear and fluent pronunciation can give the impression of professionalism and confidence, while poor or unclear pronunciation can give the appearance of lack of skill or insecurity.

Therefore, paying attention to and improving pronunciation is an important step in improving overall speaking ability. With proper practice and awareness of aspects such as vowels, consonants, and intonation, one can improve their pronunciation and in turn, improve overall speaking ability.

d. Fluency

The relationship between fluency and speaking ability is significant in conveying messages effectively in conversation. Fluency refers to one's ability to speak smoothly, without stammering or halting, and at a pace appropriate to the context of communication. This is supported by Jannah (2022), who states that fluency refers to an individual's ability to speak smoothly, without hesitations or interruptions, and at a speed appropriate to the context of communication. Therefore, when a person has good fluency in speaking, he or she can express his or her thoughts and ideas naturally and without difficulty, thus facilitating a smooth interaction with the interlocutor.

This allows the conversation to proceed smoothly without any significant obstacles, allowing the message to be conveyed clearly and on time.

In addition, fluency also reflects a person's level of confidence in speaking. This statement is supported by Jannah (2022), who asserts that self-confidence is the sense of assurance in one's skills and satisfaction with one's speaking ability, as well as the absence of anxiety during communication. For example, someone who has good fluency tends to appear more confident and convincing in verbal interactions. This is because the ability to speak fluently indicates that a person has a good understanding of the language used and is able to express themselves confidently. As such, fluency is not only an important factor in the smooth flow of communication but also plays a key role in building a positive impression of one's overall speaking ability.

Based on the four types of speaking skills mentioned above, which include grammar, vocabulary, pronunciation, and fluency, these were all interrelated components that collectively enhanced speaking skills. Mastery of grammar provided the structural foundation for constructing meaningful sentences, while a rich vocabulary enriched the content of communication. Pronunciation ensured that spoken words were clear and understandable, and fluency reflected confidence and facilitated smooth interaction. Together, these elements contributed to effective, persuasive, and engaging verbal communication. Continuous practice and development in all these aspects were essential to improve speaking skills.

B. Perceptions

1. The Nature of Perceptions

Perception is the process of understanding and interpreting sensory information received from the environment. According to Nisa et al. (2023), perception, from a general perspective was a process through which individuals selected, organized, and interpreted stimuli received into a meaningful and complete image of their world. Perception arose due to external stimuli that influenced an individual through their five senses.

Based on the statement of that support, it could be concluded that perception was how individuals processed and understood information received from the environment through their five senses. This process involved selecting, organizing, and forming a meaningful and complete image of what they sensed and knew around them. External stimuli play a significant role in influencing an individual's perception.

2. Factors Influencing Perception in Learning

According to Ariyantara (2016), perception was an individual's process of observation originating from cognitive components. This perception was influenced by factors such as experience, learning processes, and knowledge. The term perception was often equated with opinion, as perception included the interpretation of an individual's views or opinions.

Based on the theory above, it was explained that perception was the way individuals observed and understood something, rooted in their cognitive abilities. Previous experiences, learning processes, and an individual's knowledge played important roles in shaping their perception. Additionally, perception was often equated with opinion since both involved the interpretation of individual views or opinions.

As stated by Prihartanta (2015), motivational factors were forms of encouragement that drove individuals to do something to achieve their desired goals or to gain personal satisfaction. Therefore, perception is influenced by an individual's frame of reference, shaped by their previous experiences and expectations. In the educational context, students' experiences with previous learning methods could affect how they evaluate new technologies like Duolingo. Additionally, students' expectations regarding the effectiveness of learning media also played a crucial role. These expectations were that students' success in using learning technology could influence their motivation and efforts.

Students' perceptions of applications like Duolingo could influence their motivation and learning outcomes. According to research Silmi (2020), it could be concluded that students' perceptions of Duolingo as an English

learning medium were positive and strong, with most students using Duolingo because it was considered easy to understand, engaging, and useful. This indicated that a positive perception of learning technology could improve students' engagement and motivation.

3. Types of Perceptions

According to Walgito (2003), perception is a process that is preceded by sensory processes, which involves the reception of stimuli by individuals through sensory organs or what is also referred to as the sensory process. However, this process does not end there; rather, the stimuli are further transmitted and processed into perception. Perception involves the interpretation and understanding of the received stimuli, which are influenced by experience, knowledge, and other factors. Thus, perception is the result of a complex interaction between external stimuli and internal factors of the individual, enabling individuals to assign meaning and understanding to their surrounding environment.

