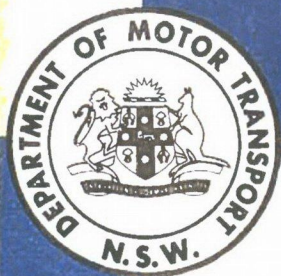
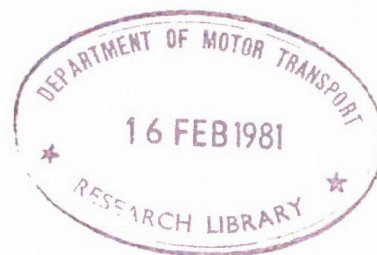


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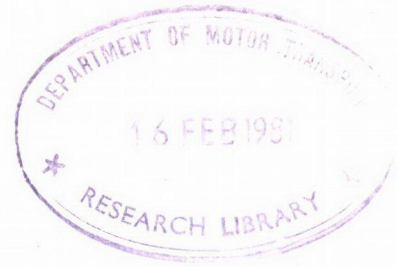
TRAFFIC ACCIDENT RESEARCH UNIT



DRIVER EDUCATION
AND THE
DEKALB COUNTY PROJECT

BY

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BACKGROUND MATERIAL ON DRIVER EDUCATION

Text of Speech by David C. Herbert, Superintendent, Traffic
Accident Research Unit, New South Wales Department of Motor
Transport at the

DRIVER EDUCATION SEMINAR

conducted by the New South Wales State Council for Youth,
Sydney 1st December, 1980.

Mr. Chairman, Thank you very much for inviting me and my colleagues to this distinguished gathering today, both to meet Mr. Weaver and to hear what he has to say about the Dekalb County programme on driver education that he directs in the U.S.A.

Ladies and gentlemen, I should like if I may to start by introducing those of my colleagues who are present from the Traffic Accident Research Unit which is a Branch of the NSW Department of Motor Transport, the Department responsible for advising the Government on all aspects of driver licensing, training and education and of road safety. They are Mr. Doug Butterworth who is Head of our Information Section and of its Traffic Safety Education Division, Dr. Dawn Linklater who is Head of our Behaviour Research Section and Dr. David Saffron who is a Senior Behavioural Scientist on her staff.

Within the broad term "driver education", there are many facets and it is I believe important that we recognise these and classify them according to their role in our society. First and foremost are those facets that are important for reducing the road toll, and I shall come back to them in a moment. We have to acknowledge however the existence of a second group that do not appear to contribute to road safety, but are seen by certain sections of the community as important; these I shall call "social needs".

It is important to differentiate these social needs of driver education, from the safety needs, so that we can concentrate the limited funds available for road safety on those facets of the education process that can contribute to safety. The purely social needs should not, in my view, be funded from safety funds.

An advantage of the scientific approach to road safety is that it enables us to study road crashes with an open mind, unfettered by the need to attribute blame to a particular individual, a role assigned by our society to police.

The first conclusion of this scientific research was reached overseas about 20 years ago. That is, that although road crashes nearly always involve a human driver, and sometimes two or three drivers, there are available to us many cheaper, quicker and more effective ways of reducing crashes, than by driver education. These are concerned with making the road and vehicle easier to use even by the least competent of drivers, and with making the road system and vehicles safer places to have crashes in.

The second conclusion of research was reached more recently. That is, that the most important human factor in the occurrence of serious crashes, is drink-driving. I am sure that you all know that nearly half the drivers and motorcycle riders who are killed in crashes, have alcohol concentrations above the legal limit. You may not know that about one quarter have so much alcohol in them that their risk of crashing is between 20 and 100 times that when they are sober.

Clearly, the first consideration of any driver education programme must be to try to reduce drink-driving. And that it is what we are attempting with the help of other Government Departments especially the Education Department members of whose task force I am glad to see present today.

We have, through our on-scene studies of crashes, tried to identify other human factors that contributed to crashes. Of particular interest of course, are those factors that might be capable of being modified, either by education or by licensing. Some factors clearly can not be modified by education.

These factors include the driver's sex, age, maturity, aggressivity, health and experience, all known to be important factors in crash risk but not amenable to modification by education. The age of licensing could however be raised and we know that that would reduce the road toll, for both drivers and riders.

The predominant factor in driver-related crashes, is the amount of attention the driver was giving to the driving task. Most of the mechanical aspects of the driving task are very simple and easily learned even by children. For example, many a young child can steer a toy around the room, even before he can walk or talk, without hitting anything.

The aspects of the driving task that are difficult to learn are those concerned with the road and traffic environment. I refer to the perception of speed and adjustment of speed to suit the environment; the perception of gaps in the traffic and selection of overtaking manoeuvres; and the simultaneous division of attention between different parts of the environment - between a pedestrian and a truck for example.

