

The Responses of Road Users on Safety Riding Campaign in Surabaya

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Abstract: The implementation of safety riding in Surabaya in 2006 featuring some actions including canalization (*kanalisasi*), daytime headlamp rule, safety belt rule and the standardized helmet are viewed by some as not suitable with the existing condition. Canalization causes unfairness among road users. The canalization lane, mandatory for vehicle such as motorcycle and public transit (bus and *mikrolet*) tends to suffer bigger degree of saturation compared to the others. Not to mention the indication of overuse of battery and shorter bulbs life time due to the daytime headlamp rule application. Although the evaluation of the safety riding campaign covers several aspects, this paper only discuss the responses of road users to safety riding campaign especially canalization and daytime headlamp rule. The data collecting process is carried out by distributing 332 questionnaires to all road users including motorcyclists, car drivers and public transit users. The instant responses are also collected and summarized from several websites. Furthermore, the descriptive and inference statistical analysis are deployed to give the common view of response of road users as well as tabulate the summary of website-posted response. The results show that, generally most of road users support the safety riding campaign. On the contrary, most of road users agree that the daytime headlamp rule did consume more both battery and bulbs. Meanwhile, the website-posted responses varies between agree and disagree with their own reasons.

Keywords: response, safety riding, Surabaya, canalization, daytime headlamp rule.

Introduction

During these recent years, starting in 2003, the Surabaya Local Police Department have been implementing new rule called canalization at several road links within the city of Surabaya [1] including several street (Jl) and traffic light (TL): 1). Jl. Praban- Jl. Bubutan; 2). TL of Jl. Blauran- Jl. Kranggan; 3). Jl. Raya Darmo; 4). TL of Jl. Raya Darmo-Jl. Diponegoro; 5). TL of Jl. Gemblongan-Jl. Tunjungan; 6). TL of Jl. Tunjungan- Jl. Gentengkali; 7). TL of Jl Raya Darmo-Jl. Polisi Istimewa; 8). TL of Jl. Raya Darmo-Jl. Dr Sutomo; 9). Jl. Bubutan-Jl. Kebonrojo; 10). TL of Jl. Bubutan-Jl. Tembaan; 11). TL of Jl. Veteran-Jl. Kebonrojo; 12). Jl. Pahlawan (west side); 13). Jl. Pahlawan (east side); 14). TL of Jl. Pasar Kupang-Jl. Banyuurip; 15). TL of Jl. Adityawarman-Jl. Indragiri; 16). T.L. Jl. Pasar Kembang; 17). TL of Jl. Kartini-Diponegoro; 18). Jl. Raya Gubeng; 19). Jl Raya Kertajaya; 20). Jl. Manyar Kertoarjo 1; 21). Jl. Manyar Kertoarjo 2; 22). Jl. Perak Timur; and 23). Jl. Kalimas Baru, (see Figure 1).

The canalization itself, is defined as the utilization of nearside lane within the road for non-private car vehicle including, city bus, motorcycle, microbus (*mikrolet*), bicycle and man-drawn chariot if any. According to the Surabaya Police Department, the canalization is based on the PP (Government Regulation) No. 43/1993 section 61 subsection 1 which says that:

"Pada lajur yang memiliki dua atau lebih lajur searah, kendaraan yang berkecepatan lebih rendah daripada kendaraan lain harus mengambil lajur kiri". (In English: In a road link with two or more same direction lane, slower running vehicle must use left lane)

Despite debatable legal aspect above, this program (campaign) is then continued in the year 2004 with additional slogan of "klik" for both safety belt and helmet. This additional slogan is to emphasize the existing regulation mentioned in Indonesian Traffic and Road Transport Act (UU LLAJ) No 14/1992 section 23 subsection 1e and section 23 subsection 2.

Furthermore, based on the instruction of Head of Police Department of East Java (Pol: ST/899/IX/2005/DITLANTAS) dated 9 September 2005, the Local Police Department of Surabaya applied the safety riding campaign from 1 to 30 September 2005. It was then continued by responsible riding campaign from 3 September to 31 October 2007 [2]. At this time, the motorcyclist is suggested to use standardized helmet which at least cover three fourth parts of the head as well as set the headlamp

