# or and Granta Institution of Engineers,

# A REVIEW OF THE CURRICULUM AND REGULATION OF DRIVER TRAINING SCHOOLS IN KUMASI, GHANA

C. A. Adams
Civil Engineering Department
Kwame Nkrumah University of Science and Technology, Kumasi

#### **ABSTRACT**

A study to evaluate the curriculum of driver training schools has been conducted for ten (10) driver training institutions in Kumasi, in the Ashanti region of Ghana. The syllabus, qualification of instructors, course material, duration of courses, facilities and operating regulations were assessed. The results indicate that the operations of driving schools remain largely unregulated although officials of the Driver and Vehicle Licensing Authority (DVLA) periodically visit the schools to inspect facilities. Training curriculum varies from one school to another and there appear to be overemphasis on the driving task without much attention to cognitive and motivational factors which affect drivers' decisions on the road. The curriculum is deficient in the subject of road safety and is not likely to impact significantly on road safety knowledge promotion in Ghana. Instructors' qualification and duration of courses were also found to be inadequate. The paper proposes a model course outline and minimum qualifications for instructors as well as suggestions about the overall duration of training in driving schools in Ghana.

Keywords: Driver Training School, Training Curriculum, Licensing, Ghana.

#### 1. INTRODUCTION

#### 1.1 Background

Driver training and education covers the range of perceptual, motor and informational skills, which must be acquired in order for a person to operate a vehicle safely on the highway. A driver gathers information from a knowledge and encouragement for a safe operation of the road system. Since the 1980s research has become a very important part of driver training programmes (Assailly, 1999).

Worldwide there is a trend towards a two (2) staged driver training and licensing system where regulated driving schools are a part of the licensing system. Here the driver training schools have to register, meet defined standards and follow approved curriculum which invariably is reflected in the type of examinations the trainees would be taking before the issuance of licenses (Groeger and Brady, 1999).

In a review of driving school training and licensing of European drivers concluded that more emphasis needs to be put on cognitive skills during training and not only on learning manoeuvres. Also training of the trainers and the qualification of trainers is very important and could improve the traffic safety culture (Assailly, 1999).

Incidence of road traffic accidents is very high in Ghana with over 10,000 accidents annually. The National Road Safety Commission (NRSC) and the Driver and Vehicle Licensing Authority (DVLA) have both initiated efforts to improve road safety. Some of the measures planned and being implemented include improved driver training and licensing, increased public awareness campaigns, safe walk to school projects for child pedestrians etc. Drivers in Ghana are now required to take written tests and practical driving examinations before licensing.

The Driver and Vehicle Licensing Act 569 of 199 authorises the DVLA to register and regulate private

driving schools. There is a perception that with the introduction of driving schools, the unsafety on the roads will reduce. More than five (5) years after the promulgation of the DVLA Act 569 and ten (10) years after establishment of first driving schools in Kumasi, the questions to ask are: What is being taught, what must be taught and for what period, if road safety culture is to be developed? Are the instructors qualified for the task? This paper attempts to provide answers to these questions by assessing the details of the training curricula, regulation and instruction and duration of driving schools in Kumasi.

#### 1.2 The study area

It is estimated that the number of vehicles in Ghana are about 700,000. In the period 1993-2003, 120,000 road accident cases were recorded, consisting of 15,000 fatalities, 50,000 serious injuries and 70,000 slight injuries. These do not include several minor damages only accidents which are often not reported to the police. The accident cost is estimated at about 1-3% of the gross domestic product (NRSC, 2003).

Hazardous driver behaviour has been reported as a major contributory factor in accident. Kumasi, the capital of Ashanti region and the second largest city of Ghana and has one of the highest annual road traffic accidents (NRSC, 2003). At least sixteen (16) driver training schools operate at different location and some have agencies at more than one location in the metropolis.

## 2. MATERIALS AND METHODS

Structured questionnaires were used to interview ten (10) out of the sixteen (16) driving school proprietors. Although the remaining six (6) gave appointments they were not available for the interviews. Only ten (10) driving schools willingly provided responses to the questions. The questionnaires sought information on curriculum, registration, instructor qualification, charges and duration of courses, assessment and evaluation of trainees and current regulation of their operations.

#### 3. RESULTS AND DISCUSSION

#### 3.1 Content of Syllabus for training

Driver Training Schools in Kumasi have no authorized syllabus and minimum facilities for training. The schools have formed the Kumasi Association of Driving Schools which has formulated some guidelines to guide the training in member institutions. Table 1 shows a typical outline of the courses offered in all the schools.

