

# Road safety education best practice

D Divall



# **Transport Research Laboratory**



### **PUBLISHED PROJECT REPORT PPR456**

# **Road safety education best practice**

by **D Divall** 

Prepared for: Project Record: Road Safety Education Officer Service Review

Client: **Department of the Environment, Northern** 

**Ireland** 

Susan Dolan

Copyright Transport Research Laboratory February 2011

This Report has been prepared for the Department of Environment, Northern Ireland.

The views expressed are those of the author(s) and not necessarily those of the Department of the Environment, Northern Ireland.

	Name	Date Approved
Project Manager	Suzy Charman	24/02/11
Technical Referee	Suzy Charman	24/02/11

When purchased in hard copy, this publication is printed on paper that is FSC (Forest Stewardship Council) and TCF (Totally Chlorine Free) registered.

TRL PPR456

# **Contents**

1	Intro	duction	3
	1.1	Background	3
	1.2	Current RSEOS Activities	4
	1.3	Report Structure	4
2	Best	Practice in Road Safety Education	5
	2.1	Evaluation of Road Safety Education Programmes	5
	2.2	The Starting Point	8
	2.3	Barriers to Effective Road Safety Education	9
	2.4	Mechanisms for Delivering Road Safety Education	12
	2.5	Examples of Road Safety Education	14
	2.6	Promoting Road Safety Education Messages	23
3	Conc	lusion	26
Ac	knowle	edgements	29
Re	ferenc	es	29

#### 1 Introduction

#### 1.1 Background

The Road Safety Education Officer Service (RSEOS) is currently being reviewed by the Department of the Environment's (DOE's) Road Safety and Vehicle Regulation Division (RSVRD). The aim of the review is to make appropriate arrangements for the future provision of road safety services in Northern Ireland (NI). This review is being carried out by the Business Consultancy Service (BCS) of the Department of Finance and Personnel's Delivery and Innovation Division.

The overall BCS review has the following objectives:

- Review RSEOS and make recommendations on how the provision of road safety services could be enhanced in the context of supporting the objectives outlined in the Road Safety Strategy 2010-2020
- Consider whether there might be synergies in relevant communication programmes that would allow key messages to be effectively delivered
- Provide options for the location of RSEOS within the DOE structure, assess the pros and cons of each option and make recommendations
- Provide advice and recommendations on resources used for, and the funding of, road safety services
- Make recommendations on the potential opportunities for DOE to enhance and extend partnership working, including new alternative mechanisms for the delivery of road safety services
- Provide recommendations on the management and introduction of any changes that are proposed as a result of the review

The main aim of the current project is to support the BCS review of RSEOS by giving expert advice and guidance. The overall objective is to develop road safety management recommendations that can be considered in the BCS review.

The project has three Work Packages:

- Work Package 1: Review evidence base
- Work Package 2: Best practice review
- Work Package 3: Ad hoc support for specific road safety issues

This report relates to the second Work Package. In order to complete the work, firstly, local authorities in the United Kingdom were asked to undertake a telephone interview. The objectives of the interviews were to:

- Identify the different mechanisms for delivering road safety education
- Establish the most effective delivery mechanisms
- Identify specific education schemes that have robust evidence to suggest success
- Provide examples of success, and failure in the delivery of road safety education
- Qualify emerging review conclusions and recommendations

This was followed by a review of UK, Ireland and international literature based case studies using a combination of research, guidance and internet sourced reports.

Results from the telephone interviews and information obtained through the review of literature based case studies and guidance have then been used to determine, where possible, best practice in the delivery of effective RSE. Where it has not been possible to establish a clear understanding of best practice, examples of common practice have been provided, or examples of activity within the specified area. A second report "Road

Safety Priorities for High Risk Groups in Northern Ireland" provides the results of the first Work Package.

#### 1.2 Current RSEOS Activities

According to the RSEOS website, the service currently has the following responsibilities:

- Deliver a road safety programme in nursery, primary and secondary schools
- Teaching resources and materials
- Teaching aid calendars
- Cycling proficiency in primary schools
- Walking bus initiative in primary schools
- Child pedestrian safety training (mainly in socially disadvantaged areas)
- Ensure road safety is timetabled in post primary education
- Increase offering of Motor Vehicle and Road User Studies GCSE in post primary education
- Provide driver training scheme to students aged 17-19 years of age in post primary schools and further education colleges (Teen activities – drink/drug driving, speed, seatbelt use)
- Provide advice on child safety seats and restraints

Although the current focus of the RSEOS is largely upon the delivery of road safety education to those currently in full time education, there are additional activities that are undertaken in order to promote life-long road safety education and therefore the focus of the service is not entirely limited to children and young people. Opportunities for working alongside other internal and external groups to improve RSE will be explored within this report.

#### 1.3 Report Structure

Following this introduction the report has the following structure:

- Section 2 reviews information and case studies provided by UK road safety practitioners, and this is broken into further subsections covering:
  - Section 2.1: evaluation of Road Safety Education programmes
  - Section 2.2: the starting point
  - Section 2.3: barriers to effective Road Safety Education
  - Section 2.4: mechanisms for delivering Road Safety Education
  - Section 2.5: examples of Road Safety Education
- Section 3 provides some conclusions

# 2 Best Practice in Road Safety Education

This section of the report reviews information and case studies provided by UK road safety practitioners and relevant national and international literature. Throughout this section reference has been made to relevant research and guidance documents as specified in the project proposal. To obtain information from public sector transport authorities the project team has undertaken a series of telephone interviews with UK road safety practitioners, to determine common trends in the management, delivery and evaluation of Road Safety Education (RSE). The objectives of the telephone interviews were to:

- Identify the different mechanisms for delivering road safety education
- Establish the most effective delivery mechanisms
- Identify specific education schemes that have robust evidence to suggest success
- Provide examples of success, and failure, in the delivery of road safety education interventions
- Qualify emerging review conclusions and recommendations

For the purpose of this study best practice is defined as a method, process or activity, which through evaluation clearly demonstrates success in achieving specified RSE programme objectives and provides guidance for the effective delivery of similar RSE initiatives.

#### 2.1 Evaluation of Road Safety Education Programmes

Robust evaluation of RSE programmes demonstrating the effectiveness of an initiative has always been seen as difficult to undertake. Historically, a great deal of emphasis has been placed on perceptions and experiences rather than any evident change in road user behaviour or direct link to a reduction in road casualties. Although data relating to perceptions and experiences are valuable, in very few case studies has education been effectively linked to a direct change of action by a pedestrian, rider or driver, or a reduction in road death and/or injury.

Hauer (2007) complains that 'the prevailing culture is to think that...road safety can be delivered on the basis of opinion, folklore, tradition, intuition and experience' (Hauer 2007, p.2). This is the basis for arguing the case for a more robust evidence based approach which can be achieved through effective evaluation.

Indeed, the evidence obtained from robustly evaluating RSE interventions can also prevent achieving unintended results, which may include an increase in risk. In a study of school-based driver education Roberts and Kwan (2001) it concluded that there is 'no evidence that driver education reduces road crash involvement and suggest that it may lead to a modest but potentially important increase in the proportion of teenagers involved in traffic crashes' (Roberts and Kwan 2001, p.2). This may be brought about by an increase in exposure to risk through speeding up the licensing process, increasing confidence in young drivers who have not yet achieved the necessary levels of competence or a desire to conform to the social norm.

However, the World Health Organisation (WHO) has recognised the benefits of RSE in its 'World Report on Road Traffic Injury Prevention' saying "It is clear that informing and educating road users can improve knowledge about the rules of the road and about such matters as purchasing safer vehicles and equipment. Basic skills on how to control vehicles can be taught. Education can help to bring about a climate of concern and develop sympathetic attitudes towards effective interventions" (Peden et al., 2004, p137).

Despite this, the 2004 guidance from the UK's Department for Transport (DfT) on evaluating RSE activities (Sentinella, 2004) states that "Most studies of road safety

education programmes have found little or no change in accident rates for a number of reasons including variable accident reporting systems, timescale and the influence of other factors. The number of accidents in a local area is likely to be too small to detect any significant differences when comparing one year with another". This reinforces the importance of qualitative data to assess the effectiveness of RSE, but does not eliminate the need to show a clear change in behaviour or reduction in road casualties.

