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GROWING UP SAFE: INSIGHTS FROM MALAYSIAN ROAD SAFETY EDUCATION PROGRAM ON IMPROVING ROAD SAFETY BEHAVIOURS

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Abstract: Globally, deaths caused by road traffic injuries show an estimated a million deaths each year (WHO, 2018). Appallingly, road traffic injury is identified as the number one cause of death for children and young adults. Children are more vulnerable due to their physical fragility. Road safety education (RSE) is one of the integrative approaches that is chosen to intervene with the issue. RSE is any program or measure that focuses on promoting the knowledge of traffic rules and situations and the improvement of skills through training and experience. Malaysia implemented RSE at schools with the same aim. The present study aims to empirically analyse the association between the level of usage of the RSE module and the knowledge gained on road safety on the self-reported behaviour of students after a newly revamped RSE module was introduced in 2019. The students were selected by choosing sample schools from districts with the highest number of deaths among children aged seven to nine years old. It is hypothesised that the level of usage and the level of knowledge of these children is associated with their positive self-reported road safety behaviours. A multi-linear regression analysis showed that the model failed to predict self-reported behaviour as the model only explained 3.6% of the variance. Nevertheless, it was found that the usage level of RSE module significantly predicted the level of self-reported behaviour (B=0.191, p=0.000) but the level of knowledge failed to predict the self-reported behaviour (B=0.115, p=0.228). The results showed that the level of knowledge did not translate into behaviour. Continuous empirical study is essential to be conducted to ensure the program is guided by science to ensure the most effective implementation.

Keywords: Road Safety Education (RSE), middle childhood, road safety knowledge, road safety behaviour

Introduction

Recently, deaths caused by road traffic injuries has become one of the major problems globally. This is supported by the Global Status Report on Road Safety produced by the World Health Organization (WHO) in 2018, in which road traffic fatalities and injuries is estimated to be one million deaths each year. According to Royal Malaysian (RMP) (2019), 6,167 deaths and 15,044 injuries were recorded in the year 2019 only. A significant reduction can be seen in the year 2020 but only attributed to the Covid-19 pandemic, where the government enforced Movement Control Order (MCO) and travel restrictions (RMP, 2020).

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For people of all ages, road traffic injuries have been identified as the eighth (8th) cause of death (WHO, 2018). From the statistics of road traffic deaths and injuries, children become wrongful victim though they are not the one who drives behind the wheel. This is translated into statistics as road traffic injuries is identified the number one cause of death for children, adolescents, and young adults from 5 to 29 years of age (WHO, 2018). Meanwhile, a 10-year analysis by Royal Malaysian Police (RMP, 2019) showed that 7.25% of all road traffic deaths in Malaysia were children. The alarming situation does not occur only in Malaysia but in other countries too, such as Singapore, where crashes involving children who are motor vehicle passengers, pedestrians, cyclists, and motorcycle pillion riders were recorded each year (Lee et al., 2018).

Children are more susceptible to the consequences of injury because of their relative physical fragility (Franky, 2022). In Malaysia, many efforts have been made to reduce deaths caused by road traffic crashes. One of the initiatives is the implementation of Road Safety Education (RSE) as one of the courses for primary school children. The measures became a national policy when RSE was listed as one of the E's in 4E (Education, Enforcement, Engineering and Environment) aspects identified to reduce deaths caused by road crashes (Pelan Keselamatan Jalan Raya Malaysia 2022 – 2030, 2022).

Statement of the Problem

Since 207, RSE has been an official element in Bahasa Melayu (BM) subject known as Pendidikan Keselamatan Jalan Raya (PKJR) in Malaysia. The aim of having PKJR embedded in the BM subject is to incorporate road safety themes by accomplishing the learning outcomes of BM. This is aligned with the recommendation by WHO in which RSE was introduced as one of the intervention modalities that traditionally took place in a classroom setting. In 2016, a project was launched to revamp the old module of RSE, which has been used since 2007, to suit the new curriculum. And in 2019, the newly developed module has been used widely in Malaysia. Since then, there are no studies have been conducted to measure the effectiveness of the newly developed RSE. Hence, an empirical study has to be conducted focusing on RSE implementation.

