



RAC
Foundation

Mobility • Safety • Economy • Environment



Effectiveness of UK Road Safety Behaviour Change Interventions

Tanya Fosdick
Agilysis
November 2019

The Royal Automobile Club Foundation for Motoring Ltd is a transport policy and research organisation which explores the economic, mobility, safety and environmental issues relating to roads and their users. The Foundation publishes independent and authoritative research with which it promotes informed debate and advocates policy in the interest of the responsible motorist.

RAC Foundation
89–91 Pall Mall
London
SW1Y 5HS

Tel no: 020 7747 3445
www.racfoundation.org

Registered Charity No. 1002705

November 2019 © Copyright Royal Automobile Club Foundation for Motoring Ltd

Effectiveness of UK Road Safety Behaviour Change Interventions

About the Author

Tanya Fosdick is an experienced researcher who specialises in translating complex evidence into practice. With almost 15 years of experience in the road safety sector, especially in relation to young drivers and motorcyclists, Tanya seeks to bridge the gap between academia and practitioners to improve the quality of road safety interventions, particularly in the educational arena.

Tanya is Head of Research at Agilysis, and Principal Research Associate at Road Safety Analysis, leading research for both organisations and collaborating with the internal teams and a variety of external experts to deliver projects. In addition to carrying out research, Tanya has been leading evaluation projects since 2003, incorporating behaviour change theories into evaluation methodologies.

Acknowledgements

The author would like to thank Elizabeth Box, Head of Research at the RAC Foundation, for commissioning this work and for her help and guidance throughout. Thanks are due also to the other members of the Reference Group for their assistance with the survey design, its dissemination, and for reviewing the report:

Kay Asuni, Department for Transport
Catherine Mottram, Department for Transport
Katherine Williamson, Department for Transport
Steve Gooding, RAC Foundation
Bob Hannigan, Driver and Vehicle Standards Agency
Josh Harris, Brake
Sophie Dilley, Brake
Emma Kelly, Road Safety Support
Alan Kennedy, Road Safety GB
Jeremy Philips, Road Safety GB
Neale Kinnear, Transport Research Laboratory
Deirdre O'Reilly, Highways England
Richard Storrs, FirstCar
David Crundall, Nottingham Trent University.

Thanks also to all respondents to the survey, and to the focus group participants, who travelled to the Royal Automobile Club to be part of interesting and lively discussions.

Disclaimer

This report has been prepared for the RAC Foundation by Tanya Fosdick (Agilysis). Any errors or omissions are the author's sole responsibility. The report content reflects the views of the author and not necessarily those of the RAC Foundation or the Reference Group.

Contents

List of Abbreviations	v
Foreword	vi
1 Executive Summary	vii
2 Background.....	1
2.1 Scope of the study	1
2.2 Reference Group	2
3 Understanding the Landscape.....	4
3.1 Survey to road safety behaviour change practitioners	4
3.2 Survey design.....	5
3.3 Seeing what the landscape looks like – interpreting the survey	5
3.4 Segmenting the landscape	30
4 Digging Deeper.....	35
5 Conclusions from the Survey and Focus Groups	51
6 Identifying Best Practice	54
6.1 Reviewing intervention design and evaluation reports	54
7 Reviewing the Objectives and Recommendations.....	57
7.1 Reviewing the objectives	57
References	63

List of Figures

Figure 3.1: Organisations to which survey respondents belong.....	6
Figure 3.2: Numbers of participants who deliver road safety interventions to different road user groups	6
Figure 3.3: Who interventions are designed with	7
Figure 3.4: Levels of agreement ('agree' or 'strongly agree') with statements about Fylan (2017).....	23
Figure 3.5: The intended changes of behaviour change interventions.....	28
Figure 3.6: Behaviour change theories used in intervention design.....	29
Figure 3.7: Road user groups for which the behaviour change theories were used	29

List of Tables

Table 3.1: Number of respondents who had read each of the resources (total sample: 87)	22
Table 3.2: Segmentation of respondents.....	31
Table 4.1: SWOT analysis – common themes	36

List of Abbreviations

ADI	approved driving instructor
BCT	behaviour change technique
DfT	Department for Transport
ETP	education, training and publicity
FRS	Fire and Rescue Services
KSI	killed or seriously injured casualties
NVQ	National Vocational Qualification
RSGB	Road Safety GB
RSS	Road Safety Support
SWOT	strengths, weaknesses, opportunities and threats (analysis technique using these headings for evaluating a business or any goal)

Foreword

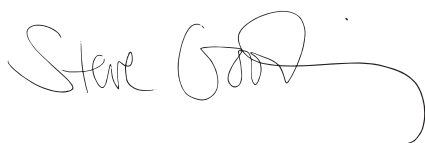
In Spring 2017 the RAC Foundation published two reports, by Dr Mark Sullman and Dr Fiona Fylan, which addressed the role of behaviour change and behaviour change techniques in road safety. Two years on from the publication of these reports, this review was commissioned to help us understand better how road safety behaviour change interventions in the UK are currently being designed and delivered, and to what effect. The picture that emerges shows how far practitioners are making use of the available guidance and support and highlights the strengths, weaknesses opportunities and threats faced by the sector.

It is encouraging to see that practitioners are working with great passion and professionalism and, in best case scenarios, ensuring that the interventions delivered are both evidence-based in their design and evaluated for their impact. Partnership working and collaboration amongst players with different, but complementary skill sets, appears to be a key ingredient for delivering programmes with the greatest potential to deliver positive road safety outcomes.

That said, several challenges remain. Funding programme delivery is reportedly exhausting local delivery bodies and the knowledge about and confidence in delivering evidence-based programmes is not uniformly present. The focus groups, held as part of this review, revealed problems such as a lack of professional identity and defined career path for practitioners and a difficulty with understanding the best theoretical models to apply without appropriate support from experts. Multiple challenges associated with evaluating programmes include sourcing the funds needed for evaluation activity through to some resistance to opening programmes up to external scrutiny. Hence, whilst this review has found pockets of good practice, the widespread lack of good quality and available programme evaluations makes identifying best practice in terms of outcome a very difficult task.

The RAC Foundation has long championed the importance of taking a ‘systems’ approach to road safety. In this context a systems approach requires those delivering road safety behaviour change interventions to have access to the right expert advice to maximise evidence-based design and effective evaluation. The fact that we do not have an adequate system in place to support consistent success in this area needs urgent attention. National guidance and leadership as well as licensed products have been suggested by several contributors to this review as ways to better support the successful delivery of programmes by the sector, and these ideas deserve serious consideration.

The challenges and recommendations detailed in this review will not be new to many working in the field – the key conclusion being that systemic change is needed. We need a system that supports effective collaboration and partnership, makes best use of sector skillsets, and is unafraid of open, transparent evaluation and scrutiny. Surely the time for that systemic change is now.



Steve Gooding
Director, RAC Foundation

1. Executive Summary

It is currently very difficult to assess the processes undertaken in road safety intervention design in the UK. Whilst there are a wide range of good-quality, accessible resources (greatly enhanced by the reports by Mark Sullman (2017) and Fiona Fylan (2017), both commissioned by the RAC Foundation), road safety practitioners tend not to be academics. This means that the evidence base for interventions, and the evaluations of their effectiveness, are often not published widely. As a consequence, the identification of best practice is not easy – and it is not currently possible to determine the extent to which these resources are used as common practice.

Nevertheless, there appears to be an appetite for ensuring that interventions are indeed evidence-based, and that they incorporate behaviour change principles. The Sullman (2017) and Fylan (2017) work was well received; behaviour change training courses are currently popular; and behaviour change is a hot topic on conference agenda. It seems a perfect time for working with practitioners and stakeholders to understand how interventions are designed; what influence the various resources have on design and delivery; what barriers and facilitators are encountered by practitioners in behaviour change intervention delivery; how effective these interventions are; and how the sector can be supported in the future.

This study is a review of interventions designed with the intention of changing behaviour on the UK's roads, and seeking to understand how such interventions are designed and how effective they are at achieving behaviour change. A Reference Group was created to advise on the direction of the study and its recommendations, and work together on the next steps. The Reference Group was formed of representatives from a range of road safety stakeholders, including the Department for Transport, RAC Foundation, Road Safety GB and Highways England.

The study was formed of three parts: a survey to practitioners, focus groups held with practitioners and managers, and a review of best-practice evidence. The findings from all three parts are drawn together to create a picture of how behaviour change interventions in road safety are currently designed and delivered in the UK, and how the sector can be supported in the future.

The survey was designed to capture information on the intervention design process, including the people involved and the resources used, the way in which behaviour change theories are used in design, and how evaluations are approached. The sample size for the survey was much smaller than desired, so as a result, it is not possible to use the findings to draw robust conclusions, and it is not possible to determine whether the results reflect the wider population of road safety practitioners. For this reason, there is a focus on the qualitative responses received from the survey, which were explored in more depth in the focus groups.

There have been some clear successes in changing the way in which practitioners evaluate their interventions, and how they incorporate behaviour change into their design processes.

Other successes include partnership working and the use of innovative approaches. There were still challenges for many practitioners, however. These included uncertainty as to how to incorporate behaviour change and evaluation into their practices, as well as how to convince others to make those changes themselves. There were practical problems related to funding, resources and time.

The publication of the Fiona Fylan report in 2017 does seem to have influenced the design and evaluation of behaviour change interventions. It was the most commonly read resource, and was reported to be relevant and easy to use, with respondents explaining that it provides a structure and a useful guide for knowing which models and theories should be used. A wide range of behaviour change models are used in intervention design, although there were two models (the Theory of Planned Behaviour and the Transtheoretical Model of Behaviour Change (PCPAM¹)) cited more frequently than any others.

However, not all respondents accessed the resources and courses that are available, and it was clear that there was a wide range of different types of practitioners involved in the design and delivery of educational behaviour change interventions, displaying differing levels of knowledge and confidence in using behaviour change theories and evaluating interventions. The survey seemed to suggest that a 'one-size-fits-all' approach would not be appropriate when providing support and resources.

