

INTRODUCING LEARNER'S LICENCE TESTING AT SECONDARY SCHOOL LEVEL

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ABSTRACT

Road fatalities claim more than one million lives annually worldwide. The emotional, social and economic impact of road traffic fatalities demands urgent attention globally. This epidemic of road traffic fatalities is plaguing everyone, especially the poorer nations. Some countries like Australia and Sweden have been more successful than others in combating this epidemic.

South Africa is currently seeking strategies to combat this epidemic because South Africa's road traffic fatalities have been increasing annually, with a substantial percentage of teenagers and young adults between the ages of 16 and 29 contributing to these statistics. This age group will become or already have become part of the economically active population and concern is mounting as to why this particular age group is vulnerable.

A pilot survey of 650 participants was conducted at the Mangosuthu Technikon and a focal survey of 3200 participants was conducted at the four tertiary institutions in the Durban area. Students from this sector were selected as they fall in the most vulnerable age group and data using a questionnaire was collected from them on various aspects of road safety.

This paper provides an overview of the road safety problem globally, nationally, provincially and locally and also looks at the historical factors that have contributed to this problem.

On analysing the data, various problems were identified, in particular, lack of resources and limited education pertaining to road safety. A range of possible solutions is recommended and the focus areas are the 3E's namely: education, enforcement and engineering. However, the focal recommendation is on education and looks at the possibility of introducing learners' licence testing to the grade 12 syllabi.

1. INTRODUCTION

Road accident claimed its first fatality in 1896 in London. Since then it has claimed more than 30 million lives worldwide. Dr Howard Baderman, an accident and engineering specialist, cautioned that, "It was extraordinary for society not to realise the minefield it was creating for itself with new developments such as widespread use of cars, until as the years went by the carnage developed" (World Road Association, pg14, 2003).

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.

“To date, road safety has received insufficient attention at international and national levels. This has resulted in part from a lack of information on the magnitude of the problem and its preventability, a fatalistic approach to road crashes, and a lack of political responsibility” (World Road Association, 2003).

1.1 Road Safety: A Global Problem

In 2002 road accidents claimed almost one million lives worldwide and caused injuries to more than fifty million people. Over 80% of these fatalities were in the developing and emerging nations of the world, such as Africa, Asia, Latin America and the Middle East (World Road Association, 2003).

Road crashes are costing the world approximately US\$518 billion a year. In developing regions such as Africa, road accidents cost approximately 1% of the GNP, which Africa can ill-afford as indicated in Table 1.

Table 1. Road Crash Costs per Region (US\$ Billion).

Regions	Regional GNP 1997	Estimated annual crash costs	
		GNP	Costs
Africa	370	1%	3.7
Asia	2454	1%	24.5
Latin America/Caribbean	1890	1%	18.9
Middle East	495	1.5%	7.4
Central /Eastern Europe	659	1.5%	9.9
Highly Motorised Countries	22665	2%	453.3
TOTAL			517.8

(Source: World Health Organisation, 2002)

Such immense costs have made the former President of the World Bank Group, James D Wolfensohn to comment that: “Road safety is an issue of immense human proportions; it is an issue of economic proportions; it’s an issue of social proportions and it’s also an issue of equity. Road safety very much affects poor people” (World Road Association, 2003).

The World Health Organisation (2002) estimates that by the year 2020, road traffic fatalities will account for 2.3 million lives annually. Currently, road traffic injuries are the 9th leading cause of disease or injury and by year 2020 it is anticipated it will be the 3rd leading cause as indicated in Table 2.

Table 2. Disease burden for 10 leading causes.

1998 Disease or Injury	2020 Disease or Injury
1. Lower respiratory infections	1. Ischaemic heart disease
2. HIV/AIDS	2. Unipolar major depression
3. Perinatal conditions	3. Road traffic injuries
4. Diarrhoeal disease	4. Cerebrovascular disease
5. Unipolar major depression	5. Chronic obstructive Pulmonary disease
6. Ischaemic heart disease	6. Lower respiratory infections
7. Cerebrovascular disease	7. Tuberculosis
8. Malaria	8. War
9. Road traffic injuries	9. Diarrhoeal disease
10. Chronic obstructive pulmonary disease	10. HIV/AIDS

(Source: World Health Organisation, 2002)

1.2 Road Safety: A National and Provincial Problem

The road death and serious injury rate in South Africa is a national disaster with an average of 34 people killed every day in the country, 6 in KwaZulu Natal specifically.

