

IMPACT AND CHALLENGES OF USING TELEVISION AND BILLBOARDS AS ROAD SAFETY EDUCATION AND SENSITIZATION TOOLS IN GHANA

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ABSTRACT

The National Road Safety Commission (NRSC) with the aim of making Ghana an accident free haven in West Africa has undertaken massive education and sensitization of all road users, especially drivers of commercial vehicles through the use of billboards and television. This paper presented an evaluation of the benefits and challenges associated with the use of these two concepts as mass media road safety educational campaign tools. The study combined individual in-depth interviews with questionnaire administration to 1028 respondents made up of key stakeholders in five specified Regions namely, Greater Accra, Volta, Western, Ashanti and Northern Regions of Ghana. The study revealed that, billboards are location-specific and are rarely placed on unpaved roads while impact of Television depends on the time and duration. The main challenge to the billboard strategy is related to funding and the huge capital outlay needed to effectively undertake this process. This situation can be addressed by the use of stickers, pamphlets and posters, which by their nature constitute miniature billboards.

Keywords: *Drivers, Road Safety, Media Concepts, Campaign, Increased Awareness*

INTRODUCTION

Over the past decade, a lot of efforts in terms of budgetary allocations have been made to implement road improvement programmes as part of Ghana government's transport policy aimed at transforming the economy, through creating employment opportunities and especially markets for agricultural output (Amos, 2004). The programmes have involved periodic and medium term maintenance as well as the proposed intervention and reconstruction of rural, trunk and urban roads. This has led to an increase in the proportion of tarred roads (Tamakloe 1989). However, with this marked improvements in the road conditions there has been records of increases in the rate of accidents on roads with the major cause being over-speeding (CSIR-BRRI, 2006). Statistics indicate that about 80% of traffic accident situations in Ghana can be attributed to drivers error (Adakwa and Tamakole 2001). The role of these factors in influencing driver's safety outcomes has gained increased attention from policy makers in recent times.

As a result, the National Road Safety Commission (NRSC) embarked upon massive education and sensitization of all road users, especially drivers of commercial

vehicles through the use of billboards and television. These educational programmes including the Ghana Television (GTV) Morning Show, "Stay Alive" Series on GTV and Road Safety Billboards. These also aim at making the country an accident free haven in West Africa. Consequently, NRSC (2008). commissioned a study to evaluate their road safety education and publicity programmes.

The road and traffic environment affect our lives in a profound way on a daily basis (DOT, 1995). Children go to school using the road, parents go to work using the road and drivers take passengers to their destinations using the road. This shows that road plays a very vital role in the daily activities of the people. However, road traffic injuries are a major but neglected public health challenge that requires concerted efforts for effective and sustainable prevention. Of all the systems with which people have to deal with every day, road traffic systems are the most complex and the most dangerous (Sowton, 2005). Worldwide, an estimated 1.2 million people are killed in road crashes each year and as many as 50 million are injured. Projections indicate that these figures will increase by about 65% over the next 20 years unless there is new commitment to prevention (Sowton, 2005).

The number of motor vehicles in Ghana is increasing rapidly and, coupled with population growth, is contributing to a rise in the number of road traffic injuries and fatalities (GRSP, 2010). Road safety has become a major national issue receiving front-page coverage in the press and National Television on a regular basis. Fortunately, the government and donor communities have reacted quickly and increased funding to the National Road Safety Commission (NRSC), (GRSP, 2009) enabling it to expand and implement new targeted road safety initiatives. For example, the Danish International Development Assistance (DANIDA) has been a primary supporter of government road safety activities in Ghana (GRSP, 2010).

Road crashes kill an average of four persons daily in Ghana (GRSP, 2004). In 2005, the number of road crashes increased by 16% compared to 2004. The regions of Ashanti, Eastern, Greater Accra, Central and Brong Ahafo accounted for more than 70% of the total number of crash fatalities and out of this, about 70% of crashes occur on flat and straight roads (GRSP, 2010). Speeding is a major cause of crashes, accounting for over 50% of reported crashes. Buses and minibuses cause 35% of fatal crashes while cars are responsible for 32% (GRSP, 2010). This indicates that road users are not cautious on the road and as such cause these accidents. The reason may be due to the fact that they are not aware of the road safety rules. Thus, it is necessary to inform people on good practices so as to avoid accidents.

