

THE APPLICATION OF SAFETY RIDING FOR KIDS ON THE ATTITUDES AND BEHAVIOR OF KINDERGARTEN STUDENTS IN INDRAMAYU REGENCY

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ABSTRACT

Data from the Indramayu Police Station in 2018 reported that there were 107,968 traffic accidents with the number of victims of 29,083 died. Victims of traffic accidents were 2,546 aged 0-4 years. The high number of traffic accidents occurs due to poor attitudes and behavior in the aspect of safe driving attitude. Many parents do not require their children to wear helmets or other safety gear when dropping off or picking up their children from school. Although children are extremely vulnerable to serious injuries if a traffic accident occurs. The aims of this study was to investigate the effect of implementing safety riding for kids on the attitudes and behavior towards safety riding behavior in kindergarten students. There were 36 students recruited in intervention group and 47 students in the control group. This study used a quasi-experimental type of research. Data were collected using a questionnaire. Pretest was done before giving treatment, posttest data was taken after 3 months of treatment, data analysis of this research used Wilcoxon test. The results found that in the intervention group there were differences in attitudes and behaviors about safety riding before and after intervention with a p-value of 0,005 and 0,000, respectively. In the control group, there were no differences in attitudes and behaviors about safety riding with a p-value of 0,231 and 0,074, respectively. There is an effect of the implementation of safety riding for kids on the attitudes and behavior about safety riding with a p-value of 0,000. There is effect of the application of safety riding for kids on the attitudes and behavior of kindergarten students in Indramayu Regency.

Keywords: attitudes; behaviour; safety riding for kids

INTRODUCTION

School is a place for children to build and develop their best potential. Children will get the concepts that will underlie their thinking patterns when they are at school. One of the levels of education that is very important in order to prepare young educated generations for the nation and country is kindergarten education. At this age, children are easy to absorb new things, both positive and negative. Therefore, at this age children need to instill positive values. One of them is knowledge about traffic safety (Nopani & Lestari, 2012).

According to data from the Global Status Report on Road Safety released by (WHO, 2015), Indonesia is in the first place in the increase in accidents of road traffic injuries. In Indonesia, an average of 3 people die every hour due to road accidents (KOMINFO, 2017). According to the data from Traffic Police Unit (Satlantas) in 2015, the incidence of traffic accidents involving children was 290 cases, which increase by 14 percent. 12 children died (decrease by 15 percent), 96 children severely injured (increase by 71 percent), and 107 children slightly injured (increase by 49 percent) (Badan Pusat Statistik, 2016). This means that almost every day there are cases of accidents involving small children (WHO, 2015).

In West Java Province, 2016 showed data on traffic accidents as many as 6,861 cases (Badan Pusat Statistik, 2016) Meanwhile, data from the Indramayu Police Station in 2018 reported that there were 107,968 traffic accidents with the number of victims of 29,083 died. Victims of traffic accidents were 2,546 aged 0-4 years (Polres Indramayu, 2019). The traffic accidents mostly are motorcycle accidents. Thus, Indramayu Regency becomes the biggest contributor to traffic accidents in West Java Province.

The high number of traffic accidents occurs due to poor attitudes and behavior in the aspect of safe driving attitude. Many parents do not require their children to wear helmets or other safety gear when dropping off or picking up their children from school. Although children are extremely vulnerable to serious injuries if a traffic accident occurs. This statement also supported by the research of (Goniewicz, Goniewicz, Pawłowski, & Fiedor, 2017) and (Liu, Yang, Chen, & Li, 2016) which states that one of the causes of the high level of traffic accidents in children under 7 years of age is the lack of parental supervision. The level of awareness of Indonesian people in terms of awareness in safety riding is very low. The poor behavior of motorcyclists includes decline to follow traffic rules, reckless driving, and not wearing safety equipment while driving (Kompas, 2008).

Based on the finding of observations by researchers regarding potential factors that could lead to incidents on the road among kindergarten students, they were: (1) most kindergarten children when their parents dropped off and picked them up from school did not wear helmets and other safety equipment (2) many parents think that no regulations are requiring of wearing helmets and safety equipment for children (3) based on interviews that have been conducted with several kindergarten school teachers, it is found that no learning material or method supports the importance of instilling safety riding behavior for children (safety riding for kids) at school. Therefore, the purpose of this study was to determine the effect of applying safety riding on children on children's attitudes and behavior towards safety riding behavior in Indramayu Kindergarten students.

