



LEGISLATIVE ASSEMBLY OF QUEENSLAND

TRAVELSAFE COMMITTEE

Report

on

Bicycle Safety

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CHAIRMAN'S FOREWORD

To the Honourable the Speaker and Members of the Legislative Assembly.

On behalf of the Travelsafe Committee of the Forty-Sixth Parliament, I am presenting a report by the Committee on Bicycle Safety.

The Travelsafe Committee was created at the instigation of the Minister for Transport and Minister Assisting the Premier on Economic and Trade Development, the Honourable David Hamill, Member for Ipswich. A resolution of the House on 10 May 1990 established Travelsafe as an all-party Committee which will report and make recommendations in relation to all aspects of road safety in Queensland.

The Committee's terms of reference required it to monitor, investigate and report on the causes of road crashes in Queensland, and issues of road safety, and to review and report on countermeasures aimed at reducing deaths, injuries and the social and economic costs to the community arising from road crashes or inappropriate road user behaviour.

Bicycle Safety

During the course of Travelsafe hearings and investigations into various aspects of road safety and road accidents, a recurring theme became obvious in the evidence being given.

This refers to the problem of cyclists, particularly children, and their lack of understanding of the dangers faced by young cyclists. The unroadworthy condition of most bicycles, and the lack of appreciation by parents that giving their children bicycles without adequate training in road safety often results in serious injury or death, were put forward.

Statistics show that 12% of all fatal road accidents and 15% of all serious injuries involve children. 24% of boys road accidents involved bicycles. Boys are eight times as likely as girls to be involved in a cycle accident.

The Committee has decided to report to Parliament on the alarming situation, to seek a method of impressing upon parents the essential nature of adequate bicycle safety instruction. In their own interest, cyclists should know and obey road rules.

An excellent advertising campaign, implemented by the Department of Transport to encourage the wearing of helmets, uses very effective TV advertisements and posters.

The Transport and Education Departments have embarked on a curriculum subject of "Bike-Ed" which can result in a reduction in road accidents if parents supplement and support the course. A "Bike-Ed" certificate is issued to children and parents should look for this before allowing children to ride on the road. Parents should also insist their children understand road rules and road safety.

Parents need to ensure that their child's bicycle is in a roadworthy condition and be complete with a bell, lights and brakes in working order. Bicycles not in a roadworthy condition should be locked up by the parent.

It is obvious that many parents do not appreciate that a bicycle is not a toy but a vehicle and all road rules apply equally to bicycles and other vehicles.

Cyclists, particularly those without lights, are difficult to see and children should have this drawn to their attention. Because of the manouverability of bicycles, unpredictable movements are possible and cause accidents. Cyclists are required to dismount at pedestrian crossings and the bicycle should be wheeled over the crossing and along pedestrian footways.

During inspection of a bicycle training area at Hugh Street, Currajong, Townsville, it was obvious to Members of Travelsafe that most students were completely oblivious to road rules, road markings, and signs. The teacher had the task of explaining what was required of them and the young students were quick learners. Another matter of concern was the very few helmets which students owned.

It is considered essential that bicycle training areas such as the one in Townsville should be established throughout Queensland. Toowoomba, Maryborough and Mt Isa have facilities which could be upgraded. Logan City and Aspley have facilities on a smaller scale. Gympie has facilities at the Driver Education Complex.

The Townsville facility was established by the Townsville Rotary Club. The Townsville City Council and the Playground Recreation Association of Queensland have now assumed responsibility for it. It supplies sufficient bicycles for students attending the course during school hours. There are three staff members paid by the Council and ancillary staff maintain the grounds.

A mini-bus picks up students from surrounding schools for a half-day course and then returns the students to their schools. Resource material is available from the Department of Transport.

The facility should be considered as a model for all regional areas of Queensland and also for segments of Brisbane. Local Authorities and service clubs should be encouraged to set up a similar facility in each area. The Transport Department could supply resource material and support.

