

CHAPTER I

INTRODUCTION

A. Background of the Study

In the digital era, the advancement of technology has been implemented in many aspects, such as the economy, the medical sector, and the education sector. The utilisation of technology in education not only improves learning efficiency but also opens up opportunities to develop more interactive and innovative learning. One of the developments of technologies that are increasingly used in learning is Augmented Reality (AR). Augmented reality is a visual medium that allows users to see the real world through digital visual elements, sounds, and other sensory stimuli via holographic technology in real time (Żydowicz et al., 2024; Azuma, 1997). In addition, AR serves as a tangible example of how artificial intelligence (AI) plays a role in the learning process (Umisara et al., 2023)

The use of AR in education, particularly in language learning, has shown various benefits. The benefits of integrating AR technology into English language education are this technology promotes active and interactive learning situations, enables the learners to develop their vocabulary knowledge and skills without contextual and temporal constraints, increases learner interest and motivation, and maintains active participation (Takkaç Tulgar et al., 2022). In addition, augmented reality is not only a tool for visualization but also a tool to support organising and managing mixtures of digital and physical materials, (Grönbæk et al., 2003). This technology allows teachers to connect printed texts with digital animations. Thus,

AR technology has the potential to be one of the important elements in supporting a more effective teaching and learning process.

In the context of English language learning in the 21st century, teachers are required to implement innovative strategies to make learning more interesting and appropriate to students' needs. The use of appropriate learning media can help students understand the material optimally and increase their interest and motivation to learn. For grade X students, the use of technology in learning can be a more relevant and interesting approach as it is in line with the digital environment they face in their daily lives.

One of the skills that needs to be focused on in English learning at the high school level is writing skills. According to József (2001), writing is one of the most complex language skills that involves the development of a design idea, representation of knowledge, and experience with the subject. In the context of writing, narrative text is one of the text types that must be learnt by high school students. Narrative text is the text that talks about a story of legend and its resolution to amuse and entertain the readers (Lubis, 2014). This indicates that a narrative text tells a legendary or fictional story, including its resolution, with the primary purpose of entertaining the readers.

The common challenges faced by teachers in teaching writing such as students' lack of vocabulary, students' lack of grammar, and inability to write a paragraph. Additionally, teacher challenges were not only about a lack of vocabulary and grammar, but also a lack of the ability to organize ideas in writing (Adam et al., 2021). To overcome these challenges, teachers need to adopt

innovative strategies and use media that are appropriate for students' needs. As facilitators, teachers are also encouraged to introduce more varied learning methods and learning resources, including the utilisation of technology-based media. Unfortunately, conventional methods such as lectures or static texts are still dominant, whereas 21st-century learning resources are not limited to books or teachers, but also involve immersive technologies such as AR. This is in line with the statement of Tafani (2009) stated that many teachers are not properly introduced to the various software programs that are available in the school.

Given this gap between the potential of digital media and its limited application in classrooms, several researchers have explored the integration of Augmented Reality in education. Previous studies have highlighted its impact in improving students' language skills and engagement. For instance, research by Juan et al., (2008) found that Augmented Reality has been used in many areas, and it has proved to be useful for storytelling. Similarly Chiang & Chen, (2012) reported that augmented reality is also used to increase the learning interest and assist in active learning with a folk festival book.

Based on the observation at An-Nizam school, by interviewing the English teacher, it was found that the teacher has been applying digital media in learning, particularly using quizzes during learning. In addition, PowerPoint is also used to support the teaching of writing skills. However, this approach appears to be limited in engaging students effectively. According to the teacher, one of the challenges when teaching in the classroom is the students' lack of motivation to fully engage in the learning activities. Moreover, from the result of the student

interview, the writer found that most of the students in grade X faced challenges in writing narrative text, particularly in writing comprehensible passages, and students faced obstacles in using appropriate vocabulary.



Figure 1.1 Student Score Data for Grade X at An-Nizam High School

This problem is further bolstered by an analysis of patterns in the detailed student grade data (score ledger). Although there is no specific information for each assessment column, a significant pattern is evident. Among several assessment columns with relatively high scores, there is one column where the distribution of student scores shows significantly lower results. In this column, approximately 25% of students scored below 75.

This pattern of lower and more varied scores generally correlates with assessments that test complex and productive skills, such as writing, which differs from the scoring pattern of objective tests. Therefore, it can be strongly assumed that this column of scores reflects students' actual difficulties in one of the more challenging core competencies, which aligns with qualitative findings regarding writing difficulties. The disparity between student performance on these different assessments underscores the need for more effective and equitable learning interventions.

According to the issues above, this study aims to analyse the development of Augmented Reality technology in English language learning, particularly in improving the skill of writing narrative texts at the high school level. The use of AR-based educational media for English language learning offers several advantages, such as increased effectiveness in language learning, improving the digital literacy of students, as evidenced by improved English language skills during classroom interactions (Oktadela et al., 2023; Umisara et al., 2023).

B. The Problem of the Study

Based on the research background above, the research problem is formulated as “How is augmented reality developed as a medium to teach narrative text for grade X students in An-Nizam school?”

C. The Objective of the Study

Based on the problem of the study above, the objective of this study is to develop augmented reality by using Assembler Edu as a medium for teaching narrative text, where this medium is rarely used, especially for teaching writing. Moreover, this study would provide ideas for teachers to create an innovative way to engage student motivation to learn writing through 3D illustrations by using augmented reality, which aims to visualize the concept of narrative text through assembly edu.

D. The scope of the Study

There are several types of learning tools, such as teaching modules, student worksheets, teaching materials, teaching media, and others, so this research

investigates developing augmented reality by using Assembler edu as a medium for teaching narrative text for grade X students at An-Nizam school.

E. The significance of the Study

This study has significance, which is divided into two parts, namely :

1. Theoretically, this study contributes to supporting the theory regarding the development of teaching media in augmented reality in teaching narrative text using assembler edu for grade X students at An-Nizam school.
2. Practically, this study has three significances such as :
 - a. For teachers, this study will provide information innovative strategies for teachers to teach narrative text through learning media based on augmented reality, especially in teaching narrative text for grade X student at An-Nizam school.
 - b. For students, this study will provide and introduce them new teaching media that can engage their motivation to learn writing skill through augmented reality that will create 3D illustration to increase student understanding about narrative text.
 - c. For future researcher, this study is useful as a reference on the use of augmented reality in teaching narrative text. Also this study can be bridge for future researcher to study in depth with the similar topic, because this study which focused on this topic still limited, that is why this study can be reference to make it better in the future research.