

CHAPTER II

LITERATURE REVIEW

This second chapter discusses a review of the literature related to this research. This chapter aims to provide information regarding key terms in this research. This includes augmented reality, speaking skills, *iSpeak*, and studies relevant to this research.

A. Augmented Reality

The term augmented reality was coined by Thomas Preston Caudell in 1992, a researcher at Boeing, who developed an augmented reality application for industrial use to view some assembly diagrams. Today, there are several definitions of augmented reality. Augmented reality's fundamental functionality consists of making links, direct or triggered by user reaction with the device, between the real world and the information created by the device or electronic information, creating a learning atmosphere that is more engaging (Pane & Chairad, 2025).

Therefore, augmented reality can be considered an essential learning medium because it bridges the gap between theoretical content and real-world application. Augmented reality stands out as a solution for significantly enhancing English-speaking proficiency by delivering real-world conditions. Augmented Reality is a technology that enhances the real world with computer-generated content, allowing text, audio, video, and two- and three-dimensional shapes to be

inserted (Hidayat et al., 2021). In line with that, Tan et al. (2022) define augmented reality as an emerging technology that integrates digital information, such as text, images, video, and three-dimensional objects, into the real world. Medina and Ferrer (2022) also note that augmented reality refers to a contemporary computer-aided learning environment that integrates real rehearsal with virtually enhanced information or images. In other words, augmented reality is a technology that provides a real-time visual experience of the real world. It enables a virtual replica and information to be overlaid on the actual environment in real time.

Augmented reality is considered an essential tool in education because it provides learning experiences that go beyond visualization. In contrast to traditional media, augmented reality enables students to interact with digital objects in real time, fostering active engagement and participation. According to Aldeeb et al. (2024), augmented reality is not just an additional tool, but a principal stimulus that transforms abstract ideas into concrete concepts. This interactivity reduces students' reliance on rote memorization and facilitates deeper internalization of the material. For that reason, the integration of augmented reality becomes particularly relevant in English language learning, where authentic and contextual practice is necessary for developing communicative ability.

B. Speaking Skills

Brown's theory of speaking competence emphasizes that speaking is an interactive process of constructing meaning that involves producing, receiving, and

processing information directly. As Brown and Lee (2015) stated, effective speaking activities in the context of EFL should encourage meaningful communication, allow for the negotiation of meaning, and provide opportunities for students to use language authentically and purposefully. This approach emphasizes that speaking skills should not focus solely on linguistic accuracy but also on fluency, interaction, and communicative effectiveness, as Harmer (2022) reports that speaking is a productive skill that involves the ability to express ideas, thoughts, and feelings verbally to communicate meaningfully.

However, speaking skills frequently present numerous difficulties. Many students feel anxious when the teacher asks them to speak in English. The main factor that makes students worried is the fear of making mistakes in front of their classmates. In line with the research by Nurilahi and Suhartono (2022), which identified that 97% of students experience high to moderate levels of anxiety when speaking, with the main factors being fear of being ridiculed, fear of not having enough time to prepare, feeling inferior, nervous, or embarrassed.

In addition, a lack of confidence often prevents students from taking the initiative to speak, even though they have sufficient competence. Another factor that usually arises is a lack of fluency in speaking. Students often pause for too long, search for words, or use their native language to cover up their limited vocabulary. This situation is aggravated by the lack of opportunities to practice authentic speaking outside of class, preventing students' speaking skills from developing optimally. Research by Wang et al. (2024) shows that emotional

intelligence, creativity, and academic enthusiasm are strongly positively associated with speaking accuracy and fluency. More specifically, students with higher emotional intelligence are better able to control their emotions, thereby improving their ability to speak clearly and fluently.

C. iSpeak

iSpeak is an interactive speaking flashcard media integrated with augmented reality, designed to support students' English-speaking skills. This product combines conventional flashcards with digital technology to create a more engaging, context-rich learning experience. The integration of technology into language learning is widely supported by Brown (2006), who argues that meaningful and interactive learning environments are essential for developing students' communicative competence. In addition, Richards (2008) emphasizes that speaking skills require contextual and practice activities, which can be supported by technology.

The flashcards are designed using Canva, which allows users to develop visually appealing educational materials. Dale (1969) stated that visual media enhance students' understanding and retention. Canva provides various features and elements that enable users to develop products, such as icons, images, and layout customization, which support the creation of engaging instructional materials.

