

Who knows what makes Traffic Safety Education effective?

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Abstract

How can a road safety practitioner find out when, what and in what way students in formal education settings need to know about Traffic Safety Education? While education research supports the notion that teachers are best placed to deliver Traffic Safety Education in schools, many areas of the community and the road safety sector work within formal education settings to deliver road safety messages. How can a consistent vision and source of Traffic Safety Education principles be provided to all practitioners in this area? How can a consistent and correct set of messages for road safety be fostered for all practitioners? When are prevention and intervention programs most appropriate and, more importantly, in what forms? This paper brings together current research knowledge and educational understandings about key traffic safety education approaches to support practitioners to deliver road safety programs in an efficient and effective manner.

Introduction

When Nelson Mandela said that “Education is the most powerful weapon we can use to change the world” he was not suggesting that targeting early childhood and school education was the panacea for all social ills and development. But that is often the misguided approach that is taken which contributes to mixed messages in the community as a whole, if not in the road safety space. For example, in the 1950’s and 1960’s the role of driver education was touted as the saviour of youth over-representation in the road toll. Research confirms the clear lack of ability to link the education programs with reduction in youth deaths on our roads: “There is little sound scientific evidence to support the view that novice driver training provided off-road improves the driving behaviour of those trained or reduces their subsequent involvement in road crashes”. (Christie, 1996; RTA, 1996). The failure of driver education has resulted in a broad dismissal within the road safety community of the value of focussing on education as a whole.

This paper scans the research which provides the right approaches and provides some discussion around the issues that relate to road/traffic safety education in early childhood and school education settings.

Lack of clarity

Let me begin with the one excellent example of lack of clarity in this space. It is noted that the terms Traffic Safety Education and Road Safety Education are both extant. While road safety authorities tend to use the latter, the term ‘Traffic safety education’ differentiates from community based education, which is seen as typically public marketing and advertising. Schools and early childhood settings are not public marketing and advertising venues. So I tend to use the term ‘Traffic safety education’ for school and early childhood resources and delivery initiatives. In this way using the term Traffic Safety Education profiles work in schools and early childhood education settings appropriately, avoiding confusing the role of teaching and learning with mass communication and public education strategies. It needs to be recognised that working in formal education settings is a specialist task, and not presume that what is appropriate for the community as a whole is right for the learning and teaching setting too.

Moreover, I view the term ‘traffic safety education’ is broader and more inclusive, such as off road cycle activities, shared paths and rail safety, than just the concept of road safety. While the road safety agencies feel comfortable using the term road safety pejoratively, within an education setting the term is restrictive and can create a distorted view of the continuum of activities in the formal education sectors.

Clarity

There is, however, no lack of clarity in what works in the learning and teaching space. All else being equal, the research shows that the quality of the teaching is the single most important factor in determining improved student learning outcomes. “Teachers are perhaps the most important element of educational systems and a key ingredient in the success of students” (Pianta 2013). Education policy adviser to the Organisation for Economic Co-operation and Development, Andreas Schleicher, was recently reported in the media to have said that investment in teacher professional development will help to boost the learning outcomes of their charges: “if you have to make a choice between a great teacher and a small class, go for the great teacher”. In order to provide education for students to contribute effectively in the 21st century, “we need to work with teachers and teacher education institutions to ensure true clinical professional practice.....and a focus on student growth [is] adopted and integrated throughout our system, rather than existing in their current isolated pockets of excellence”. (Rickards 2013: Forward) (Jensen et al 2013: 1) The best ways to teach and learn, then implement reform through high-quality systems of teacher development,..... School leaders should be empowered to run their schools well. P1

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“Day et al (2010) reconfirm the Leithwood et al (2007) finding that effective school leadership is second only to classroom teaching as a school influence on pupil learning”. (Allen 2013:5) It’s clear that significant effort and resources should be put into building the capacity of teachers and educators to deliver effective traffic safety education. “The best ways to teach and learn, then implement reform [is] through high-quality systems of teacher development,..... School leaders should be empowered to run their schools well (Jensen et al 2013: 1). This doesn’t mean give more autonomy but more professional learning so they can deliver better, use their autonomy better.

And the focus should be on tailoring programs to meet individual styles of learning where the child is at the centre of the classroom. Hattie’s (2009) meta-analyses of effective teaching and learning encourages classroom teachers to ‘see’ learning through the eyes of the learner, and identifying visible teaching and visible learning in which learners act as their own teachers. This analysis of over 800 studies also recognised the home’s key role in “supporting and sustaining.....learning journeys between home and school contexts”. (Allen 2013:11)

The guidelines

These understandings about the power and approaches behind improved student learning underpin the development of both the Early Years Learning Framework and the Australian Curriculum. The framework and the curriculum guide educators in developing their programs.

The Early Years Learning Framework reinforces the links between parents/carers, their families and pre-school education settings to support children’s wellbeing. “The Early Years Learning Framework describes the principles, practice and outcomes essential to support and enhance young children’s learning from birth to five years of age, as well as their transition to school.” (DEEWR 2009) The National Quality Standard supports the implementation of the Early Years Learning Framework and delineates requirements that relate to road safety education and safe transport.