KwaZulu-Natal has the highest population, the 3rd highest registered vehicle ownership but the 2nd highest fatality rate in the country (National Department of Transport, 2003).

With 19.9 road deaths per 10000 vehicles as shown in figure 1, the KwaZulu-Natal death rate is more than 15 times that of the state of Victoria, Australia, which has been classified as having the world's best practice in road safety.

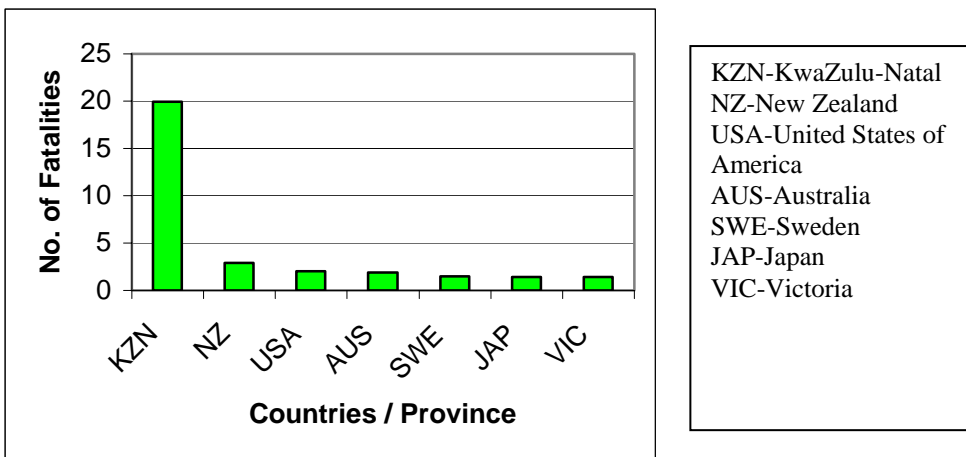


Figure 1. Number of Fatalities per 10 000 vehicles – International Comparison.

(Source: Department of Transport (KZN), 1997a)

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

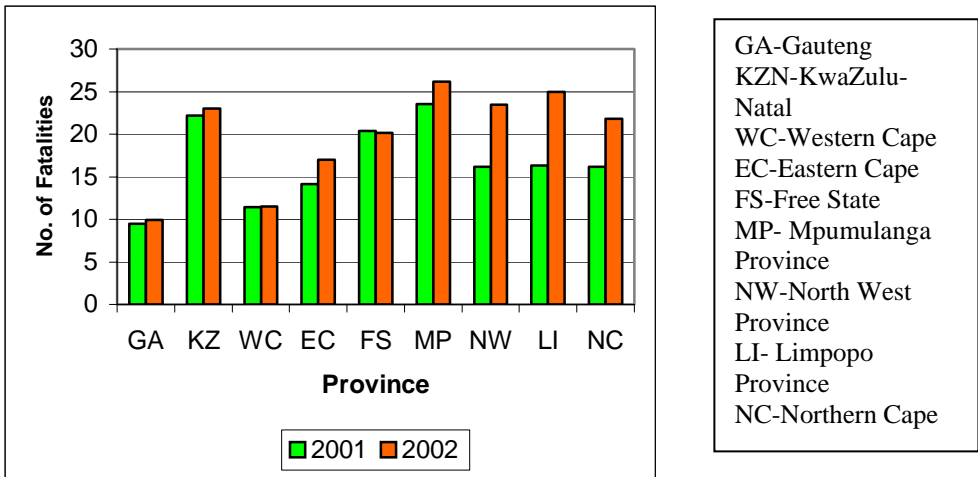


Figure 2. Fatalities per 10 000 vehicles per province.