Significance of the Study

Therefore, from the current study's findings that focus on the effects of RSE implementation, an incredible array of knowledge can be established that is significant to the Malaysian context and settings. The results enrich the knowledge revolving around the effectiveness of RSE to equip students with road safety knowledge and to affect their behaviour. The findings of this study will also guide policy implementation related to RSE in the Malaysian context. Since one of the aims of RSE in Malaysia is to cultivate a culture of accentuating road safety, it is expected road traffic crashes can also be reduced if most Malaysians are safer road users. Thus, a scientifically guided RSE can significantly

contribute to a reduction in road traffic deaths and injuries by at least 50 % in 2021- 2030, which was declared in the Decade of Action for Road Safety 2021-2030 by WHO (WHO, 2021). The study is also in line with the United Nations (UN) Sustainable Development Goals (SDG), which covers goal number 3, which is to Ensure healthy lives and promote well-being for all ages.

Research Questions and Objectives

The current study aims to empirically analyse the association between the module's usage level and the level of knowledge gained on the students' self-reported behaviour in their middle childhood. The current study expects to answer the questions of whether association exists between the variables mentioned above and whether the knowledge is translated into their self-reported behaviour. Hence, it is hypothesised that level of usage of the RSE module and the level of knowledge on road safety is associated with positive self-reported road safety behaviour.

Literature Review

According to Dragutinovic and Twisk (2006), Road Safety Education (RSE) is defined as any program or measure that focuses on the promotion of knowledge and understanding of traffic rules and situations, improvement of skills through training and experience, and strengthening and changing the attitudes towards risk awareness, personal safety, and safety of other road users. In addition to that, RSE can also be agreed as any educational action that incorporates road safety topics in its curriculum (RSEV, 2019). RSE has also been described as a promising approach from the behavioural perspective to change the present and future road behaviours (Alonso et al., 2020). Moreover, additional knowledge instil during RSE is anticipated to be translated into the student’s behaviour and aims to lessen the harm resulting from road traffic injuries (Masilamani et al., 2022). However, the RSE program must be tuned to children’s developmental needs to deliver the knowledge effectively including using a more integrative approach (Franky, 2022).

Elkington and Hunter (2003) concluded in their review that various RSE programmes had been conducted in developed countries, and most of the programmes focused on one theme, and the countries preferred a practical approach to teaching the school students. In their findings, Berry and Romo (2006) also concluded that RSE has been a common approach used in Europe to teach children and adolescents about road safety. In Belgium, Traffic Week, an RSE programme, is conducted as a large-scale school-based road safety education programme that focuses on increasing knowledge and understanding of traffic rules and situations, in addition to increasing and reinforcing positive attitudes toward risk awareness, safety and safety of other users (Riaz et al., 2019). In a report funded by the European Commission (2005), compiled European’s best practice guide on RSE, some of the listed programmes listed are focusing on pedestrian safety training, such as the one conducted in Denmark with a pedestrian

crossing test, RSE in Lyon (France) focused on preschool children, Look and Buckle Up (Austria), Let's Decide Walkwise and Right Start in the United Kingdom. In the same report, the European Commission (2005) also listed practical training on pedestrian safety as effective in teaching school students to assess vehicle speed and the programmes listed as Watch Out (Germany) and Top Rider dan Hello Auto (Austria). Therefore, Malaysia is on the right track as RSE has set its place officially as one of the road safety initiatives though the programme might differ in terms of the implementation and the instructional method chosen.

Some examples shown above also illustrate that RSE programmes have and can be conducted in many forms and formats worldwide. Alonso et al. (2020) mentioned that RSE could be reinforced using different interventions and strategies compared to a traditional classroom setting. Masilamani et al. (2022) used Peer-Led Education, one of the credible approaches to influence students to change their behaviour for the better, by using peers with higher self-esteem, self-confidence, and the ability to teach information and skills. On the other hand, Zainafree et al. (2022) use social media's popularity in conducting their RSE, in which Zoom meeting discussions, short videos, and social media posters are used. That is common in adolescents' life which is social media. Another approach for the popular interventions is witness testimonials in which the approach uses road accident survivors to share their experience and discuss the experience, especially for pre-drivers age (Bojesen & Rayce, 2020; Cuenen et al., 2016 and Feenstra et al., 2014). Another non-traditional approach is by Ahmad et al. (2018), where interactive discussion about road traffic injuries (RTI) prevention was incorporated into a reading session using a bilingual pictorial storybook, Biloongra. However, as we know, in the Malaysian primary school curriculum, most of the learning experience of school children occurs in the classroom only. Regrettably, RSE in Malaysia is still conducted in a traditional face-to-face classroom setting.