In his research 'Education in Road Safety' (2010), Frank McKenna concludes that "the great danger that education programmes face is that they are treated as a magic bullet that satisfies a number of goals, in that they introduce a measure that allows authorities to be seen as addressing a topic that is important and of public concern" (McKenna, 2010, p1). As such there is a lack of supporting evidence underpinning the development and delivery of many RSE programmes. Christie (2001) believes that the proliferation of RSE programmes "can act to undermine effective road safety programmes by diverting scarce funds and community attention away from more worthwhile initiatives likely to reduce crash risk" (p.viii)

In December 2009 BBC Scotland reported that road fatalities were 'at their lowest levels for the past three decades'. However, although Grampian Police are aware of the data led road safety problem through an analysis of casualty statistics and road user perceptions, very little is known about how the road deaths have been reduced due to no external and minimal internal evaluation of road safety interventions such as education.

Source: http://news.bbc.co.uk/1/hi/scotland/north\_east/8412265.stm, recovered 13th January 2011

McKenna's (2010) final conclusion is that it "is not that no educational interventions can work, but rather that the evidence must be provided" (p12). In a review of New Zealand's 'Road Safety to 2010 Strategy', it was stated that "It is often the case that more effort in the area of education and publicity is promoted as an alternative rather than an adjunct to more effective action. However, when used in combination with police enforcement...education can help to bring about important reductions in casualties" (Jeanne Breen Consulting, 2004, p15). It is evident that the focus should be to clearly and robustly demonstrate success.

In its report 'World Report on Road Traffic Injury Prevention', the WHO notes that although evidence does not exist to prove the effectiveness of RSE in reducing casualties, efforts such as pedestrian and cyclist education for school aged children "can be effective in changing behavior" by developing sympathetic attitudes towards effective interventions (Peden et al., 2004, p138).

The costs of road safety engineering schemes are documented and can be linked with historical measures of casualty reductions. For example, several studies using 'before' and 'after' data have shown that 20mph zones reduce casualties by around 40%, so reliable estimates can be made of investing in 20mph zones (Association of Directors of Environment, Economy, Transport and Planning, 2010). Therefore a relatively accurate estimate of the first year rate of return can be calculated.

Training targeting specific road user groups or offenders is also more easily evaluated, and its effectiveness demonstrated, using a combination of perceptions and experiences, but also direct changes in road user behaviour amongst the target audience which can be specifically linked to reductions in offences and deaths and injuries relating to that group.

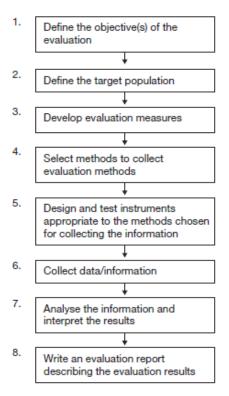
The aforementioned DfT guidance (Sentinella, 2004) recognises that evaluation can demonstrate:

- If a programme is effective
- Why it is effective or ineffective
- What can be learned from the successes and mistakes that have occurred

Importantly, the guidance highlighted that evaluation can be used to identify:

- The strengths and weaknesses of a programme
- Subsequent improvements that can be made
- If the materials or method of programme delivery are appropriate

The DfT guidance offers a model for evaluating RSE programmes showing the steps required:



Source: Sentinella (2004) Department for Transport, Guidelines for evaluating road safety education interventions, p14

Figure 2.1 Steps in an evaluation from the DfT guidance

The DfT guidance has contributed towards a much greater emphasis being placed on assessing the effectiveness of RSE within the UK. At the international level, Bliss and Breen (2009) recommend that evaluation of any road safety intervention "should be addressed as an integral element of the project concept" (Bliss and Breen, 2009, p50). The facility's view is that evaluation procedures as a whole "should be designed with a view to rolling them out more systematically" (p50). Doing so would enable Road Safety Education Officers (RSEOs) to prove the efficiency and effectiveness of RSE programmes.

The realisation that RSE programmes are now being much more heavily scrutinised has resulted in action not only from local authority practitioners, but also Non-Government Organisations (NGOs) and central government; for example the recent launch of the Department for Transport (DfT)/RoSPA *E-Valu-It Toolkit* which, through a series of questions, assists road safety practitioners on the process of evaluating their intervention and ensuring the effective use of resources.

The relatively new trend in evaluating RSE initiatives allow this study, supported by relevant literature and international case studies, to assess those interventions that appear to provide good examples of effective activity. However, due to the lack of quantitative and combined qualitative and quantitative research, it is not always possible to determine the effectiveness of one scheme over another. As such, professional judgement has been used to highlight good practice and common trends in the delivery of RSE.

#### 2.2 The Starting Point

The starting point for any road safety programme or intervention is to understand what the problem is and which disciplines can effectively contribute towards achieving improvements. As stated above, historically RSE has been based on perceptions rather than fact. However, in the modern era, particularly with budgets under significant pressure, more emphasis is being placed on ensuring that delivery relates directly to the real road safety problem.

Cheshire East Council has been particularly proactive in ensuring that delivery of RSE is in proportion to the road safety problem. Figure 2.2 demonstrates how the historic RSE programme was addressing perceived problems rather than what road casualty data on those killed or seriously injured (KSIs) identified as the problem.

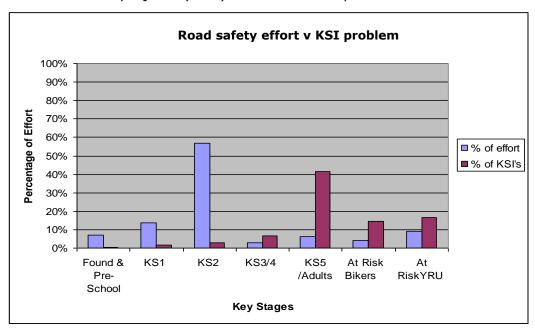


Figure 2.2 Cheshire East road safety education effort compared to killed and seriously casualty data

Here we can see that the proportion of RSE for each road user group did not match the KSI problem. One could argue that the reason that KSIs amongst pre-school, Key Stage 1 and Key Stage 2 pupils are as low as they are is because of the significant effort that went in to educating school aged children. However, this approach only serves to educate a small proportion of the road safety problem, allowing other identified target audiences such as young adults to use the road at a disproportionate risk level with the potential to increase the social and economic burden of road death and injury.

In line with many other UK local authorities (for example Medway, Newham, Bradford and Stockport) Cheshire East used a combination of qualitative research, with road collision and casualty statistics (quantitative research) to identify the nature of the road safety problem and has adjusted its programme of education accordingly, retaining only 45% of their historic road safety initiatives, including those relating to RSE, and increasing the level of provision for key target audiences to bring about a more focussed and effective programme of interventions.

Each element of intervention was then broken down to identify potential delivery partners (e.g. police, fire and rescue service, teachers, parents and community groups) and determine an effective methodology for evaluation.

In some local authorities process measures, or qualitative research (e.g. surveys of feedback of perceptions and experiences of the end user), has been the only data used to justify the need for RSE. Perceptions have consistently provided the business case for

undertaking RSE with little attempt to qualify these results against collision and casualty trends to obtain a holistic view of the road safety problem and solutions. As demonstrated in research by McKenna (2010), Christie (2001) and Roberts and Kwan (2001), this approach is unproven to yield reductions in road casualties or risk.

In its guidance on evaluating road safety education programmes, the DfT suggest a number of key points about evaluation measures (Sentinella, 2004). Process measurements might include:

- How the programme works in practice
- Acceptability of the programme
- · Appropriate monitoring data

Outcome measures might include:

- Local study accident and injury rates
- Safer behaviour, measured as the primary outcome
- Changes in attitude, knowledge or skills demonstrating the programme's educational objectives that lead to safer behaviour
- Specific measures that reflect the educational objectives of the project
- Other factors which may influence behaviour
- Multiple measures that aim to increase the reliability of the findings
- Measures that are measured against a robust baseline

Perceptions and experiences, as well as other process measures such as staff time and cost efficiency, must continue to play an important role in satisfying the public's need for RSE; however, best practice must also include a quantitative research approach that ensures that RSE is focussed on the ultimate aim of reducing the social and economic burden of road casualties on society.

