

EFFECT OF ROAD SAFETY LITERACY PACKAGE ON THE ATTITUDE OF PUBLIC TRANSPORTERS TOWARDS SAFE DRIVING IN EKITI STATE, NIGERIA

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Abstract

It is perceived that illiteracy is one of the major factors that affect public transporters' attitude towards road signs which in turn negatively affects their performance on the roads. This paper therefore examined the effect of Road Safety Literacy Package on the attitude of public transporters towards safe driving in Ekiti State. The study adopted the pretest, posttest, quasi-experimental design. The population for the study consisted of all 1,382 registered public transporters in all sixteen Local Government Areas in Ekiti State. The sample for the study consisted of 40 public transporters in Ekiti State that were selected using multistage sampling procedure. The instrument used for data collection was tagged Driving Attitudinal Scale (DAS). The experimental procedure was carried out and the findings revealed that Road Safety Literacy Package had significant effect on public drivers' attitude towards safe driving. However, there was no significant influence of the age, years of experience and location of public transporters on their attitude to safe driving. Based on the findings, it is recommended that Road Literacy Package should be used to train public transporter irrespective of their age, years of experience and location.

Keywords: Road Safety, Literacy Package, Attitude towards Safe Driving, Public Transporters

Introduction

Literacy is a crucial aspect of the language, encompassing reading and writing, which are fundamental language skills. An individual who can engage effectively through reading and writing is considered literate. Literacy involves the ability to derive and convey meaning using various symbols within social contexts (Olaseinde, 2014). It is part of the preoccupation in the field of language education to promote literacy among the citizens. The promotion of literacy includes such activities as school literacy programmes that are carried out in schools. Beyond the school system, literacy is also important and needed at the various work places, hence, the need for road literacy among public transporters. In the contemporary era, literacy has evolved beyond the simple skills of reading and

writing. Experts now discuss the concepts of multi-literacy and multimodal literacy, encompassing various forms such as print literacy, visual literacy, information literacy, media literacy, and graphic literacy (Dada, 2011).

Road literacy can therefore be seen as part of the knowledge, skills, and understanding needed for safe and effective navigation on roads. It covers a range of factors related to road usage, including awareness, understanding, and proficiency. Road literacy necessitates the ability to interpret and respond to road signs, understand traffic rules and regulations, anticipate the actions of other road users, and safely navigate through diverse road conditions.

In Nigeria, road transportation stands out as the most widely utilised,

primarily due to its relative efficiency, affordability, and widespread accessibility, catering to both rural and urban environments across the entire country (Fanola, 2017). Road transportation is believed to be the commonest means of transportation in the country and it comprises commercial and private systems. In commercial system of transportation, passengers and goods are conveyed based on the payment of certain amount referred to as hire, remuneration or fare. Commercial transportation which is also referred to as public transportation may belong to governments, corporate organisations or private individuals who charge passengers and goods on the basis of services rendered or distances covered. Public transportation serves as the means through which significant portions of the population attain physical access to the goods, services, and activities necessary for their livelihoods and well-being (Salau, 2015).

There is a noticeable pattern of rising rates of traffic crashes with a high mortality rate among public transporters (Federal Road Safety Commission, 2018). Evidence and observations revealed that the number of road crashes by public transporters in Ekiti State is increasing seem to be due to inability of the transporters to read and interpret road signs appropriately. It is documented by Federal Road Safety Commission that in 2018, there were a total of 71 road crashes, involving 127 vehicles. In 2019, 89 road transport crashes were recorded involving 142 vehicles. In 2020, 94 road crashes were recorded in Ekiti State and it involved 151 vehicles. In 2021, there were 139 road transport crashes involving 224 vehicles. The results uncovered a worrisome surge in the occurrence of road transport accidents in Ekiti State. Additionally,

the findings underscored a growing pattern in both the frequency of road crashes and the involvement of vehicles.