Fin L.S. et al 2019 in their study revealed that a significant difference between pedestrian behaviours and different ages. This study was conducted among children 7 to 9 in Malaysia. The study uses post hoc comparisons using the Tukey HSD test and they found that the mean score of safe pedestrian behaviours for 7-year-old children was significantly higher than that of 8-year-old children ($p = .004$) and 9-year-old children ($p = .021$). Meanwhile another study in Spanish by Alonso et. Al 2020 found that children's self-reported safe behaviours on the road show a positive relationship with road safety education programs.

Methods

Study Design

Location selection for this study is based on the number of high accident statistics that occurred in each state and region throughout Malaysia. Six (6) districts have been chosen to represent the entire country. Six (6) District Education Offices (PPDs) will serve as the center of communication and administration before researchers move on to collect data from selected schools.

Table 1 below shows the locations involved by state and zone in this study.

No.	Region	Zone	State	District/PPD	Type
1	Malaysia Barat	Utara	Kedah	Kubang Pasu	Rural
2		Tengah	Selangor	Kuala Selangor	Urban
3		Pantai Timur	Kelantan	Kota Bharu	Urban
4		Selatan	Johor	Batu Pahat	Rural
5	Malaysia Timur		Sabah	Kota Kinabalu	Urban
6			Sarawak	Miri	Rural

Participants and Sample

Stratified sampling techniques were used to select a sample that could represent the entire country. The selection of schools was done randomly based on six regions to represent the entire Malaysia. For each region, one state and District Education Office (PPD) were selected based on high accident statistics for children aged 7 to 15 years old, as reported by the Royal Malaysian Police. A list of schools for each district was provided by the PPD based on facilities such as pedestrian walkways, proximity to main roads, and other factors.Once the number of schools for each district was obtained, the number of samples for each school was identified, involving students from year 1, year 2, and year 3. The number of school samples for data collection techniques is as shown in Table 2 below.

By using this sampling technique, the study aims to collect data from a diverse range of schools across the country, representing different geographic, demographic, and socio-economic backgrounds. This will allow for a more comprehensive analysis of the underlying factors contributing to road accidents among children in Malaysia, and inform the development of more effective road safety strategies in the future. Table 2 provides a breakdown of the number of school samples for each district, based on the stratified sampling technique used in this study. This information will be used to guide the selection of schools and ensure that the sample is as representative as possible. By collecting data from a range of schools across different regions, this study aims to provide valuable insights into the factors contributing

to road accidents among children in Malaysia and help inform policies and interventions aimed at improving road safety for all.

Table 2: The number of samples

Region	**State**	**PPD**	**Structured Interviews**			**Total**
			Year 1	**Year 2**	**Year 3**	
Malaysia Barat	Kedah	Kubang Pasu	241	239	240	720
	Selangor	Kuala Selangor				
	Kelantan	Kota Bharu				
	Johor	Batu Pahat				
Malaysia Timur	Sabah	Kota Kinabalu				
	Sarawak	Miri				

Measures and Instruments

This study involves structured interviews conducted from November 2022 to February 2023. Researchers will conduct interviews with primary school students based on pre-arranged appointments. The structured interviews will use a standardized set of questions provided by the researchers. A questionnaire will be divided into four sections, namely Section A on demographics, Section B on children's road behavior, Section C on road safety knowledge, and Section D on the use of the Road Safety Education Module.

During the structured interviews, researchers will ask a series of questions to collect data on children's attitudes, knowledge, and behaviors related to road safety. The interviews will be conducted in a systematic and standardized manner to ensure consistency and reliability of data across all participants. The questionnaire is divided into four sections to cover different aspects of road safety. Section A will collect data on participants' demographic information, including age, gender, and other relevant details. Section B will explore children's behavior on the road, such as crossing the road and using pedestrian walkways. Section C will assess participants' knowledge of road safety, including road signs and traffic rules. Section D will gather information on the use of the Road Safety Education Module, which is designed to promote safe road behavior among children.