(Source: National Department of Transport, 2003)

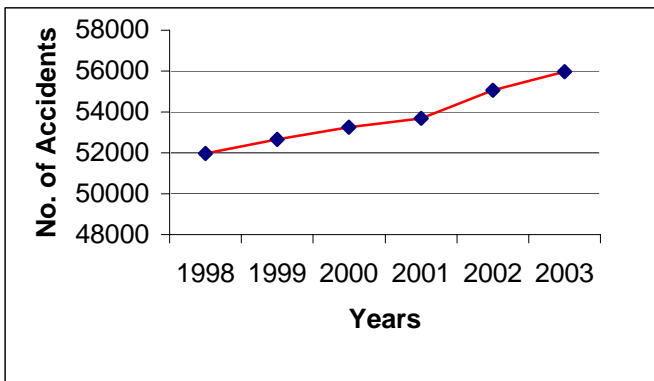


Figure 3. Accidents in Durban Metropolitan Area.

(Source: eThekwini Municipality, July 2004)

Figure 3 reflects the steady increase in the number of accidents in the Durban Metropolitan Area. It can also be seen from figure 4 that the youth contribute significantly to the high fatality rate. In the age group 15 to 24, traffic accidents is the second leading cause of deaths behind HIV/AIDS (Kapp, 2003)

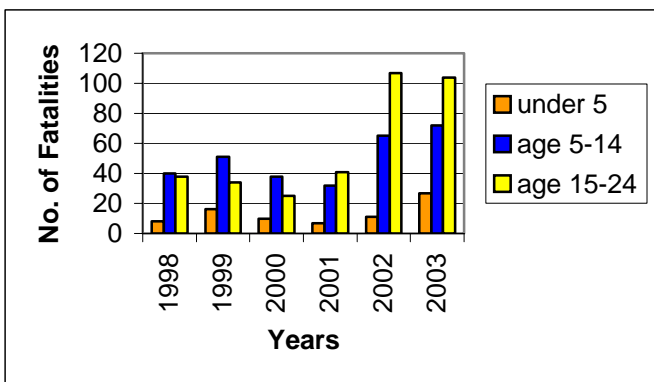


Figure 4. Fatalities according to Age Group for the Durban Metropolitan Area.

(Source: eThekwini Municipality, July 2004)

1.3 What is being done about Road Safety?

1.3.1 Globally

The Global Road Safety Partnership (GRSP) aims to find more effective and innovative ways of dealing with road safety in developing countries. Through a comprehensive approach to road safety, GRSP partners collaborate and coordinate road safety activities. This approach aims to build the capacities of local institutions by enhancing the ability of professionals and communities to actively tackle safety problems.

In spite of years of assistance from the international donor community, governments in developing and transition countries have been unable to keep pace with the rapid growth of motorisation. Road accidents continue to rise, particularly in Asia, where pedestrians and two-wheelers are particularly vulnerable. What can be done about this? If governments have been unable to deal with the problem, would a partnership between businesses; civil society and government have more success?

This dilemma underlies the Global Road Safety Partnership: a new paradigm for dealing with road safety in these countries. The partnership is an informal network of businesses, civil society organisations and relevant government departments working together to realise common goals. The expectation is that partnerships between these three sectors will result in more effective and sustainable development activities than if any of these partners acted on their own. (www.GRSPtransport.org)

1.3.2 GRSP South Africa

Since its creation in July 2000, GRSP South African National Committee has come to be considered by the national and provincial authorities as a key institution to supplement the official road safety activities. Over ten Focus Projects have been initiated since November 2000 to serve as pilot experiences, the outcome of which could lead to future legal decisions to enhance road safety and to encourage traffic rule enforcement nation-wide. It is also envisaged to extend this activity to other neighbouring South African Development Community (SADC) Member States.

1.4 National initiatives on road safety

1.4.1 Mobility with safety: the national bicycle program

A national bicycle transport initiative known as Shova KalLula (or Ride Easy) has been initiated. The program is in the first instance targeted at primary and secondary school students in our most disadvantaged rural and urban settings. In a later phase it is hoped to focus on the many thousands of urban workers and rural workers who currently have to walk long distances to get to work. It has grown into an exemplary joint initiative between national, provincial and local government and the South African NGO Afribike, supported by partners in the US, UK and the Netherlands. Together they have been able to procure low-cost new and used bicycles and have developed a delivery chain that includes a container-based shop, a cycle repair training course and light engineering modifications to produce load carrying work-cycles. They are also running a scholar programme and a women's training programme. (www.transport.gov.za)

1.4.2 Arrive Alive

The launch of this campaign is for the promotion and enforcement of road safety and responsible road user behaviour in South Africa. Arrive Alive works in-conjunction with their provincial counterpart, especially during the holiday season, to try and curb the national fatality rates.