These requirements are further explored in the Guide to the National Quality Standard, which assists services to complete the self-assessment and quality improvement planning process by evaluating their current practices and identifying which practices they can or should improve. For example, according to the Guide to the National Quality Standard, all service types may be assessed on:

- how road safety education and active transport initiatives have been incorporated into the children’s program
- knowledge of child restraint road rules, and fitment and use of child restraints
- policy and procedures on excursions that include evidence of a written risk assessment undertaken prior to conducting an excursion
- appropriate supervision of children when being transported to and from the service by car, train or tram or on foot.

The Australian curriculum stresses the stages of learning and student development. The current development of the Australian Curriculum, in particular the Health and Physical Education curriculum (ACARA 2013:2), reinforces a “strengths based approach”, rather than a deficit model that is often the popular approach in other discipline areas. Its propositions provide a commitment to:

- focusing on educative outcomes
- • taking a strengths-based approach
- • valuing movement
- • developing health literacy skills
- • including a critical inquiry approach.

Road/Traffic safety education is strongly aligned with the stages of development; and the core content and activities of Road/Traffic safety education match the stages of development as children grow and become more independent participants in the transport system. Road/Traffic safety education is a safety activity that reflects authentic, engaging activities; and addresses the needs of all students. All children interact with the transport system in some way every day.

The Road Safety Education Reference Group, Australasia (with representation of each jurisdiction in Education and transport across Australia and New Zealand) also provides guidance to both schools and organisations that work with schools through the Principles for School Road Safety Education (SDERA 2009). The Principles are aligned with curriculum guidelines by providing the underpinning values to guide educational practitioners in the development of their curriculum and resources. Practitioners can use the principles as a checklist when constructing resources and activities. The emphasis is on underpinning work with evidence-based research and considering key issues in learning and teaching and relevant community needs.

Victorian implementation

In Victoria, the development and delivery of key resources for early childhood settings has been based on both the Early Years Learning Framework and the Principles for School Road Safety Education. And the development and delivery of key resources for schools has been based on the Principles for School Road Safety Education and ongoing research and evaluations begun by Elliott (2004) and Taylor (2005) that identified key windows of opportunity for relevant Road/Traffic safety education within schools linked to the stages of development/learning. The key windows are:

- Early childhood/early years (F-2): passenger (e.g. safety door and booster seats) and pedestrian safety (e.g. holding hands, crossing procedure – Stop! Look! Listen! Think!). This includes parents as an audience.
- Middle years (5,6): more independent travel – pedestrian safety, passenger safety, public transport (waiting for, getting on and off the bus, train travel), cycling (on and off road skills and safety knowledge)
- Later years (10): pre-licence education – (road law, consequences of road crashes (ripple effect), peer pressure, fatigue, distractions, speed, alcohol and drugs, etc.(not driving skills)

The underpinning rationale for the inclusion of any reference to road/traffic safety education should be to identify core concepts/activities matching stages of development/learning. This may be a consistent rationale to apply why any ‘safety’ issues is raised in the curriculum. Any additional activities should be considered enrichment activities and still leaves the door open for agencies to develop specialised and/or more detailed programs to suit their priorities.

The Victorian Traffic Safety Education materials follow this rationale:

Pre-school settings: “Starting Out Safely” - aligning key road safety concepts to the learning outcomes in the Early Years Learning Framework around core issues, including: identifying types of traffic, recognising road signs, the meaning of “fast” and “slow”, holding hands in traffic, using the safety door, safe crossing behaviour (Stop, Look, Listen and Think), using child restraints, booster seats and/or seat belts, finding safe places to play, using helmets when riding bikes.

Primary schools: “Kids on the Move” – core issues are grouped into units of work. Each unit of work identifies key outcomes for students related to the focus of the stage of development:

Years F-2 topics include:

“Roads, Vehicles and Traffic”, (includes activities: Let’s go walking!, Vehicles, My street record sheet, Signs in my neighbourhood)

Students will be able to:

- recognise and name different types of roads and pathways in their local area
- identify what makes a roadway dangerous, quiet, busy, wide, narrow
- discuss how traffic affects the safety of pedestrians and cyclists
- identify major signals, signs and road markings
- recognise additional road signs such as advisory and warning signs
- use the procedure: Stop, Look, Listen, Think when near traffic
- observe different vehicles and predict their movements
- make judgements about the distance vehicles are away from them, the direction of travel and the speed at which different vehicles travel
- recognise some of the legal and formal road rules and devise informal ones with their friends and family.

“Stop, Look, Listen, Think” (includes activities: Learning to Stop, Look, Listen, Think, Crossing the road, Road Sign Spotto)

Students will be able to:

- understand that the Stop, Look, Listen, Think procedure will help them to be safer when crossing roads
- use their senses to gather information about traffic
- use visual clues to decide when a road is clear
- recognise issues related to their ability to be seen by other road users
- under supervision, apply the Stop, Look, Listen, Think procedure to a road crossing
- understand the importance of being with an adult when crossing roads
- understand that crossing railway tracks is like crossing roads and should only be done with an adult at marked crossings and when tracks are clear.