METHOD

This study was quasi-experimental with a non-randomized control group approach pre-test post-test design. This study measures the effect of the application of safety riding for kids among kindergarten children in Karanganyar urban village, Indramayu Regency on safety riding attitudes and behavior in kindergarten students. The method given is in the form of practicing how to wear a helmet, coloring safety riding pictures, and singing a safety riding song. This study was conducted in Bustanul Athfal Kindergarten (as the treatment group) and Mutiara DWP Indramayu Kindergarten (as the control group). The sample in this study was 83 students of Kindergarten B (TK B) class in 2 kindergarten schools. It consisted of 47 students as the control group and 36 students as the treatment group. Sampling is based on schools that are located in high traffic areas, where many minibusses (elf), public transportation, motorcycle taxis, and motorbikes pass by. Students taken as samples were Kindergarten B students (TK B) who were dropped off and picked up from school using motorcycle transportation.

RESULTS AND DISCUSSION

Table 1.
 Frequency Distribution of Pre-Test and Post-Test Attitudes About Safety Riding

Attitudes	Treatment Groups		Control Groups	
	f	%	f	%
Pre-test				
Good	23	63,9	32	68,1
Poor	13	36,1	15	31,9
Post-test				
Good	34	94,4	22	46,8
Poor	2	5,6	25	53,2

Table 1, it is found that most of the pre-test scores of attitudes in the intervention group are in the good category of 63,9%, then after the intervention is given (post-test), it had an increase to 94,4% in a good category. The pre-test in the control group is mostly in the good category at 68,1% and the post-test in the poor attitude category is 53,2%.

Table 2.
 Frequency Distribution of Pre-Test and Post-Test Attitudes About Safety Riding

Behavior	Treatment Groups		Control Groups	
	f	%	f	%
Pre test				
Good	11	30,6	20	42,6
Poor	25	69,4	27	57,4
Total	36	100	47	100
Post test				
Good	36	100	12	25,5
Poor	0	0	35	74,5
Total	36	100	47	100

Table 2, it is found that most of the pre-test scores of behavior in the intervention group are in the poor category of 69,4%, then after the intervention is given (post-test), it has increased to be in the good category by 100%. Most of the pre-test in the control group is in the poor category at 57,4% and the post-test in the poor category is 74,5%.

Table 3.
 Wilcoxon test result, differences of the pre-test and post test value attitudes about safety riding in the treatment group and control groups

Attitudes of Safety Riding		Mean	SD	p-value
Treatment Groups	Pre test	5,70	1,51	0.005
	Post test	6,60	1,62	
Control Groups	Pre test	5,70	1.56	0,231
	Post test	5,59	1.24	

Table 3, the results show that the mean value or mean in the intervention group before being given the implementation of safety riding is $5,70 \pm 1,51$ and the mean value of post-test is $6,60 \pm 1,62$ with a p-value of 0,005. The mean or mean value in the control group before being given the application of safety riding is $5,70 \pm 1,56$ and the mean value of post-test is $5,59 \pm 1,24$ with a p-value of 0,231. Therefore, it can be concluded that in the intervention group there was no different attitudes about safety riding before and after application. In the control group, there were no differences in the attitudes of safety riding before and after application.

Table 4.

Wilcoxon test result, differences of the pre-test and post test scores behavior about safety riding in the treatment group and control groups

Behavior of Safety Riding		Mean	SD	p-value
Treatment Groups	Pre test	1,30	0,47	0,000
	Post test	2	0,00	
Control Groups	Pre test	1,42	0,49	0,074
	Post test	1,25	0,44	

Table 4, the results show that the mean value or mean in the intervention group before being given the implementation of safety riding is $1,30 \pm 0,47$ and the mean value of post-test is $2 \pm 0,00$ with a p-value of 0,000. The mean or mean value in the control group before being given the implementation of safety riding is $1,42 \pm 0,49$ and the mean value of post-test is $1,25 \pm 0,44$ with a p-value of 0,74. Therefore, it can be concluded that in the treatment group there were differences in behavior about safety riding before and after application. In the control group, there were no differences in behavior about safety riding before and after application.

Table 5.

Man –Whitney test results, Effect of Attitudes on Safety Riding between Treatment Group and Control Group

Post test	Mean	Mann-Whitney	P value
Intervention Groups	6,60	349,00	0,000
Control Groups	5,59		

Table 5, it is found that the mean value of post-test in the treatment group is 6,60 and the mean value of post-test in the control group is 5,59. The results of the Mann-Whitney test obtained a p-value of $0,000 < 0,05$, which means that there is an effect of the implementation of safety riding on attitudes about safety riding in kindergarten students.

