

# CHAPTER I

## INTRODUCTION

### 1.1. Background

According to Toroyan (2015) the number of road traffic deaths globally has plateaued at 1.25 million a year. Almost half of all deaths on the world's roads are among those with the least protection motorcyclists, cyclists and pedestrians. Over 90% of the world's fatalities on the roads occur in low-income and middle income countries, where rapid economic growth has been accompanied by increased motorization and road traffic injuries. Indonesia is the third ranks in Asia for the highest of deaths from traffic accident under China and India with the total of 38.279 deaths in a recent year. Soehodho (2009) in his study mentioned that as many other countries may recognize that there are three main causes of traffic accidents namely, human factors, vehicle factors, and road and environmental factors, Indonesia also has there. Table 1.1 indicates the contribution of the three factors in traffic accidents, wherein it could be seen that the human factor occupies the largest portion for the total number as well as categorized in their impacts, namely deaths, heavily injured and slightly injured that remain above 90%.

Table 1.1. Three Factors of Traffic Accident

Factor	Traffic accident	Dead	Heavily injured	Slightly injured
Human	93%	92%	90%	90%
Vehicle	4%	5%	6%	7%
Road and environment	3%	3%	4%	3%

*Source:* Soehodho, 2009

Yogyakarta city is the part of Special Region of Yogyakarta, Indonesia. Besides known as a cultural tourism city, Yogyakarta is also known as a student city because nearly 20% of its productive population are students. So many young people all over Indonesia are studying in Yogyakarta whose area is only 0.017% of the land area of Indonesia. Yogyakarta is also known as a tourist destination after Bali, it can be understood that Yogyakarta is Indonesia miniature (Purnamasari & Ansusanto, 2016).

According to the data from Central Bureau of Statistics 2015 total population of college students in Yogyakarta province is about 353.293 people (Badan Pusat Statistik, 2015). The population increasing as well as the traffic conditions. As a consequences of this increased is road users will face a higher risk of traffic accident. It is because road users spend more time in traffic and human error always happens when traffic on the road such as road users often do not have a good understanding of parts of the traffic such as traffic signs.

Traffic signs are part of the overall traffic signalization system to give instructions or provide information to road users. The signs deliver messages in symbols, letters, numbers, sentences, or a combination of them which serve as a warning, regulatory, command or guide for road users (motorists, and pedestrians etc). It is made to achieve road safety and reduce traffic accidents and fatalities. (Munawar & Setiadji 2016).

However, there are few studies understanding of traffic signs by road users. Understanding of the rules of traffic signs is very poor, as evidenced by many traffic violations that ultimately lead to personal accidents or accidents involving others

or other road users. Most of the perpetrators of violation of traffic signs are road users without a basic understanding of the meaning of the traffic signs used in each road segment. This research is aimed to discuss about how understanding the road users of the traffic signs in Yogyakarta and correlation with the traffic accident. Results will be expected to help government to know the level understanding of traffic signs and correlation with the traffic accident.

### **1.2. Problem Statements**

Traffic signs function as an aid for road users on the road to increase the traffic safety on the road. Hence, it is important to ensure that road users understood well the traffic signs on the road. The following research questions were formulated to further examine the problem statement:

1. To what extent the understanding of traffic signs by road users in Yogyakarta with respect to their personal characteristic such as gender, college, semester, origin, liscence, and study experience.
2. To what extent the road users are obey the traffic signs?
3. Is there correlation between traffic accident and level understanding of traffic signs?

### **1.3. Problem Limitations**

The limitation of this project are:

1. The observation area limited along Babarsari, Seturan, and Maguwo area.

2. The respondent are the college students who studying in Yogyakarta and ever been passing the observation location.
3. This research using traffic signs along observation location.

#### **1.4.. Research Objectives**

This study is aimed to:

1. Examine the understanding of traffic signs by road users in Yogyakarta with respect to their personal characteristic such as gender, college, semester, origin, liscence, and study experience.
2. Identify the road users behaviour whether obey or not obey the traffic signs.
3. Identify the correlation between traffic accident and level understanding of traffic signs

#### **1.5. Expected Benefits**

The result of this study is expected to be useful for various parties, among others:

1. For the government: This research can be as references to know how extent the road users understanding of traffic sign and correlation with the traffic accident, then the government can give the illumination to the road users in order to increase the traffic safety and obeying the traffic signs in Yogyakarta.

2. For academicians/ readers: This research can give information related to the importance of understanding the traffic signs as a road user due to increase the traffic safety and obeying the traffic signs

#### **1.6. Originality**

After reviewing the available literature, there are several previous researches similar to this final project that discuss about traffic signs, such as:

1. Drivers' Comprehension of the Traffic Signs (Munawar and Setiadji, 2016).
2. Understanding of Traffic Signs by Drivers – A Case of Akure City, Ondo State, Nigeria (Makinde and Opeyemi, 2012).
3. Analysis of comprehension of traffic signs: a pilot study in Ankara, Turkey (Kirmiziloglu, 2010).

#### **1.7. Outline of the Final Project**

This study consists of Chapter 1 until Chapter 5. The first chapter explains the background, problem statements, limitations, objectives, expected benefits, originality of the study and outline of the final project. The second chapter is written to discuss the related study and literature review of the previous studies that have been conducted to support this study in gaining and emphasizing more understanding and knowledge, and also this chapter consists of basic theory explained the formulas that will be used in this study. Meanwhile, the third chapter comprises the methods that will be used with explanations contained within as well as flow chart

for this study. In fourth chapter, discussed the data analysis and results and for the conclusion and suggestions/recommendation will be discussed in the the fifth chapter contains as the results of the study has discovered.