Table 1: Compiled course outline of driving schools.				
Title of course				
01	Categories of roads			
□2	Divisions of road signs			
□3	Instruments, gauges and controls The nine con trols of a vehicle, The fuel system, The cooling system, The braking system, Lights and other controls, Pre-driving checks			
<b>4</b>	Areas without signs			
□5	Signalized intersections			
□6	Approaching and entering a roundabout			
<b>07</b>	Placement of warning triangle			
□8	Road regulations			
□9	Driving environment conditions			
□10	Driver management			
D11	Highway versus city driving			
12	Strategy for defensive driving			
□13	Car management			

A review of the handouts and other course materials however indicated that less than 40% of schools cover all the areas listed in the table in any sufficient detail. Also, most driving schools design their training to ensure that trainees can pass the licensing examination and road test, although they did not know the areas the DVLA was looking out for especially in the practical test. Their focus is exclusively on the driving task and vehicle manoeuvres. This trend is informed by their perception of the requirements for obtaining a license in Ghana.

In order to develop a safety culture among driver trainees in Ghana placing emphasis on vehicle manoeuvres and traffic situation is not enough. Research has shown that drivers make manoeuvres based on several factors which are not concerned with the driving task.

Assailly (1999), and Horn and Tardiff (1999) in different studies on the training of novice drivers in European countries and truck drivers in the Europe and America respectively concluded that there is the need to inject elements into driver curriculum which are not already there and yet have the aetiology of accidents. They suggested more emphasis to be put not only on learning manoeuvres but also cognitive skills including hazard recognition, risk assessment, effects of alcohol and effect of peer pressure etc. Sweden and Finland are reported to have road safety systems that are among the best in the world (Keskinen, et al, 1999 and Gresgersen, 1999).

Worldwide there is a trend towards systems implemented in these countries. In Finland and Sweden graduated driver licensing systems are used and there is a vision zero (target of zero percent accidents) for accidents. Driver behaviour is described as a hierarchy of four (4) level in which the two lowest levels are vehicle manoeuvring and mastery of traffic situations (Gresgersen, 1999, Keskinen et al, 1999). The highest level is concerned with the driver's motives and goals in life. Keskinen et al (1999) argue that as far as driving safety is concerned. the most important factors are goals for life and skills for living. Driver's emotions and skill in controlling driver behaviour affects decisions that are made in the lower levels of the hierarchy including vehicle manoeuvring and mastering traffic situations. In the case of Kumasi and Ghana for that matter, an improvement on the curriculum must include aspects on goals for life, skills for living and goals and context of driving.

Most commercial drivers do not appreciate the risks of making dangerous manoeuvres, driving vehicles with faulty brakes, overspeeding on potholed roads etc. Some truck drivers even boast about how they "showed" some cars on the highway i.e. did not assist to save a dangerous situation that could have resulted in an accident.

Horn and Tardiff (1999) explained that for truck drivers, motivational factors translate into safety, financial loss in the case of downtime etc. This is also true in Kumasi and Ghana for that matter where drivers wouldn't want their vehicles to be down. However they don't seem to realise the consequences of their actions perhaps it needs to be explained to them. Most drivers have a very poor attitude on the road and would flout any regulation to have the right of way.

Also, traditional teacher centred methods have been found to be inappropriate (Horn and Tardiff, 1999). What the driver needs is not only knowledge but also skills to evaluate personal motives and factors which affect his or her driving. This will require that the driver be at the centre of the learning process and doing much of the driving instead of being instructed on how to drive. In Ghana, most driving schools do not have safety pedals for instructors and most driving lessons take place in the city or highway so they would not want to risk any accidents. To provide safety and standard driver training facilities is very expensive even in the developed world and the charges in private centres are equally high Assailly (1999).

In the developed world, mostly there are government centres or non profit making centres (Gresgersen, 1999) where citizen can learn to drive. How expensive this is seems to depends on the valuation of a statistical life in a country and how much the government is willing to pay to save one life.

As an improvement to the present curriculum the author prescribes, Table 2 as a model course outline for driving schools in Ghana. This introduces several aspects hitherto not covered or emphasised in driving school curriculum.

