

STUDENT PERCEPTIONS ON ROAD SAFETY: A CASE STUDY

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ABSTRACT

The emotional, social and economic impact of road traffic accidents worldwide calls for urgent action. South Africa is no exception and is currently seeking strategies to reduce the number of deaths and injuries resulting from motor vehicle collisions. Road accidents are due to a number of reasons including speed, alcohol, fatigue and reckless driving. Also, people do not have the necessary knowledge or skills that allow them to deal or identify with the hostile traffic environment.

Receiving road safety education as part of their normal school curriculum is recognised as being one of the most effective ways of providing people with this type of knowledge.

The government of KwaZulu Natal has pledged itself to a long term commitment to road safety in the province, to reduce the death and crash toll in the province from present levels which are in the region of 15 times that of countries which can be classified as the “ worlds best practice.” The Asiphephe project is the initiative of the provincial government, and will work closely with the national Arrive Alive campaign and road safety projects in other provinces to ensure a cohesive national approach to road safety and crash reduction.

The Durban Metro Area has the highest number of reported accidents in the province with the main contributor being the township of Umlazi. Umlazi is situated 20 km south of Durban and has the Mangosuthu Highway as its only entrance and exit to the area. The statistics reveal that the youth of Umlazi are the main casualties of all accidents.

The Mangosuthu Technikon will be used as a basis for the survey since these students are starting to use the roads as drivers, pedestrians, potential vehicle owners or prospective drivers and are shortly due to become part of the economically active population.

This paper will focus on current road safety issues and discuss the findings of the survey.

1. INTRODUCTION

Modern society with the progressive development of the motorcar and its increased demand for individual mobility has introduced an epidemic of plague proportions to societies around the world in the form of road deaths and injury. Some communities have been more successful than others in addressing this critical social issue.

The road death and serious injury rate in South Africa is a national disaster with an average of 27 people killed every day, 6 in KwaZulu Natal.

With 19.9 road deaths per 10000 vehicles (Fig 1), KwaZulu Natal death rate is more than 15 times that of the state of Victoria, which has been classified as having the worlds best practice in road safety.

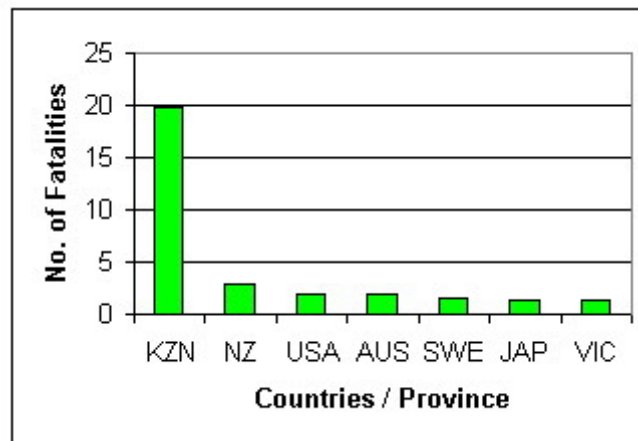


Figure 1. Number of Fatalities per 10 000 vehicles – International Comparison.

After many years of investigation into various road safety projects, a decision was made to use the very successful model from Victoria, Australia. This will be modified to suit local conditions. The Victoria Campaign reduced road deaths by 58% during a five-year period, and has substantially reduced crashes and injuries (Department of Transport, 1997a). The introduction of an administrative adjudication system made it possible to largely bypass the methods previously employed to collect fines, and thus reduce pressure on the courts caused by increased enforcement of road traffic offences.

Asiphephe aims to reduce road deaths in this province by 14% per year, which will lead to a 50% reduction over a five-year period (Department of Transport, 1997b). This translates to a saving of 1000 lives per year and a subsequent saving of R1 billion per annum in costs related to traffic crashes. Every individual will benefit from this reduction in road trauma, not only financially but also in a reduction of pain, suffering and grief.

In KwaZulu Natal there are:

- 100 000 reported collisions each year
- 2000 people killed each year of whom 900 are pedestrians
- 70% of all drivers speeding in urban areas
- 30% of all drivers speeding in rural areas
- 37% of front seat passengers not wearing seat belts
- 47% of drivers in accidents having blood alcohol levels exceeding 0.08mg/l
- 75% of pedestrians involved in accidents having blood alcohol levels exceeding 0.08mg/l
- economic losses within the province in excess of R2 billion annually (Department of Transport ,1997b)

It can be seen from Figure 2 that KwaZulu Natal features among the top three provinces that have the highest number of fatalities.