Five groups emerged from the analysis with each having clear characteristics. The groups were:

- those who used no behaviour change theories in intervention design, and evaluated none of their schemes, called **'Absolute Beginners'** – this group represented 19 respondents;
- those who used behaviour change theories for **less** than 50% of their interventions and evaluated **less** than 50% of them, called **'Believe in Yourself'** – this group represented 22 respondents;
- those who used behaviour change theories for **less** than 50% of their interventions but evaluated **more** than 50% of them, called **'A Little Knowledge...'** – this group represented 19 respondents;
- those who used behaviour change theories for **more** than 50% of their interventions but evaluated **less** than 50% of them, called **'Measure Twice Cut Once'** – this group represented eight respondents – and
- those whose used behaviour change theories for **more** than 50% and evaluated **more** than 50% of their interventions, called **'Walking the Talk (Mostly)'** – this group represented the remaining 19 respondents.

Whilst the numbers of respondents in each of these groups is small, this segmentation could be used as a starting point for further research to gain a deeper understanding of those delivering and designing educational behaviour change interventions. It also provides an early indication that the sector is varied, and that different individuals will need different support and resources.

¹ PCPAM is so named because of the stages of change: pre-contemplation, contemplation, preparation, action and maintenance (to which termination is often added as a sixth).

Three focus groups were held with 11 attendees at the Royal Automobile Club, including a mix of road safety officers, road safety managers, Fire and Rescue Services officers, and representatives from Highways England and Transport Scotland.

Many of the themes from the focus groups echoed those which emerged from the surveys. Limited qualifications can lead to a lack of professional identity in a diverse sector. In the survey, it was found that not all respondents were evaluating their interventions, a finding that was explained in the focus groups, with participants suggesting that it can feel daunting to have one's work judged; this in turn means that only positive evaluation results are published. There was also an acknowledgement that good-quality evaluations can be expensive, and that this expense can lead to compromises in approach.

Some of these strengths and weaknesses could be turned into opportunities via the wider community of road safety professionals. Reduced funding amounts (up to a point) can in actual fact encourage practitioners to collaborate, and to focus their work more effectively. There are also opportunities for collaborating with academics through a mutually beneficial arrangement to improve skills and knowledge about the use of behaviour change theory in the design and evaluation of interventions.

There are, however, external threats, which are often political in nature. Short-termism, localism and disparity in funding across areas were all seen as challenges to be overcome.

Suggestions were made about how to move forward. One route is an approach where, through national guidance and leadership, practitioners adopt standard behaviour change models in the design of road safety interventions. There would be clearer roles, through the acknowledgement that designers and deliverers do not necessarily have to be the same people. There would be calls to stop designing new interventions and to instead take stock of what is currently being delivered, concentrating on promoting the proven and effective schemes.

An alternative approach would be the creation of licensed products. Courses delivered to drivers who have committed a road traffic offence, such as Speed Awareness courses, have syllabuses and materials developed with academics, and are delivered by approved trainers. This approach could be adopted for other road safety educational interventions, whereby academics and practitioners work together on the development of evidence-led, evaluated resources.

The final part of the study was to review best-practice examples, identified through the survey responses, focus groups and wider searches. Three organisations are highlighted, which are already adopting some of the suggestions made within the groups, albeit in different ways. All three organisations collaborate with academics and experts to embed evidence-led practice into their work. Evaluation is key, as is the need for consistent approaches. All three organisations also show that the ideal-world suggestions are possible in practice.

In conclusion, progress seems to have been made in the last two years in the way in which road safety behaviour change interventions are designed and delivered. Resources like the

Fylan (2017) and Sullman (2017) reports, as well as the Road Safety GB Academy's courses, are upskilling practitioners and providing practical support. There are ways in which this progress could be further extended.

It is recommended that the Reference Group look at the suggestions offered by the focus group participants, looking at the roles, skills and qualifications of designers and deliverers, and how these roles could be supported by academia and national guidance. Further research to validate the segments which emerged from the small survey sample would provide greater insight into the needs of the different types of practitioner. The Reference Group should collaborate with the sector on the next steps to continue to improve the effectiveness of UK road safety behaviour change interventions.

2. Background



This chapter sets out the scope of the study, its aims and objectives, and the role of the Reference Group in the design of the survey and the formation of recommendations.

2.1 Scope of the study

It is currently very difficult to assess the processes undertaken in road safety intervention design in the UK. Whilst there are a wide range of good-quality, accessible resources (greatly enhanced by the reports by Mark Sullman (2017) and Fiona Fylan (2017), both commissioned by the RAC Foundation), road safety practitioners tend not to be academics. This means that the evidence base for interventions, and the evaluations of their effectiveness, are often not published widely. Indeed, if they are published, they tend to remain as grey literature on partnership websites without being more widely disseminated, and are destined to remain as internal documents for decision-making purposes. This means that the identification of best practice is not easy – and it is not currently possible to determine the extent to which these resources are used as common practice.

Nevertheless, there appears to be an appetite for ensuring that interventions are indeed evidence-based, and that they incorporate behaviour change principles. The Sullman (2017) and Fylan (2017) work was well received; behaviour change training courses are currently popular; and behaviour change is a hot topic on conference agenda. It seems a perfect time for working with practitioners and stakeholders to understand how interventions are designed; what influence the various resources have on design and delivery; what barriers and facilitators are encountered by practitioners in behaviour change intervention delivery; how effective these interventions are; and how the sector can be supported in the future.

2.1.1 Study aims

The aim of this study is to establish the effectiveness of road safety interventions delivered in the UK and which seek to influence road user behaviours.

Based on work with practitioners and key stakeholders, such as Road Safety GB (RSGB) and the Department for Transport (DfT), this study is a review of interventions designed with the intention of changing behaviour on the UK's roads, and seeking to understand how such interventions are designed and how effective they are at achieving behaviour change.

2.1.2 Study objectives

Six main study objectives were set out by the RAC Foundation, as follows:

- to identify the effect that the Sullman/Fylan work has had on the design and delivery of road safety interventions in the UK over the past two years;
- to report on what proportion of the road safety behaviour change interventions currently being delivered by local practitioners in the UK have been developed with reference to behaviour change theory and/or the Sullman/Fylan work;
- to summarise available evaluations of the effect of interventions (based on behaviour change technique (BCT) evidence, or otherwise) on road user behaviours;
- to identify the strengths, weakness, opportunities and threats experienced/faced by those seeking to deliver road safety behaviour change interventions;
- to select a number of best-practice examples, to act as case studies for inclusion in the final report; and
- to provide recommendations as to how the sector might be best supported in the future to deliver road safety behaviour change interventions.

2.2 Reference Group

This project is of relevance to several stakeholders, all of whom have an interest in the development and delivery of good-quality educational behaviour change interventions in road safety. There are several parallel projects currently being delivered or planned which could impact on this study; conversely, the findings of this study could influence these other projects. It was therefore decided to create a Reference Group who would advise on the direction of this study and its recommendations, and work together on the next steps.

The Reference Group met in April 2019 at the Royal Automobile Club to discuss the background of this study, to review the parallel projects, to start to develop an understanding of the challenges presented by existing interventions and what a better model might look like, and to agree the purpose and format of the Reference Group itself.

The Reference Group was formed of representatives from:

- Department for Transport
- RAC Foundation
- Agilysis
- Driver and Vehicle Standards Agency
- Brake
- Road Safety Support (RSS)
- Road Safety GB
- Transport Research Laboratory
- Highways England
- FirstCar
- Nottingham Trent University.

The purpose and scope of the Reference Group was:

- to provide a sounding board for the RAC Foundation project on the effectiveness of behaviour change interventions; and
- to provide a forum for sharing information about parallel work streams in this area.

3. Understanding the Landscape



This chapter sets out the analysis of surveys distributed to road safety practitioners, asking questions about how behaviour change interventions are designed and delivered, what resources are used in the process of design, and how evaluations are undertaken.

3.1 Survey to road safety behaviour change practitioners

To start to understand the landscape of educational behaviour change intervention design and effectiveness, it was decided to survey practitioners and stakeholders. An online survey tool was used to disseminate a survey designed in collaboration with the Reference Group. The Reference Group disseminated the survey link to practitioners via RSS, RSGB, the National Associations Strategic Partnership, DfT, the National Fire Chiefs Council, FirstCar, Transport Scotland, GoSafe Cymru and the Parliamentary Advisory Council for Transport Safety's (PACTS') Road User Behaviour Working Party.

3.2 Survey design

The survey was wide-ranging in scope, designed to capture information on:

- who is involved in educational behaviour change design and delivery;
- approaches to the design of new interventions;
- what resources are used in this process;
- information on behaviour change theories used in design; and
- how evaluations are approached.

There were opportunities for respondents to submit intervention design and evaluation reports, and to indicate their willingness to participate in focus groups.

