CHAPTER I
INTRODUCTION

This chapter provides a general outline of the study. It consists of a background of the study, research questions, research objectives, significances of the study, rationale, hypothesis, and previous studies of the research.

A. Background of The Study

In Indonesia, EFL students have many problems in writing, such as grammatical accuracy, idea organization, and vocabularies Ariyanti (2016). This makes them less competent in writing skills. Also, the students need an ability to translate or transform the meaning from Bahasa to English context to avoid an appropriate writing result.

EFL students SMP Daya Warga Bakti Bojongsoang found it difficult to write text appropriately. According to the writing products regarding students' daily activities, it shows that the errors occur on some elements' of writing, especially on grammar and organization. For example, the use of tenses is still inconsistent. At the beginning of the paragraph, the student writes*: I had breakfast.* In the middle of the paragraph: *I helped.* Meanwhile, in the last paragraph: *I was finished.* Mostly students face these tenses using problems. Furthermore, the organization of paragraph tends to be unorganized. For example, the beginning and the end of the paragraph are not included in the writing. The student only writes the important points in a short paragraph, without considering how a good paragraph should be. According to my perspective, students lack enthusiasm for a writing activity.

To overcome the problems, teaching media could be performed by English teachers(Kozma, 1991). Augmented Reality (AR) is an alternative media in English teaching. According to Santos et al. (2016), Augmented Reality aims to develop technology that allows real-time incorporation of digital content created by computers with the real world. Based on the research by Ningsih (2015), the title is "The Effect of Augmented Reality Based-Learning Media on Students'

Learning Outcomes."Shows that the significant effect of using Augmented Reality based learning media on students' learning outcomes in a science subject.

Some relevant studies explore the use of AR in the writing classroom. One of them is the study from the Department of Educational Technology, Tamkang University, Taiwan, in 2017. This research was conducted for the use of Augmented Reality based learning materials in the process of Chinese writing for high-school students, along with the pros and cons of using AR for acquiring Chinese writing skills. The results show that the AR techniques helped the intermediate-level students the most in their writing performance. Another research conducted by Yamamoto et al., in the Philippines University 2014, the research focuses on using AR in vocabulary. The result shows that students can achieve the same score using AR, but with benefits such as ease in maintaining attention and increased satisfaction.

The present research is different from the previous studies conducted by the Department of Educational Technology, Tamkang University, Taiwan, in 2017. The previous studies only focus on the impact before and after learning writing with Augmented Reality, the process of Chinese writing, and uses designed mix method. While this research is leveling up from the previous research. This present research does investigate not only the process of teaching descriptive text with Augmented Reality and the students' response but also explores the students' writing progress. This research entitles **"Using Augmented Reality To Support Writing Activities In Junior High School."**

B. Research Question

From the observation above, the researcher formulates the problems of the research as follow :

1. What is the result of students' ability in writing descriptive text taught using Augmented Reality?

2. What is the result of students' ability in writing descriptive text taught without Augmented Reality?

3. How is significant is the difference between the students' ability, which was taught using Augmented Reality without Augmented Reality?

C. The Purpose of The Study

Based on the background above, the study is intended :

1. To know students' ability in writing descriptive text taught using Augmented Reality as a medium on teaching and learning.

2. To know the students' ability in writing descriptive text taught without Augmented Reality.

3. To know significant difference improvement between the groups were taught using Augmented Reality without Augmented Reality.

D. Significant Research

This research is supposed to be useful for the teaching and learning process and the development of the writing world. These research significances are as follows:

a. For the EFL writing teaching.

Based on this research, the writer expects that Augmented Reality could be one of the media that the teachers can use it in terms of teaching English in writing class and to solve the problem of students' difficulties in teaching. Then it will make the learning process in the classroom more exciting and active for students,mainly the second-year student of junior high school.

b. The student

This research is expected to provide mastery of English language learning. It will make the students feel happy and enjoy when learning English in class or house. Then, it can solve their problems in understanding the meaning of words in sentences, because it is something new to them, and they can use Augmented Reality anywhere and anytime.

c. The researcher

This research is expected to give a new knowledge for other researchers to do better analysis of teaching and learning case.