The use of structured interviews and questionnaires will allow for the collection of standardized and consistent data across all participants. This will enable researchers to analyze the data more effectively and identify patterns and trends related to road safety behavior among children in Malaysia. The findings of this study will provide valuable insights into the factors contributing to road accidents among children and inform the development of more effective road safety policies and interventions.

Table 3: Research instruments and the details

Research Instrument	**Aspect Involved**
Section A	Demographics The demographic section contains information about the respondents. However, the respondents' identities will not be disclosed in the report or any publications related to this study. This is to comply with the requirements set by the Ministry of Education. When applying for permission, the researcher ensured anonymity of the respondents.
Section B	Children's Road Behavior (knowledge, attitude, and practices). The items in Section B cover topics taught in the Road Safety Education Book (PKJR). The questions asked are about common behaviors that should be practiced by children, such as wearing appropriate clothing when going out and safe ways to cross the road.
Section C	Road Safety Knowledge The items for students identify vehicles, road infrastructure, vehicle safety components, safe places to cross, and safe places to cross.
Section D	Use of the Road Safety Education Module. The items asked about teaching and learning sessions in the classroom and sharing PKJR knowledge with family members.

The four sections of the questionnaire cover different aspects of road safety behavior among children. Section A provides demographic information to better understand the characteristics of the respondents. Section B assesses children's behavior on the road, including knowledge, attitudes, and practices related to road safety. Section C evaluates children's knowledge of road safety, including vehicles, road infrastructure, and safety components. Finally, Section D focuses on the use of the Road Safety Education Module and how it is incorporated into teaching and learning sessions in the classroom and shared with family members. By using a structured questionnaire that covers various aspects of road

safety behavior, this study aims to collect comprehensive data that can provide insights into the underlying factors contributing to road accidents among children in Malaysia. The findings of this study can inform the development of more effective road safety policies and interventions aimed at reducing the incidence of road accidents among children.

Procedures

The Road Safety Education Project involves collaboration with the Ministry of Education Malaysia. Therefore, to conduct the study, approval must be obtained from the Educational Policy and Research Division (EPRD) and the Educational Planning and Research Division. The project team has submitted a research proposal to the EPRD. After obtaining approval, a letter of consent was sent to the State Education Department (JPN) and the District Education Office (PPD). After obtaining approval from the PPD, the project team will contact the school administration. A coordinating teacher who teaches the Malay language subject will be the liaison person to inform the school of the study's tentative schedule, location, and students involved (student representatives will be nominated by the school).

Four (4) schools from each of the four (4) districts will be selected, and the researchers will attend one school per day to collect data through structured interviews. The question-and-answer sessions will be conducted face-to-face to ensure that the sessions are effective, and to cater to the understanding of the first-year students who may not be able to comprehend the context of the study's questions. The interviews will be conducted in accordance with the study's procedures. The researcher will ask questions in sequence and adapt them to the students' age and existing knowledge. The researcher will use words or dialects that are most easily understood by the students. After completing the study, each respondent will receive a token of appreciation for participating in the study.

To conduct this study, the project team had to obtain approval from relevant educational divisions and offices. The selection of schools and respondents was done carefully to ensure a diverse and representative sample. The use of structured interviews and adaptation of questions to cater to the students' age and understanding will enhance the validity and reliability of the data collected. The token of appreciation for respondents is a way to express gratitude for their participation in the study. The findings of this study will contribute to improving road safety policies and interventions targeted at reducing road accidents among children in Malaysia.

The data then was analysed using Multiple Linear Regression to test whether a significant association between self-reported behaviour between level of knowledge and level of analysed exist.

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relevant modifications should be described. This section should be written concisely in detail by maintaining continuity of the texts.

Results and Discussion

The descriptive results of the self-reported behaviour, level of usage and level of knowledge are shown in Table 4.

Table 4: Descriptive statistics

	Mean	Std. Deviation	N
Self-Reported Behaviour	23.1034	2.97733	706
Level **of usage**	6.0992	2.77043	706
Level **of knowledge**	10.74	1.168	706

Table 5: Multiple regression coefficients for predicting self-reported behaviour

Variable	*B*	β	*t*	*p*
Level of usage	0.191	0.177	4.739	0.000
Level of knowlegde	0.115	0.45	1.205	0.228