1.4.3 Minibus Taxi Industry

To legalise, regulate and formalize a violence free industry with the potential to advance broad-based black empowerment on a scale second to no other industry in our country.
(www.transport.gov.za)

1.5 Provincial initiatives on road safety

The following road safety projects are currently been undertaken by the KwaZulu Natal Department of Transport: Road Safety unit:

- * Young road user
- * Participatory education techniques
- * Leadership camps
- * Road safety and sport
- * Adult pedestrian
- * Church programmes
- * Peak / holiday programmes
- * Community outreach programmes
- * Driver development

(www.kzntransport.gov.za)

2. THE FOCAL SURVEY

2.1 Sample

After an initial pilot survey that was conducted at the Mangosuthu Technikon (Sunker and Allopi,2003), it was decided to included all 4 tertiary institutions in the Durban area for the focal survey.

2753 students were randomly selected from the various faculties at the four tertiary institutions namely; Mangosuthu Technikon, Durban Institute of Technology (DIT), University of Durban Westville (UDW) and University of Natal to participate in the answering of the questionnaire. The questionnaire survey was completed in December 2003 before the merger of the two universities, which is now called the University of KwaZulu-Natal. The four tertiary institutions in the greater Durban area were 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. 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. (Sunker and Allopi, 2004)

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.

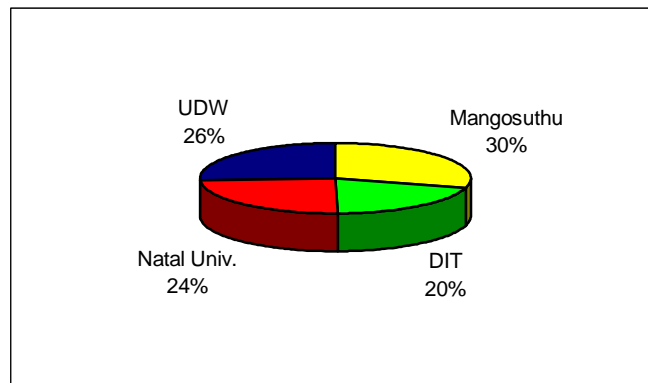


Figure 6. Percentage of sample from the four tertiary institutions in the Durban area.

2.2 Analysis of results

- 68.1 % of the students have attended government schools, with 18.6 % attending model 'C' schools and 13.3 % attending private institutions.
- 87% of students had some form of road safety education at school. 7% of the students had this education at secondary school level only and not in their initial development years while 29% were fortunate to have continued road safety education. 51% had some form of road safety education at primary school level with 13% receiving no road safety education.
- Out of the 87% of students receiving road safety education at school, 83% received road safety education in an informal basis during the 'guidance' period only. This guidance period is a life skills period and is once a week only. The grades at which road safety was taught varied and this is indicative of the absence of a proper road safety education curriculum.
- It was encouraging to note that 45% of students are already in possession of a driver's licence. These were mainly the 3rd and 4th year students at the universities and technikons. 55% of students do not have driver's licence, but a remarkable 42% of them are driving illegally!
- Only 58% of students knew that the speed limit in residential areas is 60 km/hr. 18% of students did indicate a lower speed limit with 19% of students indicating a higher speed limit with 5% of them having no clue. 68% of students knew what the speed limit on freeways are, 32% either did not know or stipulated a higher or lower speed limit.
- 86% of students have a disregard for the country's speed limits with 44% of them exceeding the limits often. 45% of candidates were in possession of a driver's licence, which further highlights the fact that there are too many unlicensed drivers on our roads who are possibly contributing to this epidemic of traffic fatalities by ignoring speed limits.
- 55% of students agreed with the current speed limits with 37% disagreeing. 59% and 72% of those who disagreed with the speed limits have indicated an increase in the limits in residential areas and freeways respectively. This is very disconcerting in view of the large number of speed related accidents. It would be reasonable to assume that a large percentage of students do not believe in the slogan 'speed kills.'
- The use of seatbelts is not high on the student's list of safety measures. Approximately three quarters of the students who participated in the answering of the questionnaire do not use seatbelts.
- 15% of students knew that the legal blood alcohol limit in South Africa is 0.05mg/l. 5% did not know it had been reduced, but what is most alarming is that 80% of

students had no clue as to what the limit is. Their answers ranged from 0.01mg/l to 1000mg/l.

