

# CHAPTER I

## INTRODUCTION

This chapter presents the background of the study, the research question, the research purpose, the significance of the study, the research framework, and the previous study.

### A. Background

Speaking is the skills to produce words in language exercises. Speaking is also an essential skill that students must master because they want to use English as a tool for global communication (Ningsih, 2022). By speaking, we can know the skills of students to produce an understanding of English.

Speaking is identified as challenging to learn, while speaking is an essential thing in human life. And people can communicate with others, and a person usually needs help in social interaction, such as not communicating ideas, arguments, and feelings (Fauzan, 2016) . A person can sometimes understand what the other person is saying but cannot communicate it. This may happen due to inadequate training, low motivation, lack of communication competence, and self-confidence. Ideally, if a person can understand the expression, then, on the other hand, must also be able to produce the language. The quality level of speaking skill is identified through the four components, and they were: Vocabulary, Fluency, Pronunciation, and comprehension. The fluency aspect covers pronunciation and intonation. The accuracy aspect covers grammar and appropriateness of the language utterances. In contrast, the comprehensibility aspect covers making information understandable to others and comprehending other people's data.

While only a few students are taught to practice speaking directly in the classroom, practicing self-confidence in speaking and pronouncing is rarely done during learning. Theoretically speaking, when learning speaking is skillful but not practical for direct practice, this encourages the researcher to use the eye-tracking technique in helping students practice their speaking skills by stimulating them through help with visual media.

Based on the theory described previously, the researcher found the same problem in the "Eighth Grade SMPIT UMMUL QURRO." First, they need help expressing the ideas in their minds even though they are very imaginative but are

constrained by how to say them. Second, they need more confidence when speaking English with their friends or the teacher in class. Third, they are afraid of making mistakes and being blamed or laughed at by their friends. Lastly, they rarely practice speaking English directly in their daily life or in the classroom, so they need more opportunities to practice it. Some needed a better level of English, and few showed further interest in English subjects.

The technique used in this research is eye tracking, which means human eye can measure people's points of view on a visual object. Eye movements are also relatively sensitive to head movements and the position of focus movements on the eyeballs when viewing a visual object such as a poster. This shows which point of the poster turns out to be the focal point so that it can capture the location that is the focus of the media tool's view (Alifia, 2018). Especially, English, in the linguistic aspect, can connect with this research in how the focal point affects the stimulus in the brain to transfer important issues when first seen into words spoken in English.

These interesting factors prompted a study on the effectiveness of eye-tracking in teaching academic speaking. The results of this study are expected to prove that the eye-tracking technique can be one of the appropriate techniques for teaching speaking. It will also facilitate students' understanding due to the more dynamic nature of learning and train students to think more critically. On the other hand, it also makes it easier for teachers to create a conducive atmosphere so that each student can practice more and be more confident.

This study was conducted at SMPIT UMMUL QURRO, a private school based on a foundation that upholds religious values. On the other hand, the learning system in this school is still teacher-centered with no student involvement to be more attractive, and there is still a need for a more exciting learning atmosphere to support a student-centered learning process. Meanwhile, speaking is an activity that requires more practice hours to master this skill. Therefore, students need a new and more exciting learning process to facilitate understanding of the material, especially in English.

Some research on the using eye tracking techniques in learning speaking skills, including Manhardt (2022), explains that visual events guided by multimodal linguistic abilities have an eye-to-mouth relationship and can also be extended to eye-to-hand. This is a multisensory phenomenon in language comprehension processing. The following research was conducted by Taim (2020) entitled "Eye Tracker

Effectiveness in Identifying Attention on Reading. Comprehension Process of High School Student" describes that the correlation between video monitoring and eye movement can be identified effectively to help influence attention on reading comprehension. This study differs from previous studies, in which previous research focused on discussing the correlation between eye-mouth, which also has significant potential with eye-to-hand. Meanwhile, this research focuses on eye-mouth that uses media support through visual media.

