

# CHAPTER I

## INTRODUCTION

This chapter presents the discussion on the background of the research, research problem, the objective of the research, the hypothesis of the research, the significance of the research, scope and limitation of the research, and definition of the key terms.

### A. Background of the Research

In senior high school English education, there is a strong emphasis on mastering four essential skills: listening, speaking, reading, and writing, which are intertwined and complement each other. Mastery of these skills is essential for students in their English language learning journey. Reading skills are significant, as they are considered lifelong abilities applicable both in academic settings and in various aspects of life.<sup>1</sup> Reading has important role in providing readers with valuable information, knowledge, experiences, and cultural insights through written texts.<sup>2</sup> Thus, reading stands out as a crucial skill to acquire, as it serves as a gateway for students to access and acquire essential information and knowledge.

Reading comprehension involves the process of extracting and constructing meaning from written text. According to Woolley, reading comprehension involves the process of deriving meaning from a text. In essence,

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<sup>1</sup> Kucukoglu, H. (2012). *Improving reading skills through effective reading strategies*. Procedia - Social and Behavioral Sciences, 70, 709–714.

<sup>2</sup> Brown, H. Douglas. (2000) *Teaching by Principles: An Interactive Approach to Language Pedagogy*, 2nd ed., New York: Longman.

to extract information and interpret the meaning contained within the text.<sup>3</sup> This process of reading comprehension entails understanding the meaning behind words, sentences, and entire texts, allowing readers to form new perceptions and insights based on what they read. It involves not just decoding the written words, but also connecting them with the reader's existing knowledge and experiences to create a coherent understanding of the text.

The teacher is the primary facilitator of learning in the classroom, and the quality of students' knowledge is also impacted when the teacher fails to bring life to the learning process. Utilizing educational materials that are currently in style can spark students' curiosity and increase their enthusiasm, which will facilitate their understanding of the subject matter. A variety of media, both technological and physical, can be employed to innovate education. These days, it is impossible to separate technology use from daily living. Technology is developing so quickly that a person is now involved in a variety of fields depending on what someone wants in life. One such field is education, where technology is being used more and more since the Covid-19 pandemic. Because technology can be used as (1) a knowledge source, (2) a teaching tool, (3) a teaching and learning tool, (4) a way to learn standards and competencies, (5) a tool for management, (6) a tool to support school leadership, and (7) educational infrastructure, mastering it is crucial in the educational context.<sup>4</sup>

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<sup>3</sup> Woolley, G. (2011). *Reading comprehension: Assisting children with learning difficulties*. Springer. <https://doi.org/10.1007/978-94-007-1174-7>

<sup>4</sup> Indjuang, T., *Pemanfaatan Teknologi dalam Pendidikan*, Jakarta: Direktorat Jenderal Pendidikan Dasar dan Menengah, 2004.

It is required of teachers to possess certain abilities, one of which is the ability to use information and communication technology (ICT) in their lessons to improve student learning. According to Law Number 14 of 2005 concerning Teachers and Lecturers, educators are required to be able to: (1) use information and communication technologies to enhance the lessons being taught; and (2) interact with students in a courteous, effective, and sympathetic manner. In this case, technology is anticipated to be used as a medium in the contemporary educational process. One of the innovations in learning media that has proven popular in recent years is learning using Augmented Reality (AR). The technology known as Augmented Reality (AR) integrates three-dimensional items with the physical environment.<sup>5</sup>

There have been some previous studies related to the use of Augmented Reality (AR) technologies as the teaching media for reading comprehension. It has several benefits, one of which is its ability to engage students and give them immersive learning opportunities. According to Vakaliuk & Pochtoviuk, Augmented Reality technology has several benefits for education. These include being a learning tool that sparks children's curiosity, evolving into a more engaging alternative learning tool for teachers, creating a more engaging learning environment when teaching, and providing children with new opportunities to learn about cutting-edge technology.<sup>6</sup> Students are better able to

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<sup>5</sup> Garzón, J., "The Use of Augmented Reality in Education: A Bibliometric Study," *Computers & Education: Artificial Intelligence*, Vol. 2 (2021), <https://doi.org/10.1016/j.caeai.2021.100038>