To identify the road safety problem and determine the most appropriate RSE intervention programme, Grampian Police road safety education, training and publicity officers use a combination of local crash and casualty statistics, user group intelligence, and local knowledge obtained by area road safety staff. This information is used to design programmes of data led education that can be delivered either by Grampian Police road safety officers or by external delivery partners.

#### 2.3 Barriers to Effective Road Safety Education

The barriers associated with the delivery of RSE have long since been established. The DfT's 2008 report produced by MVA Consulting, 'Building on Success, Improving the Delivery of Road Safety Education, Training and Publicity', highlighted problems engaging with the community. In particular, accessing secondary schools appeared difficult, as did the conflict of encouraging greater walking and cycling that ultimately increased the road users' exposure to dangers whilst travelling to and from school. Where road safety was delivered through the Personal, Social and Health Education (PSHE) syllabus, significant competition for classroom time existed with other PSHE modules, such as health.

RSE was also seen as competing with engineering. This issue remains in current day RSE delivery due to the ease in which the benefits of an engineering scheme can be demonstrated. This has led to more funding being allocated to infrastructure based safety schemes.

Additional and improved resources were seen as the key to engaging more effectively with the community and raising awareness of road safety issues. It was felt that improved resources could:

- Facilitate more face to face work in the community
- Expansion of the service to address issues relating to powered two wheelers and young people in pre-driver education
- Increase the focus on work-related road safety
- Assist in promoting national campaigns

Increasing the knowledge and skills of RSEOs was also seen as an opportunity to overcome barriers to delivering RSE.

Telephone interviews undertaken by the project team for this review confirm that in many instances, these barriers continue to exist. Half of UK local authority respondents have stated that engagement with schools is inconsistent and that the pressures on schools to deliver the National Curriculum means that some schools, mainly secondary schools, feel that they cannot afford the time to include road safety education. In addition, there are far less attractive RSE schemes aimed at addressing road safety for older children/teenagers than for children in primary school years (European Commission, 2005).

Historic barriers are now enhanced by the global economic climate as RSE resources, both in terms of staff and materials, are significantly reduced. Indeed, the RSE teams at two London borough councils are expected to be disbanded. The majority of respondents have also indicated that staffing levels will be reduced over the coming months. Some RSE teams are working with a zero budget, but all RSE teams surveyed as part of this review are at best working on a significantly reduced budget.

The internet has been used effectively by many central and local government road safety teams to facilitate RSE, whilst direct delivery (whereby RSEO's are the dominant provider of RSE) has declined over recent years. This method allows RSEOs to efficiently provide schools with lesson plans, activities and materials that can be used to increase awareness of road safety. Under existing budget constraints, local authorities appear to be increasing the provision of on-line educational resources to ensure delivery of road safety messages.

In 1996, the Local Authorities Association (LAA) reiterated its recommendation from the 1989 Road Safety Code of Good Practice of one full-time Road Safety Officer (engaged in education, training and publicity activities) per 50,000 head of population (Local Authorities Association, 1996). Compliance with this has seen a rapid decline, particularly during the recession. This not only emphasises a greater need to make best use of methods such as the internet, but also promotes the increased use of facilitation to deliver road safety messages.

Telephone interviewees identified the following 'partnership' opportunities to assist in the delivery of RSE and overcome the barriers to delivery:

- Police (including PCSOs)
- Fire and rescue Service
- Connexions (an advice service for 13 to 19 year olds)
- Young Offenders Service
- Health and wellbeing professionals
- Teachers
- Parents
- Community groups

- School travel and safer routes teams
- In-house public relations teams
- Sustainable transport professionals
- Driving instructors
- External cyclist trainers
- Social enterprises
- Education authorities
- Parish Councils
- School PTAs
- Street wardens

Partnerships can be formal or informal. Safer roads partnerships commonly provide a coordinated road safety effort at a sub-regional level and provide the bridge between local authorities and the regional duties of the police and fire service. The activities of these formal partnerships are determined by an agreed terms of reference. Safety cameras are usually managed at the sub-regional level where a formal partnership exists. This approach uses road safety funding (provided by local authorities and any surplus from driver improvement courses) to target those road users most at-risk through enforcement, education and training interventions, although the activities of many safer roads partnerships are undergoing a review due to changes in the economic climate.

This sub-regional mechanism does not take on full responsibility for road safety, the statutory responsibility remains with the local authority. RSEO's at individual local authorities will continue to provide a local community road safety service, usually based on collision and casualty profiles undertaken by the partnership.

The most common partnerships are informal and exist at the local level with RSEO's engaging directly with road users through schools, parents, community groups and extended police road safety activities. Links are also made through synergies with other public sector services such as travel planning, sustainable travel and health promotion. However, sub-regional activity is still required to ensure engagement with the police and fire and rescue service.

It should be noted that in order to make the most of the opportunities presented by local partnerships, a central road safety resource is still required in order to orchestrate and align activities. Bliss and Breen (2009) recognise the function of coordination between government departments (horizontal coordination), as well as coordination between central, regional and local government, non-government organisations and external delivery partners (vertical coordination) as good practice. This process ensures a consistent approach to RSE not only from the national level but also at a local level.

At a local level horizontal coordination between related services such as sustainable transport and health promotion, and vertical coordination between the central road safety service and external partners such as the police and the fire and rescue service is seen as good practice to overcome a shortage in staff and budget resource. However, there still is a need to ensure that those who are delivering RSE, either as part of a formal or informal partnership approach, have the appropriate knowledge and skills to deliver effectively. There is no guarantee that officers of the youth offender service, health sector, sustainable travel team or even teachers have the ability or knowledge to deliver road safety messages effectively. Therefore, to increase effectiveness of any partnership there is a need to train the trainers, with professional RSEOS officers and education specialists best qualified to undertake this training.

In recognition of the need to increase knowledge and skills amongst the profession, the Institute of Road Safety Officers (IRSO) aims to facilitate the continued professional

development (CPD) of road safety practitioners in the UK. It achieves this through "providing and facilitating training and support opportunities for practitioners" at all levels (IRSO, 2011). Its objective is to maintain and increase the professionalism of road safety delivery across the UK (although it has some international members). This has included providing training opportunities in England, Scotland, Ireland and Northern Ireland. IRSO also chairs the National Staff Training Group (NSTG), whose activities are currently under review. NSTG's objectives are to:

- Identify the training needs of practitioners engaged in the delivery and facilitation of road safety
- Provide multi-disciplinary road safety and sustainable travel staff with a menu of academic, vocational and professional qualifications and training
- Develop guidance for employers on core and alternative qualifications, knowledge and skills commensurate with appropriate job descriptions for practitioners engaged in the delivery and / or facilitation of road safety
- Determine minimum requirements for the delivery of academic, vocational and professional training and promote these to all training providers
- Design and implement a quality assurance mark / brand which informs employers and employees of what training opportunities meet minimum requirements and encourage training providers to ensure that all continued professional development events meet the minimum standard

It is recommended that DoE keep abreast of the developments from NSTG, specifically relating to guidance on appropriate levels of training required by RSEOs to deliver road safety interventions, including education.

#### 2.4 Mechanisms for Delivering Road Safety Education

There are significant differences in the mechanisms used to deliver RSE in the UK and further afield. UK county councils undertake much more direct delivery than many city or borough councils using a network of area based RSEOs and assistant RSEOs. Direct delivery can be defined as RSE that is only conveyed to the target audience by the RSEO.

Norfolk County Council has a team of 5 area based officers engaged in education, training and publicity activities and a panel of 18 road safety assistants who deliver school based RSE and packages for young drivers as well as education for parents in the form of child car seat checks. The teams are supported where appropriate by 15 driving instructors.