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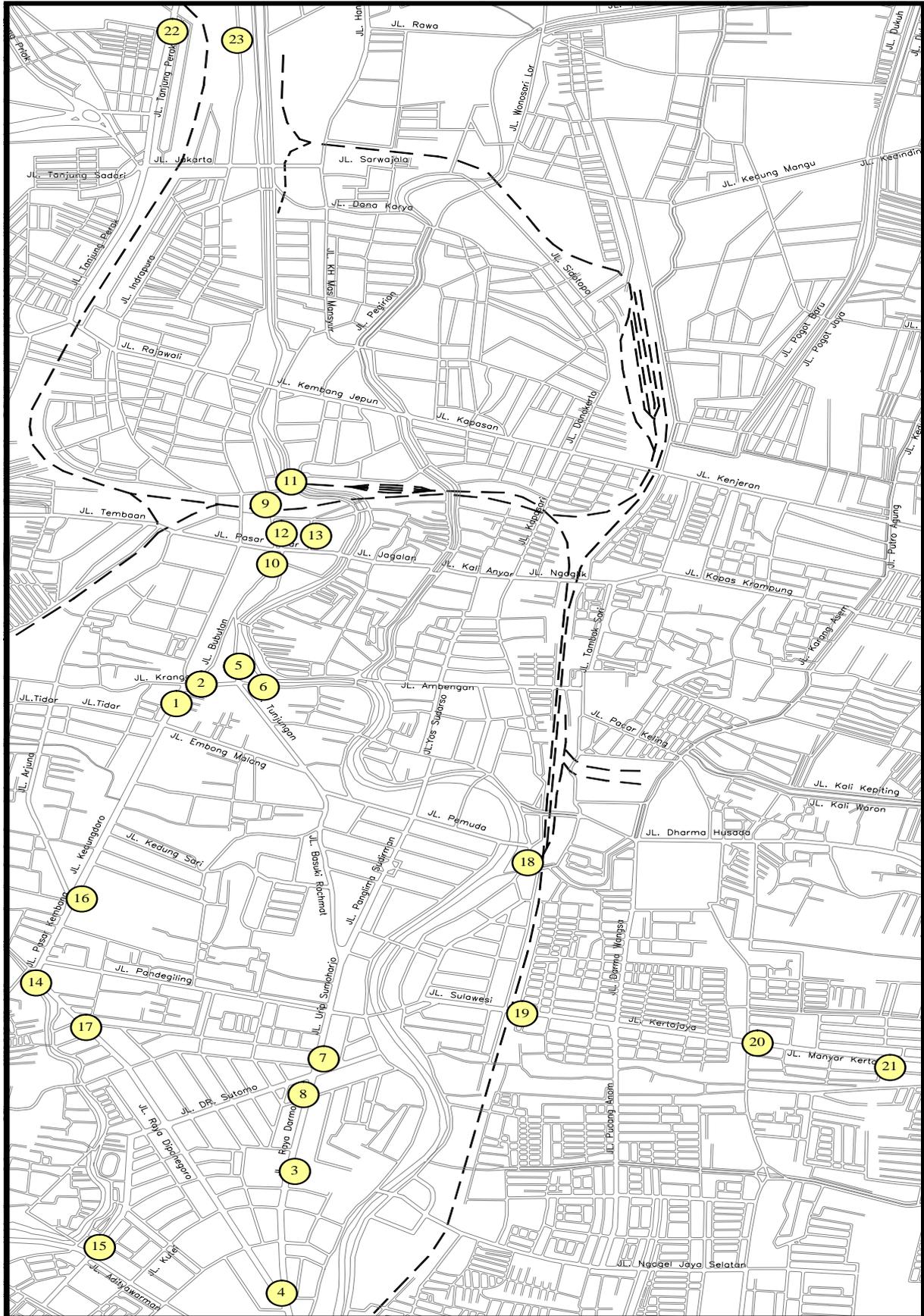


Fig. 1. The Site in which the canalization is applied in Surabaya

on during the daylight driving. These policies apparently adopt other countries' regulation as it is, without considering the surrounding situation i.e. the existence of mist or smoke [3, 4].

The implementation of safety riding campaign is found controversial, especially both the canalization rule and daytime headlamp rule. Kartika [5] stated that canalization produce unfairness in term of space utilization of road. Moreover, the daytime headlamp rule is predicted to trigger the overuse of vehicle parts especially battery and headlamp bulbs. Some serial analyses are needed to evaluate the safety riding campaign comprehensively as presented in Figure 2. This paper will discuss the responses of road users regarding safety riding campaign for both canalization and daytime headlamp rule only (see shaded box).

Goals

As explained previously, the goals of this paper are as follows:

1. Are there any differences in the response of *canalized* vehicle drivers and *non-canalized* vehicle drivers? What are the responses of road users regarding the implementation of canalization?
2. What is the response of road users regarding the daytime headlamp rule?
3. What are the general public responses regarding the implementation of safety riding posted in website?

Methodology

The first step of this research is simultaneously doing both the internet browsing to find instant responses in website and distributing the trial questionnaire to various respondents regarding the safety riding campaign in Indonesia especially in Surabaya. Based on the trial questionnaire above, the validity and reliability analysis test are carried out before the sample size determination. Meanwhile the public opinion on safety riding campaign is summarized to eventually draw common responses.

The next step is to test the sample group with Man-Whitney test [6] to know whether there are difference responses between sample groups (motorcyclist, car driver, public transport users). It is then followed by figuring out the description of sample's responses.

Furthermore, the cross tab analysis and McNemar test [6] are used to analyze the condition before and during the implementation of daytime headlamp rule regarding its impact to the battery life and headlamp bulb lifetime. However, the analysis is

only based on the experience of road users not based on a specific research. In general, the methodology of this paper is presented in Figure 3.

The Questionnaire form used to collect the responses of road users regarding the safety riding campaign is presented in Figure 4.

The result of trial questionnaire of 30 samples is presented in Table 1.

