

## LEVEL OF UNDERSTANDING OF ROAD RULES AMONG ROAD USERS IN SRI LANKA.

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**ABSTRACT** – Although, numerous studies have been conducted in Sri Lanka related to traffic accidents, the level of understanding and awareness of road rules have not been investigated over decades. Therefore, the objective of this paper is to examine the awareness and level of understanding on road rules and penalties among road users in Sri Lanka. The data collection was done through online questionnaires and direct questionnaire surveys with a stratified sample of adequate magnitude, for analysis of the current impacts related to the safety and convenience of the public on road transportation. 359 participants' survey data were used in the analysis. The study findings revealed that 67.6% of pedestrians and 75.44% of private vehicle users are aware of the relevant road rules, while only 9.86% of pedestrians and 21.05% of private vehicle users have knowledge of the related fines and law enforcement consequences for those rules' violations. The results of this study have important implications for policy makers (Sri Lankan Government, Road Development Authority, Sri Lanka Police, National Transport Commission etc.), as well as for the general public including vehicle users and pedestrians.

**Keywords:** Road Safety Regulations; Public Knowledge on Road Rules; Violation of Road Rules and Regulations; Pedestrians; Accidents.

### 1. INTRODUCTION

Statistics from 2019 show that over 33,567 road accidents occurred in Sri Lanka, and lead to 2829 deaths [1]. Inadequate knowledge of road rules and penalties among road users are significant factors leading to road accidents [2]. Most of the past research has been focused on accident trends over the years and revealing the risk factors affecting the occurrence of road accidents. Hence our study opted to focus on investigating the level of understanding about road rules among the public and measures taken by authorities to enhance awareness. Furthermore, suggestions and recommendations will be given to spread awareness among the general public to increase their level of understanding on road traffic rules. This study focuses on some of the selected road rules since it is a broad area to capture all the road rules applicable in Sri Lanka. The level of understanding about pedestrian rights and rules, parking rules, road markings, traffic signal lights, road signs and cyclist rights and the applicable rules were evaluated. Experts on road traffic acts, and law enforcement regulations from local authorities (such as police officers) have been interviewed to obtain knowledge on the measures taken to spread awareness and law enforcements to avoid road rule violations.

# 1. MATERIALS AND METHODS

## 1.1. Data Collection and Analysis

As the main study area for conducting on site surveys, some main suburban road corridors in Colombo were selected, where the activity rates are possible to fulfil the objectives of the research with adequate physical safety features such as pedestrian crossings, on street parking facilities, different geometric features, bus holts, schools, and mixed land use environment etc. Further, online questionnaires were disseminated to collect data from the general public representing different districts in Sri Lanka. Face-to-face interview surveys were conducted for a duration of 2 weeks, on both weekdays and weekends considering busy and non-busy hours of the road transportation in Colombo suburbs. Survey data of total 359 participants were obtained through the primary data collection process, comprising 71 pedestrians, 57 private vehicle users, 183 representing the general public, 8 traffic police officers, 2 police stations, 8 commercial centers, and 30 cyclists in different land use areas including, Keells supermarkets, Universities, traffic Police Divisions, and Colombo Port (Passenger Terminals).

# 2. RESULTS AND DISCUSSION

## 2.1. Pedestrian Crossings, and Walkways

Pedestrians are highly vulnerable to road accidents and is caused due to negligence of pedestrians and unsafe crossing practices [3]. Hence, it is intended to investigate pedestrian’s level of understanding of road rules, regulations, and rights specifically in pedestrian crossings and at walkways. It is observed that 67.6% of pedestrians are aware about the pedestrian rules and rights but only 9.86% have knowledge about the penalties for violations. 90.1% have done illegal road crossing at their regular commute but only 31.0% of them don’t have adequate awareness about the law enforcement. Apparently, there are no strict law enforcements executed, and it also influences people to violate the rules on pedestrian’s crossings. Attitudes, laziness, and expected convenience of reaching to the intended location through shortest path are among the other reasons for majority of people to tend to cross the road other than pedestrian crossings.