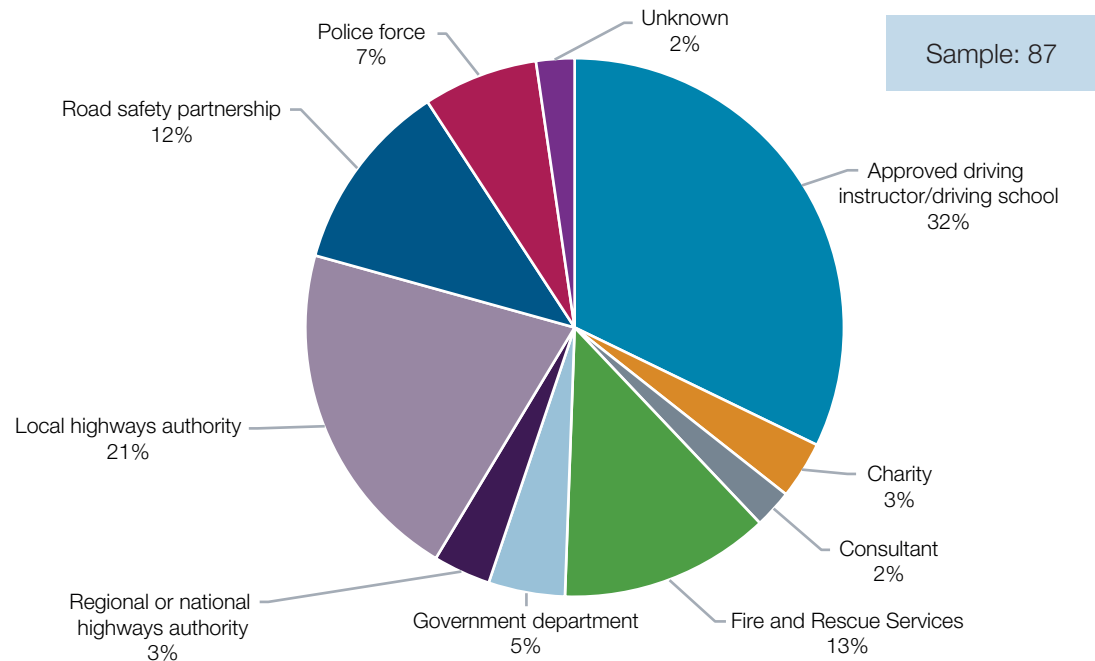
3.3 Seeing what the landscape looks like – interpreting the survey

There were 87 responses to the survey, from 78 individual organisations, as shown in Figure 3.1. Just over half (55%) were from organisations which have traditionally led on the delivery of road safety educational schemes: police forces, road safety partnerships, local highways or national highways authorities (such as Transport for London and Highways England) and Fire and Rescue Services (FRS). One third were approved driving instructors (ADIs) or driving schools, who participated because they deliver courses for the National Driver Offender Retraining Scheme. This overrepresentation of ADIs has skewed the results somewhat, although it is true that they do have a strong role to play in delivering road safety behaviour change, both in the classroom to those who have committed driving offences and to learner drivers out on the road. Furthermore, there are 40,000 driving instructors in the UK, making this sample an underrepresentation of those in the field. In comparison, there were 11 respondents who work for FRS in the sample, with only 53 services in Great Britain.

The sample size is also much smaller than desired: the survey was disseminated during the summer months, when many road safety practitioners take annual leave, which may have influenced response rates. As a result, it is not possible to use the findings to draw robust conclusions, and it is not possible to determine whether the results reflect the wider population of road safety practitioners. For this reason, there is a focus on the qualitative responses received from the survey, which were explored in more depth in the focus groups. It should therefore be remembered throughout this section that the sample, owing to its size and composition, is not a direct reflection of the wider practitioner population.

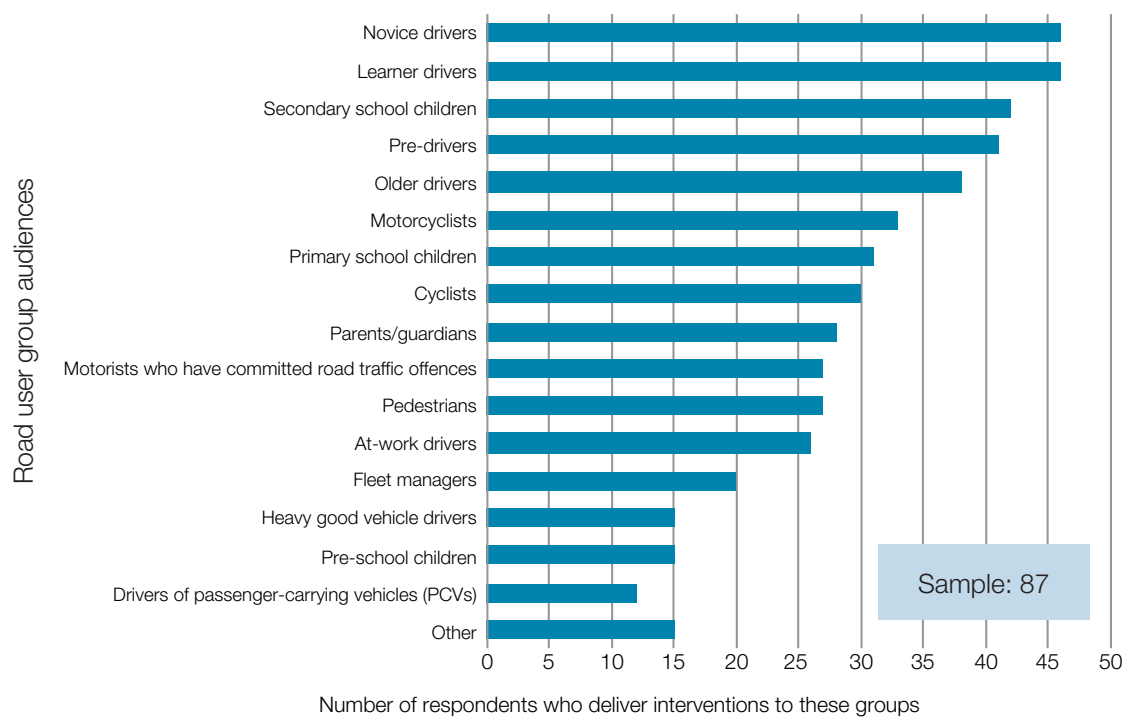
Of the 87 respondents, over three quarters (78%) stated that their existing role is dedicated to road safety behaviour change. Only 18 respondents indicated how much of their time was actually spent on road safety behaviour change, with most (72%) indicating that it was less than 50%. Nearly two thirds (61%) of the respondents stated that they personally participate in the process of designing road safety interventions.

Figure 3.1: Organisations to which survey respondents belong



Source: Author's own

Figure 3.2: Numbers of participants who deliver road safety interventions to different road user groups



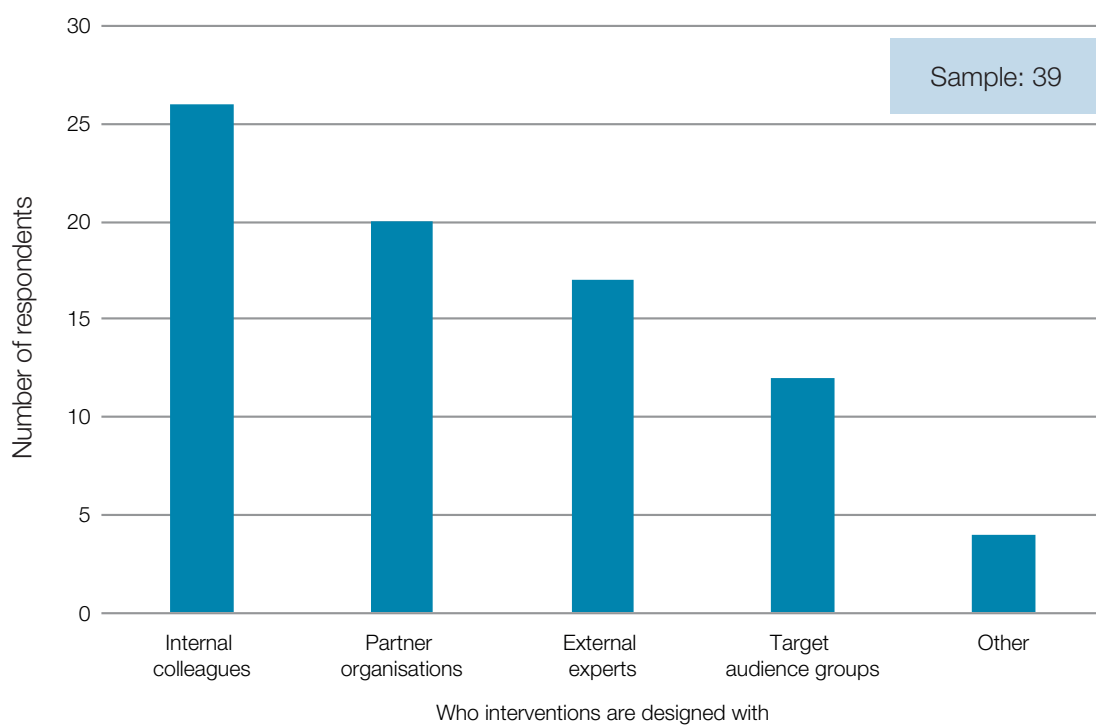
Source: Author's own

Figure 3.2 shows the various road user groups who are the target audience for the educational behaviour change interventions currently delivered. It shows that the highest numbers of respondents deliver to young, inexperienced drivers, or those not yet driving, including secondary school children, pre-drivers (those who are not yet permitted to drive independently), learner drivers and novice drivers; beyond that, many deliver to older drivers and motorcyclists, and to motorists who have committed road traffic offences.

Respondents were asked how many different types of educational behaviour change interventions they delivered between April 2017 and April 2019 for each road user group. For all but one of the road user groups (pre-school children), there were higher numbers of respondents who indicated that they delivered more than ten different types of educational intervention, than there were who delivered only one intervention. This suggests that respondents are, generally speaking, delivering a wide range of different interventions to their target audiences.

There was a need to understand how many new interventions had been designed over the last two years since Fylan (2017) and Sullman (2017) were published. Of the 52 respondents (75%) who stated that they were involved in the design process, 39 said that they had designed new educational behaviour change interventions in the last two years. Where new interventions have been designed, most respondents had designed one to four, with none of them being aimed at heavy goods vehicle drivers.

Figure 3.3: Who interventions are designed with



Source: Author's own

Twenty-six respondents stated that they designed new interventions with internal colleagues, and 20 said that they designed with partner organisations, as shown in Figure 3.3. External experts were used by 17 respondents, and 12 designed with the target audience groups.

3.3.1 Successes in designing educational behaviour change interventions

The respondents were asked to describe the successes they had had in designing educational behaviour change interventions in the last two years, and to explain what made them successful. Some key themes emerged from the 34 responses received to this question.

Changes in evaluation methodology

Some respondents reported that they had changed the way they evaluated their interventions in the last two years.

“Working with intervention logic models to identify how to influence our strategy and approach.” (government department)

“It contains both quantitative and qualitative methods; this allows us to evaluate the effectiveness of our content, as well as gauging customer satisfaction and identifying new ways of improving our delivery.” (FRS)

Evaluation results

Other respondents had evaluation results to demonstrate their successes.