Note. $R^2 = 0.036$, *p = 0.000*

DW = 1.922

Durbin Watson (DW) statistics is used to show whether autocorrelation exists in the model. Field (2009) mentioned that values from one to three are acceptable for DW statistics and autocorrelation does not exist. This study found that DW statistic is 1.922 hence there is no autocorrelation. Multiple linear regression analysis was conducted to investigate whether usage of RSE Module and knowledge can significantly predict the self-reported behaviour in a sample of 706 students (N=706). From our study, the results of ANOVA showed a significant result which F (2,705) = 13.064, p = 0.000. Therefore, we must reject the null hypothesis that the slope of our regression line is zero. It was found that the usage level of RSE module significantly predict the level of self-reported behaviour (B=0.191, *p*=0.000). However, the level of knowledge failed to predict the self-reported behaviour (B=0.115, *p*=0.228). Overall, the model failed to predict self-reported behaviour as the model only explained 3.6% of the variance. The correlation analysis between the variables is showed in table 6. A significant correlation exists between level of usage (r=0.184,*p*=0.000) and self-reported behaviour. Meanwhile, there is a significant with level of knowledge and self-reported behaviour (r=0.071,*p*=0.030).

Table 6 : Correlation analysis between the variables

Variable	Self-Reported Behaviour
Level of usage	0.184*
Level of knowledge	0.071*
*Correlation is significant at the 0.05 level (1-tailed)	

The results shown above illustrate that there is no relationship between the level of usage and knowledge attained from road safety education with positive self-reported behaviour. However, this should not imply that the RSE is not effective. However, other aspects should be investigated in detail instead of just concluding from the results. Hence, for programs centred on children, one key information should be taken into consideration when implementing the program is the duration needed for the children to retain the newly learned safety information. It has been discovered that some of the new knowledge and information will not be retained after certain times and programs should be conducted over a long period and consistently to ensure the students will be reminded about safety behaviour on the road (Cuenen et al.,2016 & Ji et al., 2017). In addition, the current RSE implementation only utilised the cognitive domain to teach children about road safety. It is conducted in a classroom and formal setting. To make RSE effective, programs that are characterised by multimodal characteristics of active learning are more beneficial in that it includes problem-based and cooperative learning (Lestari et al., 2018). Moreover, active learning has been proven beneficial to the student's conceptual understanding in students who engage in active learning adopt an inquisitive learning strategy that is proven more effective in strengthening students' conceptual understanding and building a more profound understanding (Laksana et al., 2019).

Conclusion

The present study has successfully attempted to study the association between the levels of usage of the RSE module and the knowledge gained on road safety on the self-reported behaviour of students after a newly revamped RSE module was introduced in 2019. The students were selected by choosing sample schools from districts with the highest number of deaths among children aged seven to nine years old. It is hypothesised that the level of usage and the level of knowledge of these children is associated with their positive self-reported road safety behaviours. A multi-linear regression analysis showed that the model failed to predict self-reported behaviour as the model only explained 3.6% of the variance. Nevertheless, it was found that the usage level of the RSE module significantly predicted the level of self-reported behaviour but the level of knowledge failed to predict the self-reported behaviour. The results showed that the level of knowledge did

not translate into behaviour. Continuous empirical study is essential to be conducted to ensure the program is guided by science to ensure the most effective implementation.

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Declaration of Interest Statement

The authors declare that they have no conflict of interest.

Reference

Alonso, F., Gonzalez-Marin, A., Esteban, C., & Useche, S. A. (2020). Behavioral Health at School: Do Three Competences in Road Safety Education Impact the Protective Road Behaviors of Spanish Children? International Journal of Environmental Research and Public Health, 17(3), 935. http://dx.doi.org/10.3390/ijerph17030935

Berry, D. S., & Romo, C. V. (2006). Should 'Cyrus the Centipede take a hike? Exposure to a pedestrian safety programme affects children's safety knowledge and self-reported behaviors. Journal of Safety Research, 37(4): 333–341.

Bojesen, A. B., & Rayce, S. B. (2020). Effectiveness of a school-based road safety educational programme for lower secondary school students in Denmark: A cluster-randomized controlled trial. Accident; analysis and prevention, 147,105773. https://doi.org/10.1016/j.aap.2020.105773

Cuenen, A., Brijs, K., Brijs, T., Van Vlierden, K., Daniels, S., & Wets, G. (2016). Effect evaluation of a road safety education programme based on victim testimonials in high schools in Belgium. Accident; analysis and prevention, 94, 18–27. https://doi.org/10.1016/j.aap.2016.05.006

Dragutinovic, N., & Twisk, D. (2006). The effectiveness of road safety education: A literature review. SWOV Institute for Road Safety Research.