- 69% of students have suggested an increase in the blood alcohol limit. This further demonstrates the lack of knowledge and the effects associated with alcohol.
- 76% of respondents will disregard the laws regarding the answering of cell phones while driving.
- 17% of students knew the following distance is 2 seconds while 43% have indicated a greater following distance. 40% of students did not know the following distance. Although 45% of the candidates are in possession of a valid driver's licence, one can only wonder how much time and effort was spent on the learner's licence and how much did one actually learn.
- 65% of students will pick up friends anywhere on the road. This practice leads to an increase in rear end collision and is extremely dangerous. Once again, education and the lack of infrastructure could be possible causes of this ill-natured habit.
- 82% of respondents have indicated they will cross the road at a blind rise. This raises the question of the basics of crossing a road, (look left, look right and left again) as well as using safe or designated areas to cross.
- 82% of students have indicated that they would make use of the pedestrian footbridge but this statistic is contrary to the observations made by the Durban Metro Traffic and Transportation Department which suggests that only 20% of people actually use pedestrian footbridges. It would appear that people do not like walking up and down bridges and prefer taking the short route across a road. Pedestrian footbridges are situated at high pedestrian accident locations and students need to be educated that these bridges are for their safety.
- 62% of respondents have not heard of the Asiphephe campaign, startling but true. This was further emphasised by Dr. M Noah of the University of Natal Interdisciplinary Accident Research Centre at the South African Transport Conference, 2003.

3. CONCLUSION AND RECOMMENDATIONS

3.1 Conclusion

With the dismantling of apartheid, the formation of a new democratic South Africa and 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. As a child grows up, he or she will develop new habits. Whether these habits are good or bad depends on the parental supervision and what the child learns from the educators. Road safety education is a vital life skill that needs to be implemented in every school as part of a new curriculum.

Culture and attitude changes need to take place, and these new positive attitudes need to be instilled into the new generation in order to progress and to reduce this epidemic, which is plaguing our societies in the form of road trauma. Every country in the world had or presently has road safety problems but the success of some of these countries in combating this epidemic of traffic fatalities lies in the manner in which road safety was approached and continues to be approached.

Infrastructure, whether good or bad, is in place and engineers need to use creative thinking to adapt or to improve this infrastructure to make it more road user friendly. Transportation planning, exposure control, intelligent separation of non-motorised traffic on major roads and traffic calming are likely to play much more vital role in the promotion of safety.

It is evident from the focal survey that issues such as alcohol abuse, usage of seatbelts and speed are been constantly ignored by students. It would appear that safety is low on the priority list and has not been embedded or taught at an early age. It is also evident that the effects of such issues are not known.

In a developing country like South Africa which did not have road safety policies, it will take a number of years before actual change will be evident. Stakeholders need to formulate policies for the long and short-term. Long-term policies need to be directed at grass root levels, namely scholars, students and the young adult who will soon become economically active. Road safety needs to be instilled in this category of people so much so that it forms part of their daily routines. Short-term policies need to be directed to those who are already drivers in terms of rigorous enforcement and for policy makers to look at alternative solutions to the prosecution of these offenders in order to change attitudes. Road safety like every other problem in the world will not disappear overnight and we as proud South Africans need to ensure that we do everything in our power to practise safe road user behaviour and to be tolerant towards one another in an attempt to eradicate this epidemic of traffic fatalities.

3.2 Recommendations

In light of the appalling results, it is clearly evident that there is a total lack of knowledge regarding basic road safety rules and regulations. There is also a lack of knowledge with regards to the laws of the country in particular those to road safety. The four fundamentals to ensuring road safety and commonly referred to as the 4 E's of road safety are:

- ✦ Education
- ✦ Engineering
- ✦ Enforcement
- ✦ Evaluation

Education is perhaps the long-term approach to rectifying this epidemic, which is plaguing our modern societies. Road safety education has to become part of the school curriculum if we, as a society, hope to reverse the ever-increasing fatalities on our roads. Education is also one of the major mechanisms for achieving a culture or attitude change.