The heightened rate of road accidents appears to be connected, at least partially, to insufficient levels of textual, inter-textual, and performative literacy among drivers (Hu, 2015). This aligns with Akinyosoye's (2015) assertion that the accurate and thorough interpretation of signs is anticipated to enhance the performance of public transporters and decrease the occurrence of road crashes. It is perceived that illiteracy is one of the major factors that affect public transporters' attitude towards road signs which in turn negatively affects their performance on the roads.

The attitude of public transporters toward road signs, ethics, risk perception and behaviour seem to be interconnected with road traffic safety. Observations have shown that some public transporters intentionally display undesirable behaviour which in turn leads to poor driving patterns. This was supported by the submission of Dada and Okunade (2014) that undesirable behaviour have tendency to impede learning rather than promoting learning. Some of the perceived undesirable behaviours exhibits by public transporters are reckless driving, over-speeding, drinking of alcohol, smoking while driving and creating nuisances. It appears that majority of road crashes among public transporters in Ekiti State are as a result of mechanical and environmental factors promoted by human factors. This corroborates the submission of As-Saidi (2010) that human factors as well as attitude of public drivers towards the environmental and mechanical issues seem to have negative influence on road safety and safe driving in the country and this negativity appears to be very

prevalent among illiterate public transporters.

It is believed that perceived poor attitude of public transporters towards safe driving usually caused avoidable road crashes. It seems that most of the road crashes recorded on the roads in Ekiti State is due to the attitude displayed by the transporters. The attitude of the public transporters seems to have contributed to reckless driving. For instance, a transporter who has positive attitude towards alcoholism may involve in high level of reckless driving.

It is believed that public transporters' attitude is determined by the road education and their literacy level. Road literacy entails instructing public transporters in acceptable driving patterns and skills. The education on road use, which typically contributes to the literacy level of public drivers, is an ongoing process as long as they operate vehicles. It appears that employing functional literacy could decrease the incidence of crashes and fatalities on Nigerian roads. This implies that with literacy, individual road users, especially public transporters, will possess sufficient semantic competence to interpret traffic signs, ensuring safety and security on our roads.

Literacy is more than what one can learn in formal school before becoming public transporters but could be learned in driving schools. Government agents particularly Federal Road Safety Corps (FRSC) usually expose public transporters to transportation literacy that is expected to lead to safe driving. This is usually done through safe driving campaigns. This is confirmed by Madu (2016), who stated that the FRSC public education officers employ various strategies to educate both the general road users and public transporters specifically. The focus is on imparting knowledge about

the rules governing road usage and the repercussions of blatant disobedience of traffic rules and regulations. Relatedly, other important stakeholders such as Non-Governmental Organisations (NGOs) and Civil Societies do give training to public drivers on how to avoid road crashes.

Education for public transporters in Nigeria is facilitated through a variety of channels, including public lectures, workshops, seminars, conferences, drivers' improvement courses, rallies at motor parks, and literacy campaigns. These initiatives aim to instill knowledge of the highway traffic code in road users. Additionally, strategies such as organising workshops, seminars, lectures, motor park rallies, and broadcasting jingles on radio and television are employed, as highlighted by Onuka and Akinyemi (2012). These efforts collectively aim to enlighten public transporters on the effective utilization of road signs. It is believed that one of the best ways to reduce the continuous road crashes and improve on the literacy skills of public drivers in the country, there is a need for preparation of special road safety literacy package.

Road Safety Literacy Package is the teaching compendium designed to teach public transporters on road signs and ethics. Road safety literacy package is a tool locally made or imported that help to facilitate the literacy of road users which include private and commercial drivers (Liber, 2010). Ibeneme (2017) opines that road safety literacy packages are those materials used for practical and demonstration on the use of roads by transporters including drivers and motorists. It is anticipated that utilising the package will enhance the knowledge and skills of transporters by instructing them in recognising and interpreting road signs on highways. Some of the road safety

literacy packages used to train transporters are road safety training handouts, training audio-visual kits, Road Safety Training Maannual and specially designed trading packages. The adoption of literacy packages appears to offer more benefits compared to traditional teaching methods in specialized training programs in Nigeria. This aligns with the viewpoint presented by Olusola (2018) that educating drivers, motorists, and the general public on safety and discipline on highways cannot be effectively carried out without the proper use of teaching packages. This aligns with Madu's (2016) argument that employing literacy packages as instructional aids will equip public transporters to observe and understand the environment, elucidate basic natural phenomena, foster scientific attitudes like curiosity, critical reflection, and objectivity.