It should be pointed out to all sections of the media that a responsible attitude towards road safety can save lives and prevent horrific injuries. Publicity given to irresponsible behaviour in the written word or photographs lessen the effectiveness of road safety messages and may contribute to the occurrence of road accidents.

Len Ardill MLA
Chairman

1. *PURPOSE*

1.1 The purpose of this report is to notify the Queensland Parliament of the need to inform local governments, schools, parents, and the media to broaden, enhance, and **support** current bicycle education safety programs and facilities.

2. *SCOPE*

2.1 This report will focus on:

- the need to establish more off-road bicycle training facilities which simulate traffic control features, traffic conditions and "real-life" situations; and
- the obligation parents have in ensuring their children know and understand road rules **BEFORE** allowing them to ride bicycles on the road.

2.2 In addition, a comment will be made about the need for the media to continue to adopt a responsible attitude toward the publication of material which may appear to encourage or condone unsafe road behaviour.

3. *BACKGROUND*

3.1 The Travelsafe Committee of the Forty-sixth Parliament was appointed by the Legislative Assembly on 10 May 1990 to inquire into, report and make recommendations in relation to all aspects of road safety in Queensland.

3.2 In appointing the Committee the Legislative Assembly determined the Committee's Terms of Reference to be:

- to monitor, investigate and report on the causes of road crashes in Queensland, and issues of road safety; and
- to review and report on countermeasures aimed at reducing deaths, injuries, and the social and economic costs to the community arising from road crashes or inappropriate road user behaviour.

3.3 Furthermore, it was requested that the Committee give urgent consideration to the following matters:

- (a) the need for some form of compulsory periodic inspections of passenger vehicles as an effective means of reducing road crashes, and the severity of associated injuries;

- (b) the need to improve the standards of motor vehicle repairs as a means of improving vehicle and road safety; and
- (c) current traffic law enforcement methods and penalties, and their effectiveness.

Travelsafe decided to add to this, an additional matter which was put forward during early discussions and evidence. This was:

- (d) the need for effective road safety education to educate all road users in the safe use of roads. This includes effectively informing the public of changes in traffic rules, adopting safe driving habits and respecting the rights and responsibilities of all road users.

3.4 A report on items (a) and (b) was presented to Parliament in November 1990 with a report on items (c) and (d) presented to Parliament in September 1991.

3.5 Since its establishment, the Travelsafe Committee has received many submissions and letters from members of the general public, conducted several days of public hearings in metropolitan and regional Queensland, and held discussions with various road safety organisations and individuals. An issue consistently raised in evidence or in general discussion was the need to ensure children are properly instructed in road rules and safe bicycle behaviour.

3.6 Whilst the Committee has not yet undertaken a detailed specific investigation into bicycle safety issues, observed practice of many young bicycle riders on the roads provides credence to the issues raised.

3.7 The Committee therefore recognises an obligation to report the matter to Parliament.

4. ISSUES

4.1 Much of the evidence heard by the Committee referred to two main problems:

- cyclists apparent lack of understanding of the road rules; and
- cyclists apparent lack of understanding of the dangers facing them on the road.

4.2 These problems are particularly relevant to children. Australian Bureau of Statistics figures for Queensland in 1990 (Road Traffic Accidents - Queensland, p.10) show that 41% of bicycle fatalities and 47% of persons injured in bicycle accidents were children under the age of 16 years. Most people would agree that these figures are unacceptably high.

5. BICYCLE EDUCATION PROGRAMS

5.1 The Department of Transport, in conjunction with the Department of Education, have developed a bicycle education program called "Bike-Ed". This program was launched in July 1991 and replaces the "Safe Cycling Course" previously used. It is a Queensland adaptation of the "Bike-Ed" program developed and used by VIC ROADS and also uses material from BIKE-WEST in Western Australia. Programs in other states are listed in Appendix 1.

5.2 The Queensland "Bike-Ed" program is designed for use "as a total curriculum package which can be used by trained teachers in schools and trained volunteer instructors in local communities" (Bike-Ed Instructors Manual 1991, p.1). The "Bike-Ed" kit contains an Instructors Manual, Instructors Activity Checklist, Traffic Signs (2 Stop Signs, 2 Give Way Signs, and 2 Traffic Lights), Vehicle Cards (Truck, Car, and Motorcycle) and Participants Certificates.