According to Wertheimer et al., as cited in Walgito (2003), there are several types of perception, leading to the identification of various laws of perception. The laws of perception according to Gestalt theory are as follows:

1) The Perception of Pragnanz

The Law of Pragnanz posited that perception tends to organize stimuli into the simplest, most meaningful, and coherent forms. According to this law, what is perceived is something that has full meaning, a gestalt that contains significance. This law was considered the primary principle by Gestalt theorists. For example, when observing a complex geometric pattern, individuals were inclined to perceive it as the simplest and most organized form, even though it might consist of intricate components.

2) The Perception of Figure-Ground

In perception, there were two components in the perceptual field: the figure, which was the dominant and focal part of attention, and the ground, which complemented the figure. If something did not become the focus of perception, it would become the background. The roles of figure and

ground could switch depending on one's attention in perception. An example was the Rubin vase illusion, where individuals could see either a vase or two faces facing each other, depending on what was the focus of attention at the time. This demonstrated that perception could shift between seeing the figure or the ground, depending on context and attention.

3) The Perception of Proximity

This perception stated that when stimuli were close to each other, there was a tendency to perceive them as a whole or gestalt. For instance, when observing a cluster of dots that were close to one another, individuals tended to perceive them as a single group or shape rather than as separate individual dots. This spatial proximity helped in organizing sensory information into more meaningful shapes.

4) The perception of Similarity

The perception of similarity stated that stimuli or objects that were similar would tend to be perceived as a unified whole or gestalt. For example, when observing patterns of color or shape, individuals would be inclined to group similar items. For instance, in a sequence of circles and squares arranged in a row, individuals were likely to perceive circles as one group and squares as another. Similarity could be in terms of color, shape, size, or other characteristics.

5) The Perception of Continuity

This perception stated that stimuli with continuity were perceived as a unified whole from the background. For example, individuals tended to perceive continuous lines or patterns as a single, cohesive form, even if the lines were interrupted. Continuity helped in understanding the surrounding world in a more coherent and organized manner, allowing for more efficient recognition of objects and patterns.

6) The Perception of Closure

The perception of closure posited that there was a tendency in perception to complete incomplete stimuli into a whole, thereby providing full

meaning. For example, an image that was not fully shaped like a circle would still be perceived as a circle because, as a whole, the image had complete meaning. This indicated that the mind tended to "fill in" missing information to create a complete and meaningful representation. For instance, if one saw a circle with gaps, one would still perceive it as a circle because the brain automatically completes the missing parts.

These explanations illustrate how Gestalt perceptual laws were deeply relevant and applicable in various perceptual contexts. These laws demonstrated how individuals naturally organized sensory information into more structured and meaningful forms, aiding in the understanding and interaction with the surrounding world.

C. Technology

1. The Nature of Technology

Technology, in general terms, refers to the application of scientific knowledge for practical purposes in human life, including in the field of education. This aligned with what (Maritsa et al., 2021) stated, which emphasized that technological advancements occur in tandem with scientific progress. Consequently, in the field of education, this encompasses various tools, techniques, and systems designed to facilitate the learning process and enhance efficiency and effectiveness in various educational aspects. Thus, technology played a crucial role in transforming the way teachers taught, students learned, and how information was delivered and received within the educational context. As (Maritsa et al., 2021) noted, in the field of education, technology had a significant impact on scientific knowledge, wherein learners were taught material through technology to apply that scientific knowledge.

Technology contributed to the improvement of learning quality through various innovations, such as the use of multimedia in teaching, which made learning materials more engaging and easier to understand. As (Novitasari et al., 2020) stated, a constructive learning environment is characterized by educators who can utilize various media to create more engaging learning experiences. With educational software and learning applications, like

Duolingo for language learning, the learning process was facilitated by providing interactive exercises and immediate feedback.

Moreover, technology-enabled personalized learning. With the data and analysis collected through digital platforms, teachers could adjust teaching methods according to the needs and abilities of each student. Technology facilitated collaboration among students through online platforms, where they could share ideas and work together on tasks. According to Juniansyah & Kurniawan (2024), technology not only served as an auxiliary tool in education but also became the foundation for transforming the way of learning, teaching, and interacting with the educational environment. Therefore, educators' ability to adapt to technological changes was the key to enhancing learning effectiveness.