Engineering can be interpreted as both short and long term. Short term engineering for example, refers to identifying 'black spots' and implementing corrective procedures which could have a positive effect on that location. Long term engineering refers to improving the appalling infrastructure of previously disadvantaged areas and thus alleviating traffic congestion.

Enforcement is regarded as a short-term remedial solution. This has not proved very effective in KwaZulu-Natal, as it is evident from figure 3 that the fatality rate is on the increase. Enforcement needs to be combined with some form of education to be effective.

Evaluation can only be done if any of the 3 E's above has been implemented in some form. Some programmes have been put in place but it is too early to start evaluating those programmes.

3.2.1 Learner's Licence Testing

A possible solution in the absence of a structured formal road safety education curriculum is to change the current system of conducting learners' licence tests. The current system is based on a one-hour multiple-choice examination set and supervised by the Department of Transport Road Traffic Inspectorate Division. Potential candidates are required to get a

copy of 'Pass your Learner's Easily' book, which essentially teaches you how to interpret the various road signs. The book is aimed at people who are not aware of the rules of the road or the laws governing driving. Currently the learner's licence tests have come under scrutiny, as there are only three different types of test a person could write. There has also been evidence of fraud with respect to the learners' licence and this was exposed on Carte Blanche on 11th June 2000. It is recommended that the learner's licence test/exam becomes a compulsory subject at matric level.

Generally, all learners are either turning seventeen or eighteen years old in their matric year. At the end of the matric year, a learner is at minimum of seventeen years old and in terms of the law is eligible to be in possession of a valid learners licence. A minimum of two periods a week (1hour) needs to be spent on this essential life-skills course. The subject should be examinable with two three-hour papers to be set by an external source, namely The Department of Transport and The Department of Education. Marks for both the examination papers need to be taken into account for a learner to pass.

The proposed syllabus should include:

3.2.2 *Laws and regulations of the road*

The following laws and regulations need to be discussed in detail with the learners:

- ✦ Seat belts – the current laws pertaining to seat belt usage, the legal requirement that each vehicle must have front and rear seatbelts fitted and the importance of both the passengers and the driver using seatbelt. Videos or computers should be used to demonstrate the effects of not using a seatbelt in an accident.
- ✦ Speed – the laws governing the speed limits on freeways, in residential areas and on urban roads. Educators should use technology to demonstrate the effects of speeding.
- ✦ Alcohol and drugs – laws relating to alcohol and drugs. Learners need to be made aware of the legal limits pertaining to intoxicating substances and what quantities one needs to consume to reach these limits. The effects of alcohol and drugs on a person's senses and his/her ability to make judgements should be demonstrated.
- ✦ Overloading – Learners should be aware of what the legal seating limits are in a vehicle whether the vehicle is a car, taxi or bus. Learners should also be aware of the effects of overloading, their rights in an overloaded vehicle and the potential risks.
- ✦ Cell phones – laws pertaining to cell phones and the use of hands free kits. Learners should also be made aware of the distraction cell phones cause while driving as concentration is affected.
- ✦ Vehicle roadworthiness – a pupil must be able to identify unroadworthy vehicle by doing simple checks. Tyres, brakes, lights, hooters and the general all round appearance of a vehicle need to be checked. Videos are a good means to demonstrate these checks.
- ✦ Overtaking – when does one overtake, where to overtake, distance perception for safety distance and time to overtake and which side to overtake on.
- ✦ Use of helmets – laws governing the use of helmets for both riders and passengers of bikes and the consequences of a person not using a helmet in an accident situation.
- ✦ The vehicle and its controls – a learner should be familiar with all the controls of the vehicle and their uses.
- ✦ Contravening the laws and the consequences – a learner should be aware of the possible consequences of contravening the various traffic laws and the penalties associated with these contraventions.

