ZEBRA CROSSING AND PEDESTRIAN SAFETY MANAGEMENT IN ROAD TRAFFIC ENVIRONMENT IN METROPOLITAN LAGOS, NIGERIA

Joshua Adetunji Odeleye

Nigerian Railway Corporation
p. o. box 3454, Sabo–Yaba,
Lagos, Nigeria
e-mail: joshuaodeleye@yahoo.com

Abstract

The massive re-introduction of zebra crossing on all major roads in metropolitan Lagos recently is timely and worthwhile. It is, however, observed that the road users (motorists/pedestrians) are largely ignorant of the need for and the essence of this safety measure on the roads. Hence, motorists often raced across the crossing, notwithstanding the number of pedestrians attempting to or are crossing the road. Also, often time pedestrian willing to cross the road do passively stand aloof, few metres from the zebra crossing box.

However, this paper encourages the metropolitan authority to fund extensively mass awareness campaign about the necessity of this measure. Again, re-engineering of the road traffic environment is also offered as another way of ensuring optimal utilisation of this safety measure. Finally, a City Alliance programme that is road safety bias, and sustainably capable of supporting this project in cash and kind towards realisation of the embellished classical benefits this safety measure has to offer metropolitan Lagos is highlighted in this paper. This is with a view at making the road traffic environment safer for the pedestrians, particularly the vulnerable pedestrians within time and space.

Introduction

The recent re-introduction of Zebra Crossings on all arteries/feeder roads across the metropolitan Lagos road network, by the city authorities, evidently ascertained that the city authorities are conscious of the unsafe state of road users, most especially pedestrians, in the road traffic environment within space and time in the metropolitan.

And, in the process of installing this safety device on the city gridlock, particularly at strategic points and locations, substantial amount of money must have been committed by the city authorities. Really, this is a positive step towards creating traffic safety culture as well as an enabling and sustainable road traffic environment in metropolitan Lagos. Ironically, this substantial amount of money spent on this project was indirectly sent into the drain.

Because, from empirical field survey conducted during the course of this paper, the result outrightly confirmed that the road users (motorists inclusive) are grossly ignorant of the need for the importance and the role of this safety device on the road. This is contrary to the
erroneous believe by the city authorities that the road users are conscious of the importance of zebra crossing on the roads.

In view of the above, this paper aims at justifying the accomplishment of the singular primary objective of the city authorities; which is enhancement of pedestrian safety using zebra crossing in metropolitan Lagos.

**Vehicular And Human Traffic Generation Trend In Metropolitan Lagos**

The continual neglect of the rural settlement in developing countries, whereby socio-economic infrastructures are rarely available, among other factors is responsible for the massive rural-urban drift. Metropolitan Lagos is, however not an exception. Over the years the population of metropolitan Lagos has rose geometrically. According to UN population statistics, Lagos has population of 10,287 million at the growth rate of 5.68% between 1985 and 1995, and annual growth rate of 3.61% between 2005 – 2015.

Again, as individual income increases and socio-economic status improves, the zeal to own private cars hysterically grows up. This is due to the poor state of public transport system in metropolitan Lagos.

These factors stated above, as well as the primordial necessity that man must move daily within space and time in search of their livelihood is responsible for the conflicting movement between the vehicular and human traffic. And, man has always been at the receiving end, especially in a peculiar road traffic environment like that of metropolitan Lagos where motorists are reckless and portray nonchalant attitude towards other road users – pedestrians.

**The Road Users’ Attitude on Zebra Crossing in Metropolitan Lagos**

Traditionally, the essence of zebra crossing on the road is primarily to maintain a peaceful and safe interaction between man and vehicle traffic, since it has not been possible to maintain a perfect and complete segregation between these two important road users.

However, the attitude/activities of road users on zebra crossing in metropolitan Lagos render ineffectual the in-built safety benefit of this device. Notably, the following negative attitudes are exhibit on zebra crossing by road users in metropolitan Lagos:

- Zebra crossings are obstructed due to on-street parking
- Vehicles in traffic jam stand on zebra crossing
- Pedestrian stand aloof from this safety device
- Motorists raced across the zebra crossing

Also, the poor road maintenance culture in the metropolitan further aggravate the unsafe state of this safety device. For example, the white paint on the Zebra Crossing often peel-off without instant replacement. In addition, supplementary component of the road environment that suppose to alert the road users of the need to use the zebra crossing, as well as the necessity to obey it are virtually not available.