Overall, technology had a very positive impact on the field of education. By leveraging technology, the teaching and learning process became more effective, interactive, and enjoyable, helping students achieve better learning outcomes and preparing them for future challenges.

2. Technology in English Education

According to Hambali et al. (2023), technology has played a key role in promoting suitable activities for students and has had a significant impact on teaching methods. In the context of English language learning, technology has become a highly effective tool to support the teaching and learning process. One prominent example of such an application is Duolingo. This app provides interactive and enjoyable learning methods, encompassing listening, speaking, reading, and writing exercises designed to help students enhance their English language skills.

Duolingo allows students to learn at their own pace and schedule, thus offering high flexibility. This is supported by (Prapbowati, 2022), which indicates that Duolingo is one of the most functional and flexible language learning media. Within the app, voice recognition technology assists students in practicing the pronunciation of words and phrases, providing immediate

feedback on their accuracy. Therefore, this greatly aids in the development of students' speaking abilities.

Moreover, with its innovative features, Duolingo has successfully created an effective, interactive, and enjoyable learning environment, as noted by Juniansyah & Kurniawan (2024). Duolingo presents language learning materials in the form of games or interactive challenges, motivating students to continue learning and improve their English language skills.

Overall, technology, particularly applications like Duolingo, has brought about very positive impacts in education, especially in English language learning. By harnessing technology, the teaching and learning process becomes more effective, interactive, and enjoyable, thereby assisting students in achieving better learning outcomes.

3. Teaching Speaking Skills Through Technology

Learning to speak through technology could be done in several effective and easy ways. One example of a very popular and effective medium for learning to speak is the Duolingo app. This app allows students to learn various languages, including English, in an interactive and fun way. Even in several journals, one of which is the Journal of (Herlina et al., 2021), based on the results of their research, the use of the Duolingo application is effective in improving students' speaking skills in learning English. Experts state that the use of Duolingo can increase students' confidence and motivation to speak English, so it can be an effective alternative learning medium. By using Duolingo, students can learn various words, phrases, and sentences in English, as well as practice their use in realistic situations.

In using Duolingo, students can start by learning basic words and phrases that are commonly used in English. Then, they could practice using those words and phrases in more complex sentences. The app also allows students to interact with other people who are also learning English, they could get immediate feedback and help from others.

Aside from Duolingo, there are other ways to learn to speak through media. One example is by using videos or podcasts that contain conversations

in English. Students can learn how to speak by watching how others speak and practicing the use of the words and phrases they learn. They can also get feedback from others through comments or discussions conducted in apps or online platforms.

In recent years, technology has developed very quickly, and online media has become very popular in learning to speak. Apps and online platforms such as Duolingo, YouTube, and podcasts have enabled students to learn various languages, including English, in an interactive and fun way. By using online media, students can gain wider access to learning resources and can practice the use of English in realistic situations.

D. Duolingo

1. Definition of Duolingo

Duolingo is a very popular language-learning application, according to Sasmitha & Thamrin (2022), Duolingo is one of the popular applications, that can help users become more proficient and is considered effective for developing foreign language skills. Duolingo was launched in 2012 and developed by Luis Von Ahn and Severin Hacker on mobile devices.

Duolingo's main goal is to provide the best education in the world and make it available to everyone. By using Duolingo, users can learn more than 60 languages for free and easy to understand. According to Syafrizal et al. (2022), the Duolingo application can help improve students' speaking skills. The results of his research show that most students agree that Duolingo is an interesting medium for learning English.

Therefore, the use of the Duolingo application is arguably quite effective. Even according to Grego (2012), Duolingo as a language learning program, is more efficient than university courses, estimating that 34 hours of using Duolingo is equivalent to teaching given in lectures for 16 weeks. As a technology-based learning medium as well. The app has shown significant results in improving students' speaking skills. This suggests that Duolingo can be an effective alternative English learning medium.

2. Features of The Duolingo App

Every application must have features that are useful for all users who use the application, and the features in this Duolingo application are designed to simplify and enrich the user's language learning experience. The app offers interactive lessons that cover listening, reading, writing, and speaking. Users can learn through various exercises such as filling in missing words, matching pictures with words, and pronouncing phrases correctly using the voice recognition feature.