West Berkshire Council RSEOs directly deliver approximately 80% of their RSE programme and facilitate approximately 20% through external partnerships. Partnerships are used to provide increased opportunities to deliver road safety messages via related disciplines such as health.

In many local authorities within England and Wales, much wider use of partnerships (formal and informal) are being employed to deliver RSE with smaller road safety services/teams facilitating related disciplines to assist in the dissemination of road safety messages.

Effective facilitation involves the RSEOS providing non-road safety professionals with the skills, information and resources to develop, deliver and evaluate RSE, in line with a targeted, coordinated and consistent programme of interventions.

Although facilitation is also used to some extent in the county council approach, increasingly the split of activities in city and borough councils significantly favours facilitation, in some cases reaching as high as 80% facilitation, 20% direct delivery.

As highlighted previously, there are many opportunities to utilise the skills of potential partners and with public sector budgets dramatically reducing, it is most likely that effective facilitation will play a greater role in the future delivery of road safety messages.

The delivery of RSE in Cheshire East is split by approximately 20% direct delivery and 80% facilitation respectively, making much greater use of external delivery partners and providing downloadable resources online.

The World Report on Road Traffic Injury Prevention (Peden, 2004) recommends that Governments should identify a 'lead agency' whose responsibility it is to guide effective and efficient road safety activity within the country. Moreover, it is recognised that responsibilities will be devolved to regional and local levels. The World Bank states that "Responsible and accountable road safety leadership at country, state, provincial and city levels is vital to success" (Bliss and Breen, 2009, (p.xviii)

This strongly suggests that despite opportunities to facilitate the delivery of road safety through a wide variety of partnerships, there remains a need to ensure a central lead agency role at every level of government to coordinate and guide effective road safety activities. It could be argued that increased facilitation and partnership working might not reflect best practice, rather it may reflect the current global financial situation.

Although engagement with related disciplines such as travel planning, health and offender services have the opportunity to deliver RSE messages to a wider audience, DoE should be mindful that there is a balance to be found between direct RSEO delivery and partnership facilitation.

There are UK and international examples of RSE activity whereby a much more equal combination of direct delivery and facilitation approaches are used. RSE in Scotland and New Zealand is delivered by police RSEO's who take on the traditional local authority officer role seen in England and Wales. Grampian Police RSE service is divided into different areas based on local command units. The service consists of one manager, ten advisors and three police officers but uses a relatively equal split of delivery and facilitation. The police RSE team contact schools and teachers directly and pupils are engaged through practical and theory inputs, discussion groups and information days and evenings in the learning environment, which are delivered by the police. Grampian Police also coordinate a wider programme of activities utilising opportunities presented through external partners.

The Western Australia Local Government Association's RoadWise Program is designed to encourage local government involvement and facilitate community participation in the implementation of the WA Road Safety Strategy. Primarily funded through the Road Trauma Trust Fund, RoadWise supports road safety officers based in all ten regions of the state who build and support a community road safety network. Local road safety committees, the formal part of this network, provide a mechanism for the planning and coordination of local road safety action, promotion and advocacy.

Reproduced from the World Bank Global Road Safety Facility Country Guidelines for the Conduct of Road Safety Management Capacity Reviews and the Specification of Lead Agency Reforms, Investment Strategies and Safe System Projects

Under current financial constraints, it is likely that effective facilitation will play a major role in the future delivery of RSE messages. Indeed, there are many benefits to utilising the skills, knowledge and resources of those partners highlighted throughout this report. On behalf of the Scottish Executive, Graham (2000) undertook a study entitled 'Road Safety Education in the Scottish Curriculum'. The report recommended that "road safety units would be more effectively deployed providing support to schools, teachers and local authorities, rather than undertaking direct delivery of RSE" (p3).

However, it must be reiterated that there remains a clear and important role for specific road safety practitioners in the development, delivery, evaluation, orchestration and

professionalism of successful and efficient RSE. Despite the benefits of facilitation, it is only through an effective centrally coordinated road safety delivery service that the public can be assured of consistent, harmonized and quality assured education messages, either through direct delivery, synergies with other services/partners or the provision of quality educational resources.

Whilst there appears to be no agreed best practice mechanism for delivering RSE, it is clear that a balance between direct delivery and facilitation must be established. There are many related disciplines where synergies exist, but a central coordinating role, ensuring quality of delivery, must be present.

#### 2.5 Examples of Road Safety Education

Kerbcraft, the practical child pedestrian training model developed following the Drumchapel Project in 1997 (Thomson and Whelan, 1997), has long been hailed as an effective tool for providing children with the tools for using the road safely. Its success was such that the DfT distributed the package to all RSEOs in the UK.

The Kerbcraft resource manual engages fully with parents and teachers, as well as the wider community, and enables adult volunteers to educate children on how to use the road safely as a pedestrian.

The results of the Drumchapel report have since been reinforced through a further study, 'Evaluation of the National Network of Child Pedestrian Training Pilot Projects' (Whelan, Towner, Errington and Powell, 2008). The studies concur that systematic, practical roadside training has a positive effect on the safety of children.

Importantly, the Organisation for Economic Cooperation and Development (OECD) reminds us in its 2004 international report 'Keeping Children Safe in Traffic', that "the best performing countries in terms of accident statistics adopted a holistic approach" (p8) in that education is one element of the solution as a whole and complements enforcement and engineering. It also stresses the importance of 'tailoring' education programmes taking into account the child's 'developmental stages'.

The OECD report also recommended that RSE 'be accepted as a lifelong process'. This is particularly important when casualty trends and risk levels for individual road user types increase later in life, for example the common trend of increased risk levels for older pedestrians.

In 2005 the European Commission undertook a project to compile an 'inventory' of RSE good practice (EC, 2005). Surveying 25 European countries, the report identifies ten steps towards successful implementation of RSE. These are provided in Table 2.1 with a summary of the recommendations relating to each step.

Table 2.1 Ten steps to successful implementation of RSE with a summary of recommendations

Ten steps	Summary of recommendation
Acknowledgement of the role of RSE	RSE should change its old fashioned image and deliver basic survival techniques that develop socially responsible behaviour amongst ALL road users
Prioritisation of RSE and strengthening its role in public	Increase the visibility of RSE by promoting to decision makers and include RSE in all relevant national strategy policies. Develop partnerships that also increase visibility of RSE
Strong coordination of potential partners	Define clear roles, lines of communication and responsibilities. Define needs for knowledge transfer. As part of the life-long learning process engage with other organisations such as those related to health, youth and sport
Prioritisation of RSE in schools and kindergartens – making RSE visible in the curricula	Define the scope, content and context (including time spent on RSE) of RSE in the curricula and use to engage education stakeholders. Facilitate RSE through the utilisation of teachers and the police
Promoting synergies and combinations between RSE and mobility education	Deliver RSE messages in the wider context of health, environment and social education.
Addressing teenagers as a risk group	Teenagers should be the main target audience for RSE due to their disproportionate levels of casualty risk. The strategy for engaging with this road user group must include diversified communication channels such as schools, youth centres, sports clubs and driver licensing schools
Addressing teenagers as a risk group	Parents should be made aware of the role that they play in delivering RSE and provide opportunities for them to assist in its delivery
The long term vision: reaching all road users by concept-based continuous RSE with clear goals	Clearly define goals, target groups, content, methods and strategies that ensure continuous, concept-based exposure to RSE messages
Promoting synergies and combinations of education with enforcement and engineering	Motivate stakeholders at the local level through combining RSE with other disciplines to assist in increased awareness of road safety
Strengthening research, evaluation and quality control	Ensure clear goals for interventions and programmes. Evaluation should be built in to the design of an RSE programme or intervention and undertaken at the earliest opportunity. Use evaluation as a means of assuring quality

As demonstrated earlier in this report, RSE continues to address historic barriers to effective delivery and in some countries and local areas it has yet to be successful in modernising its image. National and local road safety services must do more to acknowledge the training needs of RSEOs to ensure delivery of effective RSE programmes aimed at all road user types. Increases in the development of programmes that deliver RSE to road users other than children are also required.