These perceptual aspects are not only difficult to learn but they become more difficult for the brain to process, when the driver is tired, or worried by business or domestic circumstances, or driving under the influence of even quite small amounts of alcohol. It is difficult to see how these perceptual factors can be assisted by education, by licensing, or by enforcement measures.

This is why road safety scientists are so persistent in recommending that the driving environment be improved so that it is better suited to the needs of drivers who are below par. And we should not forget that on the average throughout the week, about 1 in every 50 drivers coming towards you is over the legal alcohol limit. And in the weekend evening periods this rises to about 1 in 12.

I am particularly indebted to Dr. Bob Campbell of the University of North Carolina, as well as to my own colleagues, for some of the information I have just passed on to you. But to return to driver education.

Many countries have had high school driver education programmes. In the past, it has been claimed that their graduates had a lower risk of crashing than the general population. Where scientific studies have been conducted however, it has been concluded either that the numbers of pupils were too small to justify such a conclusion, or that the pupils were volunteers, more likely to drive defensively and hence to have fewer crashes, even without the benefit of driver education.

An American study by Dr. Robertson of the Insurance Institute for Highway Safety Research of school programmes, has even shown that 2000 more young drivers were killed annually in the USA because of the way in which the programmes were used as incentives to allow graduates to drive at an earlier age.

A British study by Dr. Shaoul and Dr. Risk has indicated that school programmes did not improve driver performance. There might however be hidden benefits in defensive driving courses in reducing the driving exposure of graduates, who might be persuaded to avoid the more risky kind of driving.

More research is needed in both these areas, so it is of particular interest to us all to note that the programme directed by Mr. Weaver in Dekalb County is to be evaluated by the most rigorous scientific procedures. I look forward to his presentation.

David C. Herbert,
27th November, 1980.

Precis of Mr. Weaver's talk (from
notes taken by Dr. D. Linklater).

* * * *

Speaker: Mr. Jack K. Weaver, Project Director, Safe Performance Driving Project, Dekalb County School System, Decatur, Georgia, U.S.A.

Project: An evaluation project funded \$6 million by the USA Government, to be evaluated by the Batelle Memorial Institute, under Mr. Weaver's direction.

Dekalb County: Part of Atlanta (which has 2½ million population), Dekalb has about 750,000 people. Picked as typical cross-section of USA. About 7500 students a year around 15 years old wanting car licences, slightly above average socio-economic status because of access to car. Twenty-three schools in County: all in scheme.

Project instructors: All full time graduate, some with Masters degrees. Receive additional training.

Training scheme: Based on well known McKnight task analysis, identifying critical tasks (for safety).

After a few hours in simulator pupils get in car and drive alone, monitored by radio from tower with two helpers on ground. Aim is to accelerate experience factor. Room on ground for 30 cars (pupils) at same time. Track requires 350 ft straight plus other areas. Cost of construction in 1976/77 ranged from \$250,000 to \$500,000 each track. Four of them in Dekalb. Tuition and transport to it free. Remedial work for slow learners. Operating cost per student \$84 for 98 hours.

Experimental design: 18,000 pupils; 6000 full course (SPC) 6000 short course (30/6) 6000 no formal training (Control Group). Stratified sampling by sex, socio-economic status, school grades.

Evaluation: (a) Cost, feasibility, community acceptance
(b) Crashes, violations, performance.

Interim findings:

- (a) Costs of SPC at \$84 less than regular 30/6 (30 hours in the class room, 6 on the road at \$128.)
- (b) Direct correlation between SES and driver education enrollment (High, high; low, low).
- (c) SPC students significantly more knowledge than others.
- (d) From observation and interviews - students more enthusiastic about SPC after course started than before.
- (e) Parents usually more interested than student in student being enrolled. Parents want best quality course regardless of any insurance savings thereby gained.
- (f) No evidence of statistical difference between groups on violations when all student assigned to courses were compared. But some difference per licensed drivers (i.e. those who had obtained their licences).
- (g) No significant difference in crashes between groups (total assigned students or licensed drivers).
- (h) At this stage there appears to be no good record of exposure, but further work is to be done in an attempt to see if exposure levels differed.
- (i) When students were divided between males and females, females were found to have more crashes and violations following SPC and 30/6 course than control students. Males were found to have fewer crashes and violations when they had undertaken SPC and 30/6. The SPC male licensed students were very markedly different when violations were measured.

The NHTSA has said that it will not fund driver education courses unless this evaluation shows at least 15% fewer violations and 10% fewer crashes for students that do the course compared with the control students.

Mr. Weaver will send TARU a copy of the project report, when available.