According to the Duolingo website (<https://id.duolingo.com/>), there are several interesting features in the Duolingo application, including;

- a) Language Usage, Duolingo offers more than 60 languages to learn, including English, Spanish, French, German, Italian, and others.
- b) Vocabulary Usage, Duolingo allows users to learn vocabulary relevant to everyday situations, such as words used in conversations, thus improving speaking ability in more realistic situations.
- c) Grammar Usage, Duolingo also allows users to learn more complex grammatical structures, such as tenses, subject-verb agreement, etc., thus improving more accurate speaking skills.
- d) Use of Pronunciation: Duolingo allows users to learn better pronunciation by using the “Listen and Repeat” feature that allows users to hear and repeat the learned words.
- e) Use of Conversational Dialogue: Duolingo allows users to learn more realistic conversations by using more complex dialogs and more realistic situations, thus improving the ability to speak in more realistic situations.
- f) Use of Gamification: Duolingo uses gamification elements such as points, levels, and rankings to increase the user's motivation to learn the language, thereby improving speaking.
- g) Use of Real-Life Scenarios: Duolingo allows users to learn the language in everyday situations, such as ordering food at a restaurant or shopping, thus improving speaking skills in more realistic situations.

- h) Use of Interactive Exercises: Duolingo allows users to learn the language by using interactive exercises, such as listening, pronunciation, and speaking exercises, thus improving speaking skills.
- i) Use of Personalized Learning: Duolingo allows users to learn a language by using a personalized approach, thereby improving speaking skills.
- j) Use of Accessibility: Duolingo allows users to learn languages anywhere and anytime by using apps that are available on various platforms, thereby improving speaking skills.

The Duolingo app's features were designed to simplify and expand users' language learning experiences by incorporating interactive lessons such as listening, reading, writing, and speaking. The program provided a variety of challenges, including filling in missing words, matching pictures to words, and accurately pronouncing sentences with the voice recognition feature. According to the [duolingo.com](https://www.duolingo.com) website, the Duolingo app has several interesting features, including the availability of over 60 languages, vocabulary relevant to everyday situations, complex grammatical structures, improved pronunciation, realistic conversational dialogues, gamification, real-life scenarios, interactive exercises, personalized learning approaches, and accessibility across multiple platforms.

Therefore, based on these features, the Duolingo app significantly improved the language learning experience by providing engaging and realistic lessons. Duolingo provided an enjoyable and effective learning approach to improving users' speaking abilities by including features such as everyday vocabulary usage, complex grammatical structures, improved pronunciation, realistic conversational dialogues, gamification, and accessibility across multiple platforms.

3. Implementation of Using Duolingo in Learning Speaking

The use of Duolingo to develop English-speaking abilities represented an innovative method of language teaching. Students were able to not only improve their speaking skills through this platform but also broaden their capacity to interact in the language they were learning. This implementation process necessitated a planned and structured strategy to guarantee that each phase contributed to the attainment of specific learning objectives and had a beneficial impact on student progress.

According to Herlina et al. (2021), the implementation of Duolingo to improve students' speaking skills involved four stages:

a) Instal the Duolingo App on the Play Store

The first step was to download the Duolingo app from either the Play Store (for Android) or the App Store (for iOS). This approach entailed searching for the Duolingo app in the app store, downloading it, and installing it on the smartphone. After installation, the application was ready for use in learning.

b) Using the Duolingo App as a Learning Medium

After downloading and installing the application, the next step was to use it as a learning tool. Students were asked to register an account and select the language they wanted to learn, which in this case was English. Duolingo provided a variety of interactive exercises for listening, speaking, reading, and writing. Regular usage of the application in class or as homework helped students improve their speaking skills by incorporating exercises that improved their vocabulary and grammar competency.

c) Design a Lesson Plan Based on the Syllabus

Teachers were required to produce a Lesson Plan that was consistent with the applicable syllabus and curriculum. This Lesson Plan needed to include learning objectives, material to be taught, teaching techniques, and assessments. The usage of Duolingo as a learning medium had to be incorporated into this Lesson Plan to ensure that the Duolingo exercises were consistent with the defined learning objectives and material.

d) Design learning instruments that were relevant to the materials and media

The final step was to create learning tools that would help people utilize Duolingo more effectively. These devices could include worksheets, assignments, or examinations aimed at assessing students' comprehension of Duolingo material. These learning tools ought to be relevant to the given content and capable of testing students' speaking abilities. Teachers could also provide feedback based on the results of Duolingo exercises to assist students in comprehending their errors and improving their speaking skills.