3.2.3 Pedestrians and cyclists

- ✦ Visibility – Types of clothing one uses when travelling at night. The importance of using reflective belts or bands when running, walking or cycling at night.
- ✦ Use of alcohol and drugs – alcohol and drug laws have been discussed earlier but to also explain to the learner how the senses are affected and the possible consequences of alcohol abuse.
- ✦ Protective equipment – the different types of protective equipment available, their uses and their importance to a cyclist.
- ✦ Where to walk or cycle – which side of the road to walk or cycle, the use of pavements or sidewalks and where to walk or cycle in the absence of this level of infrastructure.
- ✦ Use of pedestrian bridges – why are pedestrian bridges built, their intended use and their importance.
- ✦ Use of pedestrian crossings – crossings are strategically placed to assist pedestrians; how to use the crossing, the roles and responsibilities of the pedestrian and the driver at these crossings.
- ✦ Crossing at blind rises – disadvantages of crossing at blind rises due to its restriction on visibility.
- ✦ Use of the green and red man – how to use the green and red man phase at a traffic signal.
- ✦ What to do if there is no safe place to cross – how to identify possible dangers before crossing, the general rule of look right, look left and then right again and to walk briskly across without any distraction.
- ✦ Where to wait for public transport – the use of taxi and bus bays and the potential dangers of public transport stopping anywhere to pick up passengers.

3.2.4 Drivers and passengers

- ✦ Responsibilities of the driver - what are his/her responsibilities, tolerance towards others and use of seatbelts.
- ✦ Rights of the passenger – rights as a passenger on public and private transport.
- ✦ What to do in an emergency – what to do in the event of a minor or major accident, basic first aid and how to keep those involved in accidents calm.
- ✦ Vehicle classes – the different classes of vehicle, their uses and the different types of licences required.

3.2.5 Road traffic signs and markings

- ✦ Regulatory, warning and information signs – what are these signs, their intended purpose and illustrate the various regulatory signs in the country
- ✦ Different types of road markings and uses – illustrate their use and intended purpose
- ✦ Barrier lines – different types and uses
- ✦ Traffic signals – what is each phase, how to use them correctly and the different types
- ✦ What to do if a traffic signal is out of order – how do you use the intersection
- ✦ 4 way stops – illustrate proper use
- ✦ Proper use of intersections and roundabouts – illustrate graphically for better understanding

All the above topics need to be explained in detail and as graphically as possible. All advantages and disadvantages need to be explained and a learner needs to be aware of the consequences of contravening the laws in terms of fines and other related punishment. Modern technology such as computers need to be used to illustrate the effects of not using seatbelts, the effects of alcohol and drugs on a driver and the effects of driving at

inappropriate speeds. It is essential for a person to have this prior or embedded knowledge of the dos and the don'ts of the road before starting to practice on the road.

One has to also take into account those students who fail the subject and those who have finished school and are not in possession of a learner's licence. Firstly for those who have failed, it should be possible that they can repeat the exams once only at the same school that they attended or at a school near them. If they fail the exams again, then they fall into the category of those who have finished school and are not in possession of a learner's licence. For the latter it is suggested that learner's licence centres be set up at major city centres namely: Durban, Pietermaritzburg, Escourt, Ladysmith, Newcastle, Vryheid, Ulundi, KwaDukuza, Scottsburg and Portshepstone. A person would enrol for the learner's licence course at a set fee for a period of three months. Lectures would be given every Saturday for the duration of the three months on the same syllabus as prescribed earlier. This course would also include two three-hour examinations with both marks contributing equally towards the final mark.

The proposed new system is very much more intense compared with the current test as one needs to prepare thoroughly for the tests/exams. With the current system a person can prepare overnight and pass. His or her chances of passing are increased, as the questions are multiple choices. With the proposed new system, questions are varied and more in-depth knowledge is required. The proposed new system has the following advantages:

- ✚ A broader scope of work is being covered with more emphasis on rules and regulations of the road.
- ✚ A student is educated on the laws of the country and the possible action that can be taken if those laws are contravened.
- ✚ A student is more enlightened on the effects of intoxicating substances.
- ✚ A student will have embedded knowledge regarding safety and other aspects before starting to learn to drive.
- ✚ He or she is more equipped to handle an emergency situation.
- ✚ With the learner's licence testing becoming more intense, a greater emphasis is being placed on safety issues and the rules and laws that govern the roads. This will help in ultimately bringing about an attitude change, which will be of vital importance if we as a society are to reverse the epidemic of traffic related fatalities.

The proposed new system involves more work and is far more intense. It equips a learner with vital life-skills and will have a positive effect in changing a large percentage of young adults attitudes which could have a positive effect on reducing this plague of traffic fatalities.

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