Safe road use is recognised as a life skill and a major health issue and although facilitation of RSE through partnership working has increased in recent years, for public sector RSEOs some stakeholders have been traditionally difficult to engage with at a local level, for example the health sector. Results from telephone surveys suggest that this is in part due to the level of importance placed on road death and injury compared to other health issues by health authorities and the inconsistency of schools (mainly in secondary education as demonstrated in the ROSE 25 Report) to integrate RSE into curriculum activities at the same level as other skills and subjects.

Noord Brabant, one of the 12 provinces of the Netherlands, has developed a programme that integrates continuous RSE throughout the entire school career of children (4 to 16 years). Schools that participate in this programme have an option to achieve a certificate, the so-called 'RSE label'. This is a logo that can be placed prominently on the school building. An independent commission visits the schools in a two-fold function: on the one hand, in an advisory capacity, and on the other hand, as quality controllers. Together with the community, the province develops strategies to involve as many schools as possible. A total of 6 persons are engaged at the province level to promote this programme within the entire province and to engage in pro-active networking among the local authorities. Five other provinces have joined this programme, all of them applying the same standards. Schools that take part in this programme receive financial support from the province.

Reproduced from the European Commission Rose 25 Booklet

There is a need to overcome barriers such as conflicting priorities (e.g. increasing the number of people cycling and walking, which results in exposure to risk on the road, at the same time as trying to reduce casualties amongst vulnerable road users) to ensure that all road users are continuously exposed to positive and consistent road safety messages.

The Rose 25 report (EC, 2005) acknowledges that effective RSE requires a coordinated network of delivery partners. Historically in the UK and Ireland, coordination has been undertaken by the RSEO, although this has also been undertaken at a sub-regional level through the establishment of safer roads partnership, which acts as a supporting instrument to local authority activity and provides a bridge between RSEOs and partners such as the police and fire and rescue service. In Finland, road traffic has also been included as a key deliverable within health care services. This has enabled the country to demonstrate the need for joint responsibilities in ensuring the health and wellbeing of children.

In order to produce strong, effective partnerships, the Rose 25 report recommends that:

- -It is important to define anchor points for knowledge transfer among key players
- -Each coordinating body should have a specific role in the overall system
- -The key client should be, in all cases, the practitioners working on the ground
- -A focus on two-way flows of information is needed to improve the learning ability and reaction time of the system
- -RSE as part of the life-long learning process necessitates the active involvement of several other organisations, such as health care, youth centres and sport associations
- -Local action networks with sound co-ordination and management offer significant potential for effective RSE

Reproduced from the European Commission Rose 25 Booklet

However, the Rose 25 report also recognises the need to increase and enhance road safety knowledge amongst all delivery partners (e.g. RSEO, teachers, police). What is certain is the need to ensure that whoever is delivering the message has acquired the knowledge and skills to deliver RSE effectively.

RSEOs may have an in-depth grounding on the main road safety issues, but they still require the skills to deliver effective educational messages. Teachers may be skilled in delivering messages, but may have little road safety knowledge over and above that of personal interest. The police or fire and rescue service will have many more real life experiences to draw from, but they may not be best placed to deliver educational messages and they may not have a balanced understanding of road safety issues. This may result in the quality of RSE delivery being compromised.

It is widely recognised that all of these stakeholders play an important role in nurturing and changing the behaviour and skills of all road users, starting with school based RSE. The Rose 25 project offers a model aimed at increasing the knowledge and skills of delivery partners whilst also escalating the importance of RSE at the local community level, including within schools (EC, 2005).

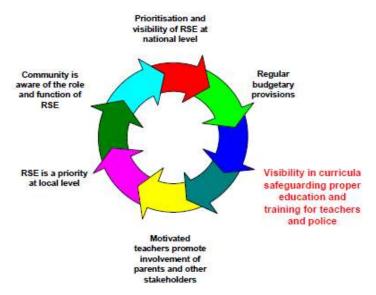


Figure 2.3 Elements of a sound RSE engine

The model, developed following a review of RSE in the 25 European Members States, demonstrates the continuous cycle of development required to increase the visibility of RSE within schools and the wider local community, but also the need for regular training of the trainers (e.g. RSEOs, teachers, police). It is suggested that by implementing this process not only will road safety increase in visibility, but the effectiveness of delivery will also be enhanced.

Teachers and police officers are in a key position; this group of stakeholders should be turned into a driving force for the overall RSE system. Thus RSE should be integrated into their basic education, being offered like any other subject. The scope should correspond to the amount of a subject offered during one semester (approximately 20 hours). Additional training, including methodological up-date and recent research results, should be offered regularly.

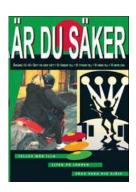
Reproduced from the European Commission Rose 25 Booklet

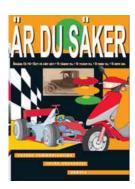
In many countries around the world, increased awareness on a national scale is achieved through the use of a dedicated Road Safety Week whereby the country or inter-country regions undertake a series of intensive activities aimed at increasing knowledge of the most prominent road safety issues. This event is supported by the United Nations and other organisations such as the European Commission and is seen as an effective way to increase the visibility of road safety issues. Countries from all over the world use a specific week not only to deliver key messages, but also to generate activity within local communities, including schools, community groups and parents.

Certainly within the UK and Ireland there is an inconsistency in the way that schools are engaged in RSE. In some countries RSE is an integral part of the common or core curriculum, whilst in others road safety is given less importance, jostling for position with other personal, social, health and citizenship education modules. The implementation of an annual Road Safety Week allows road safety practitioners the opportunity to raise awareness of the key issues and gain access to schools and local groups where it has proven difficult to achieve on a more regular basis.

In Sweden, three booklets have been produced to encourage a 'team' approach though teachers. The booklets provide guidance on selected road safety topics and demonstrate how these can be integrated into core curriculum subjects. The teachers develop appropriate activities and encourage students to play an active role within the learning process. The guidance also offers suggestions where external stakeholders such as road traffic victims can assist in delivery.







Source: European Commission (2005) ROSE 25 - Good Practice Guide on Road Safety Education Booklet

Figure 2.4 Swedish RSE teamwork booklets

The UK's DfT has produced guidance booklets to assist teachers in delivering effective RSE schemes for children and young people between the Foundation years through to the end of key stage 4. The booklets cover issues such as 'How to get started', 'What makes RSE important?', 'Policy matters' and 'A whole school approach to road safety'. Teachers are provided with advice on how to include RSE as part of the core curriculum, as well as within the wider curriculum. The booklets also assist with identifying potential partners and examples of how to engage with parents and carers. These resources are available online at www.dft.gov.uk where further advice is also provided.



Figure 2.5 DfT's RSE teachers booklets

Source: www.dft.gov.uk

Online resourcing has become much more common over the last decade. Many public sector road safety teams have adopted this approach, including the DoE's RSEOS, in order to maximise exposure to road safety messages and provide parents, teachers and other delivery partners with the information and resources to develop knowledge and skills among children and young people. One such example is Lancashire County Council who provides advice and resources covering the Foundation years up to key stage 3.

One of Lancashire's resources is a contemporary, colourful booklet aimed at developing safe road use during the transition period between primary and secondary school when pupils are increasing their levels of independent travel to and from school. Different versions of this booklet are available for pupils, teachers and parents to ensure a holistic approach to road safety for this age group. Topics include 'Camouflaged or Conspicuous', 'Parked Cars' and information about crossing facilities that students are likely to encounter on their journey.

The aim of any school based RSE programme, including related online resources, should be to ensure the delivery of a recommended minimum level of RSE in any one school year. Following the review of RSE in 25 European member states, the Rose 25 report recommends an absolute minimum of 10 hours per school year.

Parents have a specific role to play in improving road safety due to the fact that:

- They are likely to be the first people teaching road safety to a child
- Parents are role models and can demonstrate positive messages to children
- Throughout the early years of a child, parents make decisions about how children travel

In discussing the parental role of improving road safety among 17 to 25 year olds, McKenna (Undated) states that 'Parents through their personal attitudes and through their financial power have a considerable opportunity to exert influence' (McKenna Undated, p.3).

