The Effective Way to Create Awareness among Express Bus Passenger in Using Seatbelt within West Coast Malaysia

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Abstract

In an effort to reduce the number of fatalities in road accidents especially those involving busses, it was proposed that all busses on Malaysian road are fitted with seatbelts. With the development and design of seatbelt sign indicator system, this study tries to evaluate the effectiveness of using the sign indicator system which was designed to indicate usage of seatbelts. From the survey and focus group conducted, it was found that the product is feasible to be implemented on busses and this study should be able to educate Malaysians in understanding the usage and effectiveness of seatbelts in busses.

Keyword: Seatbelt, Sign Indicator.

Introduction

Road accidents impose a major health and social problem in Malaysia. Road accidents especially those involving busses have always been a major problem in Malaysia as the number of fatality recorded was high**.** Thus, there is an urgent need to implement a known and effective intervention to reduce the severity of injuries sustained by accidents victims. Seatbelt usage in vehicles is mandatory and is a known intervention to reduce injury severity in road accidents. It is a passive safety measure which is categorized as a vehicle safety feature. Even though the effectiveness of seatbelt usage is well-documented, it was reported by the Royal Malaysian Police that in Malaysia there are approximately 350 deaths recorded every year due to accidents related to unbelted passengers.

In anticipation of mandatory seatbelt use, the Malaysia Road Safety authority has already incorporated seatbelts into its integrated approach to reduce accident facility in Malaysia. It was also reported that installation of seatbelts will be made compulsory for new buses, in line with the international standard as set by Act 80 of the United Nations Economic Commission for Europe. If seatbelts usage legislation were to be implemented, the major issues to be addressed are technical and social in nature. The foremost technical issue would be to ensure that all buses in Malaysia are fitted with seatbelts. While the social issue to be addressed is accessibility to seatbelts use.

Literature Review

Seatbelts were designed for cars, and have saved thousands of lives. Busses are much larger, higher and heavier than other vehicles on the road, so they have a body-on-frame design.

For seatbelts to enhance rider safety, the bus body would have to be completely reengineered with seatbelts integrated at the design state. Beyond the engineering problems, someone would need to ensure the seatbelts are used, adjusted properly between uses by small and larger children, and repaired when damaged. In an emergency, seatbelts could hinder evacuation .

When the Deputy Transport Minister, Datuk Seri Lajim Ukin proposed to make it compulsory for passengers of express and tour busses to wear seatbelts, a study featured in The Star (Jun 5, 2008) found that certain parties questioned whether the rule to make compulsory usage of seatbelts on busses would actually bring change and if its implementation was feasible. Public advised, "that it would be difficult for Malaysians to abide by the rule since they have been mostly travelling without wearing seatbelts in a car or bus" (Mohd Azhar, 38, a taxi driver from Wangsa Maju). Pan Malaysian Bus Operators Association (PMBOA) President, Datuk Ashfar Ali told The Star "the driver is supposed to concentrate on driving, not making sure the passengers belt up". He pointed out that although the driver could ask passengers to wear the belts before depature, they could remove the belts during the journey. He proposed rules similar to those compelling aircraft passengers to belt up be put in place, and fines be imposed on defiant passengers. However, there were also those who supported the rule. "Felt that the move reflected the government's concern about public safety and buckling up should not be a hassle" (Allauddin Anwar, 49, an economist from Putrajaya). "I support the move as it can prevent passengers from being thrown during accidents" (Mohd Nasir Abdullah, 51), (The Star, 2008).

Objectives of the Study

The main objective of the study is to study the effectiveness of implementation usage of sign indicator system designed to indicate usage of seatbelts. And, with the help of a focus group, the study is to test the usage of sign indicator system. It will help:

1. To evaluate either passenger or bus driver understand the concept of indicator to impart basic safety warning of seatbelt safety.
2. To evaluate whether passenger and bus driver understand the symbol shown on express bus.
3. To evaluate whether the wording and numbering successfully communicate with the passenger and bus driver.
4. To evaluate whether effectiveness of sound and light successfully communicate with passenger and bus driver.
5. To evaluate whether bus driver understand the technology of touch screen that displays the product.

