

Traffic Safety Education for Students in Makassar City

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Abstract. The presence of motor vehicles aids in the improvement of goods and services distribution. However, motor vehicles are sometimes used inappropriately, including by students. The aim of the community service activity is to enhance students' awareness and understanding of traffic regulations. The activity was conducted at a junior/senior high school in Makassar City and involved 100 students. The methods used included administering a pre-test, providing materials, and conducting an evaluation (post-test) regarding traffic regulations for students. Traffic education for students was carried out effectively, increasing awareness and helping to reduce the number of accidents on the road.

Keywords: Education, Safety, Student, Traffic

1 Introduction

The presence of motor vehicles can help facilitate community mobility. However, motor vehicles are sometimes used in ways that do not comply with existing regulations, such as motorcycles that have a capacity of 2 but are occupied by more than 2 students, not wearing helmets, not obeying traffic signs and markings, and lacking a driver's license. Factors contributing to accidents among students include insufficient supervision from parents, such as allowing children to use motor vehicles to school even though they do not have a driver's license, schools permitting and providing parking for students' motor vehicles, the short distance to school leading students to forgo protective gear while riding, peer influence resulting in students mimicking their friends (using motor vehicles to school), and a lack of understanding of traffic safety [1]. Traffic violations commonly observed among student riders include not having a driver's license, inability to present a vehicle registration certificate, riding against traffic, speeding, not crossing at designated areas, riding with three people, not wearing helmets, and walking while playing with friends. According to the World Health Organization, there is a 4-5% increase in the severity of accidents for every 1 km/h increase in driving speed [2]. Based on Law Number 22 of 2009, teenagers are prohibited from operating motor vehicles because the minimum age requirement for obtaining a driver's license is 17 years. The psychological reasons include that motor vehicles are specifically designed for adult riders, analytical skills and decision-making abilities are still low, and emotions are unstable. Factors contributing to accidents include rider factors, environmental factors, road factors, and vehicle factors. A significant 96.3% of accident causes are attributed to rider factors. According to IRSMS data, 2023, the number of traffic accidents in South Sulawesi Province reached 352 incidents [3]. Traffic accidents involving students often occur and have several important causal factors[4]. Here is some related information: Accident Frequency: Data shows that traffic accidents among students are very high. For example, in a year more than 93 thousand high school students (SLA) in Indonesia become victims of traffic accidents. This shows how vulnerable the situation is for students when carrying out transportation activities. Causal Factors: One of the main causes of traffic accidents among students is unsafe driving behavior. This includes behaviors such as violating yellow lights, making phone calls while driving, sending text messages, smoking, and riding with friends, Student Age: Statistical data shows that teenagers dominate traffic accident cases. Motorcycles are the type of transportation that involves the most accidents, with more than 80 thousand accident cases involving high school students alone[5].

Traffic accidents can have a significant impact on students' psychology, both directly and indirectly. Here are some common psychological impacts experienced by students after experiencing a traffic accident:

Trauma and Traumatic Disorders: Traffic accident victims often experience strong trauma, which can lead to traumatic disorders. Symptoms of this trauma include disturbing memories related to the accident, intense fear, and withdrawal from situations or environments that remind them of the accident. Acute Stress and Depression: Traffic accidents can cause victims to experience acute stress and depression. Acute stress can cause feelings of anxiety, fear, depression, loss of security, and threatened self-esteem. Depression can reduce a person's ability and efficiency in carrying out life functions. Physical disabilities due to traffic accidents can change the self-concept of adolescents. Adolescents who experience this condition may face changes in their relationships with family, friends, and the community, so they must adjust to their new condition. Some traffic accident victims experience chronic pain that can affect their sleep quality. This pain is not only physical, but can also cause mental disorders such as insomnia. Transmission of Infection and Mental Disorders: Cases such as Anggi's, where she had to take sedatives from a psychiatrist due to mental disorders, show that traffic accidents not only have an impact on the physical, but also on the psychological. This mental disorder can be evidenced by the presence of skin infections that cause an unpleasant odor and require special treatment. The Need for Mental Therapy: Many traffic accident victims need mental therapy to overcome the psychological trauma they face. This therapy can help them in the healing process and re-forming a positive self-concept.

Traffic discipline for students is very important to minimize the risk of accidents and enhance safety on the roads[6], [7], [8], [9]. Here are some ethical principles of traffic behavior that students should understand and apply: Students must understand and respect all traffic rules, including traffic lights, road signs, and traffic signals. This ensures their own safety and fosters a good safety culture on the road. When crossing the street, students should use the available zebra crossings. They must respect the rights of drivers who stop in front of the zebra crossing and wait until the vehicles have come to a complete stop before crossing. Always pay attention to your surroundings while walking. Avoid using mobile phones or other electronic devices that can distract you. Stay alert to vehicles approaching from both the front and the back. When walking on the road, use sidewalks or pedestrian paths if available. If there are no sidewalks, walk along the edge of the road facing oncoming traffic so that drivers can see pedestrians clearly. Avoiding the use of distracting devices like headphones while walking can enhance awareness and reduce the risk of accidents.

The biggest challenge in ensuring that students follow traffic rules involves various complex aspects[10]. Here are some of the main challenges faced: Many students do not yet have a sufficient understanding of traffic regulations. Limited knowledge about signs and traffic procedures can lead to violations. A study shows that more than one-third of traffic violations in certain areas are committed by students, indicating their lack of understanding of these rules. The surrounding environment, including peers, often influences students' traffic behavior. If their friends tend to break the rules, students may feel pressured to follow that behavior, even if they know it is wrong. This creates a culture that does not support compliance with traffic regulations. Despite efforts from schools and the police to provide education on traffic safety, these programs often fall short or are less engaging for students. Socialization activities that are not routine or do not involve interactive methods can lead students to lose interest and attention regarding the importance of road safety. The presence of police officers around schools and on the roads is crucial for monitoring and enforcing traffic rules. However, the limited number of officers and patrol time often makes this supervision ineffective, causing students to feel there are no consequences for their actions. Students, especially teenagers, tend to have high self-confidence and are less considerate of the risks when driving. Not understanding the consequences of traffic violations can cause them to ignore the rules for momentary pleasure[11].