Table 2. Model Course Outline for driving schools

co	URSE TITLES		
1.	Introduction to the transportation system	2.	Instruments, gauges and controls
3.	Introduction to traffic problems	4.	The nine controls of a vehicle
5.	Factors influencing driver performance	6.	The fuel system
7.	Traffic laws and procedures	8.	The cooling system
9.	Special skills for driving in difficult environments	10.	The braking system
11.	Physical forces that influence the driver	12.	Driving emergencies
13.	Perceptual skills needed for driving	14.	Occupant restraints and protective equipment
15.	Defensive driving strategies	16.	Alcohol and traffic safety

#### 3.2 Training Instructor Qualification

The results show that there is no established minimum qualification or experience for the instructors in the driving schools. Each school determines who to employ as instructor. The qualifications of instructors indicated by the proprietors of the driving schools interviewed were

- a) Possession of an 'O' level certificate, SSS certificate and above),
- b) Ability to read and write the English language and any other Ghanaian language.
- c) 3-5 years driving experience,
- d) A valid driver's licence.

There were wide variation in the qualification of the instructors in the ten schools, but the main requirements were ability to drive and possession of valid driver license. These qualifications are considered inadequate for the enormous responsibility trainers are expected to undertake in the training of drivers and is likely to introduce wide variations in the quality of training. Horn and Tardiff (1999) found wide variations in private training by parents concluded that although some parents may be good role models and therefore can pass on good driving skills and behaviour to their children during training others are bad and may not teach what would be required to develop a safety culture. The shallow content of the course material, facilities such as videos and tools for instruction places much of the skills imparted on the instructor's qualification, pedagogical skills and knowledge of safe driving and correct attitude.

Assailly (1999) and Horn and Tardiff (1999) reported in different studies about the need to qualify trainers whether they are professionals or parents. Qualifying driver trainers by training is at the hard core of the driver training issue. According to Horn and Tardiff

(1999), trainers are probably the most important element of the training chain for novice drivers. Most industrialised countries specify high qualifications of instructors or have a driver trainer academy. They argued that improving the quality of training by professional trainers could be a better strategy to promote a safety culture among drivers.

Establishment of a driver trainer academy could assist in standardising the qualification and experience of trainers. Training of instructors for the training of drivers is well established in Europe and America. In Finland, Keskinen et al (1999) reported that private instructors who are family members are permitted to train novice drivers for the first phase of the Finnish driver training system. In the survey it came out that most instructors have low qualification and the most important qualification is ability to drive and ownership of a valid driving license. This explains why most schools place much emphasis on the driving task and traffic situations. Of course since driver trainees do not know what they should know for each stage of the licensing process they judge the schools performance on how quickly they can manoeuvre the vehicle. There is the need in Ghana to define a system for the qualification of driving schools and the training of instructors.

### 3.3 Training Duration and Facilities and Charges

The schools indicated that the duration of training was between ten (10) days and six (6) weeks depending on the intensity of courses offered. In some instances, the period was dictated by the needs of the trainee. Altogether, the average training period of training is 60-72 hours over a period of two (2) to six (6) weeks. 30% of the training period is dedicated to class instruction and the rest is practical driving. Extra time is offered in some of the driving schools for trainees who are training for heavy duty vehicles.

The fees charged in any school depend on the facilities, the popularity and quality of instruction based on previous trainees who passed their driving test etc. The charges range from 400,000 - 600,000 cedis depending on the number of hours of practical driving, experience of the trainee, facilities etc. Horn and Tardiff (1999) reported in their study that there exists enormous variation in the number of hours offered by schools. This can vary from country to country and from school to school. Private schools will offer typically offer a 150 hour curriculum whereas non profit schools tend to offer extensive curriculum totalling up to 700 hour in some countries and even up to two (2) years in France.

In Korea for instance (Lim and Choi, 1999) reported that the training duration consist of 25 hours of written or class instruction, 25 hours of skill education in an indoor course and 10 hours of road driver education. In this system passing the initial test qualifies him or her for a driving permit but he has to go through another test after some months on the road. In such a system, most drivers

would be very careful because their conduct on the road will determine their final issuance of their license. Generally, a longer training and practice period is important for attitude formation and should be introduced as part of a two phase driver training and licensing system in Ghana. Of course it should not be possible to obtain license without going through the systems as pertains now.

#### 3.4 Regulation of Schools and Training

In Ghana Act 569 of 1999 empowers the DVLA to set minimum standards for driving schools. The regulatory framework for driving schools was used as checklist for interviews. Only one, the existence of DVLA the agency for the regulation of driving schools is operational several years after promulgating the law. Considering the rate of fatalities, the absence of measures to train already licensed drivers, it is important to expedite action to on the regulation and standardisation of driver training schools.

With an average of 15-20 drivers trained by driving schools monthly, the late start of regulation will only help to compound the unsafety on the roads. Presently, the licensing system requires eye test, written examinations and road test. Although this represents an improvement ofe status quo, it is not sufficient to provide the desired knowledge, attitudes and safety culture among driver trainees. Perhaps the necessary logistics anknowledge to implement the law are lacking.