<sup>6</sup> Vakaliuk, T. A., & Pochtoviuk, S. V., *Augmented Reality Technology as a Means of Implementing STEM Education*, *CEUR Workshop Proceedings*, Vol. 2898 (2021), 94–103. <https://ceur-ws.org/Vol-2898/paper10.pdf>

understand difficult learning ideas as a result. Using this medium in the classroom provides opportunity for real-world and genuine learning scenarios including communication in the target language.<sup>7</sup> Augmented Reality can help students retell experiences or understand something, because images and animations can represent places, objects, people, and so on.<sup>8</sup> This is in accordance with the choice of modern media intended by the researcher, namely Augmented Reality on students' reading comprehension skills. Another benefit of Augmented Reality according to Xie, X., & Huang, H., is that Augmented Reality (AR) apps can significantly enhance reading comprehension among Chinese first-grade high school students.<sup>9</sup> The statistically significant improvement in post-test scores, especially among students who used AR, indicates that integrating AR technology is a beneficial instructional strategy. It offers students more interactive and engaging reading experiences, potentially leading to better comprehension outcomes than traditional reading methods. Study from Ebadi, S., & Ashrafabadi, F. support the advantage of Augmented Reality as teaching media for reading comprehension. The findings indicated that using AR and the Reader Buddy project in the experimental group's reading course led to improved reading skills compared to traditional methods. Additionally, post-test scores suggest that AR more effectively support EFL

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<sup>7</sup> Parmaxi, A., & Demetriou, A. A., *Augmented Reality in Language Learning: A State-of-the-Art Review of 2014–2019*, *Journal of Computer Assisted Learning*, Vol. 36, No. 6 (2020), 861–875. <https://doi.org/10.1111/jcal.12486>

<sup>8</sup> Garzón, J., *The Use of Augmented Reality in Education: A Bibliometric Study*, *Computers & Education: Artificial Intelligence*, Vol. 2 (2021). <https://doi.org/10.1016/j.caeai.2021.100038>

<sup>9</sup> Xie, X., & Huang, H., *Investigating the Impact of Augmented Reality on High School Students' Reading Comprehension*, *International Journal of Emerging Technologies in Learning*, Vol. 18, No. 6 (2023), 27–36. <https://doi.org/10.3102/IP.23.2001829>

learners in enhancing their reading skills than conventional reading approaches.<sup>10</sup> A similar study was conducted by F. U. Mubarak et al. (2023) with findings that showed the students in the experimental group, who used AR technology, had significantly greater improvements in reading comprehension scores than those in the control group.<sup>11</sup> This suggests that AR positively influenced reading comprehension skills in ESP students by offering an interactive and immersive learning experience.

From the previous studies, it can be summarized that the first study, which was conducted by Xie, X., & Huang, H. (2023) and the second which was conducted by Ebadi, S., & Ashrafabadi, F. (2022) and the third which was conducted by F. U. Mubarak et al (2023) investigated the impact of Augmented Reality to students' reading comprehension in general. While this present research investigated the effectiveness of Augmented Reality to students' reading comprehension, specifically on recount text. The subjects chosen by the researcher were junior high school students. Augmented Reality is used as teaching media because the 3-dimensional animation in this media is interesting so it can arouse students' attention and also make it easier for students to clarify the concepts and information given by the teacher to students. Augmented

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<sup>10</sup> Ebadi, S., & Ashrafabadi, F., *An Exploration into the Impact of Augmented Reality on EFL Learners' Reading Comprehension*, *Journal of Educational Technology Systems*, Vol. 51, No. 2 (2022), 254–276. <https://doi.org/10.1007/s10639-022-11021-8>

<sup>11</sup> F. U. Mubarak et al., "Measuring Augmented Reality Effectiveness on ESP Students' Reading Comprehension," in *Proceedings of the 2023 9th International Conference on Education and Technology (ICET)*, Malang, Indonesia, 2023, pp. 105–109. <https://doi.org/10.1109/ICET59790.2023.10435329>.

Reality in recount text also aims to help provide clarity to students about what will be illustrated which is then expressed in written form.

Based on the description above, the researcher conducted research which aimed to see how much influence Augmented Reality (AR) media have on students' reading comprehension of recount text at MAN 2 Tulungagung. Therefore, the researcher conducted a research entitled "The Effectiveness of Augmented Reality (AR) Technology as Teaching Media towards Reading Comprehension of the Tenth Grade Students at MAN 2 Tulungagung."

#### **B. Research Problem**

Based on the background of the research that has been explained, the researcher has determined the research problem is in the following question: "Is there a significant difference in students' reading comprehension scores of recount text between students taught using Augmented Reality (AR) Technology and those taught without using Augmented Reality (AR) Technology at SMPN 1 Ngunut?"