Overall, the use of educational technology, such as the Duolingo app, has created new chances to help students improve their foreign language skills interactively and enjoyably. The key advantage of Duolingo is its gamified design, which increases student motivation. However, its effectiveness was dependent on careful design and integration into the curriculum. With proper integration, Duolingo was intended to be an excellent tool for boosting students' speaking skills and making the learning process more engaging and participatory.

4. The Benefits of Duolingo in Speaking

In this advanced era, people need to be able to communicate in multiple languages. That is why Duolingo, with all its advantages, has become a trusted tool for those who want to master speaking skills in foreign languages. Duolingo allows users to choose the language they want to master. From English to Japanese. According to Budiharto & Syahroni (2020), the Duolingo application is very useful in learning English, including learning vocabulary, grammar, writing, and improving reading skills from that statement. Duolingo can provide a more enjoyable learning experience, and allow users to master a new language more effectively and efficiently.

However, what makes Duolingo a step ahead is that it excels in its interactive exercises, such as simulated conversations with native speakers that provide speaking experience in the language being learned. The voice recording feature gives immediate feedback on pronunciation and intonation, and hones speaking skills. In addition, time and place flexibility with access

via mobile devices or computers allows learners to practice their skills anytime and anywhere.

Duolingo includes several other Practice options. Such as listening, reading, and writing. It helps learners develop their language skills thoroughly so that they can be more confident and proficient in communicating in the language they are learning. According to Widyastuti & Kusumadewi (2018), some of the benefits of Duolingo include:

- a) Improving speaking skills, Duolingo could assist students in developing English language proficiency, particularly in speaking. Improved test results show that the app is effective in improving English speaking skills.
- b) Improving vocabulary, Duolingo could be used as a medium in vocabulary learning, especially with its “gamification” feature that offers interactive and fun learning. This app helps to improve vocabulary skills effectively.
- c) Increasing student engagement, and student-oriented learning, such as the “project-based” learning model and using the Duolingo app, greatly increase student engagement during the learning process. It motivates students to learn and develop critical thinking, creativity, independence, and collaboration with group mates.
- d) Improving the effectiveness of learning, Duolingo is proven to be an effective way to learn languages, with 9 out of 10 teachers saying that the app is an effective way to learn languages. Within 4 weeks of using Duolingo, 8 out of 10 new learners were able to improve their language skills.
- e) Improve teaching skills, by improving the competence of English teachers, the Duolingo application can help improve their teaching skills, so that later it will create an atmosphere of teaching and learning activities that are more effective, especially for students in understanding English.

Based on the benefits of Duolingo outlined above, it appears that Duolingo provided considerable advantages in English language learning, such as enhancing students' speaking skills and vocabulary through

interactive gamification aspects. The use of Duolingo in project-based learning successfully increased student engagement, inspired them to learn, and helped them improve critical thinking, creativity, independence, and cooperation skills. The majority of teachers praised the application's usefulness, with most new pupils demonstrating better language abilities in a short time. Duolingo also helped enhance teacher competence, resulting in a more effective and interesting learning environment. Overall, Duolingo provided a comprehensive solution to improve the quality of English language learning for both students and teachers.

5. The Challenges of Using Duolingo

In this digital age, technology is a necessity in every field, especially in education. However, every benefit of technology has its drawbacks. The drawbacks of a learning technology or application can include several important aspects that affect the effectiveness of its use. One of the main drawbacks is the limited direct interaction between teachers and students, which can reduce the opportunity for immediate feedback and more in-depth explanations. In addition, not all students have adequate access to devices and stable internet connections, which may hinder the learning process.

Therefore, the use of learning technology still has its challenges and weaknesses as well, according to Hakim (2022), “Not all students have facilities such as smartphones, or internet quotas that support the online learning process. Many students only have ordinary cell phones and have limited quotas and networks that are less supportive”.