Several factors are believed to influence performance of public transporters and those include: age, work experience, level of education and location. This aligns with Ojo's (2016) assertion that individual characteristics of drivers, including age, educational attainment, and the types of vehicles they operate, influence their understanding of road usage. On this note, it could be inferred that the level of education of public transporters is likely to influence their level of performance and attitude towards safe driving.

Relatedly, age of the drivers appears to be very essential in determining their performance after being taught with the road safety literacy package. Oshima (2018) submits that age of drivers is one of the contributing factors that could influence their responsiveness to literacy package. Experience of learners in their early years play a crucial role in

their psychological, emotional and social needs which determine their readiness and willingness to learn through a well- package teaching aids such as road safety literacy package (Farris, 2019). This suggests that the numbers of years of experience of public transporters which seems to have little or no relationship with their chronological ages may determine their attitude towards safe driving and efficient use of roads after being taught with road safety literacy package.

Other important factor that determined the attitude of public transporters towards safe driving is location which has to do with rural and urban. It seems that transporters in urban areas are educated that those in the rural areas and thi may influence their attitude towards safe drivng. This is corroborated by Molnar (2017) that transporters in urban areas showed positive attitude towards safe driving when they are taught with learning packages than their counterparts in rural areas. On the effect of Road Literacy Package on the transporters on the basis of location, Hussin, Yahia, Shaban, Aldukali and Mohd (2014) submitted that the use of learning package leads to better performance among drivers in both rural and urban areas.

Statement of the Problem

As reported by the FRSC (2021), One Hundred and Thirty-Nine road crashes were recorded between January and September, 2021 leading to about Four Hundred and Twenty-Nine casualties, Forty-Eight deaths and Three Hundred and Eighty-One serious injuries. Record showed that about 75 percent of the road crashes involved public transporters. This implies that there is high rate of road crashes among public transporters in Ekiti State and this may not be too far from their attitude towards safe driving.

The incessant road crashes on the roads in Ekiti State in focus and Nigeria on a broader note seems to have devastating effects on citizens ranging from loss of lives to economic losses. Observations show that road crashes have led to gross loss of lives of public transporters and passengers in Ekiti State. The causes of the incessant road crashes may not be far from the inability of the public transporters to have safe driving. It appears that majority of public transporters in Ekiti State do not have good attitude towards driving safely.

A crucial human factor that could affect safe driving is the public transporters' literacy which is their ability to read and interpret road signs. To avert incessant road crashes and poor driving performance in Ekiti State, Nigeria, Federal Road Safety Corps in collaboration with other transportation stakeholders have regularly planned series of literacy for the public transporters in Ekiti State. These trainings which come in form of conferences, seminars, workshops and public lectures at garages – professionally called 'motor parks' and on broadcast media like radio or television seem not to be effective at improving safe driving and efficient road use by public transporters in the state. It appears that the training programmes are unable to improve the literacy skills of the public transporters probably due to the ways and nature of their arrangement, training periods and non-availability of adequate teaching aids.

It is believed that the observation and adherence to relevant road signs and symbols could improve the attitude and performance of public transporters in safe driving. It is observed that adoption of road safety literacy package as a teaching aid could improve the transporters' attitude towards efficient road use and safe

driving in Ekiti State. This study therefore investigated the effect of a Road Literacy Package on the attitude towards safe driving among public transporters in Ekiti State.

Purpose of the Study

The purpose of the study was to investigate the effect of Road Safety Literacy Package (RSLP) on the attitudes and performance of public transport drivers in Ekiti State. In more specific terms, the study aimed to:

1. examine the effect of Road Safety Literacy Package (RSLP) on the attitudes of public transport drivers towards safe driving in Ekiti State;
2. identify the difference in the effects of RSLP on the attitudes of experienced and less-experienced public transport workers towards safe driving in Ekiti State;
3. investigate the variation in the effects of the RSLP on the attitude of public transport workers based on their driving experience;
4. examine the variation in the effects of the RSLP on the attitudes of public transport towards safe driving in Ekiti State based on location.

