

# Encouraging walking through driver safety education

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## Abstract

In Christchurch on average 25% of road fatalities have been pedestrians in the last five years. If we are to encourage people to walk, and especially to encourage parents to allow their children to walk as a means of transport, it will be necessary not only to make pedestrians safer, but also to make them perceive that they are safer. Provision of safe, pleasant and convenient pedestrian routes is one way to achieve this. In the meantime, given the pedestrian infrastructure we have at the moment, the challenge is to encourage drivers to change their driving habits to increase pedestrian safety and make pedestrians feel safer, while depicting the streets as safe for them to walk. In Christchurch, ongoing pedestrian safety promotions and education raise awareness of pedestrian needs amongst drivers without indicating to pedestrians that the streets are dangerous. Three recent projects include a pantomime zebra outside schools and on crossings in commercial areas; a project encouraging drivers to give way when turning at traffic signals; and education informing drivers of the requirement to stop when the school patrol sign is out only on the opposite side of the road.

## 1. Introduction

Christchurch being flat for most of its area is an ideal place to encourage walking and cycling for many trips including those to the central city and around suburbs and neighbourhoods. The first target for encouraging walking is to encourage more students walking to school.

One of the barriers to parents allowing children to walk to school is the safety of the students and the perception of safety by their parents. Slower traffic, easier road crossing, greater care by motorists all increases the perception that the children will be safer on the road. Adult pedestrians too, especially older walkers are discouraged by the perception that it is not safe or by difficulty in crossing the road. A major incentive for walking is "more pleasant routes". Routes are more pleasant if the traffic is slower, it is easy to cross the road and the motorists are courteous and considerate towards walkers.

In Christchurch the issue is dealt with by taking a two pronged approach. On the one hand walking is encouraged by the promotion of walking school buses, walking Wednesday, and Feet First programmes with engineering programmes to make the journey to school easier and safer. On the other hand promotions target drivers to encourage driving behaviour that will make pedestrians both feel safer and increase their safety.

As in the promotion of cycle safety, those involved in the promotions try to structure them so they do not increase the perception by pedestrians that the road is a dangerous place. The long term strategy is to target different specific driving behaviours that affect pedestrians, such as watching out on approaching a pedestrian crossing, giving way to pedestrians when turning at traffic signals and stopping for school patrol signs.

## 2. Pedestrian safety statistics

In Christchurch as in the other urban areas in New Zealand, the proportion of pedestrian fatalities generally averages around 25% of all road fatalities in a five year period. Pedestrian casualties reported in Christchurch were around 9% of all road casualties over the last five years and dropping

to below 8% in 2007. The numbers of reported pedestrian casualties have remained fairly constant over the last five years at about 98 per year.

(graph)

There is a very strong relationship between the speed of traffic and the risk of death to pedestrians if they are hit. The following table takes the impact speed at 30km/h as a baseline. At that speed the risk of death to pedestrians is below 10% (Anderson et al 1997, Davis 2001).

30km/h	1.0
40km/h	4.5
50km/h	18.6
60km/h	30.7
70km/h	40.9

This information comes from (Corben, Logan and Oxley, 2008) in a report from the Monash University Accident Research Centre describing the feasibility of giving star ratings to individual school crossing points.

Similarly, the perception of pedestrians that they are at risk is likely to increase as they see motorists travelling at higher speeds.

Perception of safety is important in making walking an attractive mode of transport. Those most at risk as pedestrians are the elderly, the young and those disabled by age, physical disability or alcohol. These people are also the most likely to make mistakes, and the least likely to change their behaviour as a result of education. It is therefore appropriate to focus education on the vehicle drivers, who may not necessarily be legally at fault in a crash, but who may be able to avoid collisions with pedestrians by modifying their driving style especially in places where there are likely to be pedestrians.

### **3. Feeling safe as an incentive to walking**

A variety of studies show that safety is an issue in encouraging or discouraging walking. Educating children to keep themselves safe from traffic may not allay parental fears.

The following statement appears in a Scottish study, 'Why Do Parents Drive their Children to School?':

"Even in instances where it is felt that children may have a good understanding of road safety issues, parents have concerns over other road users and question their ability not to endanger children and other pedestrians." (Granville et al 2002)

In New Zealand eight Neighbourhood Accessibility Plans (NAPs) based in local authorities gathered information from their communities about perceptions of the accessibility of walking and cycling in their areas. In all eight of the Neighbourhood Accessibility Plans safety was an issue for incentives and barriers to walking. Most of the NAPs mentioned traffic speed as an issue, especially around schools. (Francis and Cambridge 2005) .

A recent survey of 400 Christchurch residents (Opinions Market Research for Christchurch City Council 2008) showed that 19% said they walked more than once a day in and around Christchurch and 38% said they walked almost every day. Some 29% considered that they walked more than last year. Thus 57% of the respondents said they walked regularly.

Those who rated Christchurch as less walking friendly were less likely to walk for most activities.

A latent desire for walking was indicated by 20% saying they would like to walk much more and 37% saying they would like to walk a little more.

The study results show that respondents felt that improving traffic issues would encourage them to walk more. Incentives for walking included

- More pleasant routes (33%)
- Less traffic (23%)
- Slower traffic (19%)

When asked about slow speed environments 56% wanted more effort around schools with 12-17% feeling that much more effort should be put into providing slow speed environments generally.

Only 45 % considered it very easy to cross the road in their neighbourhood. This fell to 34% among those accessing a local school and to 19% in relation to the central city.