Education–Victoria (Australia). 2019. Available online: http://www.roadsafetyeducation.vic.gov.au/about

Elkington, J., & Hunter, K. (2003). Expanding our concept of best practice in road safety education: A review of current evidence and practice. In Road Safety Research, Policing and Education Conference, 2003, Sydney, New South Wales, Australia.

F. Gonzalez-Marin, A.; Esteban, C.; Useche, S.A. Behavioral Health at School: Do Three Competences in Road Safety Education Impact the Protective Road Behaviors of Spanish Children? Int. J. Environ. Res. Public Health 2020, 17, 935. https://doi.org/10.3390/ijerph17030935

Feenstra, H., Ruiter, R. A., & Kok, G. (2014). Evaluating traffic informers: testing the behavioural and social-cognitive effects of an adolescent bicycle safety education programme. Accident; analysis and prevention, 73, 288–295. https://doi.org/10.1016/j.aap.2014.09.024

Franky, F. (2022). "Don't Be Like Frogger": A Rapid Review on the Use of Serious Game for Road Safety Education in Children.

Ji, Y., Ye, Y., Lu, Y., Li, L., & Yang, G. (2017). An Intervention to Reduce Bicycle Injuries among Middle School Students in Rural China. International journal of environmental research and public health, 14(7), 690. https://doi.org/10.3390/ijerph14070690

Laksana, D. N. L., Dasna, I. W., & Degeng, I. (2019). The Effects of Inquiry-Based Learning and Learning Styles on Primary School Students' Conceptual Understanding in Multimedia Learning Environment. Journal of Baltic Science Education, 18(1), 51-62.

Lee, Y. Y., Fang, E., Weng, Y., & Ganapathy, S. (2018). Road traffic accidents in children: The 'what', 'how' and 'why'. Singapore Medical Journal, 59(4), 210-216. https://doi.org/10.11622/smedj.2017114

Lestari, N. A., Suprapto, N., Deta, U. A., & Yantidewi, M. (2018, November). Implementation of multimodel active learning to improve basic teaching skills of pre-service physics teachers. In Journal of Physics: Conference Series (Vol. 1108, No. 1, p. 012119). IOP Publishing.

Low, S. F, Mohd Suhaimi, N. N., Mohmood Nor, N. A. A., & Abdul Ghani, A. H. (2019). Road safety case studies: Safe pedestrian behaviours among children aged 7 to 9 in Malaysia. Journal of the Australasian College of Road Safety, 30(2), 61–65.

Masilamani, N., Kothandan, P., Basker, M. M., & Immanuel, S. G. (2022). Effectiveness of Peer-Led Education on Knowledge and Attitude among Adolescents regarding Road Safety. Indian journal of community medicine : official publication of Indian Association of Preventive & Social Medicine, 47(3), 356–359. https://doi.org/10.4103/ijcm.ijcm_1021_21

Riaz, M. S., Cuenen, A., Dhondt, S., Craps, H., Janssens, D., Wets, G., & Brijs, K. (2019). Evaluation of a road safety education programme based on driving under influence and traffic risks for higher secondary school students in Belgium. Safety, 5(2), 34.

ROSE 25 E.U. Report Inventory and compiling of a European good practice guide B27020B-E3-2003-Good Practices-S07.28326, 2005.

Royal Malaysian Police (2019). Laporan Perangkaan Kemalangan Jalan Raya Malaysia 2019.

Royal Malaysian Police (2020). Laporan Perangkaan Kemalangan Jalan Raya Malaysia 2020.

RSEV. Road Safety Education and Safe Transport Policies for early childhood services, Road Safety

World Health Organization (WHO). 2018. Global Status Report on Road Safety, Geneva.

World Health Organization. Global Plan for the Decade of Action for Road Safety 2021-2030; 2021. Geneva

Zainafree, I., Hadisaputro, S., Suwandono, A., & Widjanarko, B. (2022). The Road Safety Education Programme for Adolescents Using Social Media, Proving Increasing Knowledge, Beliefs, Attitudes, Intentions and Behavior. Safety, 8(1), 12. http://dx.doi.org/10.3390/safety8010012