Various strategies have been put in place some of which are the use of television and billboards as road safety educational tools. Billboards conveying road safety messages and instructions installed beside highways are necessary because people use road transport increasingly for travel and at the same time spend more time in vehicles (RHD and MoC, 2005). Due to the importance attached to the use of billboards, several criteria have been used to select sites for bill boards, some of the criteria are: where vehicles automatically slow down; at places that are visible from long distances; at the entry of an accident prone

area; and on a natural raised place that cannot be obstructed by other vehicles (RHD and MoC, 2005). Transaid (2005) found that, Television (TV) programs concerning road safety were very effective. This is evident at lorry stations since these are busy centres where drivers rest and relax between and after work and show various road safety films. As drivers spend a considerable amount of time there, they may hear what has happened as a result of irresponsible behaviour of some drivers.

The image-focused nature of TV information helps even the illiterate to capture what is being conveyed (Transaid, 2005). However, according to Sowton (2005), these road safety educational tools are faced by certain challenges, some of which are that, gaps exist between idea and delivery; large parts of society are excluded by programmes; top-down approach is predominant; attitudinal change is difficult to achieve; lack of political will to realise change; messages do not reflect reality and lack of driver training. Due to these challenges, it becomes difficult for efforts put in place to increase road safety educational campaigns to yield desired results. This study looks at the impacts and challenges of using TV and billboards as tools for road safety educational programmes and makes recommendations for their improvement.

METHODOLOGY

The approach to the study involved the administration of structured questionnaires and focus group discussions with key stakeholders. In all, a total of 1028 copies of structured questionnaires were administered in five out of the ten regions of Ghana, namely the Greater Accra, Volta, Western, Ashanti and Northern regions. The regions selected using systematic sampling technique. The general trend in Ghana's population structure reveals the dominance of the female population over the male. According to the 2000 Population and Housing Census, the gender split of the country is 49% males and 51% females (GoG, 2000). The number of questionnaires per region was taken to be proportional to the estimated population of the region. Thus the quota sampling method was adopted for the selection of the target population. These were classified by location in terms of urban and rural communities. Location selection was done to include areas of high accident records and areas of low accident records. Table 1 presents the administration of questionnaires for the various locations for the selected regions.

Table 1: Administration of Questionnaires for Locations in Selected Regions

Regions	Location	No of Respondents
Greater Accra	Accra	140
	Dodowa	60
	Gbetsile	40
Ashanti	Kumasi	160
	Bekwai	70
	Aprada	50
Western	Sekondi-Takoradi	110
	Agona	50
	Inchaban	40

Volta	Ho	78
	Gbogame	60
Northern	Tamale	70
	Savaulgu	50
	Fufulsu	50
Total		1028

Source: *Fieldwork, 2008*

Focus group interviews were conducted for key stakeholders in road safety, including various categories of road users namely, pedestrians, drivers and cyclists. Others include road service providers, enforcement agencies, the judiciary, infrastructure development agencies, first aid providers, health workers, road safety practitioners, road safety institutions, vehicle services and inspection officials. Classifications based on age segregation, that is, the young adult and the old as well as the vulnerable were also considered. The responses from these identifiable groups provided useful information for the design of the questionnaires. The questionnaires were pilot tested in Accra prior to administration nationwide. The version 13 of the SPSS was used to analyse the data. Data analysis was based on measures using appropriate statistical tools.

RESULTS AND DISCUSSIONS

About 61.3% males and 38.7% females were interviewed. The dominance of the male gender in the respondents was because only about 1% of commercial drivers are women mostly operating in Accra (NRSC, 2008). Most of the respondents were within the active age group of 20 to 45 (Table 2) with only about 14% being less than 20 years of age. The average age of the respondents was 29 years with the median age being 27 years while the modal age was 20 years.

The age structure of the population in a country provides a picture of the level of age dependency in the economy and serves as a determinant for measuring economic activity of the population. This is crucial in the planning process as it would also help to identify the kind of road safety awareness strategies to be adopted for the targeted groups.