E. Theoretical Framework/Rational

Writing is one of the essential skills to learn English. According to As Walsh on Blanka Frydrychova (2012), Writing is outstanding because it is used extensively in higher education and the workplace. If students do not know how to express themselves in writing, they will not be able to communicate well with professors, employers, peers, or just about anyone else. Dantes supports it on Ariyanti (2016), writing is one of the essential skills of the language because the students are helped to expanding the other language skills through the teaching of writing ability by the teacher by using Augmented reality the teacher will teach how to the student response using application Augmented Reality to learning.

Zhang, Lin, Bijarbooneh, Cheng, & Hui (2018) argue that Augmented Reality (AR) is a natural way of interaction between the digital virtual world and the real world. Yuen et al supports that statement., (2011) Augmented reality (AR) is a combining form of experience between the real world (RW) and computer-generated content which is fastened to specific locations and activities. In simple terms, AR lets digital content to be seamlessly overlaid and mixed into our perceptions of the real world.   Also, Augmented reality (AR) is one of the most recent developing technologies, which can be applied to smartphones, tablets, and computers. AR gives the ability to overlay images, text, video, and audio components onto existing models or space Antonioli, Blake, & Sparks (2014). Supported by Che Hashim, Abd Majid, Arshad, & Khalid Obeidy (2018), Augmented reality (AR) attribute to a broad spectrum of technologies that project

computer-generated materials, such as text, picture, and video, onto users' perceptions of the real world. AR has three characteristics: (a) the combination of virtual elements and real-world, (b)interactive in real-time, and (c) registered in 3D.

According to Wagner on Specht et al.,(2011), the components of mobile Augmented Reality systems are:

1. *Flexible display systems*, including head-mounted display systems, camera phones, and handheld projectors. Display technologies are becoming cheaper and more resilient to produce.

2. *Systems of Sensors* in mobile devices like GPS, electronic compasses, camera, and microphone as well as indoor location tracking systems.

3. *Wireless networking protocols and standards are* supporting indoor and outdoor augmentation settings. These also enable multi-user real-time interaction in augmented reality.

4. *Mobile phones* with computational power to do overlays on a standalone device and real-time visualization of 3D objects.

5. *Tagging and tracking technologies* with six degrees of freedom, multi-marker tracking, and hybrid tracking systems.

6. *They are linking of location-based AR information* in gaming and storytelling approaches. There is an urgent need when AR is used for learning support to connect AR experiences with instructional designs or at least with task structures and sequencing approaches. Storytelling and gaming approaches are currently the most prominent approaches.

7. *Flexible layer-based AR browsers* with the integration of social media. AR systems must also be built on existing information channels and can present existing information to users in a new kind of user interface. Therefore, implementations of mobile AR for learning must enable open interfaces to survive content and services.

According to Chen (2016), Some studies have uncovered their ability in language learning as well, including the effect of AR on increasing motivation among college students learning English. According to Herpich, Guarese, & Tarouco (2017) Through augmented reality and affordability, it is possible to strengthen channels of interaction between users and educational context, capturing more significant learning opportunities, some other benefits provided by augmented reality (AR) consists of achieving a higher level of user involvement.

F. Hypothesis

According to Creswell (2012), the hypothesis is a statement in quantitative research in which the researcher predicts the outcome of the relationship among characteristics. It means that in the hypothesis, it predicts whether the research influences the result or not. Based on that explanation, the hypothesis of this research are as follow:

1. **The alternative hypothesis (Ha)**: it means that there is no significant influence of using Augmented Reality to support student writing in descriptive text.

2. **Null hypothesis (Ho)**:: it means that there is a significant influence of using Augmented Reality to support students writing in descriptive text.

