CHAPTER I
INTRODUCTION

This chapter elaborates on the background of the study, research questions, research purposes, research significance, research scope, conceptual framework, and previous studies.

A. Background

Environmental noise is unwanted and can interfere with activities, especially learning. Environmental noise is generated by activities such as industrial factories, trains, roads, airports, and recreational areas. Apart from schools, people are affected by environmental noise in various places, including homes and workplaces (Kang, 2007). The adverse effects caused by noise are ear discomfort, sleep disturbances, shock reactions, headaches, and hearing loss (WHO, 2000). The surrounding environment is one of the most critical factors in the classroom. Poor environmental conditions reduce speech intelligibility, interfere with teachers' and students' communication, and affect student understanding, attention, response time, reading ability, and so on. This noise level will be the benchmark for evaluating the environmental quality in the classroom. Therefore, schools located near roads with heavy traffic certainly need more action to reduce noise levels outside, especially traffic, to create conducive external conditions. Thus, the learning process continues to take place comfortably even though the school is located near a heavy traffic area.

This research primarily focuses on the effect of classroom traffic noise (e.g., students' level of understanding of what is heard, such as vowels, syllables, and words, clarity of speech, or correct identification of spoken or heard words is only one factor in memorizing information. Good listening conditions will be accepted more quickly than the noise, making it easy to understand. During classroom lessons disturbed by noise, listening comprehension will be more complicated than speech perception. Creating a suitable environment for listening learning is very important because students access an essential part of learning, starting from listening and then

remembering what the teacher said through class conversation. Therefore, the worse the listening environment, the more difficult it is for students to learn well.

This study will focus on environmental noise from a highway. Cicalengka Road is a road that is often traversed by largetrucks. Large trucks that pass will usually produce a rumbling sound and vibration. It can be disturbing school, especially on learning English listening skills. In addition, not hearing the sound of the native speaker playing, the noise will disturb students.

Some research related to traffic noise's effect on EFL students' listening comprehension. Dinceri et al. (2015) explains a noise annoyance model using listening tests, by examining factors that affect road traffic noise annoyance levels. The data was collected by questionnaire with respondents living in areas close to noise. This study was conducted to improve good strategies and not interfere with learning in schools close to major roads. Yang et al. (2017) focus on the effect of noise on Chinese students' English listening comprehension. This study involved 89 participants with different learning styles as measured by Kolb's (1985) learning using observation. This study shows that differences in Chinese students' learning styles can cause differences in behavior in the understanding of listening to foreign languages. Chen et al., (2021) found how much traffic noise and classroom reverberation interferes with student learning. The data was collected by experimental on Chinese university students to study the effects of classroom reverberation time (RT) and traffic noise level (TNL) on English listening comprehension (ELC). The findings can be used as a reference for the acoustic research and design of Chinese university classrooms, especially for English-teaching classrooms in China. It works by sending signals to our nervous system, stimulating a reaction to sound from our body. The apparent reaction to noise has often led legislators to regard noise as the basis of noise control programs. The disturbance humans feel when faced with noise is stress, and the loss of concentration is often experienced. Therefore, these symptoms are of particular concern in health matters. The data was collected with observations that noise, in general, can cause stress, and hearing loss is one of the first reaction of humans feel from environmental noise. It is essential at the community and individual level to help organize a better

way of planning noise-producing activities to ensure comfort for the affected population.

B. Research Questions

1. What are the students' responses against the traffic noise when learning listening comprehension in the classroom?
2. How does the traffic noise affect the learning process of listening comprehension seen from students' perspectives?

C. Research Purposes

The objectives of this research are as follows:

1. To investigate students' attitudes toward traffic noise.
2. To find out students' and teachers' perspectives on traffic noise.

D. Research Significances

Theoretically, this research contributes to the social environment that can interfere with students in the listening lesson if there are schools close to roads due to noise. Practically, this noise can interfere with the concentration of students in learning to listen. Even this noise can disturb the condition of students.

E. Research Scope

This research is focused on the effect of traffic noise on the Indonesian EFL students listening comprehension in a senior high school for 11th-grade students. Moreover, how students respond to traffic noise while studying and student and teacher perspectives in dealing with traffic noise during learning.

F. Conceptual Framework

Noise is one of the harmful effects that occur in our modern life. It is unpleasant, can interfere with activities, and can be physically, psychologically, physiologically, and socially harmful. The noise is caused by the side effects of urbanization and industrialization. Distraction is a typical psychological response to noise. Disturbance from this noise will cause a person to feel stress, headaches, hearing loss, and so on. Noise can also interfere with a conversation. Communication disorders lead to

misunderstandings in speech. Interference with activity may be a source of more significant distraction. This noise disturbance is associated with various types of activities and is a direct effect of noise on conversation, mental, concentration, or recreation. However, noise can also interfere with a child's development in learning, affect fertility outcomes, and interfere with concentration, and impair the immune system. A study shows that aircraft noise can affect teachers' performance and professional attitudes when teaching at schools near airports. Noise caused by traffic is the most common nuisance; around 62% of the city's population and 86% of workers in the workplace are disturbed by noise. Especially in schools, because teachers need a quiet place and more concentration to teach their students, students also need a quiet place to concentrate on learning thoroughly. We studied their level of irritation caused by traffic noise.