Research Hypotheses

The following null hypotheses were formulated and tested at 0.05 level of significance:

1. There is no significant effect of the Road Safety Literacy Package (RSLP) on the attitudes of public transporters towards safe driving.
2. There is no significant difference in the attitude of public transporters towards safe driving after being exposed to Road Safety Literacy Package based on their age.
3. There is no significant difference in the attitude of experienced and less-

experienced public transporters towards safe driving after being exposed to Road Safety Literacy package.

4. There is no significant difference in the attitude of public transporters towards safe driving based on location after being exposed to Road Safety Literacy package.

Methodology

The pretest, posttest, quasi-experimental design was adopted in the study. The population for the study consisted of all 1,382 registered public transporters in all sixteen Local Government Areas in Ekiti State. The sample for the study consisted of 40 public transporters in Ekiti State that were selected using multistage sampling procedure. The instrument used for data collection was tagged Driving Attitudinal Scale (DAS). The face and content validity of the instruments were ascertained by experts of Language Education and Test and Measurement in the Faculty of Education, Ekiti State University, Ado Ekiti as well as two senior FRSC officers. Test re-test reliability procedure was adopted. The instrument was administered on 20 public transporters outside the sample at the interval of two weeks. Results obtained were analyzed using Pearson’s Product Moment Correlation (PPMC). The reliability coefficients of 0.83 was obtained for the instrument (DAS). The research was conducted by the researcher, who, with the assistance of four trained research assistants, collected both pretest and posttest data.

The researcher identified four literate transporters that were trained as research assistants. The trained research assistants were taught how to use Road Safety Literacy Package to train the participating public transporters. Before the administration of the treatment, pretest was given to the public transporters in both experimental and control groups in order to obtain data on the existing knowledge of the transporters and to examine their comparability. After this, the experimental group was taught how to maintain safe and efficient driving using Road Safety Literacy Package while the public transporters in control group were taught using traditional method, that is, lecture method. The training covered six weeks with the total instructional time of 24 hours, that is, the public transporters in experimental group were taught two days in a week and two hours per day. Training package featured warning signs, Regulatory Signs (Prohibitory), Regulatory Signs (Mandatory), Information signs, other road signs and Traffic light/signals. Hypothesis 1 was tested using Analysis of Covariance (ANCOVA), hypothesis 2 was tested using Analysis of Variance (ANOVA) while hypotheses 3 and 4 were tested using t-test. All the hypotheses were tested at a significance level of 0.05.

Results

Hypothesis 1: There is no significant effect of the Road Safety Literacy Package (RSLP) on the attitudes of public transporters towards safe driving.

Table 1: Effect of the Road Safety Literacy Package (RSLP) on Public Transporters' Attitude towards Driving

Source	Sum of Square	Df	Mean of Square	F	Sig.	Decision
Corrected Model	1305.501	2	652.751	71.176	0.000	S
Intercept	1438.583	1	1438.583	156.863	0.000	
Pretest	8.021	1	8.021	.875	0.351	
Group	1305.247	1	1305.247	142.324	0.000	

Error	1146.366	37	9.171			
Total	50231.000	40				
Corrected Total	2451.867	39				

R Squared = .532 (Adjusted R Squared = .525)

The result presented in Table 1 showed that there was a significant difference in the attitudinal mean scores of public transporters in the experimental and control groups as $F_{cal} = 142.324$, $P = 0.000 < 0.05$ at 0.05 level of significance. Hence, the null hypothesis was therefore rejected. By implication, there was significant difference in the attitudinal mean scores of public transporters in the experimental and control groups. This implied that there was significant

difference in the attitude of public transporters exposed to Road Safety Literacy Package and conventional method. This implied that road safety literacy package had positive effect on attitude of public drivers towards safe driving in Ekiti State.

Hypothesis 2: There is no significant difference in the attitude of public transporters towards safe driving after being exposed to Road Safety Literacy Package based on their age.