Furthermore, the augmented reality component is developed using Assemblr Edu, enabling the creation of interactive, immersive learning content. Richards (2008) explained that combining visual and verbal information enhances learning outcomes. Assemblr Edu allows the integration of three-dimensional objects, animations, and real-life simulations, helping students practice speaking activities.

By integrating Canva and Assemblr Edu, *iSpeak* is designed to create a more interactive, engaging, and meaningful speaking-learning environment. Wang et al. (2024) found that interactive media significantly improved EFL learners' oral proficiency, confidence, and engagement in speaking practices. In line with this, Fitayanti (2024) reported that augmented reality improved students' speaking performance, increased participation, and reduced speaking anxiety.

D. Implementation of *iSpeak*

The implementation of *iSpeak* in speaking activities in this study was conducted at MTsN 1 Kota Kediri, involving eighth-grade students. It requires several systematic steps to ensure that the developed media bridge students' needs and learning objectives. In developing instructional media, a structured and systematic approach is required to guide the process from initial analysis to final evaluation. One instructional model that aligns with the material's characteristics and students' needs is the ADDIE model (Branch, 2009). This model is widely

used in educational research because it provides a clear, organized framework for developing effective learning media. In line with this, Adeoye et al. (2024) state that the ADDIE model helps educators design and develop meaningful learning experiences through a systematic process. The ADDIE model consists of five stages: analysis, design, development, implementation, and evaluation.

1. Analysis

Analysis is a phase that identifies probable causes of a performance gap (Branch, 2009). A thorough needs analysis ensures that the developed learning media align with the learning outcomes, particularly in improving students' speaking skills. Identifying students' needs significantly enhances the effectiveness of instructional media and technology integration in language learning (Wang et al., 2024). To obtain accurate and relevant data, the researcher conducts classroom observations and distributes a questionnaire to analyze students' needs regarding the use of learning media, as student-empirical data can guide the development of the media. In line with this, Fitayanti (2024) emphasizes that needs analysis through observation and a questionnaire helps in designing interactive learning media that better support students' participation, engagement, and speaking performance.

2. Design

The second stage is the design phase, where the product is systematically planned based on the results of the analysis stage to address the

identified performance gaps. This aims to determine appropriate instructional and assessment strategies to achieve the learning objectives (Branch, 2009). The components of this stage include determining the flashcard content, developing augmented reality markers and three-dimensional objects, defining the theme of the augmented reality content, and preparing validation instruments.

3. Development

The next step is the development phase, in which the media is produced according to the previous plan. This phase focuses on generating and validating learning resources to ensure they are appropriate and effective for instructional use (Branch, 2009). In this study, the development process consisted of product manufacturing and expert validation, including the development of flashcards, augmented reality integration, and supporting materials.

4. Implementation

The implementation stage follows the development and confirmation that the augmented reality media are appropriate for classroom use. This step attempts to prepare the learning environment and engage students in the instructional process (Branch, 2009). It consists of small group testing and main field testing. Small group testing is conducted with a limited number of students to identify initial weaknesses and technical issues. In contrast, the

main field testing involves a larger group of students to examine the effectiveness of the media in real classroom conditions (Sugiyono, 2019).

During both testing phases, the media is implemented in actual classroom activities. The media serves as a learning tool for teaching the topic of asking and giving opinions. The teacher provides instructions on how to use the augmented reality media. Subsequently, students scan the marker to display a three-dimensional scene that stimulates real-life situations.

Students engage in speaking practice based on the provided situations, while the teacher evaluates their performances. Furthermore, revisions to the media are made based on students' feedback and validator recommendations to ensure that the improvements remain targeted and consistent with the research focus (Hsu & Liu, 2021).

5. Evaluation

The evaluation stage is conducted to determine whether the instructional products meet the learning objectives and function effectively in the learning process (Branch, 2009). In this study, evaluation is based on students' responses and feedback collected via questionnaires, focusing on their learning experience when using the media. Students' feedback is used to evaluate how the media supports learning and to identify aspects that need further improvement (Creswell & Creswell, 2018).