“Our pre-school intervention showed significant improvements in knowledge.” (consultant)

“Drama workshops primary age – developed with drama specialist, and [behaviour change consultant] has done the evaluation. The results show that willingness to change behaviour is high immediately after the workshop. We are now adding in a maintenance phase.” (road safety partnership)

“Evaluation has evidenced a change in behaviours for many of the sessions, and feedback from teachers observing has been extremely positive.” (local authority)

Awaiting evaluation results

Other respondents are currently waiting for evaluation results.

"We have developed two road safety packages which we are going to put out for consultation with the police and focus groups of young people. These seem to be well received, but [we] will gather more information from this latest consultation." (FRS)

"Currently in process of evaluation..." (charity)

"The intervention began in Nov 2018 and is currently being evaluated." (government department)

Use of behaviour change in design

A number of respondents talked about the use of behaviour change in intervention design in recent years.

"Behaviour change models and techniques made the interventions easier to design." (local authority)

"Implementing behaviour change techniques to existing packages – can see deeper commitment to change from audiences, and has given learners direction for action." (road safety partnership)

"New packages based around techniques meant a logical approach to teaching with clear measures of success. Techniques meant design was easier and activities were meaningful." (ADI)

"The piloting of the sessions, use of recognised BCTs, and ensuring the sessions are interactive and messages age-appropriate and specific [are design successes]." (local authority)

"All of our ETP [education, training and publicity] interventions are fully evaluated with SMART [specific, measurable, achievable, relevant and time-bound] objectives. We aim to positively influence attitudes, awareness, knowledge and intended behaviour." (local authority)

Engagement

Other respondents reported better engagement levels as a success in designing behaviour change interventions.

"We've had a very positive response from schools about our change in approach to road safety education delivery and content." (local authority)

"Very successful, lots of repeat orders. Evaluation and measurement with feedback helps with the repeat orders; involving parents helped to spread the word. Building an evidence base helps to continually improve." (local authority)

"Success with Year 8 students. Feedback from teachers and students themselves." (police)

Driving test results

Given the number of ADIs in the sample, it is hardly surprising that their main measure of success is the number of learners who pass their driving test.

"They passed their driving test." (ADI)

"Success in teaching people to drive safely to varying standards." (ADI)

Casualty reduction

For some respondents, measuring success means analysing the number of people injured in road collisions.

"We have seen a levelling off of road traffic collisions. We're are trying new ideas to reduce KSIs [killed or seriously injured casualties] further." (FRS)

"Reduction in KSIs." (police)

Difficulties with measuring success

Some respondents reported that they were unsure of how to measure success in relation to their interventions.

“It’s very difficult to assess the impact of interventions, as the objective is a reduction in road collisions, and currently there is no way of determining if any trained riders have had collisions, or if there is any difference to the general population.” (ADI)

“How does one determine success? If one is to go off how popular the demand is from schools/colleges, then I would say very successful.” (local authority)

3.3.2 Challenges in designing educational behaviour change interventions

Respondents were also asked what challenges they had to overcome, and 34 responses were received. For many, the challenges are the practical application of the theories, and embedding behaviour change processes into all their work – as well as ensuring that all their partners and colleagues are able to use the same theories and processes. For many, the challenges are more practical.

Embedding behaviour change and evaluation into design

Finding ways of ensuring that behaviour change and evaluation are integrated into the design process was a challenge for three respondents. These challenges included finding a suitable behavioural model to use in design.

“Having clearly defined aims and objectives that we can measure. Ensuring that behaviour change is part of the development process.” (road safety partnership)

“Matching behaviour change theory with educational theory – there is some overlap, and this needed to be clear.” (road safety partnership)

“The problem has been finding a suitable behavioural model to apply.” (ADI)

Convincing others

For several respondents, convincing others of the need to change their approach to intervention design has been difficult. This theme was, in fact, the most frequently reported challenge, which suggests that there is a need to support partnerships in their aim to share knowledge, and encourage a consistency of approach.

"The organisation I work for is inherently conservative and expects shock tactics to teach the students how to behave. Teaching myself and training colleagues is time-consuming, and overcoming barriers within the organisation is tiresome."
(local authority)

"The issues we have at delivery level is partners and other stakeholders delivering road safety ETP without evaluating the impact. We have concerns [that] some interventions could be having a negative impact and potentially doing harm, which would be counterproductive. There is no guidance or regulation for those who deliver road safety to the public, and this is something we would like to be addressed in the future." (local authority)

"Understanding from clients and partners that road safety doesn't need to be all about crashes and death, and that 'obvious' messages doesn't mean they're in any way going to achieve a desired outcome." (consultant)

"Not all partners had the knowledge on behaviour change, so had to share info with them." (road safety partnership)

"Trying to translate the evidence for others who need to be involved in delivery."
(local authority)

Developing an engaging intervention

A challenge for several respondents when designing a new intervention is making it engaging for the target audience.

"Developing something real that would keep the interest and attention of 12/13-year-olds for an hour-long session." (police)

"Making road safety appealing." (local authority)

"All the usual ones – deflection, lack of interest, lack of interest in being told to drive more safely, belief amongst younger men that they'll never crash, complacency amongst motorbikers." (government)

Accessing the target audience

Related to developing an engaging intervention, three respondents reported that there can be difficulties with accessing their target audiences.

"Access into schools/colleges." (police)

*"Gaining access to some schools and encouraging take-up of the sessions."
(local authority)*

*"With promoting the young rider intervention, it was beneficial to have a young rider working with us to promote the intervention, which was proving to be a difficulty."
(road safety partnership)*

Time

On a more practical level, several respondents felt that time had been a problem for them.

"Having the time allocated to gather the information from the students – due to education cuts it's not always possible." (FRS)

"Short staffed, so lack of time." (local authority)

"Fitting content into allocated timeframe." (ADI)

"Time management." (FRS)

Funding

Similarly, funding has been a challenge over the last two years in relation to educational behaviour change design.

"Funding for evaluation." (police)

"Working with a limited budget." (local authority)

"A budget that's more limited than we'd like, to try and achieve sustained behaviour change." (government)

"Funding..." (FRS)

Practical issues

There were a number of respondents who cited practical challenges over the last two years.

"IT issues..." (FRS)

"Procurement..." (local authority)

"Changes in technologies." (FRS)

"Difficulties with social media use." (road safety partnership)

"Keeping the online learning programmes short and concise, and compatible with smartphones." (consultant)

"The primary challenge was the support provided by external experts which unfortunately waned and 'withered on the vine'." (road safety partnership)

3.3.3 Successes in delivering educational behaviour change interventions

All respondents were asked whether they had delivered any new educational behaviour change interventions within the last two years, with 53 respondents indicating that they had. They were asked to describe the successes that they had had in the last two years in delivering educational behaviour change interventions, and what made them successful. The successes here tended to be similar to those in the design of new interventions, describing the use of evidence, theories and evaluations to ensure effective delivery.

Engagement

A major delivery success, cited by many respondents, was good engagement with the target audience.

"High schools are receptive to road safety education." (local authority)

"Making the information relevant to the target audience and making them immersive and interactive." (FRS)

"Increasing the learning experience during theory and classroom sessions by including hands-on tasks where possible. Making it fun!" (ADI)

"Using innovative approaches and co-operative learning techniques to engage all learners. Identifying specific and age-appropriate aims and learning objectives." (local authority)

"The most successful interventions for young people are the ones where they are engaged." (road safety partnership)

Innovation

Related to engagement is the use of innovation in delivery.

"Innovation in approach." (road safety partnership)

"The use of the 360 film² and the VR [virtual reality] technology were both new for us, and proved effective." (government)

Use of behavioural models

The use of behavioural models in delivery, as well as design, was mentioned by several respondents.

"We have referenced the RAC Foundation report to help structure our developments: 'Using Behaviour Change Techniques: Guidance for the road safety community'." (local authority)

"We've used the Chimp Paradox model, which seems to strike a chord with riders." (ADI)

Intervention design

There have also been intervention design changes which have impacted positively on delivery over the last two years.

"Introducing different expectations of the driving tests." (ADI)

"More focused work based on district need – the right programme to support the vulnerable groups. More confidence in the content to change behaviour." (local authority)

² *drVR* is a 50-minute classroom intervention, aimed at 16 to 18-year olds, which utilises virtual reality to encourage participants to consider their attitudes towards road safety. Funded by Transport Scotland, the project is delivered by Safety Cameras Scotland, Police Scotland and Glasgow City Council. The learning intention is for the students to experience two VR films, take part in group discussions, and complete a workbook to encourage them to consider whether they can change their behaviour to make themselves safer on the roads.

Evaluation results

Evaluation has been important to many of the respondents in relation to delivery, as well as design.

"Evaluation of every event and consolidation of reports, both internal and external."
(FRS)

"The evaluations post-delivery seem to show the intervention was successful."
(local authority)

Awaiting evaluation results

As with the design successes, several respondents were unable to evidence their successes in delivery because they were awaiting the results of evaluations.

"At this moment in time we do not have any precise data on [the intervention] due to its infancy. In addition, working with business, they more often than not, do not always record collision data and damage repair costs." (consultant)

"The intervention is currently being evaluated." (government department)

"Still awaiting the results of evaluation." (FRS)

Partnership working

There were those who felt that partnership working had contributed to their delivery successes over the last two years.

"Partnership assistance has made them successful." (police)

"Working with an increasing number of GB police forces, agreement on future models of delivery." (government department)

Other themes

As with the design successes, there were ADIs who reported their main successes in terms of the number of driving tests passed and the use of the Goals for Driver Education Matrix in their driving lessons. Others talked about the resources available to them to assist delivery of successful educational behaviour change interventions. There were also two respondents who talked about the reductions in the numbers of KSI casualties.

3.3.4 Challenges in delivering educational behaviour change interventions

To complete the picture, all respondents were asked about the challenges they had encountered when delivering educational behaviour change interventions, with 41 providing a response. There was a wide variation in challenges experienced by respondents.

Convincing others

In the same way that respondents had to convince colleagues about designing interventions differently, one respondent felt that this was also a delivery challenge.

“My organisation is inherently conservative, and convincing colleagues of the behaviour change techniques is hard work. Sometimes I just design and deliver and let the results speak for themselves, my colleagues then put this down to what they call a bubbly personality without understanding the model underlying the design.”
(local authority)

Resources

There were several ways in which resources were a challenge for delivery.