5.3 The Committee has noted a number of recent press reports featuring bicycle safety courses conducted by the Police, service clubs and community committees in various parts of Queensland. One of the many good examples of this is the Bicycle Education Safety Training (BEST) program conducted by police in Roma. The police in Roma conceived the idea for the program "when it was realised that there were problems arising from a lack of understanding of cycling safety among both young cyclists and other road users." (Queensland Police Service 1990-1991 Annual Report, p. 42) This work, and other programs throughout Queensland like it, is to be commended.

5.4 The statistics quoted earlier clearly justify the necessity for conducting bicycle safety programs. However, the Committee believes that more can be done, particularly in the provision of facilities for practical instruction.

6. BICYCLE EDUCATION FACILITIES

6.1 As part of a recent visit to Townsville to conduct public hearings, the Committee inspected the Traffic Education and Playground Centre at Hugh Street, Currajong. This facility, established some 15 years ago, was originally an initiative of the Townsville Rotary Club. Over time, the Townsville City Council and the Playground Recreation Association of Queensland became involved and the Centre currently relies heavily on both organisations for financial support. However, there is a danger that these organisations cannot maintain current funding levels which may result in reduced facilities or even closure.

6.2 Other bicycle training centres **known** to the Committee are established in Toowoomba, Maryborough, Woodridge, Aspley Special School, Hervey Bay Special School, and Mt Isa. Centres are planned for Roma, Gladstone and Rockhampton. The facilities and operations at the established Centres should be reviewed with a view to upgrading facilities and funding arrangements where necessary. The Queensland Driver Education Centre in Gympie also has bicycle education facilities as part of its overall driver education complex.

6.3 The Centre in Townsville comprises a comprehensive mini road system for practical instruction and a classroom for theory based instruction. A bus service, provided by the Centre, picks up children from surrounding schools for them to attend a half day course before returning them to their schools. The Centre also provides bicycles. Children only need to bring their bicycle helmet for use during the practical instruction. Three (3) staff run the courses and maintain the grounds and all equipment.

(NOTE: The Centre does not provide bicycle helmets so as to eliminate the risk of disease and infections being transmitted through helmet sharing. However, helmet liners which overcome this problem, are now available in the market place and perhaps they could be considered for use.)

6.4 The mini road system has a Roundabout, Stop and Give Way signs, Traffic Lights, Median Strips, Line Markings and other features which replicate the real road environment. The classroom is used to instruct the children in matters such as bicycle maintenance as well as road rules and general road safety principles. Resource material is available from the Department of Transport.

6.5 The Committee witnessed children from an outlying school being given practical instruction on the road circuit. Many children were completely oblivious to road rules, road signs and line markings. Of further concern, was that only one student wore a helmet. The instructor was on the course with the children and continually had to remind them of the dangerous nature of their behaviour. Even though the children were quick learners, the reality is that similar unsafe behaviour on roads with real traffic, may have tragic results.

6.6 In his 1985 report titled "Children and Road Accidents: An analysis of the problems and some suggested solutions", Elliott refers to research which comments on the relative value of off-road bicycle training as opposed to on-road training. Listed below is a summary of some of the research findings:

- A study conducted in Newcastle by Trotter and Kearns (1983) comparing on and off-road bicycle training found "... that riding knowledge between pre and post tests increased by 78.7% for those trained off-road and 83.8% for those trained on-road. In riding performance there was an increase of 98.2% for off-road and 100% for on-road ..." (Elliott 1985, p. 201). The cyclists knew they were being observed.
- A study by Wells, Downing and Bennett (1979) which "looked at on and off-road training for 8-10 year olds ... found that ... both methods were effective at reducing the number of errors but those road trained were much better, even 6-8 months after training." (Elliott 1985, p. 200). Wells et. al. (1979) also warn that "off-road training produced more errors than on-road training, especially errors related to looking for traffic." (Elliott 1985, p. 203)
- "Overall, it appears that the "Bike-Ed" course, including the on-road training segments, would be more effective in improving children's safety related behaviour than a course limited to merely off-road on-cycle training." (Trotter and Kearns 1983, p. 46 in Elliott 1985, p. 203). However, Trotter and Kearns "strongly supported the use of off-road training rather than no training at all" (Elliott 1985, p. 203).
- While Elliott (1985, p. 173) states that "little can be expected from training in semi-real situations" he does concede however, that "simulated street situations may, in some cases, be effective."