Best practice suggests a sequencing of measures for parental involvement (EC, 2005):

- Information and advice for parents-to-be and parents of newborns: this includes comprehensive briefing on child restraint systems and motivation to use this advice in their driving
- Guidance for parents when their child makes its first independent outings in a traffic environment: as soon as the child leaves the buggy and starts to explore the world on its own feet, parents should receive relevant information
- Involvement of parents in RSE via kindergartens and schools: kindergartens and schools should provide possibilities to integrate parents in traffic safety issues. Efforts should also be made to target those parents who are less inclined to engage themselves, since their children frequently are most in need of advice and guidance

Parents should be encouraged to deliver positive road safety messages to children and made aware of the importance of their role.

As stated earlier in this report, the inconsistency of secondary schools to integrate RSE into the curriculum, plus the lack of 'attractive' or 'innovative' RSE packages aimed at this age group make it difficult to engage with teenagers who will soon have the opportunity to ride a motorcycle or drive a car. However, school is not always the most effective method of delivering messages to this age group.

Unfortunately, most countries only provide intermittent or one-off RSE schemes for what is arguably the most at-risk road user group. Yet best practice recommends that "It is important to acknowledge that single RSE actions or one-off events – even if labelled as best practice – will not lead to convincing and sustainable results. Successful RSE needs to be based on continuous interventions" (EC, 2005, p20). The Rose 25 Report suggests that road safety practitioners also need to keep in mind that "at a certain age, peers often take over the function of role model, whereas the influence of adults rapidly and significantly decreases" (p17). As such, a variety of methods must be adopted and sustained.

In Germany and Austria, teenage students are used as so-called 'Bus Guards' to assist in the safe use of buses during school travel, including ensuring compliant behaviour during the ride.

Teenage pupils in Germany and Denmark act as teachers and trainers (Pupil Mentors), delivering road safety messages to younger pupils using a variety of modes to travel to and from school.

In Belgium teenage student become 'Traffic Coaches' who observe and promote safety for others in the immediate surroundings of schools.

Source: European Commission (2005) ROSE 25 - Good Practice Guide on Road Safety Education Booklet

Out of the school environment, World Bank's GRSF recognises the role that driver licensing and testing has in educating young road users. It is acknowledged that responsibility for RSE spreads across a range of both government and non-government agencies and stakeholders (Bliss and Breen, 2009). Establishing rules and standards is usually the responsibility of the government lead agency; however, driving instructors have a direct educational and skills development task, the police take on enforcement duties, and local community and voluntary groups can provide opportunities for RSE in a non-educational / non-authoritarian environment.

Road User Education (RUE) is an independent organisation that seeks to support agencies and individuals in both the voluntary and statutory sectors to develop their work with young people. RUE aims to improve communication and facilitate partnership working between initiatives who work with young people using their interest in vehicles and mobility as a medium for learning. It does this by working alongside motor projects, urban sport and youth projects, local authorities and road safety initiatives to develop their programme of activity.

Recovered from www.roadusereducation.co.uk 25th January 2011

Education authorities including the Catholic Education Office, the Independent Schools Association and the Department of Education and Training are implementing the school-based Road Aware program that focuses on encouraging at least 120 hours of supervised driving by novice drivers and on developing positive road user attitudes among young people. Road Aware was developed with research and evaluation support provided by the Road Safety Council and the Office of Road Safety. It is also one of the major educational projects funded from monies provided to the Road Trauma Trust Fund by the Insurance Commission of Western Australia.

Reproduced from the World Bank Global Road Safety Facility Country Guidelines for the Conduct of Road Safety Management Capacity Reviews and the Specification of Lead Agency Reforms, Investment Strategies and Safe System Projects

Although most RSE is aimed at school aged children and young people, RSE is something that should be delivered to every at-risk road user group, regardless of age. In Cheshire East for example, the risk levels per 1000 head of population for pedestrians between 76 and 85 years of age is higher than that for children aged 0-15 and young people between the ages of 16 to 25 (although actual numbers are much lower) (Cordingley, 2010).

According to a summary provided by the Institute of Advanced Motorists (IAM) research undertaken by Carthy, Packham, Salter and Silcock, (1995) highlights that "older people were disproportionately represented in the potentially unsafe crossings activity" again showing that road safety is an issue for all age groups (Recovered from a summary on <a href="https://www.iam.org.uk/historical reports/riskandsafetyontheroadstheolderpedestrian.html">www.iam.org.uk/historical reports/riskandsafetyontheroadstheolderpedestrian.html</a>, 25<sup>th</sup> January 2011).

Many public sector road safety services and country lead agencies acknowledge that RSE is a life-long learning process. As with all programmes of education, delivery should be based on data led issues and utilise the benefits of a multi-disciplinary approach. Indeed, it is recommended that "RSE as part of the life-long learning process necessitates the active involvement of several other organisations, such as health care, youth centres and sport associations" (EC, 2005, p11).

Despite a general acknowledgement that RSE is a life-long process, educational resources for older road users are very limited. In a study for the Road Safety Foundation, the University of Manchester Age and Cognitive Research Centre established acceptability levels of measures used to increase the safety of older drivers. In the two respondent groups, there was support for booklets and courses to provide advice to older drivers (70.6% in group 1 and 74.9% in group 2) (Rabbitt, Carmichael, Shilling, Sutcliffe, 2002, p31).

Liverpool City Council's Road Safety Team use an information booklet, 'Stepping Out', to advise older road users on how to stay safe as a pedestrian and when using public transport. The booklet covers issues such as:

- Pedestrian safety:
  - General awareness of the road environment
  - Using safe crossing places

- Recognising your own limitations and adapting to them
- Clothing
- Keeping active
- Bus safety
  - Approaching the bus
  - Boarding the bus
  - Finding your seat
  - Approaching your destination
  - Stepping off the bus
  - Walking away from the bus

The advice is delivered through a partnership between Liverpool City Council, Liverpool Primary Care Trust Active Age Program, Help the Aged and Age Concern.

The United States has a comprehensive programme of activities to improve the safety of older road users. These range from:

- Driver safety courses
- Driver self assessment tools
- Advice materials for older road users
- · Assistance for family members and friends
- Community awareness campaigns

According to Stutts (2005) resources for older road users and campaigns aimed at improving safety within the older road user category in the United States include:

Table 2.2 Summary of resources and campaigns aimed at older road users in the United States

Title	Resource type	Target audience	Description
Driving Safely While Ageing Gracefully	Booklet	General older driver population	Describes how changes in vision, physical fitness, and reflexes can affect driving safety, and offers tips for counteracting these changes.
Safe Driving for Older Adults	Brochure	General older driver population and specific at-risk subgroups	Four-color brochure based on the <i>Driving</i> Safely booklet above.
Stepping Out- Mature Adults: Be Healthy, Walk Safely	Booklet	Older adult pedestrians	Encourages older adults to follow safe practices when walking, whether for transportation or for promoting health.
Straight Talk for Mature Drivers	Brochures	Older drivers and specific at-risk sub-groups	Individual brochures address meeting the challenge of aging and driving, vision, medications, common driving mistakes, stopping driving, and buying and maintaining a vehicle.
Grand Driver Program	Media and print	Older drivers, family members and general population	Comprehensive public information and education campaign that includes TV and radio public service announcements, billboards, print ads, brochures, and a speaker's bureau. Designed to promote awareness of older driver safety issues.
`Drive Well' Community Toolkit	3-ring binder with print materials	Ageing service providers	Each kit includes a video, powerpoint presentation, talking points, and brochures and other materials for increasing community awareness.
Academy for Educational Development "Community Conversations"	Print	Ageing service providers and community activists	A social marketing campaign for increasing community awareness of mobility issues affecting seniors. Includes a community survey, sample press release, talking points for community forums, etc.