“Lack of staff.” (FRS)

“Material and support from other partners.” (national highways authority)

“Staffing resources.” (local authority)

Accessing the target audience

As with the design challenges, getting access to the target audience is also a challenge from a delivery perspective.

“Access into schools/colleges.” (police)

“Getting into schools.” (police)

*“Developing and maintaining a relationship of trust with every school and college.”
(local authority)*

Time

Finding enough time for delivery can also be a challenge, both for those delivering the intervention and when it comes to securing time with the target audience. Enough time for evaluation is also important.

“Just curriculum time, as with any delivery.” (road safety partnership)

“Time to ensure evaluation continues to be key to the development of the programme to move it forward.” (local authority)

“Timescales...” (national highways authority)

“Learning three 4-hour presentations at the same time, plus continuing to run a business was very difficult.” (ADI)

Funding

Funding is a delivery challenge in two ways: either funding is limited or there are difficulties with convincing others that the spend is worthwhile.

“Little funding.” (local authority)

"This proved a more complicated journey as far as stakeholders were concerned, as the production process is expensive and it was sometimes tricky to convince people that the spend would be worth it." (government)

Engagement

Engagement has been seen as both a success and a challenge, for both design and delivery of educational behaviour change interventions.

"Encouraging take-up of the sessions." (local authority)

"Continuing contact and measuring behaviour change." (FRS)

"Getting people to come to events." (FRS)

Target audience attitude

Delivery can be a challenge when the target audience are not receptive to the intervention. This can be a particular challenge for ADIs.

"Not my fault – it's the other road users' is the main quote, plus the phrase 'if the other roads users get away with it, why should I be any different?'" (ADI)

"Attitude to the course." (ADI)

"Classroom disruption is sometimes a challenge." (road safety partnership)

"People are often unwilling to listen." (ADI)

Data

One respondent felt that a delivery challenge was not having access to current collision data.

"Getting up-to-date crash data in order to understand why certain behaviour is occurring and what behaviour we need to try to change." (local authority)

Identifying a behavioural model

As with the design challenges, there was a need to identify the correct behavioural model in order to assist delivery.

“Basically, finding a workable behavioural model, then delivering it in an engaging way.” (ADI)

“New material and behavioural change models.” (ADI)

Partnership working

Partnership working has been a challenge for delivery, for several respondents from various types of organisation.

“Co-ordinating across multi-agencies, and delays in decision-making.” (charity)

“Working in collaboration was difficult due to finding time where all agencies could be together to plan.” (FRS)

“Internal resources and competing priorities.” (government department)

Guidance and legislation

Two respondents raised challenges related to the guidance and legislation in place for road safety educational behaviour change interventions.

“Levels 3 and 4 [of the Goals for Driver Education Matrix] are not a part of the UK driving test.” (ADI)

“There is no guidance or regulation for those who deliver road safety to the public, and this is something we would like to be addressed in the future.” (local authorities)

3.3.5 Resources used in the design and delivery of educational behaviour change interventions

Given a list of relevant behaviour change publications, respondents were asked which reports they had read (see Table 3.1).

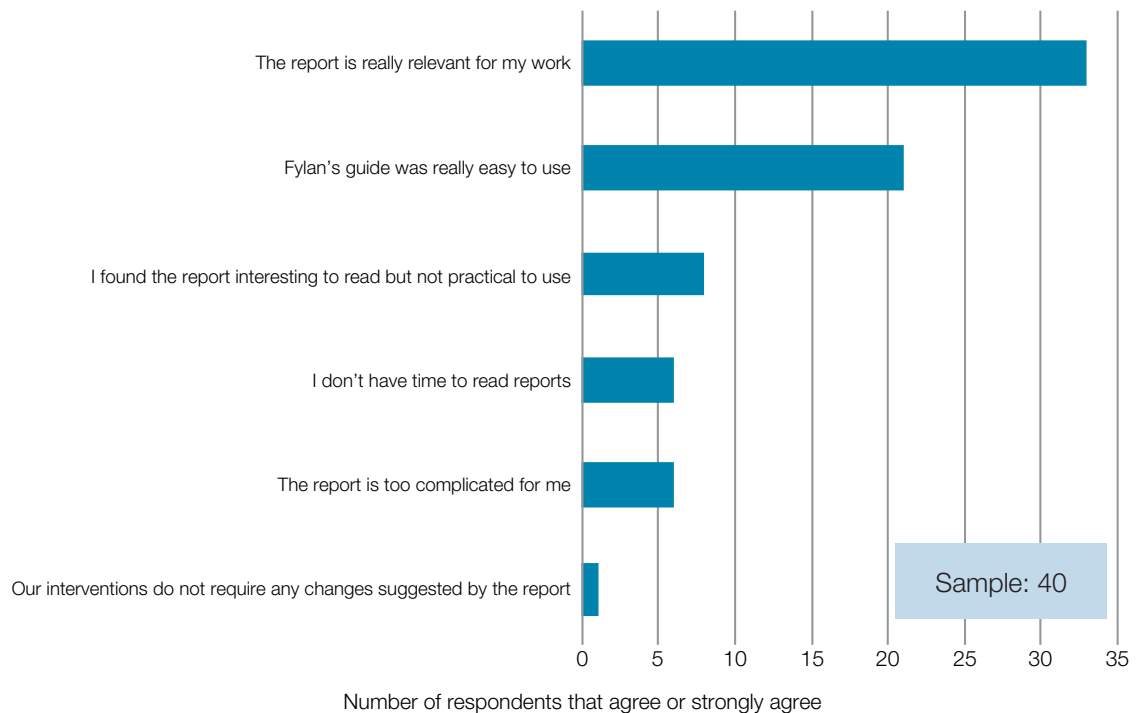
Table 3.1: Number of respondents who had read each of the resources (total sample: 87)

Publication	Number of respondents
Dr Fiona Fylan, <i>Using Behaviour Change Techniques: Guidance for the road safety community</i> (April 2017)	40
Susan Michie, Lou Atkins & Robert West, <i>The Behaviour Change Wheel: A guide to designing interventions</i> (2014)	12
The Behavioural Insights Team, <i>EAST: Four simple ways to apply behavioural insights</i> (2014)	11
Dr Mark Sullman, <i>Young Driver Safety: A review of behaviour change techniques for future interventions</i> (March 2017)	10
Pressley et al., <i>A review of interventions which seek to increase the safety of young and novice drivers</i> (2016)	7
Michie et al., <i>ABC of Behaviour Change Theories</i> (2014)	6
Dolan et al., <i>MINDSPACE: Influencing behaviour through public policy</i> (2010)	5
Simon Christmas, <i>Nine Big Questions about Behaviour Change</i> (2009)	4
Andrew Darnton, <i>Practical Guide: An overview of behaviour change models and their uses</i> (2008)	1

Source: Author's own

The most commonly read resource was Dr Fiona Fylan's *Using Behaviour Change Techniques: Guidance for the road safety community* (Fylan, 2017), with next most frequently read being *The Behaviour Change Wheel: A guide to designing interventions* (Michie et al., 2014a), *EAST: Four simple ways to apply behavioural insights* (The Behavioural Insights Team, 2014), *Young Driver Safety: A review of behaviour change techniques for future interventions* (Sullman, 2017) and *A review of interventions which seek to increase the safety of young and novice drivers* (Pressley et al., 2016).

Figure 3.4: Levels of agreement ('agree' or 'strongly agree') with statements about Fylan (2017)



Source: Author's own

With the Fylan (2017) and Sullman (2017) reports, there were several supplementary questions about how they were received and used. Figure 3.4 shows the numbers of respondents (of the 40 who had read the Fylan report) who 'agreed' or 'strongly agreed' with each of the statements. The feedback was positive, with 33 (83%) agreeing that the report was relevant to their work and over half (21) agreeing that the guide was really easy to use. Only eight respondents agreed that they found the report interesting to read but not practical to use. With the statements 'the report is too complicated for me' and 'I don't have time to read reports', only six agreed; lastly, only one felt that their interventions did not require any changes suggested by the report.

Of the 40 respondents who had read the Fylan (2017) report, 30 thought that it had changed the way in which they designed educational behaviour change interventions, with five stating that it had changed their approach 'to a great extent', nine indicating that it changed their approach 'quite a bit', and the final 16 believing it had done so 'a little'.

The 30 who said that the Fylan (2017) report had changed the way in which they designed interventions were asked to detail in what way the report had changed their approach. The respondents found practical support in the guide, stating that it had affected their overall approach to design and thinking about behaviour change theories at the beginning of the design process. It helped some with the specific content of their interventions, especially the use of BCTs, whilst for others its value was in getting other people to appreciate the approach. It assisted with the evaluation process for some, while others used it to help validate their existing approaches.

Provided structure

The Fylan (2017) report seemed to provide a structure for intervention design in the form of a useful reference guide.

“Provided an oversight/structure.” (police)

“I refer to the guide before developing any new intervention. I find it easy to use and it is a great help in understanding the subject.” (local authority)

“It gave me the confidence to carry on with what I was doing. I could go to colleagues with a validation of the process.” (local authority)

“It emphasised the approach to start right at the beginning, rather than what you want to achieve at the end.” (FRS)

“Is a useful referral guide.” (consultant)

“I had previously shown [the] cause and effect of driving behaviour, but since reading Fiona Fylan I have toned down the direct approach, used [a] more client-centred approach, but [with] emphasis on [reflecting on their] own behaviour to explain the behaviour of others.” (ADI)

Behaviour change theories

For others, the report was about giving them specific ways to try to change behaviour, using the theory set out in the guidance.

“Think more about what the underpinning model for behaviour change we were working with was – particularly in relation to getting the team to appreciate that.” (local authority)

“The report provided an understanding of the importance of using a model of behaviour change to structure an intervention and decide on the content. It clearly explained the BCTs and provided clear examples of how to incorporate BCTs into the design and delivery of an intervention.” (local authority)

"We've adopted the TPB [Theory of Planned Behaviour] as she recommends, but with the revisions that she suggests." (government)

"By considering BCT as an integral part of the process, and instigated a move away from 'shock and awe'." (road safety partnership)

"Use driver psychology and be more open-minded to alternative methods of training and development over and above practical hands-on driver training." (ADI)

The use of specific behaviour change techniques

Alongside providing a theory to work with, the examples of different BCTs were particularly useful.