6.7 Elliott (1985, p. vii) also recognised that children have particular problems in understanding the dangers involved in riding bicycles on the road. He comments "Children are not little adults. Children are different. Young children, in particular, display:

- poor powers of perception, concentration, attention, memory, and physical and emotional control;
- poor knowledge and understanding of traffic; and
- poor behaviour patterns in the traffic environment".

6.8 The Committee recognises that the "Bike-Ed" kit and program allow the use of existing areas of land in the school and community environment. In addition, it would seem to be cost effective through reaching a large number of children at a relatively small cost.

6.9 The Committee also recognises that bicycle training in real traffic (on-road training) is the most effective way of achieving behaviour change in children. However, there are significant dangers in exposing children to real traffic, albeit under supervision, unless they have an appreciation of the practical application of road rules and safe road behaviour. This could ideally be done in a safe environment where wrong decisions have no potential to create a life-threatening situation. This would be particularly the case for younger children.

6.10 Consequently, the Committee strongly believes that more off-road bicycle training areas such as the Traffic Education and Playground Centre in Townsville should be established. Local Authorities, with the assistance of local service clubs, should be encouraged to establish similar facilities throughout regional Queensland and in segments of Brisbane. These single-purpose off-road facilities could be used for preliminary training to prepare children for cycling in real traffic and on the real road environment. In addition, they could be used to complement and support training received by children through "Bike-Ed" and similar community-based programs.

Recommendation 1

The Committee recommends that the Traffic Education and Playground Centre in Townsville be the model for Local Authorities to establish similar bicycle education and instruction facilities in regional Queensland and in segments of Brisbane. Service clubs could assist, and the Department of Transport could supply resource material, general advice and any additional support necessary.

7. OBLIGATION OF PARENTS

7.1 The transition from buying a bicycle as a toy, to the child using the bicycle as a vehicle on the road, is one that children generally find difficult and hazardous. Road rules apply equally to cyclists and motorists. The Committee is concerned that many parents do not adequately instruct their children

in road safety before allowing them to ride bicycles on the road. In addition, parents should be prevailed upon to ensure their children's bicycles are in a roadworthy condition with a responsibility upon the parent to lock up the bicycle at any time it is unroadworthy. For example, the lack of adequate lights is a common problem.

7.2 One way of assisting parents in this transition, would be for all children to complete a bicycle education course. This could ideally be achieved using the "Bike-Ed" program with the issuance of the certificate dependent on competence. Parents should, at the very least, look for this certificate before allowing their children to ride unsupervised on the roads. Instruction at an off-road bicycle training facility (if available) could also be undertaken. An on-going parental responsibility exists to monitor, reinforce and check upon the child's understanding of road rules and of road safety principles in general.

7.3 The Committee believes this parental obligation to be of paramount importance and in the best interests of both the parent and the child.

Recommendation 2

The Committee recommends that parents be informed of the need to be more rigorous in their efforts to ensure their children know and understand road rules BEFORE allowing them to ride bicycles on the road. Parents should ensure that their children's bicycles are maintained in a roadworthy condition and have adequate safety features.

8. OBLIGATION OF THE MEDIA - A COMMENT

8.1 Media outlets, particularly television, radio and newspapers are encouraged to continue to adopt a responsible approach toward publication of material which may appear to promote or condone unsafe road behaviour.

8.2 The Committee recognises that most media organisations are already aware of this responsibility. However, on occasion, articles or photos are published which may adversely influence road users. Children in particular may become confused and suffer from mixed messages they receive about road safety.

