

CHAPTER II

LITERATURE REVIEW

1.1 Speaking Skill

Speaking is widely recognized as a core component of English language learning, particularly in English as a Foreign Language (EFL) contexts. Speaking functions as the primary medium of oral communication that enables learners to express ideas, convey opinions, and interact with others in both academic and social situations. In higher education, especially in English Education programs, speaking competence is considered an essential skill that students must master to meet academic demands and prepare for professional roles such as teaching, public speaking, and academic communication. Therefore, speaking skill plays a crucial role in supporting students' overall language proficiency and communicative competence.

Speaking is categorized as a productive language skill because it requires learners to actively produce language rather than passively receive information. Harmer (2019) states that speaking involves an interactive process in which learners construct meaning through verbal expression while simultaneously processing responses from others. This process requires the integration of linguistic knowledge, cognitive processing, and psychomotor coordination. As a result, speaking is regarded as a complex skill that demands not only mastery of language forms but also the ability to use language appropriately in real-time communication.

The quality of speaking performance is commonly determined by several interconnected components. These components include :

- a) pronunciation, which refers to the accurate production of sounds, stress patterns, and intonation that affect intelligibility in oral communication;
- b) vocabulary, which involves the appropriate selection and use of words to convey meaning clearly;
- c) grammar, which relates to the correct arrangement of words into meaningful and comprehensible sentences;
- d) fluency, which reflects the smoothness and continuity of speech without excessive pauses or hesitation; and

- e) comprehension, which refers to the speaker's ability to understand spoken input and respond appropriately during interaction. Brown and Lee (2020) emphasize that these components are closely related and collectively determine the effectiveness of spoken communication.

Speaking plays an important role in both academic and social communication within English language learning. In academic contexts, speaking enables students to participate in classroom discussions, deliver presentations, and engage in collaborative learning activities. In social contexts, speaking allows learners to interact with others, build interpersonal relationships, and communicate ideas in everyday situations. For students of English Education programs, speaking skill is particularly significant because they are expected to demonstrate accurate and fluent spoken English as future teachers and language models for their students.

Despite its importance, speaking is often regarded as one of the most challenging skills for EFL learners. Several factors commonly hinder learners' speaking performance, including:

- a) anxiety, which arises from fear of negative evaluation or making mistakes
- b) lack of vocabulary, which limits learners' ability to express ideas clearly
- c) low confidence, which reduces learners' willingness to participate in speaking activities
- d) fear of making mistakes, which discourages learners from practicing speaking actively. These difficulties often result in hesitation, reluctance to speak, and limited participation, particularly in formal academic settings such as presentations and classroom discussions.

The development of speaking skill requires consistent and meaningful practice that allows learners to use English actively and purposefully. Practice-based learning provides opportunities for learners to improve speaking through repetition, interaction, and gradual improvement. Nunan (2020) highlights that effective speaking activities should promote meaningful communication, encourage learner participation, and support the development of both fluency and accuracy. Through regular engagement in speaking activities, learners are able to develop confidence and improve their ability to express ideas clearly.

With the advancement of technology, technology-assisted learning increasingly supports the development of speaking skill. Mobile-assisted language learning applications provide flexible and self-paced learning opportunities that allow learners to practice speaking independently. Shortt et al. (2021) explain that technology-based speaking activities help

reduce speaking anxiety by offering a less threatening environment for oral practice. Learners are able to repeat speaking tasks, receive feedback, and improve pronunciation without the pressure of immediate face to face interaction.

In digital learning contexts, speaking activities provided through applications such as Duolingo primarily focus on pronunciation practice and basic oral production. These activities require learners to pronounce words or sentences based on auditory or written prompts, which helps develop accuracy and familiarity with spoken English. Although the scope of these activities is limited, they function as supplementary practice that supports learners' foundational speaking development.

In conclusion, speaking skill is a fundamental aspect of English language learning that involves the integration of pronunciation, vocabulary, grammar, fluency, comprehension, and confidence. Speaking plays a vital role in academic and social communication, particularly for students in English Education programs. Although speaking presents various challenges in EFL contexts, consistent practice and supportive learning environments contribute significantly to speaking development. The integration of technology-based speaking activities offers additional opportunities for learners to practice speaking in flexible and low-anxiety settings, making it an important element in supporting speaking skill development in higher education.