Research Methodology

The researcher focused on using questionnaires, interviews and a focus group in completing the study. The questionnaire prepared was divided into two parts, of which part one was used to gather demographic details of the respondents and the second was related to driving behavior, experience in riding express busses and effectiveness of seatbelts in express buses. Interview was done to get opinion on seatbelt usage in express busses. A focus group was carried out to test and evaluate the sign indicator system. The focus group was given the opportunity to explore the effectiveness of the system. Eight categories of the system evaluated through the focus group. The categories included:

1. Concept of indicator.
2. Symbol understanding.
3. Wording and numbering.
4. Effectiveness of sound and light.
5. Technology of touch screen.
6. New regulation.
7. Category of product.
8. Preferable product.

Design sketch and development

Figure 1.1 : Sign Indicator Warning.

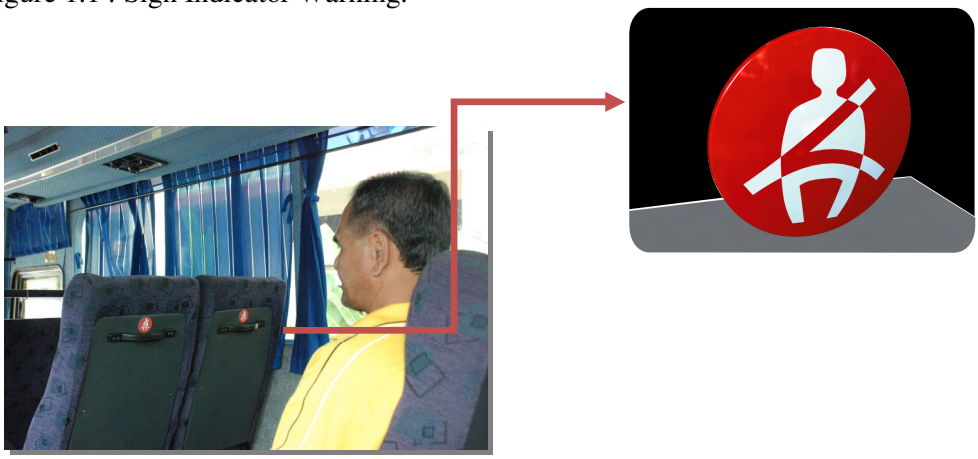


Figure 1.2 : Main sign indicator warning system box.

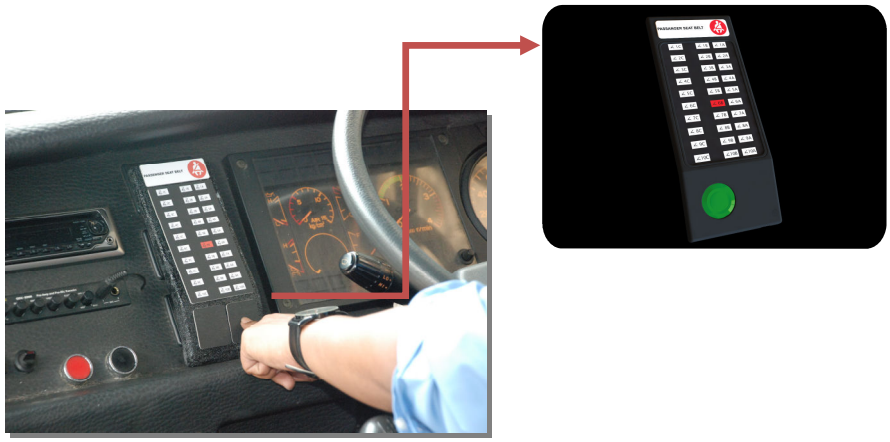


Figure 1.3 : Signage indicator digital transmitter.