Despite the apparent wealth of resources in the United States, RSE for older drivers is not at the level of that for school aged children and young people. The information provided above is simply a short summary of activity towards improving road safety amongst older road users. This review was unable to find any evaluation data relating to the effectiveness of either of the highlighted programmes or resources and cannot identify 'best practice' in this area of RSE.

#### 2.6 Promoting Road Safety Education Messages

The issue of RSE for teenagers provides a clear demonstration of the need for life-long learning in relation to road safety. Many of the most at-risk road user group (young road users) no longer attend school or any other educational institution. Therefore, the method of communicating effectively with this age group must appeal to the road users' interests using a variety of engagement opportunities, e.g. DVDs, PowerPoint, viral marketing, social networking, mobile phones, Bluetooth and television and cinema.

Viral marketing through You Tube and the use of social networks such as Facebook and Twitter are becoming more popular in delivering road safety messages aimed at hard to

reach road users, particularly those road users no longer attending full-time education. Use has so far been limited but there are some examples of success.

Viral marketing and social networking are media distributed by the audience. Videos posted on sites like You Tube can be an effective way of disseminating a message, but the video has to be creative and designed specifically to attract the target audience if it is to shape the thoughts and actions of those it is aimed at.

Like all road safety programmes, viral and social marketing campaigns have to be carefully monitored and evaluated throughout the developmental, delivery and post-delivery stages. Focus groups are a likely method of evaluation during development aiming to facilitate creative ideas, test concepts and refine the production. Online testing may also be used. Focus groups would also be used during the final production of the video to ensure that the message is effective and is appropriate for changing or shaping behaviour.

Once released, effectiveness can be gauged through a range of methods:

- Focus groups
- Market research (recall rates and dwell time)
- · Number of views
- Television / press coverage and reaction
- Online feedback
- Ratings
- Demographic reports

'Speed Dating' is a viral campaign aimed at young road users who are distracted when travelling in a car with their peers. The video was designed through initial focus groups, which highlighted 'messing about' and 'shouting' as high on the list of distractions for drivers and passengers.

Aimed at 18 to 24 year olds, the story revolves around 2 cars, one with male occupants and one with female occupants, with both sets of occupants distracting each other. Needless to say, the video demonstrates fully the dangers of this behaviour. Young road users were also involved in the editing of the final production with 75% of focus group participants stating that they would pass this on and 95% stating that it would change their behaviour.

The video was creatively filmed to look like it had been filmed on a mobile phone and was then posted on You Tube as 'real footage'. In the first 6 months 'Speed Dating' received over 4 million viewings and has to date received over 7 million. The campaign has since received the Royal Television Society Midlands Award in the Best Digital Innovation category.

The video can be seen at www.st16.co.uk/ow/studies/speeddating.aspx. Alternatively, type 'Speed Dating aka Don't Flash and Drive' into You Tube

In terms of promoting the image of road safety the DfT's Think! campaign provides the best example of good practice. As with viral and social marketing campaigns described above, the creative development process is based on an underpinning evidence base of killed and seriously injured casualties. Once the high-risk road user groups are established additional research is then undertaken to identify common risky behaviours / attitudes. Campaigns will then focus on addressing these issues.

Establish a robust evidence base Identify common risky Assessment of KSI data behaviours / attitudes First qualitative research with target audience (focus groups/surveys) Second qualitative research with target audience (focus groups/surveys) Creative development of campaign ideas Post-creative research (focus groups/surveys) Campaign delivery and monitoring

The creative development process for any campaign follows the structure below:

Figure 2.6 Creative development process for DfT's Think! campaigns

Follow up evaluation

(behaviour/attitudinal

surveys, assessment of

KSI data)

Post-delivery evaluation

(behaviour/attitudinal

surveys, assessment of

KSI data)

In order to develop the most effective road safety promotion campaign and establish its effectiveness, this type of robust development methodology should be adopted as the norm, either at a national or local level. By implementing such a systematic process we can determine what has achieved the desired results, where campaigns are ineffective, and how the campaign can be adjusted to enhance success.

#### 3 Conclusion

The review of best practice has been undertaken using a combination of UK and international literature assessments, telephone surveys with UK public sector and professional judgement.

Professional judgement was required to compensate for the lack of robust quantitative evaluation in some areas of RSE, and the significantly reduced programme of RSE activity beyond that aimed at children and young people.

It is clear that where local RSE schemes or projects have been evaluated, the most likely method is through a survey of perceptions and experiences (qualitative methods). Very few schemes have been assessed using quantitative methods, or a combination of qualitative and quantitative methods. As such, levels of effectiveness have historically been based on end user opinion.

Nationally, in particular through the DfT's Think! campaign, the creative process of campaign development is much more systematic. This provides a clear structure of how all campaigns focussing on direct education or promotion of specific messages should be developed. The process provides a methodology for ensuring that a campaign targets evidence based problems and allows for a robust evaluation of the campaigns effectiveness.

The recent global economic downturn has resulted in significantly greater scrutiny of public sector budgets following reductions in the overall spend. In reaction to this, some public sector RSE providers are reviewing and assessing the effectiveness of their full RSE programme using both qualitative and where possible, quantitative data. However, much of this evaluation is retrospective. Best practice would be to include evaluation as and integral element of scheme design using an appropriate assessment model, such as pre and post-testing, or pre and post-testing with a specified follow up. Also, RSE schemes would ideally be developed using a selection of underpinning evidence that outlines the problem (e.g. casualty data, highway surveys, perceptions of safety), identified baseline data to be used in pre and post implementation testing, appropriate media based on what best attracts the target audience and the results of market testing prior to full implementation.

The starting point to achieving RSE best practice is to fully understand what the 'real' problems are. The best practice review has identified that many RSE schemes are based on perceptions rather than any robust underpinning evidence. Tasks such as comparing the proportion of allocated resource against KSI data, and comparing collision and casualty data with local community perceptions and experiences should be undertaken to ensure that schemes address road safety problems effectively and efficiently.

There are a number of historical barriers to delivering RSE that continue to obstruct effectiveness. The biggest barrier appears to be the inconsistency of engaging with schools, in particular secondary schools. The pressure placed on schools and teachers to deliver the core or common curriculum results in, at best intermittent or one-off events. Successful RSE can only be achieved through continuous interventions, and particularly within the school environment delivering "an absolute minimum of 10 hours" per year (EC, 2005, p15).

Additional and improved resources that integrate well into core curriculum subjects and provide greater attraction for children and young people are seen as the most effective way to overcome the barriers associated with RSE.

In addition to school based resources, it is acknowledged that more RSE resources and programmes are needed to address issues such as powered two-wheeler riders, work-related road safety and older road users. As RSE has mainly focussed on the younger age groups, issues affecting other road users have been neglected with very limited activity.

This also raises the issue of knowledge management. Due to the considerable emphasis place on delivering school based RSE, an enhancement of knowledge at the practitioner level is required to ensure that RSEOs and their delivery partners have the skills to develop effective RSE programmes at other at-risk road users, such as young drivers.

The Road Safety Code of Good Practice recommends one full-time road safety officer per 50,000 head of population. Although this is the recommended requirement, current financial constraints are driving a change in the way that RSE interventions are delivered. One officer per 50,000 head of population is likely to be unrealistic for some time as all levels of government balance the books. Working with the police, fire and rescue service and schools is not new for any public sector RSEO. However, efficiencies are being achieved through enhanced partnerships, such as engaging with youth offender services, sustainable travel services and community forums to achieve a much wider spread of road safety messages. This should be encouraged where effectiveness can be proven. However, care must be taken to ensure that conflicting objectives, or a lack of professional knowledge by those delivering RSE, do not result in road users being exposed to an increased risk of death or injury.

Best practice for RSE implementation will involve a balance between direct delivery, whereby only RSEOs convey messages to the target audience, and facilitation where messages are communicated to the target audience by non-road safety specialists. A coordinated formal or informal partnership approach that engages with at least all levels of government, the police, fire and rescue service, health professionals, schools, parents, and community groups covering all at-risk age and gender classifications offers many more opportunities to improve road safety. However, when establishing the appropriate delivery structure, the DoE should be mindful of the need to retain a responsible and accountable road safety resource whose role it is to develop, deliver, evaluate and orchestrate evidence based road safety activity.