Addressing these challenges requires collaboration between schools, parents, police, and the community to create an environment that supports compliance with traffic rules and raises awareness of the importance of road safety.

This activity was carried out at a school in Tamalate District, Makassar City. The distance of the partner location from the Indonesian Christian University Paulus is 21.9 km and is reached by land. The purpose of the activity is to raise students' awareness of the importance of road safety. With the right knowledge, it is hoped that students can avoid risky behavior that can cause accidents. Through education, it is hoped that the younger generation can become pioneers of traffic safety and be able to maintain the safety of themselves and others.

2 Methodology

The method of implementing this activity is by providing material and discussion on traffic safety rules. The purpose of this method is to improve students' understanding and awareness of traffic rules. The material is presented in the form of a video so that it is easier for students to understand the material and know the types of signs, markings, traffic violations, things that cause the risk of traffic accidents, the importance of driving documents, the dangers of using cell phones while driving, the basics of traffic against walking. Number of participants as many as 100 students. The material was given for 40 minutes, followed by a 40-minute discussion.

3 Result and Discussion

3.1 Preparation Stage

Preparation of educational programs so that the activities carried out become more organized and focused. This program includes all technical, managerial and scheduling matters (time schedule). Preparation of safe and secure traffic education materials for school children. Preparation of training facilities and infrastructure. This preparation includes the provision of educational facilities and infrastructure. The socialization of the safe and secure traffic education program for school children is carried out at the activity location, namely according to the agreed area. This socialization activity will be carried out 2 (two) times so that there is an understanding and common perception of the objectives of traffic education activities. The first socialization is non-formal with the Elementary School Principal and the second socialization with students.

3.2 Implementation Stage

The second socialization aims to explain in more detail the objectives and benefits of safe and secure traffic education for elementary school children. This socialization is facilitated by the distribution of educational materials. This activity were attended by the Principal, the Community Service Team of the Paulus Christian University of Indonesia and the teachers who participated in the program. This training was first conducted with an introduction method regarding traffic, student's safety in traffic. The material regarding traffic safety was delivered in class using video. Before entering the material, it began by finding out the student's understanding of traffic safety, by means of a pre-test. Evaluation was then carried out by holding a post-test. At the end of the implementation stage, the participants were given a traffic order pocket book by the community service team of the Indonesian Christian University Paulus.

3.3 Evaluation Stage

Monitoring was carried out intensively by the implementing team for each activity to ensure that the implementation of the activity could run according to plan. Evaluation was carried out in line with monitoring, so that if there were obstacles, they would be resolved immediately.

The number of students present was 100 people, with junior high and high school age. The pre-test was by inviting students to mention the types of traffic violations presented in the video. The violations were not wearing a helmet while driving, riding a motorcycle with more than 2 people, running a red light, driving at high speed, and using a cellphone while driving. As a result, 90% of students answered 4 correct answers. Furthermore, the material presented to students was the types of traffic violations committed by motorcyclists, logistics vehicle drivers, passenger car drivers, non-motorized vehicle drivers, and pedestrians, in addition, students were also provided with material on the types of traffic signs and markings, types of protective equipment while driving (such as helmets, glasses, jackets, closed shoes, safety belts), crossing facilities and pedestrian lanes. When walking or crossing the street, students should not use their phones or play with friends. Always walk and cross the street at the designated crosswalks. Special lanes for riders using bicycles or non-motorized vehicles. Reminding students, when in a moving vehicle, to always pay attention to safety, such as not sticking hands or body parts out of open car windows, and not riding a motorcycle with more than 2 people. The evaluation stage was a post-test for students. Students were seen to be more enthusiastic in answering compared to the pre-test. The questions asked to students were the types of traffic violations for motorcycle and passenger car users, traffic signs, and types of facilities for pedestrians. All answers given by students were in accordance with the material provided. The provision of Traffic Safety pocket books to Students was distributed to students who gave the correct answers. So that the education of orderly traffic for students increases students' understanding and awareness in traffic.

By obeying traffic rules, students can reduce the risk of accidents that can threaten their safety. Wearing a helmet when cycling or driving and obeying traffic signs can protect them from danger. In addition, being orderly in traffic teaches students about the importance of discipline and responsibility. This habit can help them in other aspects of life, including academics and socially. By obeying traffic rules, students learn to respect the rights of others on the road. This develops empathy and awareness of the importance of mutual safety, students contribute to reducing pollution and preserving the environment. Students who are orderly in traffic can be positive examples for their peers and the surrounding environment, encouraging more people to follow the same behavior and creating a culture of safety. Obeying traffic rules can increase students' confidence when on the road, because they feel safer and more prepared to face situations in traffic. By being orderly in traffic, students can help reduce the number of traffic accidents, which often involve children and teenagers. This supports the goal of public safety. Obeying traffic rules can help students understand the importance of time and travel management, so they can plan their trips better. With a safer environment due to good traffic behavior, the

quality of life around schools and residential areas improves, creating a more comfortable atmosphere for learning and activities. Obeying traffic rules also teaches students about the legal consequences of traffic violations, helping them appreciate the laws and regulations that apply in society.

4 Conclusion

Traffic education activities for students help increase students' awareness and understanding of traffic. By creating awareness and appreciating traffic rules, students not only maintain their own safety, but also contribute to the safety and comfort of all road users.

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