Sample Size

Since Surabaya is an open city which means that road users is not only originated from Surabaya but is also originated from any other city other than Surabaya, therefore the population of road users is considered as infinite population so that the sample size determination equation developed by Cochran [7] will be used to obtain the proper number of samples. According to Cochran [7] the number of samples depends on the proportion of trial samples (p and q) to choose their choices. Among the 30 trial samples, 22 samples ($73.33\%=p$) support the canalization program and only 8 samples ($26.67\%=q$) do not support the canalization program. Meanwhile, among 30 trial samples, 29 samples ($96.67\%=p$) support the safety riding campaign in general and only 1 sample ($3.33\%=q$) do not support the safety riding campaign. Therefore, the number of sample needed is the biggest value between these two numbers of samples below ($\alpha=5\%$, $Z=1.96$):

Number of samples based on responses regarding canalization:

$$n_0 = \frac{1.96^2 \times 73.33\% \times 26.67\%}{0.05^2} = 300.49 \approx 300 \text{ samples}$$

Number of samples based on responses regarding Safety Riding/Responsible Riding campaign:

$$n_0 = \frac{1.96^2 \times 3.33\% \times 96.67\%}{0.05^2} = 49.5 \approx 50 \text{ samples}$$

Therefore, the number of samples needed is at least 300 samples.

Reliability and Validity test

The number of samples collected is 332 samples which are larger than that specified before (at least 300 samples). The Cronbach's Alpha [8] is used to determine the reliability of the questionnaire and validity of the questions within the questionnaire. The output of reliability and validity analysis are shown in Table 2 and Table 3 respectively.

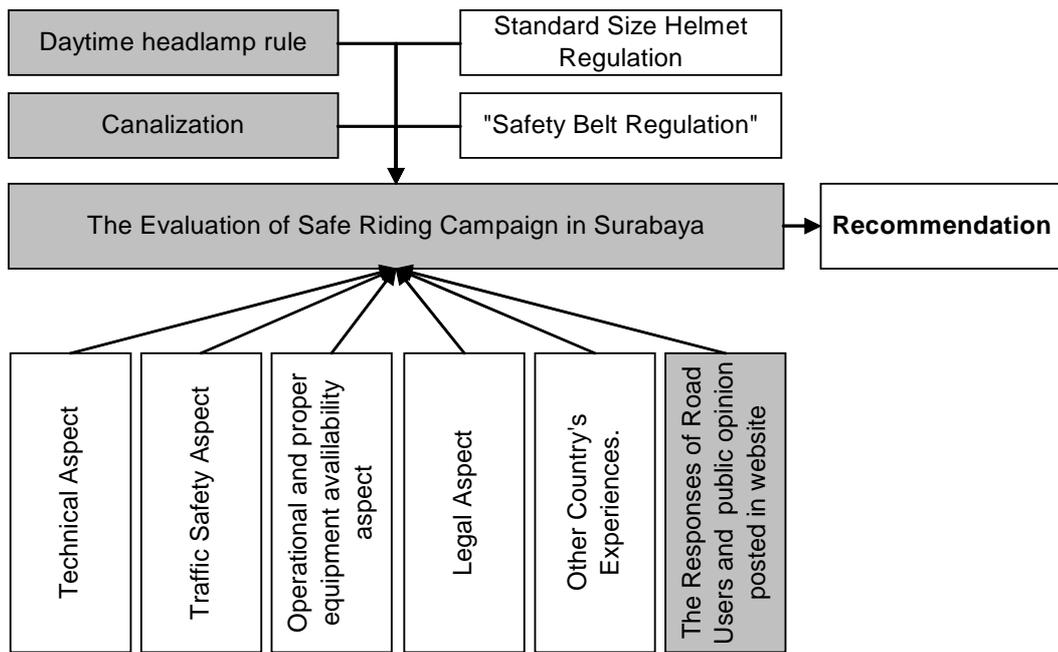


Fig. 2. The framework of evaluation of safety riding campaign.

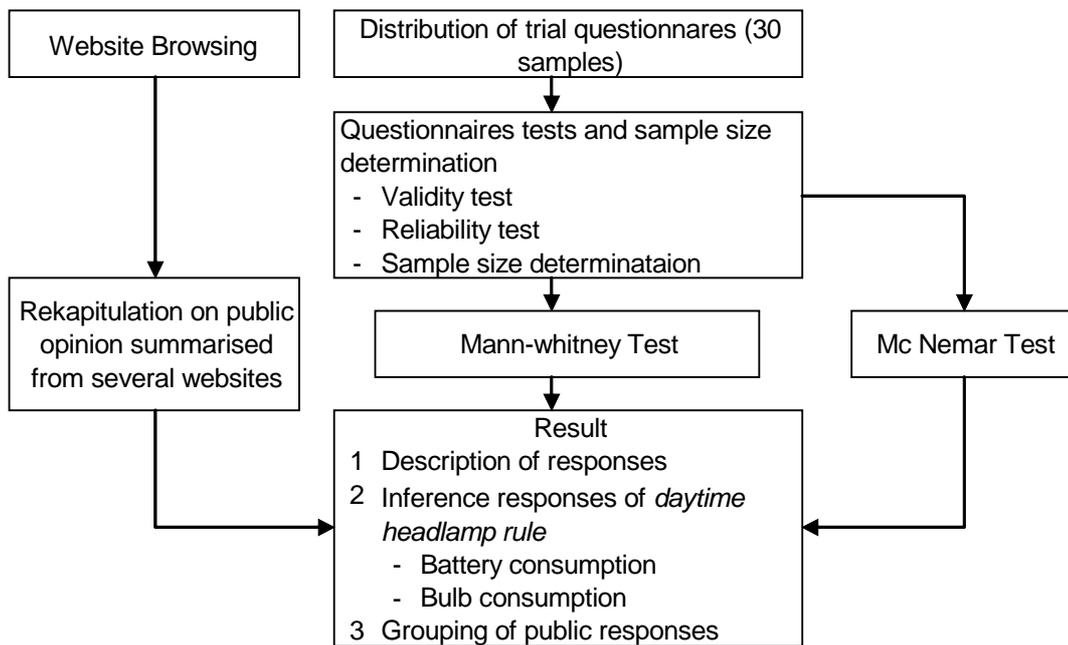


Fig. 3. Methodology

QUESTIONNAIRE FORM (PLEASE GIVE CROSS (X) OR THICK (✓) MARK

Info: Phone. 5941490

Evaluation of Safety Riding/Responsible Riding (SR/RR) in Surabaya, LPPM-ITS

Surveyor:

Name : _____ Age: _____ yr, Sex: _____, Education: _____

Sample number:

Address : _____

Occupation : Private Government's employee Trader Student Other,.....