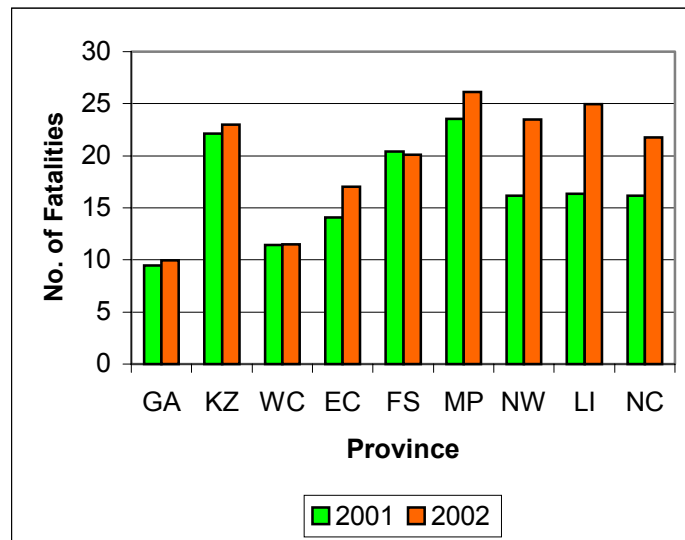


Figure 2. Fatalities per 10 000 vehicles per province (Department of Transport, 2003).

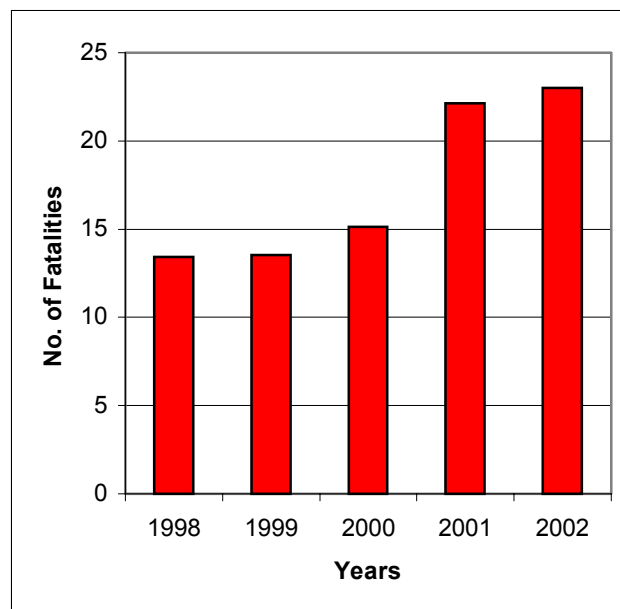


Figure 3. Number of Fatalities per 10 000 Vehicles in KwaZulu Natal.

The above figure shows a steady increase in the fatality rate over the past five years in KwaZulu Natal. Although the provincial government has spent millions of rands on road safety initiatives such as Asiphephe and 'Zero Tolerance' in KwaZulu Natal, there is still a remarkable increase in the fatality rate.

In 1997, the Department of Transport : KwaZulu-Natal formed the Road Safety Education sub-directorate (RSE), to deliver road safety education programmes in KwaZulu-Natal. The RSE was tasked to design road safety education programmes and form an agreement with the Department of Education for them to be included in the school curriculum. They were to monitor, evaluate and report on the effectiveness of road safety education programmes. Adult programmes were to be designed and delivered through a range of methods that the RSE will identify.

It was expected that the non-government and industry sectors will play a pivotal role in this area, and a rigorous programme designed to stimulate corporate sponsorship would be initiated.

However, the success of this programme is questionable due to the lack of human and financial resources.

Road safety is a worldwide problem and South Africa is no exception and is currently seeking strategies to reduce the number of deaths and injuries resulting from motor vehicle collisions (National Department of Transport, 2000). The number and severity of accidents in KwaZulu-Natal is very high when compared with some of the other provinces. Road accidents are caused through a number of reasons including speed, alcohol, fatigue and reckless driving. Also people do not have the necessary knowledge or skills that allow them to deal or identify with the hostile traffic environments.

Receiving road safety education as part of their normal school curriculum is recognised as being one of the most effective ways of providing people with this type of knowledge.