Table 2: Age of Respondents

Age Categories	Frequency	Percent
Below 20	148	14.4
20-24 years	96	9.3
25-29 years	80	7.8
30-34 years	74	7.2
35-39 years	108	10.5
40-44 years	66	6.4
45-49 years	51	5
50-54 years	46	4.5
55-59 years	100	9.7
60-64 years	100	9.7
65 + years	159	15.5
Total	1028	100.0

Source: *Field Survey, 2008*

Frequently Used Mode of Transport: The mode by which people ply the road varies

and therefore it is important to make sure that road safety issues are targeted at all road users since road users regardless of the type of mode frequently used are vulnerable to road accidents. In this vein, the survey identified the frequently used mode of transportation on the roads (table 3), that 33% of road users used trotro (a local commercial minibus), while about 23% used taxi. Most road users commute from one place to another by using the commercial vehicles (table 3). Hence any programme aimed at reducing road accidents should target them. Only about 5.4% of the road users used private vehicles while 17.2% of respondents usually commuting walk or trek. Other modes of transport identified included bicycle, motorbike and bus at 6.6%, 7% and 7.3% re.

Table 3: Frequently Used Mode of Transport

Transport Modes	Frequency	Percent
Walk	177	17.2
Bicycle	68	6.6
Motorbike	177	7.0
Private Car	56	5.4
Taxi	240	23.3
Trotro	340	33.1
Bus	75	7.3
Total	1028	100.0

Source: Fieldwork, 2008

Occupation of Respondents: From the survey, it was found that about 21% of the respondents were traders who are frequent users of the road. Hence it is necessary to know their level of awareness with respect to road safety issues and improve upon it. Salaried workers such as civil and public servants constitute about 16% while 24% students who needed to be educated on how to conduct themselves when using the road were 23.5% (Table 4). Service providers such as hairdressers, dressmakers, barbers and others made up about 13.5%. Commercial drivers who are major road users and through whose negligence road accidents could occur consisted about 12% of the respondents. It was important to capture them because all the investments being made by the National Road Safety Commission in the area of road safety education are geared towards them. Hence an assessment of the drivers' knowledge levels was pertinent.

Table 4: Occupation of Respondents

Occupation Categories	Frequency	Percent
Farming	46	4.5
Salaried Employment	161	15.7
Trading	214	20.8
Food Processing	5	0.5
Hired Labour	38	3.7
Services	139	13.5
Drivers	120	11.7
Student	242	23.5
Artisans	51	5.0
Pensioner	1	0.1
Unemployed	9	0.9
Total	1028	100.0

Source: Fieldwork 2008

Impact of Increased Road Safety Awareness: One positive response from the survey was that about 90% of the respondents believed that the road safety educational programmes have influenced their lives greatly (Table 5). They cited examples such as how they now cross the road using the pedestrian facilities such as the zebra crossing and obey traffic lights. It is encouraging to find out that less than 1% felt that the awareness has not influenced them in anyway. This goes to justify the funds being spent on road safety educational campaign/programmes in the country and is a reflection that the strategies being adopted by the National Road Safety Commission are yielding positive results. However, there is still room for improvement as about 10% of the respondents who felt that all these programmes had little or no effect on them need to be addressed as a matter of concern.

Table 5: Impact of Increased Road Safety Awareness

Level of Impact	Frequency	Percent
Yes, Much	923	89.8
Little	104	10.1
No	1	.1
Total	1028	100.0

Source: Fieldwork, 2008

Change on Behaviour on Roads: From the study, about 88% of the respondents were of the opinion that the various educational programmes on road safety that they had seen had changed their behaviour on the road positively, while for about 11%, the change could be described as little (table 7). Less than 1% of the respondents were of the view that what they have seen has not had any impact on their behaviour with respect to road safety. Again, this is good as it means that, the roads are safer now and people have changed their attitudes on the roads for the better. Also, it is a manifestation of the effectiveness and efficiency of the various strategies being used by the various stakeholders involved in the sensitization programmes both on TV and Billboards.

Table 7: Change on Behaviour on Roads

Level of Impact	Frequency	Percent
Yes, Much	909	88.4
Little	114	11.1
No	4	.4
Total	1028	100.0

Source: Fieldwork, 2008

The level of influence these road safety educational campaigns have had on the sampled respondents was high with some regional variations. The Western Region recorded the largest proportion of respondents whose behaviours had been changed by the road safety educational campaigns, which was 99%, while the Greater Accra Region recorded the least (82%). The Volta Region had about 85% of the respondents changing their behaviour on the roads because of influence of the messages with the Ashanti and Northern Regions recording 86% and 92% respectively (Figure 1).