Type of vehicle used Motorcycle Car Taxi/Mirolet/Bus

Do you know about **safety riding/responsible riding**? Yes No

If you said Yes, where the information come from?

A. THE RESPONSE OF DAYTIME HEADLAMP RULE, STANDARD SIZED HELMET AND SAFETY BELT

1 To put headlamp on during the day will **reduce accident rate.**

- a Absolutely Agree
- b Agree
- c Do not know
- d Disagree
- e Absolutely disagree

2 To put headlamp on during the day will **reduce battery life.**

- a Absolutely Agree
- b Agree
- c Do not know
- d Disagree
- e Absolutely disagree

3 To put headlamp on during the day will **have no impact to the bulb life consumption.**

- a Absolutely Agree
- b Agree
- c Do not know
- d Disagree
- e Absolutely disagree

4 The utilization of safety belt is **usefull to the car driver's safety or bigger vehicle's driver safety.**

- a Absolutely Agree
- b Agree
- c Do not know
- d Disagree
- e Absolutely disagree

5 The utilization of standardized size helmet **will reduce head injury.**

- a Absolutely Agree
- b Agree
- c Do not know
- d Disagree
- e Absolutely disagree

6 The utilization of standardized size helmet **will give advantage to motorcycle's driver.**

- a Absolutely Agree
- b Agree
- c Do not know
- d Disagree
- e Absolutely disagree

B. THE RESPONSES REGARDING CANALIZATION

7 Canalization can **reduce** accident rate

- a Absolutely Agree
- b Agree
- c Do not know
- d Disagree
- e Absolutely disagree

8 In General, canalization **give advantages** to all road users.

- a Absolutely Agree
- b Agree
- c Do not know
- d Disagree
- e Absolutely disagree

9 Canalization **advantage private vehicle**

- a Absolutely Agree
- b Agree
- c Do not know
- d Disagree
- e Absolutely disagree

10 Canalization disadvantage **non-passenger car** drivers (car that must use canalization lane i.e: motorcycle, public transit)

- a Absolutely Agree
- b Agree
- c Do not know
- d Disagree
- e Absolutely disagree

C. QUESTIONS (Only for Motorcycle's driver)

1 **Before** the SR/RR campaign, **how often** to replace the battery?

2 **Before** the SR/RR campaign, **how often** to replace the headlamp bulb?

3 **During** the SR/RR campaign, **how often** to replace the battery?

4 During SR/RR campaign, **how often** to replace the headlamp bulb?

5 **Reason** of Using Motorcycle for daily trip:

- Cheap others _____
- Flexible/quick _____
- no choice _____

D. Overall, do you agree with the safety riding/responsible riding? Yes No

Overall, do you agree with the canalization? Yes Nn

Thank You For Your Participation

Fig. 4. Questionnaire form

Table 1. The data of trial questionnaire

Sample Number	New sample Number	Name	Age	Sex	Education	Address	Occupation	Vehicle type	Know/Do not know	Origin of information	1	2	3	4	5	6	7	8	9	10	SR/RR, Agree or Disagree	Kanalisasi, Agree or Disagree		
1	1	Catur AP	37	M	S2	PCI, SDA	2	2	K	Newspaper	5	5	2	1	1	1	5	5	2	2	A	A		
2	2	Budi R	38	M	S2	Prapan, Surabaya	2	2	K	Newspaper	4	2	3	2	2	1	2	4	2	4	A	A		
3	3	Agus	30	M	SMA	Keputih, Sby	1	1	K	Newspaper	4	3	2	1	1	1	1	1	3	A	A	D		
4	4	Damiri	44	M	SMA	Sukolilo, Sby	1	1	DK		4	1	1	2	1	1	1	1	5	D	A	A		
5	5	Amenah	45	M	SMA	Simosidomulyo, Sby	2	1	K	Friend	1	2	1	2	1	1	4	2	4	2	A	D	D	
6	6	Poedjianto	43	M	SMA	Ploso l/64, Sby	2	1	K	Newspaper	4	2	1	4	1	2	4	2	4	A	A	A	A	
7	7	Umar B	40	M	SMA	AR Hakim, Sby	1	1	K	Newspaper	2	3	4	2	1	2	2	4	4	A	A	A	A	
8	8	Eko HIP	45	M	SMA	Candi, SDA	1	2	K	Newspaper	1	3	4	1	1	1	1	1	4	4	A	A	A	
9	9	Farida	26	F	S2	Rungkut Harapan, Sby	2	2	K	Newspaper	4	4	3	2	2	2	2	2	4	A	A	A	A	
10	10	Deny P	23	M	S1	Rewwin, SDA	4	1	K	Newspaper	4	2	2	1	1	1	4	2	2	A	D	A	D	
11	11	Wahyu W	23	M	S1	Gunungsari Sby	1	1	K	Newspaper and Bailho	1	4	3	1	2	2	4	2	2	A	A	A	A	
12	12	Febryhandi EKP	24	M	S1	Bringin, Trosobo SDA	1	3	K	Newspaper and Bailho	2	3	2	2	2	2	2	2	2	A	A	A	A	
13	13	Ngadi	40	M	SMA	Kedinding Lor	5	1	DK		1	3	3	1	1	1	2	2	4	4	A	A	A	
14	14	M Rokib	23	M	S1	Mojo I, Sby	4	1	K	Newspaper +Pamflet	3	5	1	1	1	1	1	1	1	5	A	A	A	
15	15	Robin	31	M	SMA	Manukan, Sby	5	1	DK	Spanduk	4	2	4	1	1	1	2	2	4	4	A	A	A	
16	16	Tawio	37	M	S3	KST 42, Sby	2	2	K	Newspaper	1	1	1	1	1	1	1	1	1	5	A	A	A	
17	17	Debby L	32	F	S1	Sukolilo, Sby	1	1	DK	Spanduk	4	2	1	1	1	1	2	4	1	1	A	D	D	
18	18	Cahya B	35	M	S2	GKB Gresik	2	1	K	Newspaper	1	3	1	1	1	1	2	4	1	1	A	D	D	
19	19	Sepitri U	25	F	SMA	Gebang Lor, Sby	4	1	DK	Newspaper	2	3	2	2	4	5	1	2	3	4	A	A	A	
20	20	Wirawan W	42	M	S1	Karangmenjangan, Sby	2	1	K	Newspaper	1	3	4	1	1	4	1	3	2	4	A	A	A	
21	21	Bambang W	27	M	S2	Sukolilo, Sby	2	1	DK	Newspaper, Radio	1	3	2	2	2	2	2	2	3	3	A	D	D	
22	22	Arfani S	24	F	S1	Gebang Lor 57, Sby	4	1	K	Newspaper +Pamflet	4	3	4	2	2	2	2	2	2	2	A	D	D	
23	23	Oki	22	F	S1	Surabaya	1	2	DK	Koran + spanduk	2	4	2	1	1	1	1	1	1	4	A	A	A	
24	24	Widya Utama	46	M	S3	Baruk Utara XII/10, Sby	2	2	K	Newspaper	5	1	5	5	1	1	1	1	1	5	A	A	A	
25	25	Tantra	21	M	S1	Gebang Lor 72, Sby	4	3	DK	Newspaper	3	2	3	2	2	2	2	4	2	4	A	A	A	
26	26	Abdiya	21	F	S1	Gebang Lor 80, Sby	4	3	K	Koran + spanduk	2	3	4	1	1	1	2	2	2	4	A	A	A	
27	27	Andarita	36	F	S1	Pondok Benowo Indah EE-29, Sby	4	1	DK	Newspaper +Pamflet	4	2	2	2	2	2	4	2	2	2	A	D	D	
28	28	Rita	27	F	S1	Basgara III/12, Sby	1	1	K	Newspaper	4	3	2	2	1	1	4	4	2	2	A	D	D	
29	29	Hartatik	28	F	S1	Manyar Sabrangan 113B, Sby	1	3	DK	Newspaper	2	2	2	1	1	1	1	1	1	2	5	A	A	A
1	30	Annisa H.S		F	SMA	Blok U-49 - ITS	4	3	K	Newspaper	2	3	3	1	1	1	1	1	2	2	A	A	A	

Note

SMA: Senior High School, S1: Graduate, S2: Post Graduate, S3: Doctor/PhD.

Table 2. Reliability test, (output SPSS [8])

		N	%
Cases	Valid	326	98,2
	Excluded(a)	6	1,8
	Total	332	100,0

a Listwise deletion based on all variables in the procedure.

Cronbach's Alpha	N of Items
0,691	10

Table 3. Validity test, (output SPSS [8])

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Cronbach's Alpha if Item Deleted
Quest0001	18,6810	14,907	,214	,698
Quest0002	18,7822	15,383	,243	,686
Quest0003	18,6963	14,907	,323	,672
Quest0004	19,2730	15,485	,343	,671
Quest0005	19,3037	14,987	,466	,655
Quest0006	19,1534	14,444	,458	,651
Quest0007	18,8804	14,032	,480	,645
Quest0008	18,7485	13,820	,456	,647
Quest0009	18,7178	14,511	,348	,668
Quest0010	17,8804	13,767	,310	,682

Table 2 show that the Cronbach's Alpha is 0.691 thus it can be concluded that the questionnaire is reliable since it is bigger than 0.6 [8]. Meanwhile, Table 3 show that the validity of all questions within the questionnaire form are valid since the Corrected Item-Total Correlation of each questions $> r_{table}=0.11$ [9].

Analysis

Description of Responses

The grouping of samples is predefined first before the descriptive analysis. The group itself is defined based on 'what impact to whom' approach. Regarding the canalization, two groups have been determined as follow:

1. Group 1, consists of samples (respondents) which drive canalization-lane mandatory vehicle i.e.: motorcycle, public transport (bus, *mikrolet*, taxi) and pedestrian which is commonly as public transport users.
2. Group 2, consists of samples which drive non-canalized-lane mandatory vehicle i.e.: passenger car.