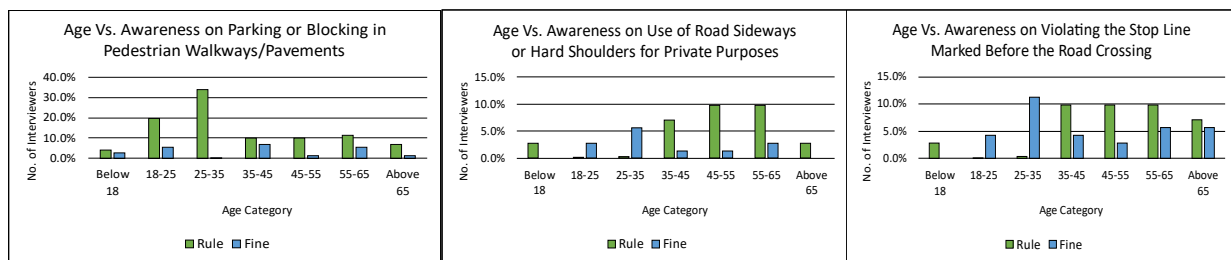


Figure 1,2,3. Age vs Awareness about the Road Rules and Fines

## 2.2. Vehicle Users and Cyclists.

Vehicle users were examined separately regarding awareness about parking related rules. Illegal parking affects clear visibility of the road for moving vehicles or pedestrians which causes road accidents. 75.44% of vehicle users out of total sample were aware about the road rule related illegal parking but only 21.05% was knowledgeable about the fines or penalties for the violations. Also, out of the vehicle users who are aware that vehicles cannot park near a junction, 77% of them were unaware about the legal distance. Lack of awareness about law enforcement and road rules, lack of adequate parking space nearby, attitudes or ignorance of rules, granted permission by authorities, are the indented factors for influencing vehicle users to violate parking rules. It was identified there are

no adequate parking facilities nearby the Passport Office at Battramulla and therefore parking-related violations are frequent in this area. Findings shows that out of total interviewed cyclists, 93.3% do not feel that there's a safe road environment for them and 90.0% do not feel there is adequate law enforcement for safety of cyclists. Most importantly, 70.0% of cyclists have faced inconveniences while traveling on cycle lanes.

### 2.3. Level of understanding of road rules among the general public and suggested methods to increase awareness.

By disseminating online questionnaires, a sample size of 183 was collected from the general public. This questionnaire examined the public knowledge on pedestrian crossings, cyclist lanes, road markings, traffic signal lights and road signs through 12 questions collectively. Further, Table 1, shows the percentage of people who scored above 80% by answering the questions correctly.

**Table 1.** Participants' percentage who score above 80% of awareness level for different road rules sections.

About Rules related to Pedestrian crossing	About Cyclist Lane	About Road Markings	About Traffic signal Lights	About Road signs
32.79%	53.3%	44.81%	89.07%	0%

Considering all the pedestrians, vehicle users, cyclists, and the general public 74.60%, and 68.81% of people are not satisfied with the government and media contribution to spread the awareness about road safety among the public. It is identified that 99% of road users have any kind of access device to media and the internet, hence using social media and tv channels to showcase about road accidents, road rules and enforcements through creative and informative media will be make a great impact. Further, including knowledge about road rules, accidents, and law enforcement in the school education, conducting awareness programs about road rules, law enforcements and road accidents targeting employees, pedestrians, school children are the recommended strategies to enhance awareness about road rules and law enforcement among the general public.

### 3. CONCLUSION

It is evident that the majority of respondents are unaware about the fines and penalties for the road rule violations. It was also clear that they did not have adequate knowledge about the road rules. According to the study it is recommended to use all kinds of media and education to disseminate education and spread awareness about road rules. The government and local authorities should take the lead to enhance the awareness about road rules among the public. As an extension of this work, it is intended to increase the sample size to provide a more representativeness of participants from different sectors of the society.

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