From the explanation above, the researcher is very interested in conducting this research in grade eight SMPIT UMMUL QURRO, because the researcher already knows their level of understanding in speaking English when doing PKL (Field Work Practice) activities. Therefore, the researcher is interested in taking this place, so it is hoped that all students can speak more fluently on the learning indicator "Asking and giving opinions" in English subjects. With the reasons that have been explained, the researcher chose the title "Improving Indonesian EFL Students' Speaking Skills by Engaging Them in Learning Speaking Using Eye Tracking Technique on Visual Media : A Pre-Experimental Study To 8<sup>Th</sup> Grade Students of Smpit Ummul Qurro".

## **B. Research Questions**

This research is intended to answer the questions:

1. How are the students' speaking skills before using the eye tracking technique?
2. How is the students' speaking skills after using the eye tracking technique?
3. How significant is the difference between before and after using the eye tracking technique?

## **C. Research Purposes**

There are three aims of this research:

1. To find out students' speaking skills before using eye tracking technique
2. To find out students' speaking skills after using eye tracking technique
3. To find out the significance of the difference between before and after using eye tracking technique

## **D. Research Significances**

The results of this study are expected to be useful theoretically and practically.

### **1. Theoretical Significance**

This research is encouraged to reduce the difficulty of learning students' speaking skills. In addition, it is hoped that it can provide potential solutions for students who have difficulty practicing speaking aspects in learning English.

### **2. Practical Significance**

The results of this study can help teachers achieve student success in learning speaking skills. It is thought that teachers use methods to solve problems as they work to counter the challenges they face.

## **E. Research Framework**

Learning speaking skills has some purpose for mastering, one of which is good communication. Therefore, teachers are expected to be able to help students understand the material and also have confidence in speaking. Because by speaking, we can know the skills of students to produce an understanding of English. Speaking is expressing thoughts aloud by using the voice, which means that when someone interacts with other people using language, they want to convey something meaningful. For example, they want to express their feelings and thoughts. A person cannot communicate with another person without having any purpose. When people communicate, it must also involve the speaker and the listener. Therefore, communication involves at least two people; the sender and the receiver. They need communication to exchange information, ideas, opinions, views, or feelings (Fauzan, 2016).

As a critical role in this research, visual media help the process during the eye-tracking technique, where this becomes an inseparable unit. In general, media is a tool used to facilitate a process, either periodically or not. On the other side, visual media is interpreted as a tool that can be analyzed by the five senses, especially the part of the vision.

Then, the researcher decided to use posters as suitable visual media in this study. It can help provide expressive and responsive ideas based on the poster display

that will be provided. Furthermore, after understanding optical media as an essential indicator, it is necessary to know how media can stimulate students in helping their learning, especially in speaking practice.

The eye-tracking technology in this study becomes the central point of the experiment to be carried out because the implementation of eye movements is carried out subconsciously and cannot be easily manipulated after it is done (Demareva & Edeleva, 2020). This shows that eye tracking is instinctive, which gives a direct response based on visual media in the form of posters given at the time of the research.

Eye tracking also provides valuable insight into how individuals learn words and phonemes in a second language (Joanisse, 2018). The speaker's visual attention to events is guided by the linguistic conceptualization of information in spoken language production and using a particular language (Manhardt, 2022). It is emphasized that the viewer constructs a picture with short-lived eye fixation, combining thoughts into the overall picture. The findings help explain how the mind perceives complex images. The researcher found that the content, size, and placement of a photo on a newspaper page were more important than whether the image was printed in color. The eye-tracking technique aims to find out what attracts the attention of the audience the most, what symbols or icons are the most noticed from a visualization, whether the central message of a visual media is conveyed well or not, and how the analysis results digest the news.

The researcher is interested in using this method to help stimulate students in facilitating the practice of speaking English through built interactions and good responses given during the test through engaging media that are iconic and symbolic in the form of posters related to the material "Asking and Giving opinion" in the English lesson of eighth grade.

## **F. Hypothesis**

The hypothesis of the research is formulated as follows:

a. Null hypothesis (Ho): There was no significant difference in students speaking skills before and after using the eye tracking technique with visual media in students' English speaking skills.

b. Alternative hypothesis (Ha): There was a significant difference between students' speaking skills before and after using the eye tracking technique with visual media in students' English speaking skills.