"Behavioural change techniques. Benefits/barriers and ways to overcome challenges, a lot of awareness and understanding." (FRS)

"Put more emphasis on students having the opportunity for active engagement within our interventions, and to appeal more widely to all learning styles by including more/relevant behaviour change techniques in our overall programmes – i.e. small-group discussion and driving simulator sessions delivered after [intervention] attendance." (FRS)

"It clearly explained the BCTs and provided clear examples of how to incorporate BCTs into the design and delivery of an intervention." (local authority)

"It helped us to identify BCTs we were already using, and others we could use. It also assisted with the redesigning of some of interventions." (road safety partnership)

Evaluation

The evaluation framework was also useful for respondents.

"Helped us refine processes for monitoring and evaluating against clear aims and objectives." (charity)

Some ideas that it provided

Not all respondents felt that it had greatly changed the way they worked, though.

"Gave me a few ideas." (local authority)

"I can't say it did really – I prefer the approach given by Michie, et al. and the COM-B model." (consultant)

"It makes you think about incorporating behaviour change but I need to use it more." (road safety partnership)

"I did not change much – it was more a reinforcement that I was on the right track with what I was doing." (ADI)

Rather fewer respondents had read Sullman's (2017) report (ten out of the 87). These respondents were asked to indicate their levels of agreement with several statements about the report. Given the smaller number of respondents to this question, the results must be seen as no more than an indication of levels of agreement.

Five respondents agreed that the report was relevant to their work. However, four of the respondents agreed that they 'found the report interesting to read but not practical to use'. Conversely, four respondents agreed that the report was really easy to use. This report is a literature review of BCTs used in road safety and other health behaviours, identifying those which are most likely to improve the success of interventions. It is presented as an evidence report, rather than a practical guide, which seems to be reflected in the way it is perceived by respondents. Of the ten who had read the report, five thought it had changed the way they designed interventions 'a little', and one 'quite a bit'.

There were fewer comments about the ways in which the report changed how respondents designed educational behaviour change interventions, but those that did give examples stated that it provided an evidence base as to which BCTs are more appropriate for particular age groups.

Changed design processes

One respondent felt that Sullman (2017) had changed the way in which they design interventions.

"Consider the design and impact and ability to influence in all interventions now." (road safety partnership)

Use of behaviour change techniques

Others felt that it gave a clear indication of which BCTs should be used.

"It allows me to identify which BCTs have a proven track record." (consultant)

"Considering that certain behaviour change techniques are better suited to specific age groups and also in combination." (local authority)

"Evidence base of behavioural change theory." (charity)

Not used enough

One respondent felt that they needed to look at the report again.

*"I've dipped into the report but I need to read and use it more."
(road safety partnership)*

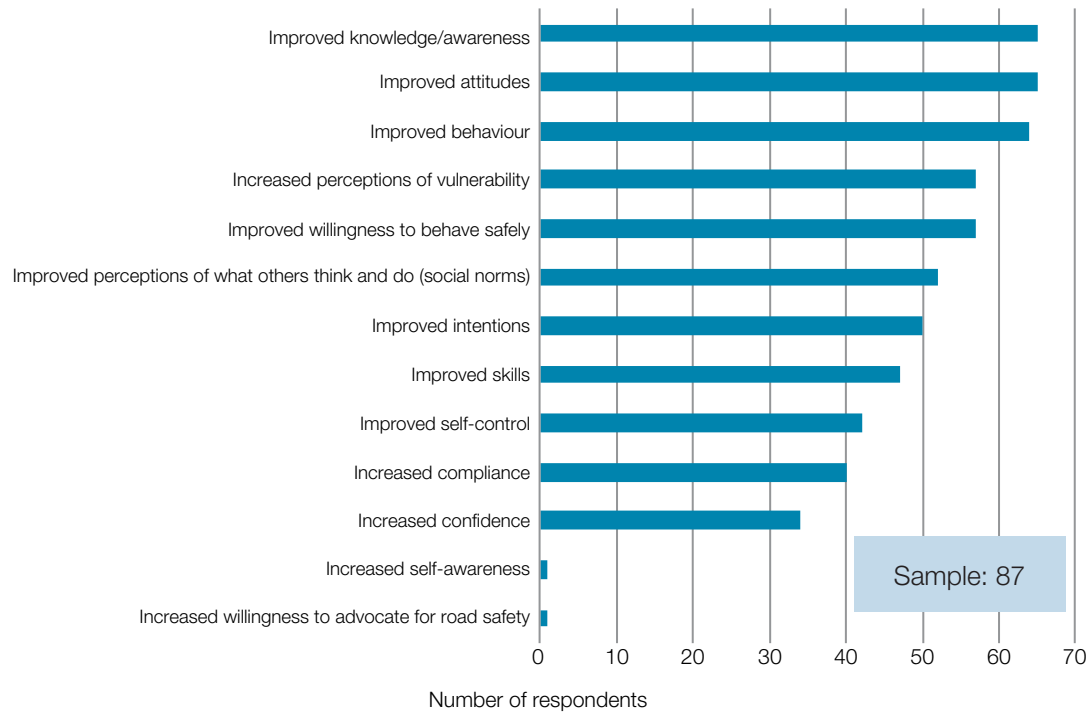
The respondents who had read the resources were asked how many interventions they had designed with reference to the sources listed. For most of the sources, respondents had designed between one and four interventions, with two respondents having designed more than ten interventions using Fylan (2017).

It was also useful to understand which training courses the respondents have attended in the last two years. Twenty-one respondents said that they had attended the RSGB Academy's Road Safety Practitioner Foundation course in the last two years, with 12 saying it had changed the way they designed interventions 'quite a bit', four 'to a great extent' and four 'a little'.

As for the RSGB Academy's Behavioural Change course, 22 respondents attended this in the last two years. Eight respondents who had attended this course thought it had changed how they designed interventions 'to a great extent', seven 'quite a bit' and six 'a little' (which leaves one respondent who felt that the design of their interventions had not changed very much).

Respondents were asked to select the possible outcomes that their interventions were trying to achieve. Figure 3.5 shows that most respondents are trying to improve knowledge/awareness, attitudes or behaviour with their interventions. There were also high numbers of respondents trying to improve social norms (through improved perceptions of what others think and do), perceptions of vulnerability and willingness to behave safely.

Figure 3.5: The intended changes of behaviour change interventions



Source: Author's own

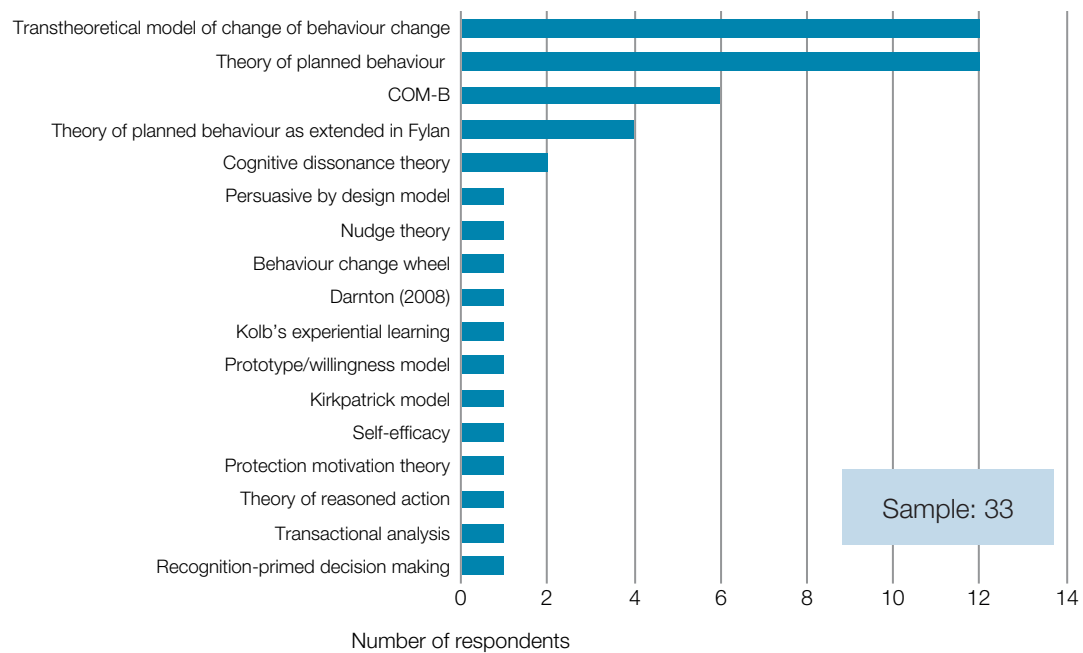
All respondents were asked what estimated percentage of their interventions had been designed using specific behaviour change theories, with responses ranging from 0% to 100%, having an average of 32%. Those who indicated that at least one of their interventions had been designed using specific behaviour change theories were asked, unprompted, to list which theories they had used. The results are shown in Figure 3.6.

The most commonly used recognised behaviour change theories were the Theory of Planned Behaviour and the Transtheoretical Model of Behaviour Change (PCPAM³), which each accounted for a quarter of the 48 theory usage instances listed. A range of theories were used, with COM-B (Capability, Opportunity and Motivation influencing Behaviour) and the extended version of the Theory of Planned Behaviour presented in Fylan (2017) also named by several respondents. On average, respondents gave the names of two different models that they were using.

There were also several respondents whose response did not include a recognised behaviour change theory, even though they stated that they used behaviour change theories in the design of their interventions. This might indicate that some respondents have a belief that they are using behaviour change theories, whereas their knowledge of the theories is actually limited.

³ PCPAM is so named because of the stages of change: pre-contemplation, contemplation, preparation, action and maintenance (to which termination is often added as a sixth).