Table 6.

Man –Whitney test results, Effect of behaviour on Safety Riding between Treatment Group and Control Group

Post test	Mean	Mann-Whitney	P value
Treatment Groups	2	216,000	0,000
Control Groups	1,25		

Table 6, it is found that the mean value of the post-test in the intervention group is 2 and the mean value of the post-test in the control group is 1,25. The results of the Mann-Whitney test obtained a p-value of $0,000 < 0,05$, which denotes that there is an effect of the application of safety riding on behavior about safety riding in kindergarten students.

The definition of attitude is an evaluation response. The human evaluation response is the result of one's self-evaluation process in the form of conclusions including good, bad, positive-negative, pleasant, and unpleasant (Azwar, 2013). Based on the research results, it was found that in the treatment group there were differences in attitudes about safety riding before and after implementation with a p-value of 0,005. In the control group, there were no differences in knowledge of safety riding before and after implementation with a p-value of 0,231. There was an effect of the implementation of safety riding for kids on attitudes about safety riding with a p-value of 0,000.

According to (Cordellieri, Sdoia, Ferlazzo, Sgalla, & Giannini, 2019), the motorcyclist in Italy who have an obedient attitude towards traffic regulations such as driving under the speed limit, obeying traffic signs and signals, always using safety equipment, and no drinking or using illegal drugs which can minimize accidents. The more positive one's attitude and behavior towards traffic violations, the stronger the perceived behavioral control are. On the contrary, the stronger one's intention to violate traffic rules, the more traffic violations are as a result. Therefore, it is necessary to have a good attitude or action in the practice of safety riding because safe driving requires a fast and precise response so that drivers can be more responsive to the surrounding environment and prevent traffic accidents (Ariwibowo, 2013).

The research results are in accordance with research conducted by Sugiyanto which states that to change people's perceptions and paradigms about traffic safety must be done through safety education and continuous education, promotion, and dissemination of information to the community from an early age to instill a sense of traffic discipline so that the values of traffic safety can be adopted into the values of life (Sugianto Gito, 2015). According to Notoatmodjo, the definition of behavior is one's psychological reaction to the environment. These reactions have various forms which are basically classified into 2 (two), which include the passive form (without real or concrete action) and the active form (with concrete actions) (Notoatmodjo, 2003).

Based on the research results, it was found that in the intervention group there were differences in attitudes about safety riding before and after implementation with a p-value of 0,000. In the control group, there were no differences in knowledge of safety riding before and after implementation with a p-value of 0,74. There was an effect of the implementation of safety riding for kids on attitudes about safety riding with a p-value of 0,000. Before being given the treatment, many kindergarten students did not wear helmets when they went to and from school. They do not know about the importance of implementing safety riding. After being given treatment in the form of practicing how to use helmets, coloring safety riding pictures, and singing safety riding songs, it was found that there was an effect of the implementation of safety riding for kids on the behavior of kindergarten students. This can be seen when the kindergarten

students starting to wear helmets every day when they going to and from school and they're starting to know and understand the importance of safe riding.

Traffic safety education programs are very important to provide knowledge and skills regarding traffic safety matters (Nopani & Lestari, 2012), so that children can be educated to behave safely as pedestrians, cyclists, and vehicle passengers. (Ben-Bassat & Avnieli, 2016). By being taught the basics of traffic safety at school, children are prepared to build knowledge about traffic, and a positive attitude that will benefit when the children become adults in the future. It's easier to teach good habits at an early age than to get rid of bad habits later. What is do's and don'ts on the road, how to respect other road users, introduction to traffic signs and signals, and how to cross the road safely are basic traffic materials for the early childhood level that can be wrapped in an attractive teaching method so that it is easier to be instilled in children's understanding and can give plus value to the children (Nopani & Lestari, 2012). The teaching method that can be conducted is by coloring and singing safety riding songs. This is in line with the research conducted by (Koksal, Yagisan, & Cekic, 2013) and (Haghverdi, 2015), which states that providing a stimulus in the form of music to school students in Turkey and the United Arab Emirates can improve student achievement. Besides, music can make the students having positive attitudes and behaviors.

CONCLUSION

In the treatment group, there were differences in attitudes and behaviors about safety riding before and after intervention with a p-value of 0,005 and 0,000, respectively. In the control group, there were no differences in attitudes and behaviors about safety riding before and after implementation with a p-value of 0,231 and 0,74, respectively. There is an effect of the implementation of safety riding for kids on attitudes and behavior about safety riding with a p-value of 0,000.