Among these are:

- Special lighting for pedestrians crossing
- Steady and flashing beacons
Ironically, zebra crossing points are abandoned, and paradoxically becomes a danger crossing point for the pedestrian at all time.

The State of Road Accident Data in Nigeria

The ludicrous state of road accident data in Nigeria, whereby summary of various categories/patterns of accidents are lumped together, renders frivolous any attempt to account for the numbers and types of accidents that occurred on zebra crossing within space and time across Nigeria. There are no dynamic national databank, whereby accident data are synthesis in accordance with the place of occurrence, number of female/male victims, children, aged, vehicles involved etc. Rather, the existing data are collation of total number of accidents, number of people injured, killed, etc.

However, in order to determine the functionality of this device on metropolitan Lagos in the course of this research, certain numbers of questionnaires were distributed among some high school children, being the most vulnerable road users, to determine their knowledge and usage of this device. In doing this, consideration was given to geographical spread/locations of chosen schools, so as to show the differential variance between children residing in urban, peri-urban and sub-urban centres of metropolitan Lagos.

Research Scope And Methodology

Inasmuch as, road safety research is the scientific study of the road and traffic system in any of its aspects with the fundamental aim of finding ways of reducing the number of road accidents or their severity. This aim is pursued in this paper using experiment and observation to discover if zebra crossing is a promising safety device increases the safety of the pedestrians on the roads in metropolitan Lagos.

In distributing questionnaires, being the research tool, one hundred and fifty copies were distributed among senior students of three different high schools across the metropolitan. These schools are located in Ikoyi, in the Southwest area of metropolitan Lagos, Surulere located in the Western part of metropolitan Lagos, and Oworonshoki located in Eastern part of metropolitan Lagos. These geographical locations represent, considering the variation in their levels of socio-economic development, the urban, peri-urban and sub-urban centres respectively.

And, the questionnaire aimed at the following:

- To determine if the students have pre-knowledge of this safety device.
- To know the trend of utilisation by the school children.
- To determine the effectiveness of its enforcement.
- To know if road traffic safety is a taught subject in these schools, and
- To determine the trend of accidents on this safety device.
Data Presentation And Analysis

As stated above, one hundred and fifty copies of questionnaire were distributed among school children in three different secondary schools in metropolitan Lagos. The school children (respondents) shared some common attributes thus:

- Their age ranged between 15 – 19 years.
- They are classmates in “Senior Secondary School” Class Two.
- Fifty questionnaires were distributed evenly.
- Questionnaires cut across genders.
- A male teacher is attached each to get them through the questionnaire.

Road Traffic Safety As a Discipline in Schools

From the summary of the responses from the students, 12 out of 50 students of Osborne Road, Ikoyi claimed that road traffic safety is treated as a discipline in their school. Meanwhile, 49, and 48 students of Surulere and Oworonshoki respectively claimed that road safety is treated as a discipline in their school. And, despite this assertion many of these students cannot describe correctly the characteristic, components and peculiarities of a zebra crossing.

Enforcement

Regular enforcement, towards appropriate utilisation of zebra crossing as a safety device for all road users is also highlighted thus: 28 students of Osborne Road, Ikoyi claimed that there is reasonable level of enforcement of zebra crossing regulations by the traffic police in the neighbourhood, meanwhile, 16 students from Surulere, and 44 students (respondent(s) from Oworonshoki claimed that enforcement is observed appropriately by law enforcement agents in their neighbourhood. In other words, there is partial enforcement on Osborne Road, area of Ikoyi, while people are indifferent about this safety device in Surulere.

Trend of Zebra Crossing Utilization by the School Children in the Study Area

Again the result from the questionnaire ascertain that school children in Oworonshoki a suburb of Lagos are more conversant with zebra crossing as a safety device for pedestrian crossing the road. Out of 50 respondents 45 of these students from Oworonshoki ascertain that they use this device often, while 35 students from Surulere claimed likewise. But only 19 of the respondents from Ikoyi confirm that they use this device regularly.