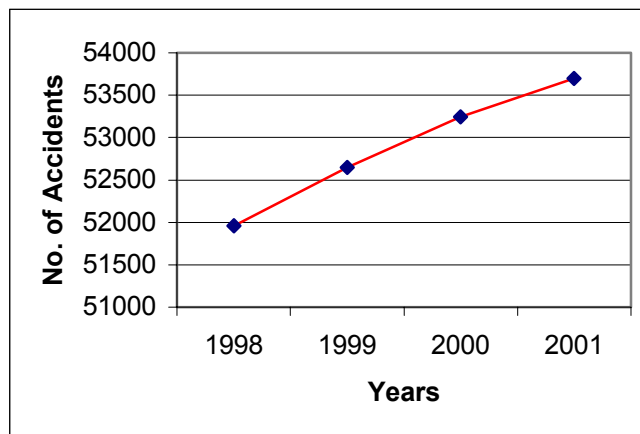


Figure 4. Accidents in Durban Metropolitan Area.

Figure 4 reflects the steady increase in the number of accidents in the Durban Metropolitan Area

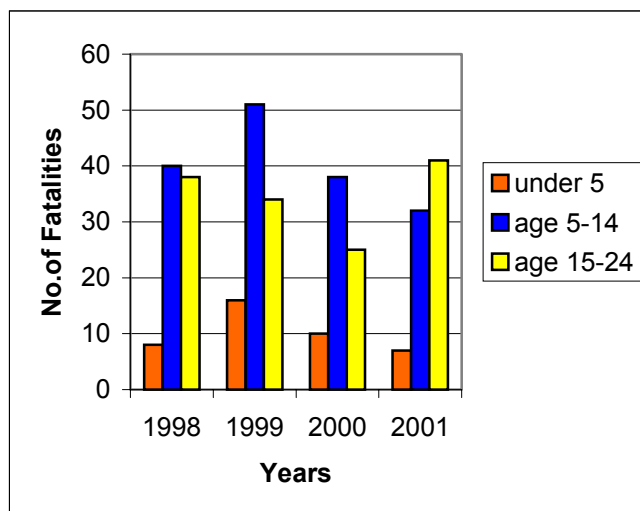


Figure 5. Fatalities according to Age Group for the Durban Metropolitan Area.

It can also be seen from Figure 5 that the youth contribute significantly to the high fatality rate.

2. HISTORICAL BACKGROUND

Apartheid policies, the increasing suppression, the economic impoverishment, the breakdown of family life, the call to the people to make themselves ungovernable, and the proliferation of both legal and illegal arms, had led to a situation where many South Africans are armed and dangerous. The economic situation, political frustrations and heavy state suppression with army and police concentration on protecting minority interests led to a very high level of crime in black society.

From a structural/road engineering point of view, the rural areas of South Africa and the 'townships' and informal settlements have remained largely undeveloped. There is a wonderful network of arterial roads and highways, sometimes four and five lanes wide, which criss-cross the land. These connect towns and cities and lead in and out of previously disadvantaged areas and were developed partially to make the safe and fast movement of troops and military equipment possible during times of political 'unrest.'

There has been insufficient infrastructure created for the safe road use of pedestrians in most areas, and too little government subsidy of travel for the poor, or facilities for taxis to enable them to pick up and drop off passengers safely. The taxi industry is not regulated, causing problems with control, condition and maintenance of vehicles. Because many of our informal settlements have not been planned, schools often are on one side of the main road and homes on the other. Sometimes shack settlements have grown up illegally and are established in the road reserve. Taverns and shebeens are informal businesses, which are not planned to enable safe travel home for patrons, often in inebriated states. 70% of adult pedestrians killed on our roads are drunk. This means that nearly 3000 lives are lost each year nationally because of road use by drunken pedestrians, and 1000 children die when they are hit by vehicles (Department of Transport, 1997a)

3. SURVEY QUESTIONNAIRE

650 students were randomly selected from the various faculties at Mangosuthu Technikon to participate in the answering of the questionnaire. The questionnaire was based on some background information pertaining to their schooling career and included questions on various modes of transport. General questions relating to road safety were also incorporated in the questionnaire.

The questionnaire was specifically targeted at students to determine:

- The emphasis placed on road safety.
- To what extent was road safety covered at the school level.
- Feedback in respect of short and long term remedial measures.

4. FINDINGS

4.1 Background

90% of the respondents attended government schools and the other ten percent attended either private or Model C schools. Out of the 61% percent of respondents that had some road safety education, 75% of them had some form of road safety education at primary school level. This was done on a more informal basis during the "guidance" period. The grades at which road safety was taught, varied and this is indicative of the absence of a proper road safety education curriculum.

4.2 Cyclist

More than 85% of the respondents are aware of the necessary protective gear and reflective clothing that is required when riding a bicycle but only 18.5% of the students actually use the protective gear.

Confusion does arise as to which side of the road, for or against traffic and as to where (on the pavement or on the road) one should ride. This is perhaps indicative of the legacy of the country's previous regime, which restricted infrastructure development in rural areas.