To achieve effectiveness the DoE should ensure that all external partners are equipped with the knowledge and skills required to deliver and evaluate RSE interventions. It should not be assumed that external partners have the necessary information or ability to deliver messages effectively simply because they are experienced road users. DoE should also ensure that educational resources are made available to coordinate a consistent approach to the delivery of RSE by offering guidance, advice and teaching materials to all partners.

Many national, regional and local public sector road safety delivery teams have made more effective use of the internet. There is now an abundance of websites containing interactive resources, lesson plans and guidance. This method of facilitation should also be used more frequently where resources provide a valuable means of spreading key messages, whilst not forgetting the need to evaluate their use and effectiveness.

Viral and social marketing is relatively new to the profession, but where it has been used, there are signs that it is well received and attracts a wide audience. The success of any viral campaign is subject to the quality of research undertaken at the design stages. Supporting data, focus groups and market testing have proven to be a valuable asset in ensuring the effectiveness of campaigns.

Facilitation through partnerships must play an increasing role in the modern delivery of RSE, but an important role still exists for the lead agency on a national, regional and local level to ensure consistency and professionalism in the efficient delivery of RSE.

As recommended in the Rose 25 report, RSE should be a key element of the life-long learning process that involves many different organisations. It is through engaging with these partnerships that RSEOs can nurture and change road user behaviour. But there is a process that needs to be followed. This increases knowledge and awareness amongst all partners, motivates stakeholder involvement (including parents) and increases the overall awareness of road safety throughout the community. The model should be seen as a continuous cycle of activity.

There are limited resources and campaigns aimed at older road users, despite a high demand within the profession. There are fewer that are evaluated. RSE schemes delivered by DoE to address issues such as work-related road safety, older pedestrians, high powered motorcyclists and other identified road safety issues must therefore ensure that resources or campaigns include evaluation as an integral element of the design and development process, are based on qualitative and quantitative supporting evidence and are market tested prior to full implementation.

# **Acknowledgements**

The work described in this report was carried out in the Safety Engineering and Statistics Group of the Transport Research Laboratory. The author is grateful to Suzy Charman who carried out the technical review and auditing of this report.

#### References

Association of Directors of Environment, Economy, Transport and Planning, September 2010, Making It Count: Spending Choices Which Protect Your Community.

Bliss T and Breen J, (2009). Implementing the Recommendations of the World Report on Road Traffic Injury Prevention: Country Guidelines for the Conduct of Road Safety Management Capacity Reviews and the Specification of Lead Agency Reforms, Investment Strategies and Safe System Projects. World Bank Global Road Safety Facility, Washington DC.

Breen, J. (2004). Review of the Road Safety to 2010 Strategy, New Zealand.

Christie. R, (2001) The Effectiveness of Driver Training as a Road Safety Measure: A Review of the literature, RAC of Victoria Ltd.

Cordingley, P. (2010) Cheshire East: Road Traffic Collision Casualties 2005-2009 Profile Report, Cheshire Safer Roads Partnership.

Department for Transport (2003) On the Safe Side – Local Responsibilities on Road Safety Education in Schools, Department for Transport.

European Commission (2005) ROSE 25 – Good Practice Guide on Road Safety Education Booklet, European Commission.

Graham, T. (2000) Road Safety Education in the Scottish Curriculum, Scottish Executive Central Research Unit.

Hauer, E. (2007). A case for evidence-based road safety delivery. American Automobile Association Foundation for Traffic Safety.

IAM (Undated). Summary – Risk and Safety on the Roads: the older pedestrian (Carthy, T. Packham, D. Salter, D. and Silcock, D. 1995). Available at <a href="http://www.iam.org.uk/historical reports/riskandsafetyontheroadstheolderpedestrian.html">http://www.iam.org.uk/historical reports/riskandsafetyontheroadstheolderpedestrian.html</a>, cited 25<sup>th</sup> January 2011

IRSO (2011) www.irso.org.uk/about us.php, recovered 12<sup>th</sup> January 2011.

Local Authorities Association, (1996) Road Safety Code of Good Practice.

McKenna. F, (2010) Education in Road Safety: Are we getting it right?, RAC Foundation.

McKenna. F. (Undated) The public health benefits of road safety education for teenagers

MVA Consultancy, (2008) Building on Success, Improving the Delivery of Road Safety Education, Training and Publicity, Department for Transport.

Organisation for Economic Co-operation and Development (OECD) (2004) Keeping Children Safe in Traffic, OECD.

Peden, M, Scurfield, R. Sleet, D. Mohan, D. Hyder, A. A. Jarawan, E. Mathers, C. (2004) World Report on Road Traffic Injury Prevention, The World Health Organisation.

Rabbitt, P. Carmichael, A. Shilling, V. Sutcliffe, P. The University of Manchester (2002) Age, Health and Driving: Longitudinally observed changes in general health, in mileage, self-rated competence and in attitudes of older drivers, The Road Safety Foundation.

Roberts I, Kwan, I and the Cochrane Injuries Group Driver Education Reviewers. School-based driver education for the prevention of traffic crashes. *Cochrane Database of* 

*Systematic Reviews* 2001, Issue 3. Art. No.: CD003201. DOI:10.1002/14651858.CD003201.

Sentinella, J. (2004) Guidelines for evaluating road safety education interventions, Department for Transport.

Stutts, J, University of North Carolina (2005) National Highway Cooperative Research Program Synthesis 348: Improving the safety of older road users, Transportation Research Board.

Thomson, J. A. and Whelan, K. M. (1997) A Community Approach to Road Safety Education using Practical Training Methods: The Drumchapel Project. Road Safety Research Report No. 3. London: Department for Transport.

Whelan, K., Towner, E., Errington, G. and Powell, J. (2008) Evaluation of the National Network of Child Pedestrian Training Pilot Projects. London: Department for Transport.

# Road safety education best practice



This report has been produced in order to support a review of the Road Safety Education Officer Service (RSEOS) in Northern Ireland. The report provides expert advice and guidance on best practice in road safety education.

The review of best practice has been undertaken using a combination of UK and international literature assessments, telephone surveys with UK public sector and professional judgement. Professional judgement was required to compensate for the lack of robust quantitative evaluation in some areas of Road Safety Education (RSE), and the significantly reduced programme of RSE activity beyond that aimed at children and young people.

The following principles are discussed in detail:

- Evaluation of RSE schemes should, as far as possible, be quantitative and qualitative and based on more than end user opinion
- Campaigns and projects should be systematic in terms of their development (e.g. DfT's Think! campaign), targeted and based on evidence allowing for robust evaluation of effectiveness
- Evaluation should be planned before change is introduced as retrospective evaluation is challenging and limited conclusions can be drawn
- Messages and the media through which they are delivered need to be pre-tested on the target population
- Understanding the 'real' problems needs to be the first step this will ensure that an appropriate amount of resource is dedicated to the correct target population and delivering critical messages
- Road Safety needs to find its way into the school curriculum otherwise it is likely that it will continue to be neglected and will not be addressed frequently enough
- Not all RSE should happen in schools: powered two-wheeler riders, work related road safety and older users all need to be addressed
- There are some key delivery partners for RSEOS and ensuring that there is a coordinated approach, sharing of materials and that partner's knowledge is accurate and current should be beneficial
- Cutting edge RSE now uses the internet and viral marketing to get messages across to key target groups

**TRL** 

Crowthorne House, Nine Mile Ride Wokingham, Berkshire RG40 3GA United Kingdom

T: +44 (0) 1344 773131
F: +44 (0) 1344 770356
E: enquiries@trl.co.uk
W: www.trl.co.uk

Published by



IHS
Willoughby Road, Bracknell
Berkshire RG12 8FB

United Kingdom
T: +44 (0) 1344 328038

F: +44 (0) 1344 328005 E: trl@ihs.com

W: http://emeastore.ihs.com

Price code: 2X ISSN 0968-4093



**PR45**(