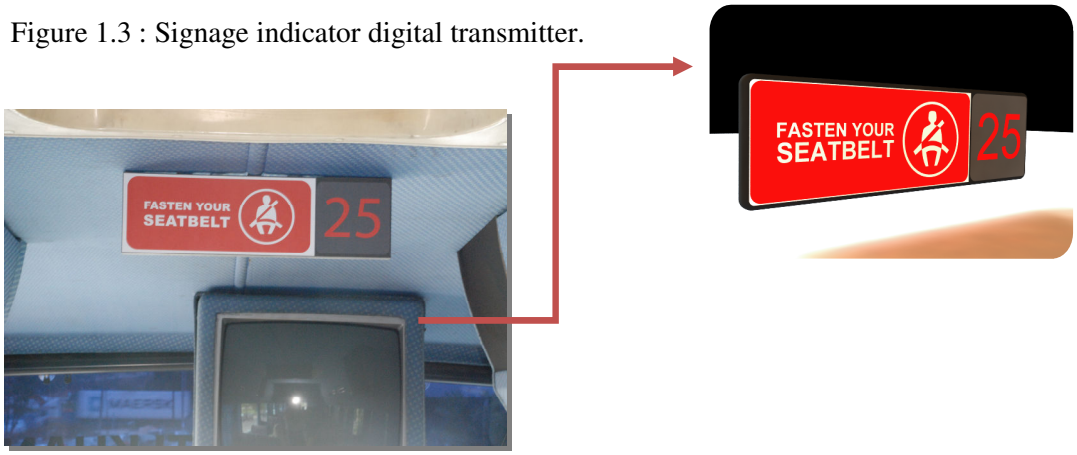
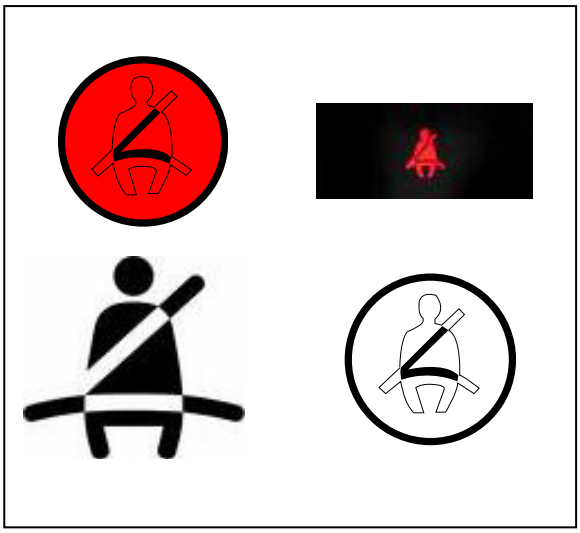


Figure 1.4 : Seatbelt symbol indicator.



Discussion

It was found that 82.6% respondents of the questionnaire agreed that express busses in Malaysia do not have seatbelts. On top of that, 100% respondents preferred not to buckle up even for long journey ride.

Meanwhile, through the focus group observation, it was established that the drivers involved responded well to all evaluation categories evaluated. The focus group understood the overall concept of the seatbelt sign indicator system. All respondents were able to understand the indicator concept to impart passenger's safety. They also understood the meaning of symbols used on the product. The focus group respondents were able to comprehend the technology of the touch screen used. The effectiveness of sound and light used in the product was also highly appreciated by respondents.

Conclusion and Suggestions

The aim of this study was to find out whether the usage of sign indicator system is feasible in relations to the effort of implementing the implementation of mandatory usage of seatbelts. On addition to that, this study also tested and evaluated the proposed product. This study concluded that the product proposed and tested is feasible and this study should be able to educate Malaysians in understanding the usage and effectiveness of seatbelts in busses.

The researcher recommends the development and usage of such proposed product as it is high time for the public and government to give attention to the usage of seatbelts in order to reduce the amount of fatalities in accidents involving busses.

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