1.2 Students' Perception

Students' perceptions constitute a crucial element in understanding the effectiveness of learning processes, particularly in technology enhanced language learning. Perception refers to how learners interpret, evaluate, and respond to experiences encountered during learning activities. In educational contexts, students' perceptions influence their motivation, engagement, and acceptance of instructional methods and learning media. When learners perceive a learning tool as useful, supportive, and relevant to their needs, they tend to engage more actively and sustain its use over time. Therefore, students' perceptions play a significant role in shaping learning behavior and outcomes.

Perception is not a passive reception of information but an active cognitive process shaped by learners' prior knowledge, experiences, attitudes, and expectations. Robbins and Judge (2020) define perception as a process through which individuals select, organize, and interpret sensory input to create meaningful understanding of their environment. In learning contexts, this process determines how students make sense of instructional materials and

learning technologies. As a result, students' perceptions reflect subjective evaluations of learning experiences rather than objective measurements of learning achievement.

In educational settings, learning experiences play an important role in forming students' perceptions. Positive learning experiences tend to foster favorable perceptions, while negative experiences may lead to dissatisfaction or resistance. Learners' previous exposure to instructional methods, teaching styles, and learning media influences how they perceive new learning tools. Schunk (2020) explains that learners' prior experiences significantly shape their motivational beliefs and self-regulation, which in turn affect how they perceive and respond to learning activities. Thus, perception develops continuously through interaction between learners and their learning environment.

Several internal and external factors influence students' perceptions. Internal factors include :

- a) motivation, which drives learners' willingness to participate in learning activities.
- b) engagement, which reflects learners' level of involvement and interest during learning.
- c) confidence, which affects learners' readiness to use language and learning tool.
- d) learning experiences, which shape learners' expectations and attitudes.

External factors include:

- a) instructional design.
- b) learning environment.
- c) technological features.
- d) accessibility of learning media.

According to Lai (2019), learners tend to develop positive perceptions of technology when digital tools are easy to use, relevant to learning goals, and supportive of learning needs.

In language learning contexts, students' perceptions are closely related to their attitudes toward learning processes and learning media. Dörnyei and Ryan (2019) argue that learners' perceptions and attitudes play a crucial role in shaping engagement and persistence in learning activities. Positive perceptions enhance motivation and willingness to participate, whereas negative perceptions may lead to avoidance and low engagement. This relationship becomes more evident in technology-based learning, where students must adapt to digital platforms and autonomous learning environments.

Students' perceptions toward learning media involve how learners evaluate the usefulness, effectiveness, and relevance of instructional tools. Perception toward technology, in particular, focuses on learners' views regarding usability, flexibility, and learning support provided by digital applications. In technology assisted language learning, students' perceptions are strongly influenced by perceived usefulness and learning convenience. Previous studies show that learners tend to develop positive perceptions of digital language-learning applications when these tools support independent practice and provide clear learning benefits (Irzawati & Unamo, 2023).

The role of students' perceptions is also evident in determining learning outcomes. Positive perceptions are closely associated with higher motivation, stronger engagement, and sustained use of learning technologies. When students perceive a learning application as effective and enjoyable, they are more likely to invest effort and persist in learning activities. Conversely, negative perceptions may hinder participation and reduce learning effectiveness. Schunk (2020) emphasizes that learners' perceptions influence motivational beliefs, which are essential for effective learning and self-regulated behavior.

In technology-based speaking practice, students' perceptions are further shaped by emotional factors such as anxiety and confidence. Speaking is often considered one of the most challenging skills for EFL learners due to fear of making mistakes and low self-confidence. Technology based learning platforms allow learners to practice speaking privately and repeatedly, which helps reduce anxiety and pressure (Shortt et al., 2021). As a result, learners tend to perceive technology-assisted speaking activities as less threatening and more supportive than traditional face to face speaking tasks.

In studies on the use of Duolingo, students generally perceive the application as helpful in developing basic speaking abilities, particularly pronunciation and vocabulary, due to its repetitive exercises and immediate feedback (Fitria et al., 2023). These perceptions indicate that learners recognize Duolingo as a supportive tool for foundational speaking practice. However, students also acknowledge its limitations in facilitating extended communicative interaction. Zaharah and Hawa (2024) report that learners perceive Duolingo as more effective for improving pronunciation accuracy and basic oral production than for advanced speaking interaction.