#### **C. The Objectives of the Research**

Based on the research problems above, it can be concluded that the objectives of the research is: "To know the significant difference in students' reading comprehension scores of recount text between students taught using Augmented Reality (AR) Technology and those taught without using Augmented Reality (AR) Technology at SMPN 1 Ngunut."

#### **D. Research Hypothesis**

The hypothesis is not the final outcome of the research. This is an alternate answer that must be validated. The researcher's hypothesis must be tested empirically first. The hypothesis in this research can be summarized as follows:

1. Null hypothesis ( $H_0$ ):

There is no statistically significant difference in students' reading comprehension scores of recount text between students taught using Augmented Reality (AR) Technology and those taught without using Augmented Reality (AR) Technology at SMPN 1 Ngunut.

2. The Alternative hypothesis ( $H_a$ ):

There is a statistically significant difference in students' reading comprehension scores of recount text between students taught using Augmented Reality (AR) Technology and those taught without using Augmented Reality (AR) Technology at SMPN 1 Ngunut.

#### **E. The Significance of the Research**

The result of the research is expected to be useful for people in education field and to provide a good contribution for students, English teachers, and the readers as explained below:

1. To students

The result of using Augmented Reality (AR) technology is expected to create a more engaging and interactive learning environment, thereby increasing their motivation and interest in reading activities. By utilizing AR, students may benefit from a more immersive and contextual learning

experience, which can enhance their understanding and retention of reading materials. Moreover, exposure to advanced technologies like AR can help students develop essential skills such as critical thinking, problem-solving, and technological literacy.

2. To teachers

The research aims to provide evidence-based practices and innovative strategies for integrating AR into their teaching repertoire, thereby enriching their instructional methods. AR technology has the potential to capture students' attention more effectively, making it easier for teachers to maintain a high level of engagement and participation in reading lessons. Additionally, the research findings can contribute to teachers' professional growth by equipping them with new tools and techniques to address diverse learning needs and preferences in the classroom.

3. To the readers

The result of the research can help readers to improve and add their knowledge about teaching media, especially about reading comprehension ability of Augmented Reality (AR) technology as learning media.

4. To other researchers

This research has many limitations, but the researcher hope it would give several information about teachers' strategies in online teaching reading comprehension by using AR technology. The finding of this research can be used as the references for another research of other researchers that is strategies for teaching reading comprehension.



## **F. Scope and Limitation of the Research**

To avoid confusion and clarify the research, it is essential to define its scope and limitations. Based on the problems and objectives of this research, the researcher focuses on the effectiveness of Augmented Reality (AR) technologies towards reading comprehension on recount text. This research focuses specifically on the tenth-grade students at MAN 2 Tulungagung. By concentrating solely on this group, the researcher aims to achieve a more detailed and precise understanding of the impact of AR technology on reading comprehension. The research is confined to these students to ensure a more focused approach, thereby allowing for the collection of more specific and accurate data. However, it is important to note that the research can only control certain variables that might influence the results. Consequently, the research is limited in its ability to address all aspects of reading comprehension on recount text. The primary method explored in this research for improving students' reading comprehension of recount texts is the use of Augmented Reality technology.

## **G. Definitions of Key Terms**

### **1. Augmented Reality (AR)**

The term of Augmented Reality (AR) in this research is a technology that integrates three-dimensional objects into the real world when the students read a recount text. Its operation involves a calibrated camera that detects markers, identifies patterns, and recognizes these signs. While there's a text to read, students will be able to watch the illustration of the recount

text that they're reading. It aims to improve students' understanding of the text and increase students' interest in reading the recount text.

## 2. Reading Comprehension

The term of reading comprehension in this research refers specifically to the ability to understand and interpret the meaning of a recount text by actively processing its content. This involves not only grasping the general storyline but also recognizing key details, making connections within the text, and interpreting any implications or messages it may convey. The research investigates how students' skills in these areas may be enhanced through the integration of AR technology, which provides visual and interactive support, potentially aiding learners in deeper comprehension and retention of the text.

## 3. Recount Text

The term of recount text in this research refers a form of written or spoken narrative that recounts past events or experiences in chronological order. It typically follows a clear structure, including an orientation (setting the scene and introducing the main characters or events), a series of events presented in sequential order, and a conclusion that provides closure or reflection on the experience. Recount texts aim to inform, entertain, or persuade the audience by conveying real-life occurrences or personal anecdotes. In educational contexts, recount texts are commonly used to develop students' writing skills and to share personal experiences or observations.