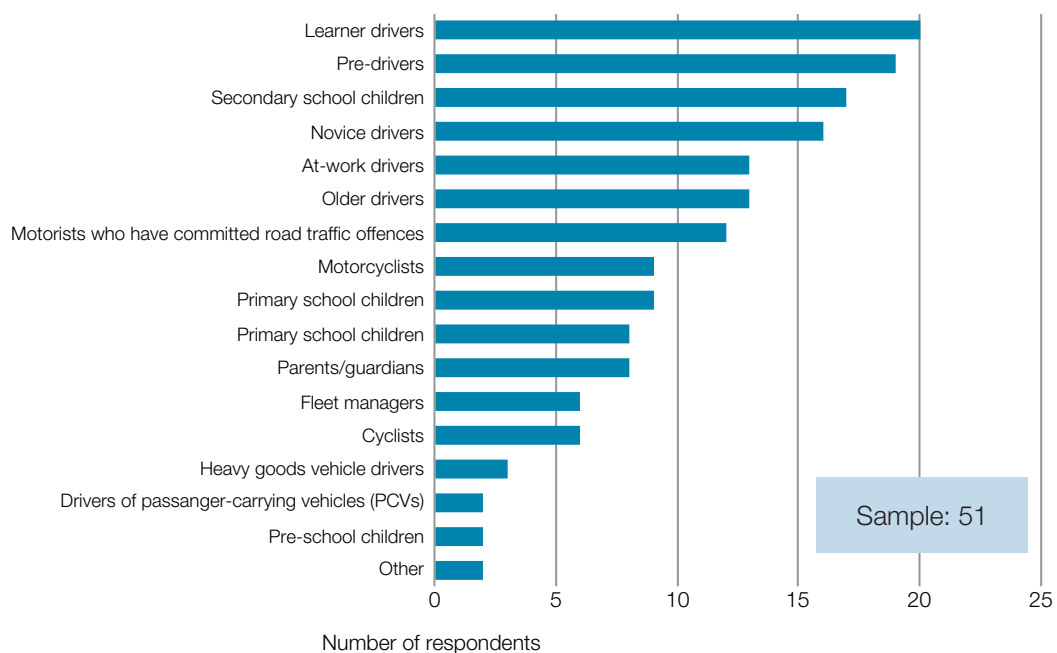
Figure 3.6: Behaviour change theories used in intervention design



Source: Author's own

The theories chosen by respondents were most commonly used with learner drivers, pre-drivers, secondary school children, novice drivers, at-work drivers, older drivers, and motorists who have committed road traffic offences, as shown in Figure 3.7.

Figure 3.7: Road user groups for which the behaviour change theories were used



Source: Author's own

All respondents were also asked to indicate what estimated percentage of their interventions they evaluate; the responses ranged from 0% to 100%, with the average value being 45%. On a sliding scale, those who evaluate any of their schemes (37 respondents) were asked to indicate the proportions which are done internally versus externally. Overall, respondents indicated that an average of 78% of evaluations were conducted internally.

The survey results provide an insight into the design and delivery of educational behaviour change interventions in road safety in Great Britain. The results show that there are practitioners who are reporting successes, through using behaviour change theories and sound evidence bases, and who are evaluating their interventions. Some of the practitioners are accessing useful guides and resources to help them in the design process, and have attended relevant courses. They also consult with external agencies, both in the design process and for independent evaluations of what they deliver. However, there are also practitioners who feel less confident applying theories and research findings, and those who have limited knowledge of behaviour change and the importance of evaluating. In section 3.4, further analysis has been undertaken to understand the different groups of practitioners and determine how they might best be supported in design and delivery of road safety interventions.

3.4 Segmenting the landscape

The top-level analysis of the survey results revealed an overall picture of how educational behaviour change interventions in road safety have been designed and delivered, but it does not provide a clear direction of how practitioners can be supported in the future. To achieve this, individual responses were analysed and grouped, according to two key questions. These questions were “what estimated percentages of your interventions have been designed using specific behaviour change theories?” and “what estimated percentage of your interventions do you evaluate?”. Both questions asked respondents to indicate percentages between 0% and 100%, providing an opportunity to analyse different ranges of percentages of behaviour change theories used and evaluations undertaken.

Five groups emerged from the analysis, with each having clear characteristics. The groups were:

- those who used no behaviour change theories in intervention design, and evaluated none of their schemes, called **‘Absolute Beginners’** – this group represented 19 respondents;
- those who used behaviour change theories for **less** than 50% of their interventions and evaluated **less** than 50% of them, called **‘Believe in Yourself’** – this group represented 22 respondents;
- those who used behaviour change theories for **less** than 50% of their interventions but evaluated **more** than 50% of them, called **‘A Little Knowledge...’** – this group represented 19 respondents;
- those who used behaviour change theories for **more** than 50% of their interventions but evaluated **less** than 50% of them, called **‘Measure Twice Cut Once’** – this group represented eight respondents – and





- those whose used behaviour change theories for **more** than 50% and evaluated **more** than 50% of their interventions, called **‘Walking the Talk (Mostly)’** – this group represented the remaining 19 respondents.

Whilst the numbers of respondents in each of these groups is small, this segmentation could be used as a starting point for further research to gain a deeper understanding of those delivering and designing educational behaviour change interventions. It also provides an early indication that the sector is varied, and that different individuals will need different support and resources.

The following sections describe who these segments are; what has been learnt about them; and how support could be tailored to them in the future, based on this initial study. More research to validate them using a larger sample is necessary before any work is undertaken to target these specific groups.

On the basis of these descriptions, the segments can be arranged along two axes: the horizontal axis indicating knowledge on a scale of low to high, and the vertical axis indicating confidence on a scale of low to high, as shown in Table 3.2.

Table 3.2: Segmentation of respondents

CONFIDENCE  	HIGH 22% High percentages of evaluations Low percentages of behaviour change theories ‘A Little Knowledge...’	9% High percentages of behaviour change theories Low percentages of evaluations ‘Measure Twice Cut Once’	22% High percentages of evaluations High percentages of behaviour change theories ‘Walking the Talk (Mostly)’
	22% No evaluations No behaviour change theories ‘Absolute Beginners’		25% Low percentages of evaluations Low percentages of behaviour change theories ‘Believe in Yourself’
LOW	 KNOWLEDGE 		HIGH

Source: Author's own

3.4.1 ‘Absolute Beginners’

‘Absolute Beginners’ tend to be ADIs or work for the police – or did not specify the organisation they work for. This segment accounts for 19 respondents.

Thirteen respondents in this segment have dedicated roles in road safety behaviour change but only seven are personally involved in the design of educational interventions. This is reflected in the resources they use and the courses they have attended, which are not necessarily relevant to their role as deliverers. Only five have read Fylan (2017) and only two have read Sullman (2017). Furthermore, only one of these respondents has attended either of the RSGB Academy's courses. This suggests that knowledge of behaviour change theories and the need to evaluate are low.

When looking into the free text responses provided by this segment, it seems that some of those in it are genuinely trying to implement behaviour change processes and undertake evaluations, but need support. Increasing their knowledge and confidence could be beneficial in helping them to improve their processes.

"We are now looking at trying to embed evaluation into our interventions to enable us to better measure success of interventions. Currently we are unable to measure success except for customer satisfaction and repeat bookings... Staff have previously attended behaviour change courses, and we are considering behaviour change methods in new interventions that we deliver." (local authority)

For others in this segment, design is not in their role and their knowledge of the subject of behaviour change is very limited.

3.4.2 'Believe in Yourself'

'Believe in Yourself' respondents tend to work for road safety partnerships or national and regional highway authorities, such as Highways England or Transport for London. This segment accounts for 22 respondents.

This segment tends not to evaluate their interventions or apply behaviour change theories in the design of new interventions.

Seventeen members of this segment have dedicated roles in road safety behaviour change, with 11 being personally involved in the design of educational behaviour change interventions. This lower level of design involvement reflects their roles in organisations away from the front line.

Members of this segment have higher knowledge levels: ten of them have read Fylan (2017) and three have read Sullman (2017), with nine having attended the two RSGB Academy courses. Whilst the numbers are small, these are the highest percentages of course attendance across the five segments.

Whilst they do not tend to evaluate their interventions, when they do, nearly half (45%) are more likely to evaluate internally (showing that they do turn to external help over half of the time).

*"PCPAM / Cognitive Dissonance / Fylan's driver behaviour model. But I still don't know enough about them to be confident in using them. I'm aware of them."
(road safety partnership)*

As the quote above shows, it seems that this segment has knowledge and want to be doing the right thing but are lacking in confidence to implement the knowledge that they have. It could be that because only half of them are involved in the design process, they lack the opportunity to put their learning into practice. This segment could be encouraged to believe in themselves and try to start to apply what they have learnt.

3.4.3 'A Little Knowledge...'

Accounting for 19 respondents, the 'A Little Knowledge...' segment tend to be from government organisations, charities, driving schools and FRS.

Twelve members of this segment have dedicated roles in road safety and 13 are involved in the design process.

The same percentages of this segment have read Fylan (2017) and Sullman (2017) as observed in the 'Absolute Beginners' segment (five and two respondents respectively); only one of them has attended the RSGB Academy's Foundation course, and two have attended the Behavioural Change course.

This segment report having evaluated more than 50% of their interventions, but of these evaluations, three quarters (14 respondents) say they are undertaken internally. They tend not to apply behaviour change theories in the design of new interventions.

For some in this segment, it seems that they 'know' what works and what does not, and there is no need for behaviour change models. However, without independent, external evaluations, they are unable to demonstrate that they are correct in their assertions.

"I have written and presented many different talks for children over the past 15 years. By understanding how children's minds work and to cater to their level rather than preaching, I designed talks that get inside their heads – the schools will tell that me the children are talking about these presentations for weeks afterwards. Pure behaviour change." (local authority)

This segment could be a challenge to support, as they appear disinclined to utilise available resources and improve their knowledge base, and will tend to be using their internal evaluation results as justification for their approach.

3.4.4 'Measure Twice Cut Once'

This segment consists of only eight respondents, and these are those who are likely to use behaviour change theories in their intervention design but are less likely to evaluate those interventions. All of them have dedicated roles in road safety behaviour change and five are involved in the design process. They tend to be ADIs, work for the police or FRS, or be consultants.