D. Previous Studies

Several previous studies have shown the effectiveness of augmented reality in language learning, particularly in enhancing students' speaking abilities. Empirical findings indicate that augmented reality has strong potential to improve students' speaking performance, including fluency, pronunciation, and confidence, by providing interactive and contextual learning experiences. In line with this, the study conducted by Thang and Suppasetserree (2025), entitled "Enhancing Vietnamese EFL Students' Speaking Skills Through Augmented Reality: A Mixed-Method Study in English for Tourism and Hospitality", involved eighty Vietnamese undergraduate students with intermediate proficiency (CEFR B1) at the University of Economics, Ho Chi Minh City. This study was developed to address students' difficulties in speaking, particularly in fluency, pronunciation, and confidence when communicating in English in specific professional contexts, such as tourism and hospitality. The researchers employed a mixed-method research design over two academic semesters, combining quantitative data from speaking performance tests and qualitative data from observations and interviews. Augmented reality was integrated into classroom activities through interactive tasks that simulated real-life communication scenarios relevant to students' field of study. The findings revealed a statistically significant improvement in students' speaking abilities after the implementation of augmented reality, with post-test scores increasing to 6.32 in the pilot study and 7.15 in the main study ($p < .001$).

These results indicate that augmented reality effectively enhanced students' fluency, pronunciation, confidence, and engagement in speaking activities.

Building on this finding, Anggraini (2025), in the study titled "Integration of Augmented Reality (AR) Technology in English Speaking Learning", elaborated on sixty eleventh-grade students of SMA Negeri 3 Pagaralam who were divided into experimental and control groups. This study aimed to examine the effectiveness of augmented reality technology in boosting students' speaking skills in a classroom. The experimental group was taught using augmented reality-based media, while the control group received conventional instruction. Using a quantitative experimental design, the study compared students' speaking performance between the two groups after the treatment. The findings showed that the experimental group achieved significantly higher mean scores than the control group, indicating that augmented reality had a positive and significant effect on students' speaking competence. The study also highlighted that augmented reality can create a more engaging and interactive learning environment that encourages students to participate more actively in speaking activities.

Furthermore, Alcocer and Medina (2025) have implemented into their pedagogical practices, known as "Augmented Reality's Impact on English Vocabulary and Content Acquisition in the CLIL Classroom". The study comprised fifty-two secondary school students in Spain. It investigated the use of augmented reality in a Content and Language Integrated Learning (CLIL) classroom to support both language and content learning. The implementation of augmented reality

provided students with visual and contextualized learning materials, allowing students to know vocabulary and subject matter simultaneously. The data suggest a significant correlation between augmented reality use and higher levels of vocabulary proficiency and subject-matter comprehension. The research underscores the potential of augmented reality to support language development by providing meaningful input that lays a critical foundation for enhancing students' speaking performance.

Another study by Nabil et al. (2024) explored “Immersive Language Learning: Evaluating Augmented Reality Filter for ESL Speaking Fluency Teaching”. The research engaged six ESL teachers from several public secondary schools in one district in Kedah, a state in the Northern part of Malaysia. This study examined teachers' perspectives on integrating augmented reality to improve students' oral fluency. The data were collected through interviews and observations to understand how augmented reality was implemented in classroom practices. The analysis found that teachers perceived augmented reality filters as an effective and innovative tool for enhancing students' speaking fluency, engagement, and motivation. Moreover, augmented reality was shown to establish a more engaging pedagogical activity, empowering students to communicate more actively and confidently in speaking tasks.

Along the same lines, prior research examined the use of augmented reality technology to improve students' speaking skills. The research was conducted by Fitayanti (2024), titled “Transforming and Evaluating EFL Speaking Skills with

Augmented Reality: an AR-Based Module Approach”. This research was carried out to design and validate an augmented reality-based module in evaluating the speaking skills of EFL students at IAIN Fattahul Muluk, Papua. The study found a significant increase in post-test scores compared to pre-test scores, indicating that augmented reality is effective in improving speaking skills by influencing student engagement and confidence. The blended approach also demonstrated that augmented reality can create an immersive, authentic learning experience for assessing speaking skills at the higher education level.

Despite numerous studies highlighting the effectiveness of augmented reality in enhancing students’ speaking skills, several gaps remain. Most studies focus on measuring effectiveness rather than on developing specific instructional media, and only a few integrate augmented reality with structured tools, such as flashcards, to support guided speaking practice. In addition, prior research primarily focuses on senior high school and university students, with limited attention to the junior high school context, particularly in Madrasah Tsanawiyah. To address these gaps, this study designs and develops an augmented reality-based speaking flashcard for eighth-grade students at MTsN 1 Kota Kediri using a Research and Development (R&D) design. The study examines how developed media supports students’ confidence and fluency during speaking practice and facilitates meaningful, interactive speaking activities in the classroom.