Table 2: ANOVA for difference in the attitude of public transporters towards safe driving after being exposed to Road Safety Literacy Package based on their age

Groups	Sum of Squares	Df	Mean Square	F	Sig.
Between Groups	12.215	2	4.232	0.378	0.571
Within Groups	4269.517	38	15.145		
Total	4281.732	40			

$P > 0.05$

The result presented in table 2 showed that F-cal value of 0.378 is not significant because the P value (0.571) > 0.05 . Hence, the null hypothesis is not rejected. This implies that there was no significant difference in the attitude of public transporters towards safe driving after being exposed to Road Safety Literacy Package based on their age. This infers that age of the public

transporters did not determine their attitude after being exposed to road safety literacy package in Ekiti State.

Hypothesis 3: There is no significant difference in the attitude of experienced and less-experienced public transporters towards safe driving after being exposed to Road Safety Literacy package.

Table 3: t-test analysis for Attitude of Public Transporters towards safe driving on the basis experience after Exposure to Road Safety Literacy Package

Source of Variations	N	Mean	SD	df	t _{cal}	P-Value
Experienced	13	2.871	1.483	18	1.864	0.069
Less-Experienced	7	2.812	1.371			

$P > 0.05$

Table 3 shows that the t-cal value of 1.864 is not significant because the P value (0.069) > 0.05 . This implies that null hypothesis is not rejected. Hence,

there was no significant difference in the attitude of experienced and less-experienced public transporters towards safe driving after being

exposed to Road Safety Literacy package. This implies that the experience of public transporters did not determine their attitude towards safe driving after being exposed to Road Safety Literacy Package in Ekiti State.

Hypothesis 4: There is no significant difference in the attitude of public transporters towards safe driving based on location after being exposed to Road Safety Literacy package.

Table 4: t-test analysis for Attitude of Public Transporters towards safe driving on the basis of location in after Exposure to Road Safety Literacy Package

Source of Variations	N	Mean	SD	df	t _{cal}	P-Value
Rural	09	3.623	1.472	18	1.783	0.072
Urban	11	3.781	1.489			

P>0.05

Table 4 shows that the t-cal value of 1.783 is not significant because the P value (0.072) > 0.05. This implies that null hypothesis is not rejected. Therefore, there was no notable distinction in the disposition of public transport drivers towards safe driving concerning their location following exposure to the Road Safety Literacy package. This indicates that there was no significant difference in the inclination of public transport drivers toward safe driving, whether in rural or urban areas within Ekiti State.

Discussion

The finding of the study revealed that road safety literacy package had significant effect on the attitude of public transporters towards safe driving in Ekiti State. The finding is in tandem with the finding of Ibe (2006) that driver education is a programme of organized learning and practices made to provide the knowledge, attitude and skills needed for safe driving performance under peculiar circumstances. The finding also agreed with the finding of Delhomme et al. (2009) that road safety campaigns are used as a means of influencing drivers to behave more safely in traffic. The implication of the finding was that the use of road safety package will facilitate the attitude of public transporters towards safe driving.

The finding of the study indicated that there was no significant difference in the attitude of public transporters towards safe driving based on their age after exposure to the Road Safety Literacy Package in Ekiti State. The finding agreed with the finding of Clarke (2017) that public transporters' ages do not determine their attitude and performance when being taught using learning design and materials. The finding disagreed with the finding of

Fanola (2017) that age of drivers is one of the contributing factors that could influence their responsiveness to literacy package. The implication of the finding is that the use of road safety literacy package may not be hindered considering the ages of the public transporters since the package embedded the road signs that the transporters are familiar with already.

Furthermore, the finding of the study showed that there was no significant difference in the attitude of experienced and less-experienced public transporters towards safe driving after being exposed to Road Safety Literacy package in Ekiti State. The finding disagreed with the finding of Farris (2019) that experience of learners in their early years play a crucial role in their psychological, emotional and social needs which determine their readiness and willingness to learn through a well-package teaching aids such as road safety literacy package which in turn improve their attitude towards safe driving. It also disagreed with the finding of Begg and Langley (2011) that risky driver behaviour and bad attitude decrease quickly with the increase of driving experience when learning package is used.

