

Safe Travel to School – Treatments to Encourage Walking and Cycling to Primary School

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Abstract

Darebin City Council supports walking and cycling to school. Between 2012 and 2017 Darebin conducted travel audits on many schools and implemented recommended infrastructure treatments. To identify what should be included in future travel strategies, Safe System Solutions Pty Ltd evaluated a sample of the changes as a result of the audits.

The present understanding of risk assessment emphasizes that perceived risk is as important as the technically determined actual risk. In an analogous manner, if a treatment that road safety experts consider highly effective (the actual effectiveness), is unpopular with key stakeholders (the perceived effectiveness) then the process of reconciling such disagreement is an important part of determining effective road safety treatments.

Background

Walking and cycling play an important role in creating a more healthy and sustainable community. Darebin City Council supports walking and cycling to school and aims to make every child's journey safer, easier and more sustainable. Between 2012 and 2017 Darebin conducted travel audits on 32 of its 37 primary schools and subsequently implemented some of the highest priority recommended infrastructure treatments. To identify the most effective types of treatments and what should be included in future travel strategies Safe System Solutions Pty Ltd evaluated 10 of the audits by:

- Engaging with the schools to identify current travel concerns and perceptions of the implemented treatments
- Identifying, classifying and determining the impact of the implemented treatments
- Evaluating implemented treatments and ranking them for effectiveness (and cost)
- Providing conclusions on the audit approach – whether it is sufficient and effective, or whether other approaches should be considered

Method

Feedback on the treatments (Table 1) was obtained from four stakeholder groups: parents/guardians, students, school principals, representatives of the City of Darebin.

The feedback was obtained through an online survey. Key information sets included:

- Distance travelled to school and maximum distance parents would allow their child to walk or cycle to school
- Primary mode of transport to and from the school
- Why the primary mode of transport is used
- Barriers to walking and cycling; travel difficulties and ideas for improvements
- Perceptions of the treatments

- *Table 1. Treatments that were examined along with a representative advantage and disadvantage*

Treatment	Key Advantage	Key Disadvantage
Raised Path Crossing Point	Reduces fatal and serious injury crashes	No priority for pedestrians or cyclists and unpopular with broader driving community
Children's Crossing (at grade)	Positively perceived by parents as it allows safe independent travel	Does not force a speed reduction
Raised Children's Crossing	Positively perceived by parents as it allows safe independent travel	Unpopular with broader driving community
Zebra Crossing	Permanent pedestrian priority that allows safe independent travel at all times	Does not reduce vehicle speed
Wombat Crossing	Reduces fatal and serious injury crashes and allows safe independent travel at all times	Unpopular with broader driving community
Pedestrian Refuge	Traffic calming measure that reduces crossing distance	Does not allow for independent travel; also reduces road width (noting that this can also be viewed as an advantage)
Kerb Outstand	Enhances other treatments and reduces crossing distance	Impacts cyclists by creating pinch points
Kiss and Go	Reduces indiscriminate parking	Encourages driving over active transport
Pedestrian Operated Signals	Active control for all road users thus allows safe independent travel at all times	Costly; Pedestrian wait times may be long
Speed Management	Reduces vehicle speeds thus improving safety	May not be supported by the driving community
Gateway Treatments such as signage to warn of a school zone	Indicates a change in road environment highlighting pedestrian areas	Only effective if supported by other treatments
Wayfinding	May improve parents' perception of safety	May not influence pedestrian behavior
Shared Paths	Improves safety by separating vulnerable road users from vehicles	Can lead to conflict between cyclists and pedestrians
Raised Intersection	Reduces fatal and serious injury crashes	Costly and unpopular with broader driving community

The safe travel treatments implemented at the schools were tabulated to show the following key treatment characteristics:

- Type of treatment
- Impact
- Influence
- Safety
- Costs

Results

There are situations where a treatment that road safety experts believe to be highly effective, may be unpopular with particular segments of the community. An example: speed reduction on a major arterial road near a school (to enable safe road crossing for children using public transport) is unpopular if the school itself is not visible and few children use public transport because drivers do not then link the speed reduction with visible children.

The treatments in Table 1 fall into two broad classes. Those for which there is agreement amongst all stakeholders as to their utility and effectiveness, and those for which options vary based on how people use the space.

Conclusion

The present understanding of risk assessment emphasizes that perceived risk is as important as the technically determined actual risk. In an analogous manner, if a treatment that road safety experts consider highly effective (the actual effectiveness), is unpopular with key stakeholders (the perceived effectiveness) then the process of reconciling such disagreement is an important part of determining effective road safety treatments.