Trend of Accident

There is an interesting variance in the rate of accident on zebra crossing in these selected geographical zones of metropolitan Lagos. For example, 15 respondents (students) from Surulere agreed that road accident do occur on zebra crossing, but 26 respondents each from Ikoyi and Oworonshoki claimed that occurrence of accident on zebra crossing is rampant in their neighbourhood.

1 See Appendix for a copy of the questionnaire
The Respondents Pre-knowledge of Zebra Crossing as a Safety Device in Metropolitan Lagos

Respondents from the suburb (Oworonshoki) and the peri-urban (Surulere) claimed to have pre-knowledge of this device and its usage as a safety device, for 48 respondents each confirmed it. But, only 12 of the 50 respondents from Ikoyi claimed to have pre-knowledge of this device as a safety apparatus for pedestrians on the road.

The graphical presentation of the data above is as stated in Fig. 1 below.

Also, a concise summary of the responses of the students from the three geographical zones of metropolitan Lagos is graphically presented in Fig. 2 below.
This is with a view to giving appropriate attention to those areas of need, and thus enhance pedestrian safety in metropolitan Lagos. This done, the negative attitude/characteristics of road users to zebra crossing in metropolitan Lagos could be appropriately and positively modified.

**Recommendations**

Traditionally, the best way to modify and improve perfectly the Road Users Characteristics is not by engineering. City authorities need not alter the roads or the vehicles before human behaviour on the road are positively modified. And the three main ways by which these negative attitudes can be altered are through:

- enforcement
- education and training
- propaganda

As a result, city authorities in metropolitan Lagos, in alliance with private institutions and urban stake-holders should fund substantially road safety campaign and education, through workshops, seminars, conferences, research and training activities. It is then the huge amount of money spent on painting the zebra crossing points will not be a fortune sent into the drain. By so doing, more people will be conscious of the zebra crossing.

**Conclusion**

Presently, efforts at getting zebra crossing across all roads in metropolitan Lagos seems a bunch of futile exercise, for people are yet to make optimal utilisation of it as a safety device for pedestrians. However, creating mass awareness about the benefits of zebra crossing on the highway, prior the painting of the road and enforcement of zebra crossing regulations among the road users will go a long way at turning the road users to its usage in metropolitan Lagos. Also, painting of the road with WHITE PAINT may not be enough, but installation of supplementary components such as flood light, reflectorised/cat-eyes, beacons traffic light around the zebra crossing area will not only create better awareness about this device among the road users, also, it will further earn the device the due respect from the road users within time and space.

Otherwise, the prevailing unsafe road traffic environment especially among the pedestrians will persist, and more hard-earned public funds will continue to be wasted, by the authorities, due to misplacement of priorities in the provision of road safety device in metropolitan Lagos.
References


Prompting Safe Walking and Cycling. A report from Technical Research Centre of Finland (VT1), Communities and infrastructure in Nordic Road and Transport Research No. 3, 2000, VT1, Sweden.

APPENDIX 1

Questionnaires for Secondary School Students on Road Safety Issue in Metropolitan Lagos

1. Age ________________
2. Gender Boy[ ] Girl[ ]

![Stop sign]

3. Have you been seeing this sign on the road? Yes[ ] No[ ]
4. Do you know what it is called? Yes[ ] No[ ]
5. What is it called ____________________________________________________________
6. What is its function on the road? _____________________________________________
7. Have you been using it? Yes[ ] No[ ]
8. How often do you use it? ___________________________________________________
9. If your response to question 7 above is NO, what are your reason(s) ____________________________________________________________________

10. Have you been taught about it in school? Yes[ ] No[ ]
11. If YES, explain how it can be best used: ___________________________________________________________________

12. Is there anyone located around your home/school gate? Yes[ ] No[ ]
13. Have you been seeing Police/Traffic Warden arresting drivers who fail to obey this sign? Yes[ ] No[ ]
14. Have you witnessed any accident on this spot? Yes[ ] No[ ]
15. What sort of accident? ___________________________________________________________________

16. At what time of the day/night did the accident occur? ___________________________________________________________________