## **G. Previous Studies**

This research is supported by several studies using similar techniques. The first is a study conducted by Rahma (2021). The results of this research are eye movement patterns that show variations in the analysis results when reading activities are in progress. There are four general patterns found in respondents' eye movements. The first pattern is the F pattern, and this pattern shows the flow of the respondent's eye movements in the shape of the letter F. While the second pattern is the spotted pattern, which is a pattern that involves fixation on certain words, meaning that the respondent only focuses on a few sentences. The third pattern is the layer cake pattern, which is a pattern that resembles a cake layer whose fixation is horizontal. The fourth pattern is the commitment pattern, which is a pattern that shows the consistency of the fixation movements carried out by the respondent. Hypothesis testing was carried out using the Chi-square test through Crosstabs analysis. The Chi-Square test results showed the Asymp Sig (2-sided) value of  $0.788 > 0.05$ . Thus, eye movement patterns are more visual-technical, and comprehension abilities are more in the direction of cognitive. Then, eye movements can be used to identify cognitive processes when reading activities are carried out, such as: determining the time required for the reading process, identifying the level of familiarity with the text, the predictskills of readers, and identifying weaknesses in reading.

The following research was conducted by Manhardt (2022). This study showed that visual events guided by multimodal linguistic coding have an eye-mouth relationship and can extend between eyes and hands. Together, these findings advance the understanding of language and processing as multisensory, multimodal phenomena. Finally, the approach reported in this study offers new possibilities for future work investigating the previously hypothesized close relationship between event representation and language production taking into account the multimodal nature of language (Knott & Takac, 2021; nal, Ji, & Papafragou)

Further research was conducted by Demareva (2020). In this research, he concluded that native (L1) and Foreign (L2) could build an adaptive threshold



algorithm for eye-tracking-based L2 detection by calculating saccadic and fixation features in reading L1 and L2 text.

Furthermore, the other research conducted by Dechao (2022) shows that the reading behavior of the interpreter training participants during the C-E STR (Chinese-English Sight Translation) is affected by the degree of word order asymmetry. It also attempts to identify contextual information's function in modulating the asymmetry effects. The resulting data indicate a considerable impact of asymmetry on reading. Thus, re-analysis is needed to correct any misunderstandings or syntactic integration. However, almost no potential asymmetry effect on forwarding reading frequency and similar patterns of forwarding reading were found across the two sentence types.

Further research was conducted by Taim (2022). This research used a quasi-experimental method with a one-group posttest-only design and involved 2 participants in grade 1 and grade 3 high school. Then descriptive analysis was used to obtain student attention profiles from high school classes using video monitoring and correlational analysis to obtain data on distinguishing power and difficulty level of the developed measuring tools. The result of the research is that the effect of attention on reading comprehension can be effectively identified through eye tracker technology. The summary of each study shows that scientific eye tracking can help learning activities, especially in English, at various levels.

From several research results and studies of the literature conducted previously, the researcher considers it relevant to the discussion to be carried out, and it can be stated that this research will have different research results and points of view. However, in specific discussions, there are several similar studies. Meanwhile, Rahma, Manhardt, Demareva, Dechao, and Taim use eye tracking with media that tend to be at a higher level of difficulty, which is not suitable for use on students who are still in the learning stage. Therefore, the use of multimedia in learning, especially visual media, makes it easy to create interactive learning and increases the activeness and enthusiasm of students to learn to speak English. Visual multimedia as a medium in teaching and learning activities will create a different, fun learning atmosphere. It will also create and build a functional relationship between educators and students to ensure high learning outcomes.

This study discusses how significant differences exist before and after using eye tracking techniques in English speaking subjects. Then, they can affect the

success of student learning by paying attention to three critical things. There are learning materials, learning processes, and learning outcomes.

Furthermore, from the previous explanation, it is inevitable that the research written with the title "Improving Indonesian EFL Students' Speaking Skills by Engaging Them in Learning Speaking Using Eye Tracking Technique on Visual Media : A Pre-Experimental Study To 8<sup>Th</sup> Grade Students of Smpit Ummul Qurro" has never been studied or is different from other researchers, especially at Uin Sunan Gunung Djati Bandung.