Motivational elements embedded in digital applications also influence students' perceptions. Gamified features such as points, levels, and rewards increase learners' engagement and motivation in learning English (Alim et al., 2025). Motivation plays a vital role in speaking development because motivated learners are more willing to participate in

speaking activities. Therefore, students' positive perceptions of Duolingo are shaped not only by its instructional content but also by its ability to create an enjoyable and less stressful learning environment.

In the context of this study, students' perceptions refer to seventh-semester English Education students' views, experiences, and evaluations of using the Duolingo application to support speaking development. Understanding students' perceptions is essential because speaking requires both linguistic competence and psychological readiness. Students' perceptions toward Duolingo provide insight into whether the application supports confidence, reduces anxiety, and facilitates speaking practice effectively.

In conclusion, students' perceptions play a vital role in determining the effectiveness of technology-based language learning. Positive perceptions enhance motivation, engagement, and sustained use of digital applications, while negative perceptions may hinder participation and learning outcomes. Therefore, examining students' perceptions toward the use of Duolingo is necessary to gain a deeper understanding of its contribution to speaking skill development in higher education, particularly among seventh-semester students of the English Education Study Program at Muhammadiyah University of Bengkulu.

1.3 Duolingo as a Mobile-Assisted Language Learning Application

Mobile-Assisted Language Learning (MALL) refers to the use of mobile technologies to support and facilitate language learning through portable, interactive, and digital platforms. The implementation of MALL allows learners to access learning materials flexibly and engage in language practice beyond the limitations of classroom instruction. Kukulska-Hulme and Shield (2020) state that MALL supports learner autonomy by enabling students to control their learning pace, time, and frequency. This approach is particularly relevant in higher education contexts, where learners are expected to take greater responsibility for their learning processes. Through autonomous engagement with mobile learning applications, learners maintain consistent exposure to the target language, which is essential for effective language development.

Within the context of English language learning, Duolingo is widely recognized as a mobile-assisted language learning application designed to support foreign language learning through technology-based instruction. Duolingo functions as a digital learning platform that integrates various language skills into structured and sequential learning activities. The application provides learning units that combine vocabulary, grammar, listening, reading, and

basic speaking practice in short and repetitive lessons. As a technology-based learning tool, Duolingo allows learners to practice English independently using mobile devices, making it accessible anytime and anywhere.

Duolingo applies adaptive learning technology to personalize learning experiences. Vesselinov and Grego (2021) explain that the application adjusts task difficulty based on learners' performance, allowing learners to progress according to their proficiency levels. This adaptive system helps reduce cognitive overload by presenting tasks that match learners' abilities. As a result, learners are able to engage with learning activities that are appropriate to their level, which supports learning effectiveness and reduces frustration during the learning process.

The learning features provided by Duolingo are designed to enhance engagement and support language practice. These features include

- a) gamification elements such as points, streaks, levels, and rewards, which encourage learners to maintain regular practice and sustain motivation
- b) pronunciation practice, which requires learners to pronounce words or sentences based on audio prompts, helping improve pronunciation accuracy;
- c) vocabulary building, which introduces new words through repetition and contextualized exercises; and
- d) immediate feedback, which allows learners to identify errors and correct them promptly.

Hamari and Keronen (2020) argue that gamification increases learners' persistence by providing immediate rewards and visible indicators of progress, which are important for sustaining engagement in language learning.

In addition to instructional features, Duolingo supports autonomous learning by allowing learners to manage their own learning processes. The application facilitates self-paced learning, enabling learners to progress according to their individual learning speed without time pressure. Learners can practice language skills outside the classroom and repeat exercises as needed to reinforce understanding. Lai and Zheng (2018) emphasize that mobile learning supports informal learning environments in which learners integrate language practice into their daily routines. This flexibility creates a learning environment that extends beyond formal classroom instruction and promotes continuous learning.

As a mobile learning application, Duolingo offers several advantages as a learning medium. The strengths of Duolingo include:

- a) increased motivation through gamified features,

- b) flexible access that allows learners to practice anytime and anywhere, and
- c) ease of use due to its simple interface and mobile accessibility. These advantages make Duolingo an attractive supplementary tool for English language learning, particularly for learners who require additional practice outside the classroom.