8.3 While the media has a responsibility to present a balanced view of what the world is really like, road safety messages need to be consistent across all fronts. Trauma and costs associated with road accidents affect us all, and the media can greatly assist in reducing the associated burden on individuals and the community by continuing to adopt a responsible approach to road safety.

9. CONCLUSION

9.1 The Committee has an obligation to report to Parliament on road safety issues which are of serious concern to both the Committee and the community.

9.2 The concerns and issues raised in this report have been brought to the Committee's attention during investigations into other specific road safety matters. Individuals and organisations have felt strongly enough about bicycle safety, particularly the safety of young children on bicycles, to raise the matter despite the fact that Travelsafe investigations to date, have not focussed on this issue.

9.3 While the Committee accepts that it is difficult (or impossible) to consider road safety issues in isolation, the recurrence of the issue of bicycle safety is evidence that the community at large have grave concerns for the safety of cyclists, particularly children.

SUMMARY OF RECOMMENDATIONS

Recommendation 1

The Committee recommends that the Traffic Education and Playground Centre in Townsville be the model for Local Authorities to establish similar bicycle education and instruction facilities in regional Queensland and in segments of Brisbane. Service clubs could assist, and the Department of Transport could supply resource material, general advice and any additional support necessary.

Recommendation 2

The Committee recommends that parents be informed of the need to be more rigorous in their efforts to ensure their children know and understand road rules BEFORE allowing them to ride bicycles on the road. Parents should ensure that their children's bicycles are maintained in a roadworthy condition and have adequate safety features.

REFERENCES

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Elliott, B. 1985, Children and Road Accidents: An analysis of the problems and some suggested solutions, Federal Office of Road Safety, Report No. CR 36, Federal Department of Transport, Canberra.

Bike-Ed Instructors Manual 1991, Queensland Transport Bike-Ed Program Kit, Road Safety Division, Queensland Department of Transport, Brisbane.

Queensland Police Service, Annual Report 1990-1991, Brisbane.

OTHER REFERENCES FOUND USEFUL

Federal Office Road Safety 1987, Bike Safe 86 - Conference Proceedings of the National Bicycle Safety Conference, Newcastle, Australia, 30 April to 2 May 1986, AGPS, Canberra.

Parliament of New South Wales Joint Standing Committee on Road Safety 1988, Staysafe 12 - Bicycle Safety, Sydney.

Parliament of Victoria Social Development Committee 1986, Inquiry into Child Pedestrian and Bicycle Safety - First Report, Melbourne.

Queensland Transport 1990, Road Safety Reference Notes, Road Safety Division, Fortitude Valley, Brisbane.

APPENDIX A
Bicycle Education Programs in Australia

Queensland

Government Organisation: Department of Transport

Program Name: Bike-Ed

New South Wales

Government Organisation: Roads and Traffic Authority

Program Name: Street Sense (bicycle education is a component of this)

Victoria

Government Organisation: VIC ROADS

Program Name: Bike Ed (ages 9-13) Cycle On (grades 7-12)

Tasmania

Government Organisation: Department of Roads and Transport
Office of Road Safety

Program Name: Use programs from other states. Currently using or trialing VIC ROADS Bike Ed and Cycle On programs and Queensland Bike-Ed.

South Australia

Government Organisation: Department of Road Transport
Office of Road Safety

Program Name: No program currently being implemented.

Western Australia

Government Organisation: Bike West

Program Name: Bike-Ed

Northern Territory

Government Organisation: Road Safety Council of the Northern Territory (conducts public education programs).

Program Name: Mainly use VIC ROADS and Queensland Bike-Ed programs. School-based Constable scheme is used to conduct bicycle safety programs.

Australian Capital Territory

Government organisation: Road Safety Unit
Traffic and Roads Sections
ACT City Services

Program Name: The Road Safety Unit assists schools to develop road safety programs. The programs include bicycle education as one of the components. A key element of this process is an early evaluation of bicycle skills so that program development includes tuition in deficient areas.