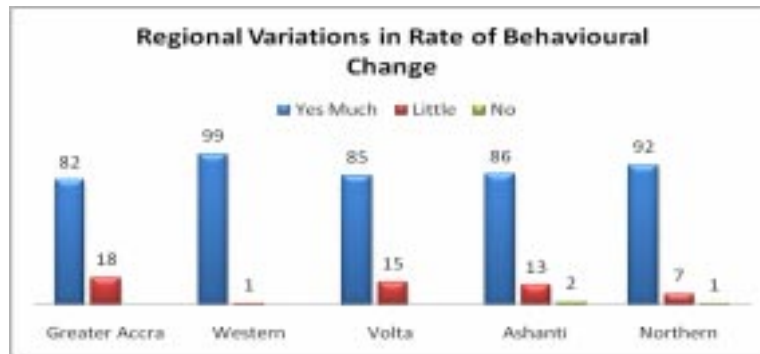


Figure 1: Regional Variations in Behavioural Change

Application of Road Safety Information Gained from Educational Programmes:

Out of the sampled respondents, about 61% reported that they actually adhere to road safety information and awareness gained from the various educational and sensitization programmes on TV and billboards and applied this knowledge. This was seen in the reduction in the level of recklessness on the road by drivers.

Imparting Message to Others: It was necessary to assess the extent of shared knowledge by the respondents who had acquired road safety information from both the TV and billboards. The essence of every educational message whether for road safety or any other issue is for those who hear or view the TV programmes to spread or publicise the news, so that all people would have the knowledge. For the various road safety educational and sensitization campaigns, whether aired on the television or shown on billboards, about 67% of the sampled respondents have discussed issues pertaining to road safety with others. This therefore implies that people share the views and opinions with others to educate each other.

Hence, the multiplier effect of these programmes has been good. There were regional variations with respect to the proportion of respondents who have shared their acquired knowledge on road safety with others. The highest proportion of knowledge transfer was recorded in the Volta Region which was 91% while the least was in the Ashanti region, where about 51% of the respondents had shared the knowledge. In the Greater Accra and Northern Regions, 76% of the respondents respectively had had the opportunity to transfer their acquired information on road safety issues to others, whereas in the Western Region the survey indicated a proportion of 54%. There had also been instances where some respondents had disagreements with drivers who were either drunk before seating behind the steering wheel or were over speeding. In the Western Region, for example there had been an incidence where a female passenger had to alight because of the recklessness of the bus driver.

However, even with most of the respondents imparting their road safety knowledge to others, it is observed that there is still a very low level of behavioural change concerning road safety issues in Ghana. The discussions that respondents have are usually among their colleagues and family members representing 60.4% and 22% respectively (Table 8). This suggests that people are concerned when it comes to issues with road safety resulting

in regular discussions. On the contrary, only a few respondents discuss issues concerning road safety with passengers and their employers, representing only 7.9% and 1.2% respectively.

Table 8: People who Respondents Discuss Road Safety Issues With

Responses	Frequency	Percent
Colleagues	621	60.4
Passengers	81	7.9
Family	226	22.0
Employer	12	1.2
Others	86	8.4
Total	1028	100.0

Source: Field Survey, 2008

Perception of Danger on Roads with Little or No Knowledge about Road Safety:

Many of the respondents agreed to the fact that the existence of little and especially no knowledge about road safety issues poses a great threat on roads. From the survey, 97% of the respondents were of the opinion that the roads would have been dangerous if there had been no avenue to educate people about road safety, while 3.4% felt that little or no knowledge did not make any difference and thus posed no threat (Figure 2). This assertion was confirmed by all the respondents of Volta region and 94% of respondents in the Northern Region. The tendency for accidents to occur is high, thus the need to get everybody educated on issues regarding road safety.