Despite its advantages, Duolingo also has certain limitations as a language learning medium. The application provides limited opportunities for real time interaction and spontaneous communication, which are essential for developing advanced speaking skills. In addition, the communicative context offered by Duolingo remains restricted, as speaking activities mainly focus on pronunciation and short utterances rather than extended discourse. Therefore, Duolingo functions more effectively as a complementary learning tool that supports foundational language practice rather than a replacement for interactive classroom-based instruction.

In conclusion, Duolingo represents an example of Mobile-Assisted Language Learning that supports English language learning through flexible, technology-based instruction. The application integrates adaptive learning, gamification, and autonomous learning features that enhance motivation and accessibility. Although Duolingo has limitations in providing authentic communicative interaction, it contributes positively to language learning by supporting independent practice and reinforcing classroom instruction. Therefore, Duolingo plays a meaningful role as a supplementary learning tool within the MALL framework, particularly in higher education contexts.

1.4 The Use of Duolingo in Speaking Skills

The use of Duolingo in speaking skills refers to the integration of *mobile-assisted language learning* that facilitates students in practicing spoken English through structured digital activities. As a technology based application, Duolingo provides speaking exercises through various interactive activities that combine pronunciation tasks, vocabulary exposure, and repetition-based learning. According to the study conducted by Bukit et al. (2025), the use of Duolingo significantly helps improve students' self confidence and pronunciation ability in speaking practice because of its enjoyable and low-anxiety learning environment. Through these structured activities, learners practice speaking independently and repeatedly, which supports the gradual improvement of speaking ability.

In the context of speaking practice, Duolingo integrates several types of exercises that allow learners to develop oral skills through guided activities. The integration of Duolingo in speaking practice includes:

- a) pronunciation exercises, in which learners record or repeat words and sentences based on audio models to improve pronunciation accuracy.
- b) repetition-based speaking exercises, which require learners to repeat expressions regularly in order to become familiar with sound patterns and vocabulary.
- c) speaking tasks in the application, such as short oral responses and sentence production, which encourage learners to practice speaking gradually.

Recent studies indicate that pronunciation and repetition based exercises effectively help learners build phonological awareness and basic oral skills. Through these structured speaking tasks, learners gradually practice pronunciation and increase their familiarity with spoken English.

The contribution of Duolingo to speaking skill components is observable through several aspects of speaking development. Speaking ability includes vocabulary mastery, fluency, and self-confidence as important elements in oral communication. Previous studies conclude that the use of Duolingo influences these aspects of speaking skills, particularly through vocabulary repetition, structured phonetic practice, and immediate feedback provided by the system. This application contributes to speaking components through:

- a) improvement of pronunciation, as learners practice sounds repeatedly and receive feedback from the system.
- b) vocabulary support, as new words are introduced through contextual exercises that learners pronounce and use.
- c) development of fluency, as consistent repetition encourages smoother speech production over time.
- d) increased self-confidence, as learners practice speaking individually without direct social evaluation pressure.

Therefore, consistent speaking practice through Duolingo helps learners become more accustomed to language use and supports the gradual improvement of fluency.

In addition to linguistic development, Duolingo also influences learners' motivation and speaking anxiety. Gamification features such as points, streaks, and rewards create an engaging learning environment and encourage regular practice. Studies show that the integration of gamification elements in language learning applications such as Duolingo

increases learners' motivation and reduces speaking anxiety through immediate and responsive feedback systems. Through independent practice, learners experience:

- a) reduced anxiety, because they practice speaking privately without peer pressure.
- b) increased engagement, because game-based elements motivate learners to continue practicing.

Game-based activities also help learners feel more comfortable and reduce overall learning tension, which contributes to a more effective learning environment for speaking skill development.

Students' perceptions of the use of Duolingo in speaking activities generally include positive and negative responses. On the positive side, learners tend to perceive Duolingo as a motivating and user friendly application that supports independent speaking practice. Access flexibility allows students to practice speaking anytime and anywhere, which encourages autonomous learning habits and sustained learning engagement. A study by Ma'soem et al. (2025) shows that students report increased learning motivation and improved pronunciation understanding when using Duolingo as a speaking practice tool because the application encourages regular practice with fast automatic feedback.