Training in special driver training institutions form part of most modern driver licensing systems in the deveoped world (Assailly, 1999, Horn and Tardiff, 1999). The regulatory agencies in such cases specify and monitor the facilities, personnel and set the minimum standards and requirements to be met by special driving schools. The DVLA must define the system requirements, monitor and allow the private sector companies to lead in establishing regulated schools as part on the improvement in driver licensing in Ghana.

Without registered and regulated schools as part of the licensing process, it would be very difficult to make any substantial improvement in driver behaviour in Ghana. If the schools are regulated but driver trainees are not compelled to attend them even though slightly expensive, the objectives of establishing road safety culture through the introduction of driving schools would not work. Driver training schools should also be structured to provide training for already licensed drivers.

# 4. CONCLUSION AND RECOMMENDATION

#### 4.1 Conclusions

Driving schools have no uniform regulations by which they operate. Content of courses, qualifications of instructors, facilities differ from one school to another. The quality of service delivery depends on the qualification and experience of the instructors available. There is over emphasis on the driving task

or mechanical control of the vehicle with little or nothing taught regarding the factors that affect driver performance in traffic. The lack of established regulation and syllabus for driving schools has led to a situation where the schools teach mechanical driving and very little content relates to factors which influence driver motivation, decision making and safety on the road. The duration of courses, facilities and qualification of instructors are inadequate.

#### 4.2 Recommendations

- The D.V.L.A must expedite action on modalities for the licensing of driving schools, set the standards by which they must operate as required by the laws of Ghana and implement this immediately. These should include the minimum content of courses, time allocation and assessment of students, the qualifications and training of instructors, facilities and equipment for training of drivers as well as the enforcement of the regulations.
- The focus of training of drivers should have sufficient content relating to the appreciation and understanding of the factors that affect driver performance.
   The model course addresses this issue but more training time will be required.
- 3. There is the need to establish driver academies in Ghana to train driving school trainers. Driving school instructor's minimum qualification should be Higher National Diploma in Auto or Civil engineering and must undergo training on teaching methodology to impart skills, knowledge and attitudes. Trainers must be given training and licensed as professionals in a driver academy.
- 4. The duration of training in Kumasi is short and should be generally increased to at least 150 hours. Since most of the driver trainees have low educational background in Ghana, the course presentation must use pictures and illustrations to promote understanding.
- Standard texts should be developed and made available to the schools and the general public so that people can learn prior to enrolling in a driving school.
- 6. A two staged licensing in Ghana should embody the registered and regulated driver training schools. A two staged driver licensing system should be introduced where drivers after passing the driving test are put on probation for a period of at least six months to be confirmed based on conduct, accident experience etc.

#### REFERENCES

Ahlidza, F. (2003) Driver Education and testing -A Case Study Of The Kumasi Metropolis., Civil Engineering Dept. KNUST B.Sc. Dissertation Horn and Tardiff (1999). Licensing and Training of Truck Drivers Journal association of Traffic and safety sciences, IATSS Research, volume 23, No 1, 1999, Hideo, KUNIEDA **Publishers** 

- Assally, J.P (1999), Car Fatalities, Driver Training and Licensing in European countries- A comparative study, Journal of international association of Traffic and safety sciences, IATSS Research, volume 23, No 1, 1999, Hideo, KUNIEDA Publishers
- Driver and Vehicle Licensing Authority (D.V.L.A)
  Act: ACT 569, 1999. Parliament of the Republic of
  Ghana
- Gerson J., and Lunenfeld, Harold. (1999), Positive Guidance in Traffic control, U.S Department of transportation, Washington, D.C (1975))
- Gresgersen, N.P. (1999), Driver Training and Licensing-Current situation in Sweden, Driver training in Finland Journal of international association of Traffic and safety sciences, IATSS Research, volume 23, No 1, 1999, Hideo, KUNIEDA Publishers

- Keskinen, E. et al. (1999), Driver training in Finland Journal of international association of Traffic and safety sciences, IATSS Research, volume 23, No 1, 1999, Hideo, KUNIEDA Publishers
- Lim P.N and Choi S.O. (1999), Driver Licensing Improvement Effect in Korea. Journal of international association of Traffic and safety sciences, IATSS Research, volume 23, No 1, 1999, Hideo, KUNIEDA Publishers
- National Road Safety Commission (2003), Annual report 2003, Ministry of Roads and Transport, Republic of Ghana