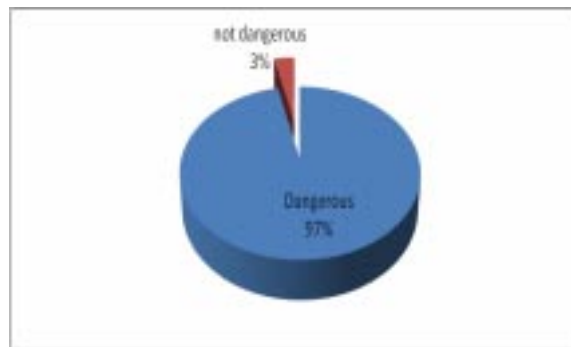


Figure 2: Danger on roads with little or no knowledge about road safety

CHALLENGES TO THE BILLBOARD AND TELEVISION STRATEGIES

The main challenge to the billboard strategy is related to the issue of funding and the huge capital outlay needed to effectively undertake this process. A billboard costs an average of 3000 Dollars in Ghana. It was therefore observed in the survey that in all the cities and towns, not more than four billboards on road safety were located in each. Besides, billboards are location specific and are rarely placed on unpaved roads. The prospects of the TV strategy are high given the nature of television but from the survey, it was found that the problem has to do with the time these programmes are aired.

These TV educational programmes are usually shown in the mornings at 7:30am by which time most workers might have left home or were preparing to leave. Hence, there was no time to watch the programmes and learn from them. The other challenge

revealed from the survey was that the duration used for these programmes were too short. The road safety educational programmes held on television have duration of not more than 45 minutes. The study sought to assess the TV and billboard strategies being used by the National Road Safety Commission in educating and sensitizing the public on road safety issues. Indicators used include the increase in road safety awareness, behavioural changes and application of road safety information gained from educational programmes while imparting message to others. The survey also suggests that awareness and knowledge transfer had been higher in the case of television than for the billboards.

For example, while awareness level was about 61% of the respondents for the billboards, it was 85% for the television strategy. In addition, it was found in the survey that there were very minor differences between the billboards and the TV from the respondents regarding the mode of communication, the effectiveness of the presentation of road safety on the billboards and TV and the contents of the programmes. Both strategies were understood by the respondents. This means that variations in awareness creation between the strategy of using television and that of employing billboards can be explained by the duration and timing of the educational programmes undertaken on the TV and the appropriateness of the locations of the billboards. One interesting observation made during the study was that most of the respondents had increased their level of awareness on road safety issues not only through television and billboards, but also through the radio and that the level of awareness of radio programmes were more pronounced in rural communities with no electricity like those in the Northern Region. The use of the radio was also preferred in such areas because educational programmes were held in the local language and English.

CONCLUSION AND RECOMMENDATIONS

Almost, all the respondents have correctly understood the message about road safety on the television and billboards and its impact on accidents on the roads. Both modes of communication were effective in communicating the intended message and meaning of the message. The study has revealed that the presentation, mode of communication and contents on television and billboards are deemed satisfactory by most people. The issues of timing and duration for television, and that of location for billboards and their high cost, still present challenges for further enhancement of Road Safety campaigns. To improve the level of awareness, effectiveness and to increase the benefits of these two strategies the following are recommended:

- i Stickers, pamphlets and posters by their nature constitute miniature billboards. These are not location dependent and are cheaper than billboards. These can therefore be used to supplement billboards especially in rural areas and in areas with a large number of unpaved roads and not only along major trunk roads. Distribution of road safety stickers should be targeted at drivers at police check points, on public holidays and festive occasions and car stickers on road safety should be made mandatory.
- ii There is need for the road safety educational campaign/programmes to be put intensified. This would entail strengthening road safety issues at lorry stations where passengers and drivers can readily be captured and educated on a one-on-one

- basis. Road safety pamphlets and posters should be distributed at passenger terminals, and educational institutions among others to cover a wider cross-section of road-users.
- iii Radio programmes could be increased as respondents were of the view that many people could be reached through the radio programmes as almost every commercial vehicle has a car tape in it. Also, all the National Road Safety Commission regional offices in the country had radio stations within their catchment areas so it would not be difficult to introduce more radio programmes to supplement the television and billboards.
 - iv The time for the road safety campaigns during the morning show programmes held on Ghana Television was inappropriate since that is when people were either preparing to go to work or had left already. It is therefore recommended that the road safety components of the TV morning shows be aired an earlier so that people with televisions can be educated and informed on how they should conduct themselves on the road.

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