However, despite the positive perceptions of Duolingo in supporting speaking practice, students also recognize several limitations of the application. One of the most frequently identified limitations is the lack of authentic communicative interaction. The speaking activities provided by Duolingo mainly involve repeating words or short sentences rather than engaging learners in spontaneous and meaningful conversations. As a result, learners have limited opportunities to practice interactive communication, which is an essential aspect of speaking development. Loewen et al. (2019) argue that language learning applications are still limited in facilitating authentic oral interaction because learners cannot negotiate meaning or respond naturally in real communicative situations. Therefore, while Duolingo is beneficial for individual speaking practice, it cannot fully replace direct interaction in developing communicative competence.

Another limitation concerns the restricted opportunities for extended speaking production. Most speaking exercises require learners to imitate or repeat predetermined expressions instead of producing their own ideas through longer utterances. This type of practice is useful for developing basic pronunciation and sentence patterns; however, it provides only limited opportunities for learners to develop fluency through meaningful oral production. According to Loewen et al. (2019), technology-based language learning

applications primarily emphasize controlled language practice rather than free speaking activities that encourage learners to express their own thoughts.

In addition, the feedback provided by Duolingo during speaking activities remains relatively limited. Although the application offers immediate responses to learners' pronunciation, it does not provide detailed explanations regarding grammatical accuracy, vocabulary use, or the organization of spoken discourse. Jiang, Rollinson, and Brook (2021) explain that automatic speech recognition technology is effective in supporting pronunciation practice, yet its ability to provide comprehensive corrective feedback is still limited compared with feedback provided by teachers or peer interaction. Consequently, learners may not receive sufficient guidance to improve broader aspects of their speaking performance.

Furthermore, Duolingo has limitations in assessing learners' overall communicative competence. The application mainly evaluates whether learners pronounce words correctly and produce expected responses, while important aspects of speaking, such as coherence, interactional skills, appropriateness of language use, and conversational strategies, are not comprehensively assessed. Jiang, Rollinson, and Brook (2021) emphasize that current automatic speech recognition systems are more reliable in evaluating pronunciation accuracy than in measuring learners' communicative performance as a whole.

Overall, Duolingo serves as a valuable supplementary tool for speaking practice by supporting the development of pronunciation, vocabulary, fluency, and self-confidence through structured learning activities. Its flexibility and interactive features also encourage learners to practice English more regularly and independently. Nevertheless, several limitations, including the lack of authentic communicative interaction, limited opportunities for extended speaking production, restricted corrective feedback, and the inability to comprehensively assess communicative competence, indicate that Duolingo should be used alongside classroom interaction and real-life communication practice. The combination of digital learning applications and authentic speaking activities is expected to provide more comprehensive support for the development of learners' speaking skills.

1.5 Previous Studies

Several previous studies investigate students' perceptions of using Duolingo in English language learning, particularly in relation to speaking skills. These studies provide important references for understanding how Duolingo is perceived and used in different educational contexts. However, differences in research focus, participants, and research scope distinguish those studies from the present research.

No	Author(s) & Year	Research Focus	Participants	Findings	Differences with the Present Study
1	Buriyanti (2024)	Students' perceptions of using Duolingo in speaking activities	Junior high school students	Students have positive perceptions of Duolingo, especially in motivation and pronunciation improvement.	This study involves junior high school students, while the present study focuses on seventh-semester university students in an English Education Study Program.
2	Kamsik et al. (2023)	University students' perceptions of Duolingo for English learning	University students	Duolingo is perceived as effective due to its interactive and flexible features.	The study examines English learning in general, whereas the present study focuses specifically on speaking skills.
3	Fadhilah & Syafradin (2025)	Students' perceptions of Duolingo for improving speaking skills	University students	Students perceive Duolingo positively for speaking improvement but note limited communicative interaction.	The present study focuses on seventh-semester students and emphasizes both advantages and limitations within a specific institutional context.

Based on previous studies, Duolingo is generally perceived positively as a mobile-assisted language learning application that supports speaking development, particularly in pronunciation, vocabulary, motivation, and confidence. However, most previous studies focus on different educational levels or examine English learning in general rather than specifically on speaking skills. Therefore, the present study fills this gap by focusing on the analysis of students' perceptions of using Duolingo for speaking skills among seventh-semester students of the English Education Study Program at Muhammadiyah University of Bengkulu, with particular attention to both advantages and limitations.