REFERENCES

- Ariwibowo, R. (2013). Hubungan antara Umur, Tingkat Pendidikan, Pengetahuan, Sikap terhadap Praktik Safety Riding Awareness Pada Pengendara Ojek Sepeda Motor di Kecamatan Banyumanik. *Jurnal Kesehatan Masyarakat*, 2(1), 1–10. Retrieved from <http://ejournals1.undip.ac.id/index.php/jkm>
- Azwar, S. (2013). *Sikap Manusia Teori dan Pengukurannya (II)*. Yogyakarta: Pustaka Pelajar.
- Badan Pusat Statistik, P. J. B. (2016). *Jumlah Kecelakaan Lalu Lintas Menurut Polres dan Kendaraan yang Terlibat di Provinsi Jawa Barat*. Bandung.
- Ben-Bassat, T., & Avnieli, S. (2016). The effect of a road safety educational program for kindergarten children on their parents' behavior and knowledge. *Accident Analysis and Prevention*, 95, 78–85. <https://doi.org/10.1016/j.aap.2016.06.024>
- Cordellieri, P., Sdoia, S., Ferlazzo, F., Sgalla, R., & Giannini, A. M. (2019). Driving attitudes, behaviours, risk perception and risk concern among young student car-drivers, motorcyclists and pedestrians in various EU countries. *Transportation Research Part F: Traffic Psychology and Behaviour*, 65, 56–67. <https://doi.org/10.1016/j.trf.2019.07.012>

- Goniewicz, K., Goniewicz, M., Pawłowski, W., & Fiedor, P. (2017). Children road traffic injuries in Poland. *Polish Journal of Public Health*, 127(1), 44–48. <https://doi.org/10.1515/pjph-2017-0010>
- Haghverdi, H. R. (2015). The Effect of Song and Movie on High School Students Language Achievement in Dehdasht. *Procedia - Social and Behavioral Sciences*, 192, 313–320. <https://doi.org/10.1016/j.sbspro.2015.06.045>
- Koksal, O., Yagisan, N., & Cekic, A. (2013). The Effects of Music on Achievement, Attitude and Retention in Primary School English Lessons. *Procedia - Social and Behavioral Sciences*, 93, 1897–1900. <https://doi.org/10.1016/j.sbspro.2013.10.136>
- KOMINFO. (2017). Rata-rata Tiga Orang Meninggal Setiap Jam Akibat Kecelakaan Jalan. Retrieved from Kementerian Komunikasi dan Informatika RI website: https://kominform.go.id/index.php/content/detail/10368/rata-rata-tiga-orang-meninggal-setiap-jam-akibat-kecelakaan-jalan/0/artikel_gpr
- Kompas. (2008). Rendah, Budaya Keselamatan Berkendara di Indonesia. Retrieved from Kompas.com website: <https://nasional.kompas.com/read/2008/03/30/2013506/rendah.budaya.keselamatan.berkendara.di.indonesia>
- Liu, X., Yang, J., Chen, X., & Li, L. (2016). Knowledge, attitudes and behaviors on child passenger safety among expectant mothers and parents of newborns: A qualitative and quantitative approach. *PLoS ONE*, 11(1), 1–12. <https://doi.org/10.1371/journal.pone.0146121>
- Nopani, D., & Lestari, D. D. (2012). Pendekatan Pembelajaran Kooperatif Tip Role Playing Sebagai Upaya Peningkatan Pengetahuan Tentang Keselamatan Lalu Lintas Pada Anak Usia Dini. *Pelita - Jurnal Penelitian Mahasiswa UNY*, 0(2), 27–44.
- Notoatmodjo, S. (2003). *Pengantar Ilmu Pendidikan Kesehatan dan Ilmu Perilaku Kesehatan*. Yogyakarta: Andi Offset.
- Polres Indramayu. (2019). *Data Kecelakaan Lalu Lintas*. Indramayu.
- Sugianto Gito, S. m Y. (2015). Karakteristik Kecelakaan Lalu lintas dan Pendidikan Keselamatan Berjalan Sejak Usia Dini: Studi Kasus di Kabupaten Purbalingga. *Jurnal Ilmiah Semesta Teknik*, 18(1), 65–75. Retrieved from <https://borang.umy.ac.id/index.php/st/article/view/707>
- WHO. (2015). Global status report on road safety. *Injury Prevention*, 318. Retrieved from <http://injuryprevention.bmj.com/content/15/4/286.short>