Meanwhile, regarding to other safety riding features campaign i.e. the daytime headlamp rule, standardized helmet, the group of sample is a little bit different than those applied in previous group. The number of group is still the same, which is divided into two groups including:

1. Group 1, consists of samples which is directly affected by those regulation in this case motorcyclist.
2. Group 2, consists of samples of non-motorcyclist.

After the groups of samples have been defined, the non parametric Mann-Whitney test [6] is used to test whether or not there is a significantly different response among groups for specific matters. If the difference does exist, the descriptive analysis must be presented separately or clustered based on each group. On the other hand, if there is no difference found, the descriptive analysis can be assumed representing all samples.

Safety Riding (daytime headlamp rule and standardized helmet)

The questions relating to the responses of road users regarding the daytime headlamp rule and standardized helmet are found in question number 1 to 6 of questionnaire shown in Figure 4. The Mann-Whitney test [6] is deployed with the following hypotheses:

H_0 : There are no different responses between motorcyclist and non motorcycle driver regarding the daytime headlamp rule and standardized helmet.

H_1 : There are different responses between motorcyclist and non motorcycle driver regarding the daytime headlamp rule and standardized helmet.

The conclusion will be based on the Asymptotic Significance value [6]. The H_0 will be supported if the probability of Asymptotic Significance value > 0.05 . On the contrary, the H_0 will be rejected and H_1 is supported if the probability of Asymptotic Significance value < 0.05 . The result of Mann-Whitney test is presented in Table 4.

Based on the result as presented in Table 4, it can be seen that the probability of asymptotic values are bigger than 0.05 so that it can be concluded that there is no significantly different responses between Group 1 and Group 2 regarding the daytime headlamp rule and standardized size helmet regulation.

Safety Riding (canalization)

The questions relating to the responses of road users regarding the canalization are found in question number 7 to 10 of questionnaire shown in Figure 4. The Mann-Whitney test is deployed with these following hypotheses:

H_0 : There are no different responses between canalization-lane mandatory vehicle driver and non-canalization-lane mandatory vehicle driver regarding the canalization.

H_1 : There are different responses between canalization-lane mandatory vehicle driver and non-canalization-lane mandatory vehicle driver regarding the canalization.

Table 4. Mann-Whitney test of samples regarding the daytime headlamp rule and standardized size helmet [6]

	Category	N	Mean Rank	Sum of Ranks
Quest1	1,00	283	166,58	47143,50
	2,00	47	158,97	7471,50
	Total	330		
Quest2	1,00	283	164,79	46635,50
	2,00	47	169,78	7979,50
	Total	330		
Quest3	1,00	282	164,65	46431,00
	2,00	47	167,11	7854,00
	Total	329		
Quest4	1,00	283	165,33	46787,00
	2,00	47	166,55	7828,00
	Total	330		
Quest5	1,00	283	164,32	46501,50
	2,00	47	172,63	8113,50
	Total	330		
Quest6	1,00	283	167,59	47428,00
	2,00	46	149,07	6857,00
	Total	329		

Test Statistics (a)

	Quest1	Quest2	Quest3	Quest4	Quest5	Quest6
Mann-Whitney U	6343,500	6449,500	6528,000	6601,000	6315,500	5776,000
Wilcoxon W	7471,500	46635,500	46431,000	46787,000	46501,500	6857,000
Z	-,567	-,385	-,189	-,094	-,636	-1,412
Asymp. Sig. (2-tailed)	0,571	0,700	0,850	0,925	0,525	0,158

a Grouping Variable: Category

Table 5. Mann-Whitney test of samples regarding the Canalization [6]

	Category	N	Mean Rank	Sum of Ranks
Quest7	1,00	283	169,23	47891,50
	2,00	47	143,05	6723,50
	Total	330		
Quest8	1,00	283	168,19	47599,00
	2,00	47	149,28	7016,00
	Total	330		
Quest9	1,00	282	166,67	47001,00
	2,00	47	154,98	7284,00
	Total	329		
Quest10	1,00	281	164,00	46083,50
	2,00	47	167,50	7872,50
	Total	328		

Test Statistics (a)

	Quest7	Quest8	Quest9	Quest10
Mann-Whitney U	5595,500	5888,000	6156,000	6462,500
Wilcoxon W	6723,500	7016,000	7284,000	46083,500
Z	-2,071	-1,514	-,917	-,245
Asymp. Sig. (2-tailed)	0,038	0,130	0,359	0,807

a Grouping Variable: Category

Similarly, the conclusion will be based on the Asymptotic Significance value. The H_0 will be supported if the probability of Asymptotic Significance value > 0.05 . On the contrary The H_0 will be rejected and H_1 is supported if the probability of Asymptotic Significance value < 0.05 . The result of Mann-Whitney test is presented in Table 5.

Based on the result as presented in Table 5, it can be seen that the probability of asymptotic significance value is higher than 0.05 thus it can be concluded that there is no significantly different responses between Group 1 and Group 2 regarding the canalization. Therefore, the descriptive analysis is not necessarily clustered into two groups. The descriptions of responses of all samples are presented in Figure 5.