The influence of noise can cause some disturbances to students' hearing, communication and intelligence. In recent years, noise has been recognized as one of the major concerns affecting the quality of life in urban areas worldwide. It can be seen in New York that traffic noise is not a new problem, but it must be addressed as soon as possible for the convenience of urban people because 54% of the world's population lives in urban areas, and it is expected to increase to 66% by 2050. Projections show that urbanization, the gradual shift in residence of the human population from rural to urban areas, combined with the overall growth of the world’s population could add another 2.5 billion people to urban areas by 2050, with close to 90% of this increase taking place in Asia and Africa (World Urbanization Prospects, 2018).

The main impact caused by noise in urban areas is experienced by students, especially in schools near the highway. Noise exposure to the sound of large vehicle engines includes noise pollution, which can cause distraction and stress in studying and working. The negative impact of this noise will be worse if a school uses an open classroom design or is located close to the noise source.

Noise in the school environment will significantly affect the teaching and learning process. A better learning model will be needed to assist an effective learning

process. This process requires good verbal communication, especially at the beginning of school life when children are developing listening strategies, thus interfering with understanding certain activities in terms of not being able to hear complete statements because the sound is faint due to noise in the school environment. In addition, it can interfere with concentration during school activities and can even cause a decrease in students' academic achievement because they continue to study in noisy conditions.

Noise can inhibit students from increasing their interests and talents, in which the environment is one of the main factors in optimizing individual performance in daily activities. Students learning situations contribute to the development of their interest in specific learning so that if learning is hampered by noise, students will feel distracted and unable to concentrate fully.

G. Previous Studies

In this subsection, several research studies about traffic noise. The research does not find research with the same title as another research title from previous research. However, there are several gaps from this study.

1. First (Research focus & Research site)

The method used in this research is mixed method. The data was collected by questionnaire and listening test with respondents living in areas close to noise.

Moreover, Dinceri et al. (2015) studied a noise annoyance model using listening tests by examining factors affecting road traffic noise annoyance levels. This research uses a mixed method. The data was collected by questionnaire and listening test with respondents living in areas close to noise. The result of this research is that the volume and speed of traffic are proven to disturb the community around the main road. This study was conducted to improve good strategies and not interfere with learning in schools close to major roads.

This research has the same focus specially to improve strategies so that schools close to major road are not disturbed. Furthermore, research sites have something in common, namely traffic noise which can disrupt community activities, especially

school close to major road. Besides that, there are differences such as the method used is a qualitative method with a case study, research purposes are more towards listening comprehension which is disturbed by traffic noise, and also the data was collected with questionnaire and interview without listening tests.

2. Second (Research problems)

Regarding on the background study, this research focused on the effect of traffic noise in the classroom while learning listening comprehension.

Yang et al. (2017) conducted to determine the effect of noise on Chinese students' English listening comprehension. This study uses a mixed method. This data was collected by 89 participants with different learning styles as measured by Kolb's (1985) Learning using observation and tests. This study shows that differences in Chinese students' learning styles can cause differences in behavior in the understanding of listening to foreign languages. The authors declare that the research was conducted without any commercial or financial relationships construed as a potential conflict of interest.

Meanwhile, Chen et al. (2021) showed that how much traffic noise and classroom reverberation interfere with student learning. The data was collected by experimental on Chinese university students to study the effects of classroom reverberation time (RT) and traffic noise level (TNL) on English listening comprehension (ELC) The result of this study is that poor classroom acoustic environments (especially traffic noise) have significant adverse effects on Chinese university students' English listening comprehension performance, which can be influenced by seat positions and students' factors. The findings can be used as a reference for the acoustic research and design of Chinese university classrooms, especially for English-teaching classrooms in China.

Furthermore, research was conducted by Ouis (2001). The research title is Annoyance from Road Traffic Noise: A Review. This study aims to observe the effects of traffic noise on the welfare of disturbed people. This study uses a quantitative

method. The data was collected by comparison between exposure implications for different noise sources. It is essential at the community and individual level to help organize a better way of planning noise-producing activities to ensure comfort for the affected population.

However, this study is different from previous research in that the majority of the traffic noise on language learning which requires a mixed method techniques to examine the noise problems that occurs among language learners. While on this study employs a qualitative approach with a case study should be more successfully attract attention to the reality of how people perceive and respond of these phenomena. The purpose of this study is to investigate students' attitudes toward traffic noise and to find out students' and teachers' perspectives on traffic noise.