4.3 Bikers

The candidates are aware of the laws governing the use of helmets and the carrying of passengers under the age of sixteen.

However:

- 78% of the respondents have indicated that they will carry passengers under the age of sixteen
- 31% have said that the use of helmets is very important.
- 67% of the students have indicated that it is fine to take drugs and drive.

4.4 Driver / Pedestrian

- 35% of all respondents are in possession of a drivers licence.
- 67% and 82% of the candidates knew what the legal speed limits are in residential areas and freeways, respectively.
- Interestingly, 24% have indicated a lower speed for residential areas and 11% for freeways.
- 95% of the respondents indicated the importance of using seatbelts. However 50% of them admitted to not using seat belts on certain occasions.
- 79% of the students are against the use of drugs or drinking and driving. Only 5% knew that the legal blood alcohol limit was 0.05mg/l.
- The use of a cell phone while driving was a huge 'no' answer by 89.7% in spite of 40.5% of them admitting to answering their cell phones while driving.
- 81.2% of the candidates have indicated that they would pickup friends or relatives anywhere on the road.
- 56% of respondents indicated that they would not use a pedestrian footbridge if provided and would prefer crossing at any section of the road.
- Another alarming result is that 80.3% of respondents have indicated that they will wait anywhere convenient for them to be picked up by a taxi.

4.5 General

- 87.2% of respondents have not heard of the Asiphephe Campaign.
- 73.5% of the respondents know the meaning of the word Asiphephe but have little or no knowledge of the actual campaign.
- Approximately 50% of the students agree that the police are doing enough with regards to speed, alcohol, unroadworthy vehicles and fraudulent licence.
- When asked the question as to where road safety should start , 24% said it should start at school, 36% said at public places that include driving schools and 19% said at home.
- Respondents cited speed, alcohol and reckless driving as the main causes of accidents and more attention needs to be placed on these aspects.
- With regards to the promotion of road safety, the respondents believe that a higher police visibility, increase in road blocks, stiffer penalties for those breaking the law and increased public awareness should be initiated

5. RECOMMENDATIONS

The following should be considered:

- The incorporation of road safety education into existing learning programmes at primary and secondary level. An example of this is the STEP programme (Scholar Training and Education Programme) as implemented in overseas countries. Once the learning programmes have been implemented, further development of suitable curriculum material is required.

- Development of new resources using computers and other related equipment thus encouraging the use of new technology as part of the learning experience. Computer software can be used to illustrate the effects of not using a seat belt.
- Appointing a road safety co-ordinator in each school to co-ordinate implementation of these programmes. This should preferably be a teacher who is also a member of the local road safety committee.
- Encouraging the support and commitment to programmes by students, teachers, parents, local police and community groups. As an example, The Umlazi Safe Communities Project was the first project launched in KwaZulu Natal and all relevant role players and stakeholders were involved. This led to the success of the project and has now become the model for other such projects.
- Encouraging schools to develop a road safety policy that provide a sequential and comprehensive learning programme for all students resulting in a traffic safe environment.
- Monitoring, evaluation and review of programmes such as STEP and Safe Communities Projects.
- Involving the community – industry, commerce, service clubs, NGOs, etc. An example of this is the “Safe Community Project” initiative by CSIR, BP and Ethekewini Municipality
- Students should be offered practical activities that develop road safety as pedestrians, motorists, cyclists and vehicle passengers
- Stricter laws and more severe penalties
- A separate traffic offence related court to reduce the burden on the already overloaded courts.
- Increase in road traffic personnel.

6. CONCLUSION

With the formation of a new democratic South Africa, the merger of different cultures and beliefs, it is anticipated that a change in road safety will take a whole generation. Road safety is a culture and cannot be learnt overnight. The Government of South Africa is committed to a concentrated and integrated effort to bring road safety in line with international best practice.

The overall results of the survey indicates that there is a need to curricula a formal road safety programme or instructional offering for inclusion at the primary and secondary schooling phase. Only time will reveal the real benefits of the programme.

6. REFERENCES

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Biography

Mr Neeraj Sunker is a lecturer at Mangosuthu Technikon: Department of Civil Engineering and Surveying.

Qualifications include: B:Tech in Civil Engineering and a Management Diploma from the University of Durban Westville. Currently registered for the Masters Degree in Technology (Civil Engineering)

Approximately 14 years combined industrial and academic experience; traffic and transportation specialist in the department; involved in lecturing and monitoring of experiential learning and other academic and administrative functions relating to the Department, Faculty and Technikon.

I am also currently involved with the Umlazi Safer Communities Project, a road safety initiative by BP SA, CSIR and the Ethekewini Municipality.