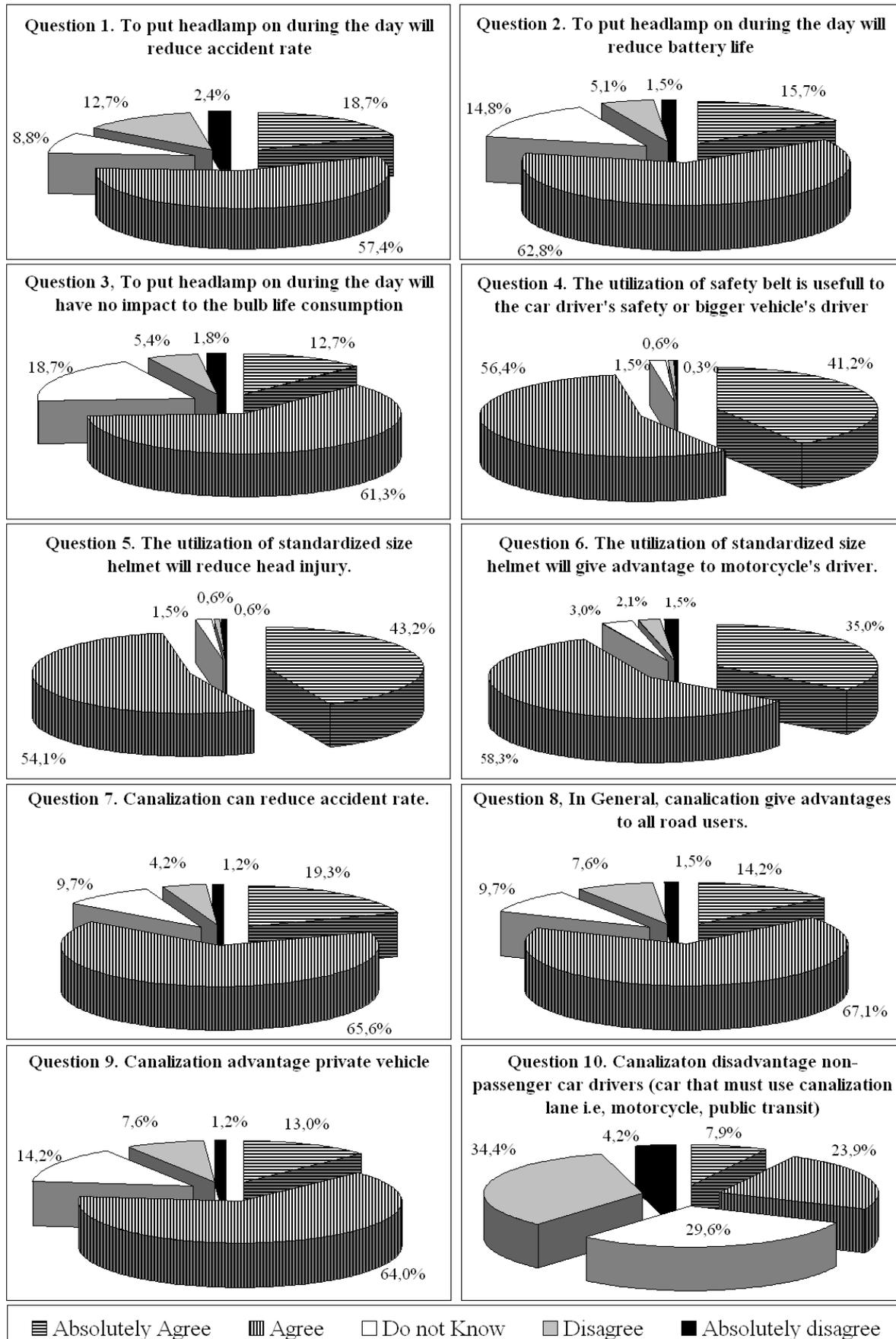


Fig. 5. Description of responses of road users

Inference Analysis of Daytime Headlamp Rule

The description of responses of road users regarding the indications that daytime headlamp rule can reduce both battery and bulbs life is presented in Figure 6. The inferences about these indications are discussed more in depth as follows.

a. Indication of overuse of battery (reduce battery life)

As shown in Figure 6, it is clear that many of samples state that they have no any idea about battery and bulb life before and after the application of daytime headlamp rule. This can be because they do not follow the rule or they do not care about those matters. Additionally, samples not riding motorcycle will absolutely have no idea about these matters. Therefore, the inference analysis will be addressed to the samples that really experienced and concern about those matters.

Of all samples collected, there are only 93 samples (28.1%) that really experience and concern about battery life history of their motorcycle (see Table 6). The inference analysis is then carried out based on these samples. The conclusion is based on the following hypotheses:

H₀: Battery life before and after applying daytime headlamp rule is the same (there is no significant impact)

H₁: Battery life before and after applying daytime headlamp rule is not the same (there is significant impact), battery life is significantly reduced.

As indicated in Table 6, the Asymptotic Significance value is found 0.000 which is smaller than 0.05 (0.000<0.05) so that the H₀ is rejected. This means that the daytime headlamp rule in Surabaya does reduce battery life significantly.

b. Indication of overuse of bulbs

Similar with the previous analysis, the indication of overuse of bulbs analysis is also addressed to the samples that really experienced and concern about those matters.

Of all samples collected, there are only 84 samples (25.38%) that really experience and concern about bulb life history of their motorcycle (see Table 7). The inference analysis is then carried out based on these samples. The conclusion is based on these following hypotheses:

H₀: Bulbs life before and after applying daytime headlamp rule is the same (there is no significant impact)

H₁: Bulbs life before and after applying daytime headlamp rule is not the same (there is significant impact), bulbs life is significantly reduced.