“Pedestrian Safety” (includes activities: Crossing safely, Rules, Practising pedestrian safety, Can drivers see me?, Rules to stay safe, Road Sign Spotto)

Students will be able to:

Describe a pedestrian

- Identify pedestrian hazards and ways to avoid/manage them
- Identify a footpath or shared pathway in their local area
- Identify and discuss dangers to pedestrians in driveways, car parks and near railway crossings
- Discuss and demonstrate how to use a footpath safely.

“Passenger Safety” (includes activities: Being a responsible car passenger, Being a responsible bus passenger, Being a safe passenger)

Students will be able to:

- Identify different types of passenger restraints
- Understand the possible consequences of being unrestrained in a moving vehicle
- Demonstrate how to buckle up and adjust a seatbelt
- Explain how poor passenger behaviours can affect others’ safety
- List and demonstrate safe and courteous behaviours when travelling as a passenger.

Years 5-6 topics include:

“Why Road Safety Matters” ” (includes activities: The Physics of road crashes, Perfect timing, Speed sensitivity)

Students will be able to:

- understand that road trauma is a major public health issue
- identify the factors that contribute to road trauma
- identify the contribution that human error makes to road crashes
- describe in simple terms the physics of a road crash

- strengthen their decision-making, communication and negotiation skills to optimise their safety when travelling.

“Pedestrian Safety” (includes activities: What are the risks for pedestrians?, Choosing a safe route, Travelling independently)

Students will be able to:

- describe the risks and possible consequences of unsafe behaviour as a pedestrian
- understand the process of decision making in relation to safe pedestrian behaviour.

“Cycling” (includes activities: Get into cycling, Bike Ed program)

Students will be able to:

- identify the personal and societal benefits of cycling
- understand the need to learn how to cycle in a range of contexts
- develop plans and strategies to optimise their safety.

“Public Transport” (includes activity: Way to go)

Students will be able to:

- become confident about using public transport
- implement behaviours that keep them and others safe when using public transport
- recognise that the Stop, Look Listen, Think procedure also applies to public transport use.

Secondary schools: “Traffic Safety Essentials – for young road users, not crash test dummies” – core issues are grouped into units of work titled: “Driving or just steering?” (includes the costs of road trauma, identifying youth at risk and young driver safety strategies, the complexity of the driving skills, the need for on-road supervised learner driver practice, the difference between driver competence and confidence, driving skills and driving craft), “Focused or fractured?” (includes the complexity of the driving task, the significance of driver distraction as a cause of road trauma, the importance of avoiding distractions while driving, strategies for dealing with driver distractions as a driver and a passenger), “Speeding and stopping” (includes reaction times and speed as two key components affecting crashes, variables affecting stopping distances, including speed, reaction time, road conditions, distractions and driver limitations, the scientific reasons for reducing speed to lessen the chances and impacts of crashes, technology solutions that are used in road construction and vehicle safety to reduce crash risk), “Alcohol and other drugs” (understanding the legality and safety issues when alcohol and other drugs are combined with driving, riding and walking, the impact of decision making relating to safety, impaired driving, riding and walking abilities through the impact of alcohol and drugs on the body), “Hoons or harassed” (includes illegality and lack of safety using the road as a hoon, the consequences of hooning or driving in an anti-social/illegal manner, the illegality and danger of modifying vehicles), “Travel choices” (includes safety as a priority for all road users, making empowering positive choices in both travel mode and with whom one travels, alternatives to travelling by car, the need to make positive, empowering decisions about who to travel with, looking after your mates, learning to say “NO”).

Each set of the Victorian materials cover core activities and constitute the minimum activities educational settings should include in their curriculum. Using this approach could provide for the development of national resources, which is included in the National Road Safety Strategy.

All Victorian materials can be found through the Victorian road safety education portal, a 'one stop shop' for early childhood educators, school teachers, parents and carers interested in road safety education. The website (<http://roadsafetyeducation.vic.gov.au>) links to road safety education information, curriculum resources/programs, research and professional development opportunities. There is also a section for parents and carers with practical advice and useful links for supporting their children's safety in the road environment.

This paper could but will not also cover the lack of effectiveness about using fear tactics like visits to hospitals, using simulators or off road driving schools, one-off programs, skills training or lecturing at students... and there are many other poor strategies out there. One researcher has noted that Krajcik (2011:156) bemoans the fact that too often "most curriculum materials that currently exist focus primarily on impoverished ideas about student learning or are based on no model of learning at all, and few, if any, follow a development perspective". Responses to these issues and suggested initiatives clearly show that they do not work because they abnegate both the community's and teachers' responsibilities. A good presentation (Waller 2013) summarizing the research substantiating this was delivered at the 2013 RSEGA National Road Safety Education Conference.

Conclusion

While different disciplines bring different perspectives to the road safety education space, different perspectives must determine, however, what is the appropriate educational experience that students should experience. This paper is motivated by the famous words of George Bernard Shaw, Irish playwright and essayist: "Beware of false knowledge; it is more dangerous than ignorance." I hope this paper has provided some direction around what is effective Road/Traffic safety education.

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