According to Mrs. Kundriyah M.Pd, in a webinar on “*Tantangan Dan Solusi Dalam Penggunaan Media Pembelajaran Digital Yang Inovatif*” organized by the Economics Education Study Program, State University of Jakarta on Sunday, February 18, 2024. There are several significant challenges in using applications as learning tools, including;

- a) First, it depends on having a stable internet connection and adequate devices. An unstable internet connection can hinder the teaching and learning process, causing disruptions during online learning sessions. The

devices used, such as computers or tablets, must also have adequate specifications to support the learning application. Without these two factors, both teachers and students will struggle to access and utilize the learning materials optimally.

- b) Second, using learning applications requires sufficient technological skills from both teachers and students. Teachers must be able to manage virtual classes, upload and distribute materials, and utilize the features provided by the application. Students, on the other hand, need to have basic skills in operating the devices and applications, including downloading materials, completing assignments, and participating in online discussions. These technological skills are essential to ensure that the learning process proceeds without technical obstacles.
- c) Third, online learning through applications can allow for distractions or interruptions. The home environment or other places where students participate in online learning may not be conducive and may be full of distractions, such as noise, interruptions from family members, or the temptation to access social media and non-educational websites. These distractions can reduce students' concentration and learning effectiveness.
- d) Fourth, the lack of social interaction and hands-on learning experiences is another challenge. Online learning reduces opportunities for students to interact directly with classmates and teachers, which is important for developing social skills and cooperation. Additionally, hands-on experiences such as lab work or field activities are difficult to conduct virtually, which can diminish students' understanding of materials that require practical application.

Overall, despite the significant potential of learning applications to support the educational process, these challenges must be addressed to ensure that learning can occur effectively and comprehensively.

E. Duolingo Application to Improve Students' Speaking Skills

According to Saraswati & Purwati (2021), Duolingo is one example of a popular gadget application today. Duolingo is a widely used language

learning app that has gained popularity due to its interactive and gamified approach to education. The platform offers a wide range of languages and emphasizes practical use, making it an ideal tool for improving speaking skills.

In addition, Duolingo's approach to language learning includes a strong emphasis on repetition and reinforcement. By constantly practicing words and phrases, students were able to retain what they had learned better and apply it more naturally in real-life conversations. This helps students develop a more intuitive understanding of language.

According to Aisyah and Hidayatullah (2023), the features and appearance of the Duolingo app attract and build students' interest in learning. One of Duolingo's key features is its speech recognition technology, which allows users to practice their pronunciation and receive immediate feedback. This interactive element helps students to perfect their speaking skills in a structured yet engaging environment.

The Duolingo app incorporated gamification elements as described earlier, which include earning points, badges, and streaks, which motivate students to continue practicing and improving their speaking skills. This gamification approach not only makes learning fun but also encourages regular use of the app, leading to more significant language improvement over time.

Duolingo offers conversational practice through the Stories feature and Duolingo Events. As explained in the Duolingo App (2024). The Stories feature provides users with engaging narratives that require them to listen, speak, and respond, simulating real-life conversations. This feature helps students to practice their speaking skills in a context that mimics actual interactions. On the other hand, Duolingo Events offers live practice sessions with native speakers and other learners, providing an opportunity for students to practice speaking in a supportive and real environment. These features collectively contribute to improving students' speaking skills by providing varied and practical opportunities for language use.

By utilizing Duolingo in an educational setting, students can improve their English speaking skills effectively. According to Niah and Pahmi (2019), Duolingo has proven to be effective in improving students' speaking skills. The app's interactive and engaging design, combined with its focus on practical use and repetition, makes it a valuable tool for language learners. When students use Duolingo to practice their speaking skills regularly, they can build confidence and fluency, ultimately improving their ability to communicate in English.

Based on the above information, Duolingo has proven to be an excellent and popular language learning program, particularly for improving English speaking skills. The program not only provided an interactive and gamified approach that appealed to users, but it also focused on repetition and reinforcement to help students retain and apply language skills in real-life circumstances. Speech recognition technologies, engaging tales, and direct practice sessions with native speakers all helped to provide different and structured learning experiences.

Overall, the Duolingo app's gamification approach, which included the awarding of points, badges, and daily challenges, increased student motivation while also reinforcing app usage consistency. This allowed students to gain confidence and fluency in English through organized but entertaining exercises. As a result, Duolingo proved to be more than just a language learning tool; it emerged as an excellent alternative for instructors looking to drastically improve students' English speaking skills.