As indicated in Table 7, the Asymptotic Significance value is found 0.000 which is smaller than 0.05 (0.000<0.05) so that the H₀ is rejected. This means that the daytime headlamp rule in Surabaya does reduce bulbs life significantly.

Public Opinion from Websites

Some public opinions obtained from several websites [10, 11, 12] are generally divided into two side of opinions which are agree or disagree. The summary of those opinions are presented in Table 8.

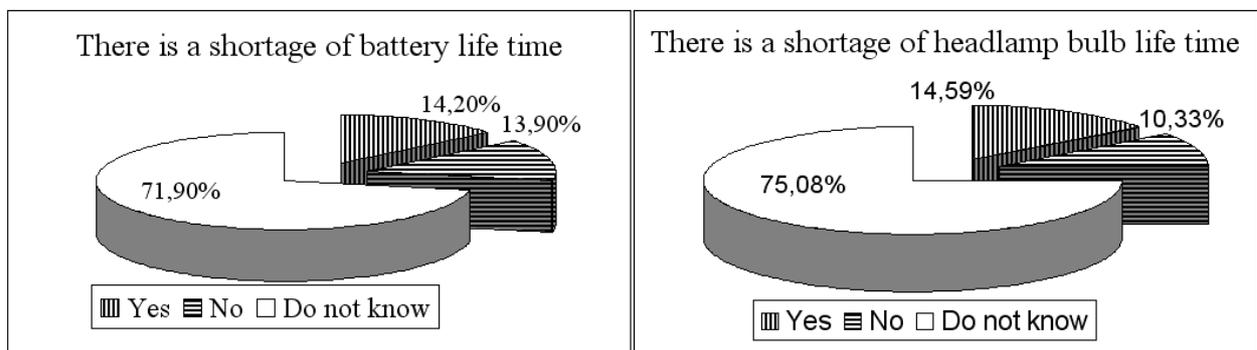


Fig. 6. The Responses of road users regarding the indication that daytime headlamp rule can reduce battery life and bulbs life.

Table 6. Before and after of daytime headlamp rule regarding overuse of battery life. [6]

1=normal (unaffected)
2=shorter battery life

Case Processing Summary						
	Cases					
	Valid		Missing		Total	
	N	Percent	N	Percent	N	Percent
AccuBefore * BattAfter	93	100,0%	0	,0%	93	100,0%

BattBefore * BattBefore Crosstabulation

Count		BattAfter		Total
		1,00	2,00	
BattBefore	1,00	46	47	93
Total		46	47	93

BattBefore & BattAfter

BattBefore	BattAfter	
	1	2
1	46	47
2	0	0

Test Statistics (b)

BattBefore & BattAfter	
N	93
Chi-Square(a)	45,021
Asymp. Sig.	0,000

a Continuity Corrected
b McNemar Test

Table 7. The before and after analysis of the impact of *daytime headlamp rule* regarding bulbs life time. [6]

1=normal (unaffected)
2=shorter bulbs life

Case Processing Summary						
	Cases					
	Valid		Missing		Total	
	N	Percent	N	Percent	N	Percent
BulbBefore * BulbAfter	84	100,0%	0	,0%	84	100,0%

BulbBefore * BulbAfter Crosstabulation

Count		BulbAfter		Total
		1,00	2,00	
BulbBefore	1,00	36	48	84
Total		36	48	84

BulbBefore & BulbAfter

BulbBefore	BulbAfter	
	1	2
1	36	48
2	0	0

Test Statistics (b)

BulbBefore & BulbAfter	
N	84
Chi-Square(a)	46,021
Asymp. Sig.	0,000

a Continuity Corrected
b McNemar Test

Table 8. Public opinion regarding the safety riding from several websites.

Reason for agree	Reason for disagree
Nearside lane is safer for motorcycle since some motorcycles are found doing the overtaking and crossing with proper signals. .	Safety riding disadvantage motorcycles
Safety riding is applied on main road only	Too pro to car driver.
In Indonesia, many of motorcycle drivers tend to break the law (traffic law)	Motorcycle is in the same lane with other vehicles, including big vehicle such us city bus.
The behavior of most motorcyclists is likely the same with uneducated public transit driver.	The lane provided for canalization is too narrow.
	During the application, the unfairness treatment still often found when cars somehow are allowed to use canalization lane. But when the opposite take place the motorcycle driver will be punished with the ticket or fine.
	There is a possibility that safety riding is used for illegal purpose by less-integrity authorized personnel.
The same regulation is found in European country.	Reduce battery life
	Reduce bulbs life.
	Advantage specific institution.
	Indonesia is tropical country where the mist is rarely found.
	There are a lot of number motorcyclists in Indonesia.

Conclusions

Based on the analysis above, the following conclusion can be drawn:

1. In general, there are no difference responses between canalized vehicle drivers and non-canalized vehicle drivers. Additionally, most of road users support the safety riding campaign including canalization program. Most of road users are found to agree with canalization.
2. According to samples, the daytime headlamp rule does reduce battery as well as bulbs life.
3. There are actually two sides of public opinion summarized from website regarding safety riding campaign which are agree or disagree. The reasons of their opinion depend on the availability of facility and infrastructure, on-duty officers' availability, officer's integrity, road user's safety, the overuse of resources, the conspicuity of motorcycle, and the behavior of road users themselves.

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