Over a third of respondents did not consider other road users to be courteous to walkers.

#### **4. Encouraging drivers to change their driving habits**

The Christchurch City Council has had a goal of changing driver behaviour in relation to pedestrians for many years. Promotions have been held with the objective of raising awareness among drivers of pedestrian needs and ways in which their driving can increase pedestrian safety and make pedestrians feel safer.

Previous promotions in Christchurch aiming to educate drivers in relation to pedestrians include

- “Pedestrians are unpredictable. Expect the unexpected”
- A television advertisement with a rap,
- “Stop for a Duck, Stop for a Pedestrian”,
- Scratch cards with pedestrian questions.

Reach and recall of these campaigns has been good, but the proportion of pedestrians being killed and seriously injured in Christchurch has not changed.

#### **5. Driver education**

Recent projects in Christchurch aiming to educate drivers to change their behaviour to take more care of pedestrians include: Stopping distance events, performing zebra at pedestrian crossings, ‘Give Way to Walkers’, and information on school patrol stop signs.

#### **6. Stopping Distance Events**

Stopping Distance events have been run in Christchurch for five years. They arose from a brainstorming exercise to find a way of showing drivers that the faster they go, the longer it takes to stop, putting pedestrians at risk.

Each event begins with a demonstration by driving instructor Don Elvy. A set of cardboard figures in the road remains safe when the car drives towards them and brakes at 50km/h but at 60 km/h the driver, braking at the same spot, hits one of the life size figures, spraying fake blood over the car and sometimes the on-lookers. Stopping distances are measured showing that at 60km/h it is nearly twice as far to stop as at 50 km/h.

The second part of each event is a dramatic staged rescue of victims from a crashed car by the Fire Service and St John.

Events have been run in the evening hosted by primary schools, in the day time at the CPIT, and at lunch time at Linwood College. A free sausage sizzle attracts on-lookers. A local radio station promotes the event and supplies a compere and a barbeque. On average about 300-400 people from each school community attend the evening events, with about 700 students at the CPIT, and 1,000 at Linwood College. An event in February at the Wigram Air Force Museum open day had about 3,000 spectators.

## **7. Performing Zebra at Pedestrian Crossings**

A performing arts tutor from the CPIT was contracted to set up, manage and supervise students in a pantomime zebra costume which was led across the road on pedestrian crossings with school patrols before and after school. Chris Carrow organised the zebra, students and a minder, and put out "Look out, Zebra, Crossing" signs. During the day the zebra was deployed at pedestrian crossings where safety was an issue around the city.

The activity aimed to raise awareness among drivers of the need to slow down and pay attention as they approach pedestrian crossings.

Care was taken not to hold up traffic unnecessarily with the zebra crossing quickly and leaving gaps between crossings for the traffic to flow. Drivers and truck drivers smiled and waved. There was lots of laughter. The school students loved the zebra. Schools requested the zebra.

## **8. Give Way to Walkers**

An advertisement was developed to address issues of drivers not giving way to pedestrians at traffic signals when the drivers are turning. There is a lack of understanding among both drivers and pedestrians of the rights of pedestrians to finish crossing when the pedestrian signal is flashing red. There are issues with drivers intimidating pedestrians by driving close to them, sounding their horns to hurry them up, or driving through the signal crossing in front of them.

The Give Way to Walkers advertisement was designed for use on bus backs, bill boards, bus shelters and in the newspaper. A radio advertisement was also designed.

The visual advertisement shows the pedestrians well out into the crossing and the red flashing light showing on the signal.

## **9. School Patrol Stop Signs information**

As the traffic density increases in Christchurch, students at school patrols are finding it difficult to get gaps in the traffic to put out the school patrol signs on both sides of the road. When a sign is out on only one side the road, traffic from both directions is required to stop. At the request of the Police Education Officers, a leaflet and newspaper advertisement was designed to provide information to drivers that they are required to stop if the school patrol sign is out on the opposite side of the road. The leaflet also provided a reminder to motorists of the need to watch out for school patrol signs and to slow down around schools.

The Police Education Officers gave out the leaflets to drivers at schools where there was an issue with traffic not stopping for the school patrol signs.

## 10. Evaluation and monitoring

Opinions Market Research carried out a survey in June 2008 with 400 Christchurch residents. Respondents were asked whether they agreed or disagreed with the statement "at traffic lights, pedestrians have a right to complete their crossing when the red man starts flashing". 10% of respondents disagreed with 1% saying they didn't know. 76% agreed strongly and 13% agreed slightly.

Participants were asked whether they had seen recent publicity about giving way to walkers when turning at traffic lights. 29% recalled such publicity. Of those who recalled the campaign, 18% said it gave them new information. Of those who recalled the campaign 15% said they had changed their driving behaviour as a result with 53% saying they already give way to walkers when turning at traffic lights.

21% said they had not changed their behaviour as a result, and 11% said they did not drive.

## 11. Conclusions

Perceptions that the streets are unsafe and that pedestrians are at risk from speed of traffic may be obstacles to walking. To encourage walking we need to educate motorists to modify their behaviour in relation to pedestrians. We need to avoid making walking seem risky as part of this process.

Providing drivers with positive information about the laws relating to pedestrians, and about the physics of collisions with pedestrians is a way of encouraging changes in behaviour in a neutral manner without apportioning blame. Using humour in driver education may help to encourage behaviour change in the drivers without making walking seem a risky activity.

Surveys with questions about pedestrian issues show that there is still some ignorance about road rules relating to pedestrians.

## 12. References

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