The finding also revealed that there was no significant difference in the driving performance of public transporters on the basis of location after being exposed to Road Safety Literacy package. This implied that there was no significant difference in the driving performance of public transporters in rural and urban after being exposed to Road Safety Literacy package areas in Ekiti State. The finding was in agreement with the finding of Hussin, et. al. (2014) that the use of learning package leads to better performance among drivers in

both rural and urban areas. It found that the use of a package such as literacy package could enhance the efficiency of public transporters in rural and urban areas. The finding suggested that the implementation of a road safety literacy package could result in favourable outcomes in the performance of public transport drivers.

Conclusion

Based on the findings of this study, it was concluded that road safety literacy package had significant effect on the attitude of public transporters towards safe driving in Ekiti State. The study also concluded that there was no significant difference in the attitude towards driving after being exposed to road safety literacy package on the bases of age, experience and location in Ekiti State.

Recommendations

Based on the findings of the study, the following recommendations were made,

- ✚ Public transporters should be frequently taught using road safety literacy package in order to enhance their attitude towards safe driving.
- ✚ Attitude of public transporters towards safe driving should be improved upon by using road safety literacy package irrespective of the transporters' age.
- ✚ Both experienced and less-experienced public transporters should be adequately taught using road safety literacy package in order to boost their attitude towards safe driving.
- ✚ Public transporters in rural and urban areas should be frequently and adequately taught using road safety literacy package in order to improve their attitude towards safe

driving.

References

- Akinyosoye, A. F. (2015). Addressing insecurity on Nigerian roads through literacy, language and semiotics. *African Educational Research Journal*, 3(1): 47-50.
- Begg, D., & Langley, J. (2011). Changes in risky driving behaviour from age 21 to 26 years. *Journal of Safety Research*, 32 (4), 491-499.
- Clarke, S. (2017). The trajectory of political education in English schools: The rise and fall of two initiatives. *Citizenship Teaching and Learning*, 3(1), 3-16.
- Dada, E. M. & Okunade, H.F. (2014). Classroom undesirable behavior and strategies used for controlling them among primary school teachers. *Kuwait Chapter of Arabian Journal of Business and Management Review* 3(9); 51-57.
- Dada, E. M. (2011). New Literacies and its Challenges for Teacher Education in Nigeria. *Research in Curriculum Studies*. (RICS). 6(1), 110-117
- Fanola, J.K. (2017), Road Transport Safety Standardization Scheme and Passenger Fleet Operations in Nigeria: An Assessment; unpublished Individual Research Project, NIPSS, Kuru.
- Farris, E., (2019). *Reconsidering Children's Early Development and Learning: Toward Common Views and Vocabulary*. National Academies Press. Washington, DC.

- Federal Road Safety Commission (2018) Research Monograph No. 2, Road Mirror
- Hussin, A. M., Yahia, A. I., Shaban, I. A., Aldukali, S. I., & Mohd, A. I. (2014). Attitudes and awareness of traffic safety among driver in Tripoli-Libya. *Research Journal of Applied Sciences, Engineering, and Technology*, 7(24), 5297-5303.
- Madu, I. A. (2016) *Environment and Poverty in Nigeria*, Jamoe Enterprises (Nigeria).
- Ojo, O. O. (2016). Investigation of Air Pollution from Automobiles at Intersections on Some Selected Major Roads in Ogbomoso, South Western, Nigeria. *Journal of Mechanical and Civil Engineering*, 1(4), pp. 31-35.
- Olaseinde, F. O. (2014). Literacy learning spaces and contemporary issues in national development. *Journal of the Reading Association of Nigeria*. 15(2):130-133.
- Oyinloye, G. O. & Ajepe, I. (2014). Literacy learning spaces and contemporary issues in national development. *Journal of the Reading Association of Nigeria*. 15(2):216-221
- Salau, T. (2015) Public transportation in metropolitan Lagos, Nigeria: analysis of public transport users' socioeconomic characteristics. *Urban, Planning and Transport Research*, 3:1, 132-139.