G. Research Limitations

This study focuses on the use of Augmented Reality as a medium of teaching writing descriptive text to the 8th-grade students of SMP Daya Warga Bhakti Bojongsoang Bandung academic year 2018/2019. The sample chosen is in class VIII A, as suggested by the English teacher. The researcher taught students more in writing skills, specifically focusing on improving students' ability to write descriptive texts. The researcher conducted treatments in the classroom of the experimental class based on the syllabus and prepared lesson plans for four meetings. The researcher introduced and used the creative technique in which Augmented Reality is used as a medium on teaching writing a descriptive text in the experimental class. The topics of writing descriptive text were as follows: describing persons, describing animals, and describing places.

H. Previous research

Some studies discuss the improvement of students' writing ability through Augmented Reality, with EFL learners in particular. There are some experimental studies have been conducted in the last decade dealing with Augmented Reality assessment that reports technical information and employs accepted research techniques :

The focus of Tsai (2018), the title was *A Comparison of EFL Elementary School Learners' Vocabulary Efficiency by Using Flashcards and Augmented Reality in Taiwan*. With the rapid development of Augmented Reality (AR), an increasing number of studies were conducted to explore the effectiveness of this technology in the field of education. How AR might influence EFL learners' vocabulary learning efficiency. This study aims to compare traditional English flashcards with the vocabulary learning method of Augmented Reality to see which English vocabulary learning is more efficient for elementary school students. 66 students in elementary school. The two stages in terms of data collection. At first, the control and experimental groups took the same English vocabulary test without any teacher instruction as a pretest. Second, the control group used flashcards to learn 20 target English words by themselves in 30 minutes. The results of this study show that the learning method of Augmented Reality was more efficient than the learning method using English flashcards at various proficiency levels (high, intermediate, and low) in terms of English vocabulary learning. The learning method of English flashcards had significant differences in high and low-level groups as well as medium and low-level groups, with the exceptions of high and medium level groups. It is worth improving children's English vocabulary learning by using Augmented Reality in their daily lives in terms of mobile learning.

In Kwait, Safar (2017)tested students' *effectiveness by using augmented reality (AR) applications (apps) as a teaching and learning tool when advising kindergarten children in the English alphabet*. The study related two groups: (a) experimental, taught using AR apps, and (b) control, taught using traditional face-to-face methods42 participants or students in two different class21 in the experimental group and 21 in the control group. The study shows with relevant proposals and recommendations regarding the implementation of AR technology in education, and using Augmented Reality can make the students' effectiveness in learning the English alphabet.

He, Ren, Zhu, Cai, & Chen (2014)*using Augmented helps to promote EFL children's vocabulary*. In this research, 40 participants the experimental and control. It was found that the students learning with mobile-based AR software had more significant learning achievement than control group ones. Thus the teacher holds a positive attitude to this software.

In another study. Juan, Llop, Abad, & Lluch (2010)*This research there is, presents an Augmented Reality (AR) game for learning words*. Thirty-two children played the AR game and the equivalent real game. We have compared the results of the two games. The results

indicate that children did not found significant differences between the two games except for one question, but81% of the children liked most the AR game.

Regarding the effectiveness of using Augmented Reality in teaching writing According to Wang (2017), an Augmented Reality provides evidence of knowledge and skills, which means it is included as an effective instructional and assessment technique. Furthermore, Augmented reality assessment not only gives authentic information about the development of students but also could be used as a means of helping students to overcome their writing anxiety in foreign language learning.

This research is different from the previous study that was conducted. The previous research only focuses on the impact before and after learning with using Augmented Reality in writing, and this research focuses the process of Chinese literature on exploring in teaching writing the Mandarin language, this researcher using a designed mix method. Because of this researcher, this study that 30 twelfth grade students'. They were divided into two groups: one group completed a writing assignment using only paper-based instructions and prompts, and the other group concluded it using an Augmented Reality based system. This researcher is leveling up from the previous research. This research does not only try to the student response using Augmented Reality but also works to know how the process of teaching and learning using Augmented Reality EFL student in-class writing.