They have mixed knowledge levels. Five have read Fylan (2017) and one has read Sullman (2017), but only two have attended either of the two RSGB Academy courses. These knowledge levels could be informing their high use of behaviour change theories.

They report lower levels of evaluation of interventions but only three say they evaluate internally when they do measure the effectiveness of their interventions. Several of this segment reported waiting for the results of evaluations.

For some of this segment, they are delivering what others have designed – and therefore, whilst they understand the theories behind the interventions, they do not need to be involved in evaluations. For others, they are awaiting the results of their evaluations and are therefore close to being in the ‘Walking the Talk (Mostly)’ segment.

3.4.5 ‘Walking the Talk (Mostly)’

This segment represents 19 respondents who report high use of behaviour change theories in their intervention design, and high proportions of evaluating those interventions. They tend to work for local highways authorities or FRS, or are consultants.

Almost all of them (17) have dedicated roles in road safety behaviour change, and 15 are involved in the design process.

This segment is well informed. They are the most likely to have read any of the other sources listed in the survey, with 15 having read Fylan (2017) and two having read Sullman (2017). Seven of this segment have attended at least one of the two RSGB Academy courses (which is the second highest after the ‘Believe in Yourself’ segment). When evaluating, nine (47%) say they tend to evaluate internally.

“All of our ETP interventions are fully evaluated with SMART objectives. We aim to positively influence attitudes, awareness, knowledge and intended behaviour.”
(local authority)

Overall, this segment is using behaviour change theories in intervention design and they are evaluating what they deliver. However, some are perhaps not as knowledgeable as they think, and the high percentage of evaluations reported, and theories used, could be an indication of overconfidence. This is evidenced by some of the respondents in this segment claiming to use behaviour change theories in all their intervention designs but, when asked to detail which theories were used, having provided answers which were not related to recognisable behaviour change theories. Some of this segment may benefit from being supported to ensure that they are applying knowledge correctly.

4. Digging Deeper



The findings of this survey have been explored further in focus groups with practitioners, as Chapter 4 details.

This chapter sets out the findings of focus groups held with practitioners and managers, in which the processes involved in design and delivery of road safety behaviour change interventions were explored in more detail.

Three focus groups sessions were held at the Royal Automobile Club in August 2019. Over 50 respondents were invited to attend, with 11 agreeing to participate. The main reasons for non-attendance were being away on holiday at the time, or pre-existing commitments.

However, the three sessions which were held lasted for at least an hour and a half each, and provided rich insight into the thoughts of practitioners and managers in relation to educational behaviour change design and delivery in road safety.

The sessions included a mix of road safety officers, road safety managers, FRS officers, and representatives from Highways England and Transport Scotland.

Each focus group session started with SWOT analysis, to understand the **s**trengths, **w**eaknesses, **o**pportunities and **t**hreats facing road safety practitioners in relation to road safety educational behaviour change.

Participants were asked to think about the strengths and weaknesses they could identify in relation to front-line practitioners delivering and designing educational behaviour change interventions in road safety, and to explore the opportunities and threats related to others who could support them. Table 4.1 shows the most common themes to emerge from the SWOT analysis, with all of these elements mentioned in at least two of the three focus group sessions.

A great deal of the same themes raised in the free text responses of the survey were discussed in detail within the focus groups.

Table 4.1: SWOT analysis – common themes

Strengths (practitioners)	Weaknesses (practitioners)
<ul style="list-style-type: none"> • Wide experience and knowledge of local highways authorities • Different background/diverse workforce/good skills mix • Passion • Good connected community/collaboration • Understanding the problem / knowing issues and areas to target • Good, dedicated teams with consistency 	<ul style="list-style-type: none"> • Not ready for cultural change / people dislike change • Not evaluating or using correct measures • Different background / no strong professional identity / no career path • Qualifications, experience and knowledge of others, such as FRS and police • Funding cuts leading to loss of experience and knowledge
Opportunities (others)	Threats (others)
<ul style="list-style-type: none"> • Combined effort with collaboration, based on roles and responsibilities • Commissioning academics and experts more • Tie funding into specific approaches, with more creative options for funding 	<ul style="list-style-type: none"> • Short-termism from leaders and politicians • Training insufficient, with not enough funding or relevant courses • Localism • Not knowing how or what to evaluate • Funding differences across areas • Inconsistency

Source: Author's own

4.2.1 Strengths

The identified strengths of practitioners tended to relate to their skills, experience and personalities. They saw strength in the diversity of their backgrounds and in the fact that there is a strong, connected community of practitioners which collaborates well. It was felt that they were well-placed to have a good understanding of the problem by knowing the issues in their area, and discerning which specific roads or communities to target. They felt that practitioners had a passion for their roles in road safety educational behaviour change.

A diverse workforce

One of the reasons provided for having a diverse workforce in road safety behaviour change is that there is no clear career path into the sector, meaning that practitioners join from careers in other sectors, bringing with them experience from different backgrounds. This is seen as a strength because individuals bring different skills, knowledge and opinions to the sector.

“I think that you’ve got such a diverse workforce, so people coming from lots of different backgrounds into this field. There isn’t a straightforward career path for people to come into this area, but it means that people come from lots of different backgrounds, and a lot of them are quite mature and experienced, and also open to new ideas.” (Road Safety Manager, local authority)

A connected community

It was argued that there is an appetite for collaboration and sharing what has been learnt – although this topic was returned to when weaknesses were discussed later, suggesting it is not always positive.

“They’re a really good connected community, and there seems to be a general appetite and interest in collaborating across, whether it’s academics at universities or people like us trying to do very specific things. There seems to be a general appetite for co-operating and sharing learning where we can, which is really constructive.” (Campaigns, national government)

Understanding the problem

It was felt that targeting the right problem had been made easier by having the data and information available as a starting point.

“But the strengths of it for me is you’ve got a good starting point to put lots of ideas forward. You’ve got all your backgrounds there to investigate what your problem is and make sure that you’re addressing the right things. We’ve got lots of information about that now.” (Evaluation Manager, road safety partnership)

4.2.2 Weaknesses

Many of the identified strengths led to discussions about weaknesses from a practitioner point of view. As with the survey responses, participants talked about colleagues’ resistance to change, issues to do with evaluation and sharing evaluation results, and a lack of funding.

The groups also explored some of the reasons why these might be weaknesses, talking about a lack of professional identity and the need for better qualifications.

People dislike change

The different skills base, with some practitioners being more skilled than others, can lead to friction, because there are those who have been in their role for a long time and believe they know what works. For them, change and new ideas can be challenging.

*"My weaknesses will be getting people interested or [who] are fresh and ready to look at [road safety] in a different way. Change, people don't like change often."
(Evaluation Manager, road safety partnership)*

Evaluations and being unwilling to share results

All three groups spent quite a lot of time talking about evaluations, and why not all interventions are evaluated, or not evaluated well. There are a number of perceived barriers to evaluating road safety educational behaviour change interventions. There was a general consensus that practitioners are wary of evaluating their work, because in so doing they are subjecting their ideas to judgement by others.

"To me one of the real weaknesses about it... is actually the passion of people involved is a massive weakness because I think... people... really put themselves out there." (Road Safety Manager, local authority)

"It's a thing being judged, and it's what you were talking about in the evaluation bias about evaluating your own." (road safety, national highways authority)

"I think it's the confidence, probably not wanting to stand up in front of somebody and saying this great idea that I have, that we followed through with... it's not quite as great as I thought it was gonna be." (Road Safety Manager, local authority)

"So, I mean, people don't generally in life race to do that thing that's gonna make them look foolish do they? And so we know the actual idea of scrutinising it is really quite difficult." (Road Safety Manager, local authority)

This can lead to a situation where only positive evaluations are published or shared, and in which it is not possible to learn about interventions which do not work so well.

*"If you actually asked everyone to submit all the work that they do, and the impact, you're only going to hear the good ones. Or the people that see the value in it."
(Road Safety Officer, local authority)*

*"So, the failures are as important when resources are limited, because actually repeating the success is going to be really difficult, isn't it? Actually find out what the components are that led to success. But the failures might be quite useful in saying that in a general way, you know, forget about this – that doesn't work at all."
(Evaluation Manager, road safety partnership)*

In more than one group, there was a discussion about evaluation standards and how they differ in the road safety sector from those used by colleagues in public health. This can cause tension in terms of the types of evidence required, with road safety practitioners wanting to deliver behaviour change education to large audiences, whilst those in public health want more detailed, longer-term trials.

"Their [NHS/public health] evaluation standards are so high. And so consequently we will present them with a project where we get to a hundred schools and they want to work with five and properly evaluate it, and they want to work with those five for the next two or three years. They want to do a longitudinal study to see what happens with these kids. Meanwhile we just want to get in there and do stuff because the schools are crying out for work to be done." (Road Safety Manager, local authority)

The last major challenge, which is related to evaluation standards, is funding.

"I guess the other challenge is that to do evaluation properly, it's quite expensive. And if you don't have a lot of budget, nothing aside, a substantial portion of it, we always have this debate." (Campaigns, national government)

"It is a really difficult sell isn't it? You know, 'cause how much of this pot of money [is] to be put aside for an evaluation. How much time do we devote for it? And my God, it might prove that we didn't do anything!" (Road Safety Manager, local authority)

Lack of professional identity

Whilst the diverse backgrounds were seen as a strength in bringing different skills, knowledge and experience to road safety educational behaviour change, they were also seen as a weakness and an indication of a lack of professional identity. Comparisons – contrasts – were frequently made between highways engineers and the respect they garner, and road safety officers.

"I think the thing about different backgrounds can be a weakness as well, in terms of the profession doesn't necessarily have a strong identity. So, in terms of recognition externally you know you say you're a highways engineer, everyone knows what an highways engineer is, but if you say you're a road safety officer and people don't."
(Road Safety Manager, local authority)

"You're not taken seriously... internally within the organisation. I would say within the council there is a different status given to engineers than would be to education practitioners." (Road Safety Manager, local authority)

"I think it comes back to that level of respect, I feel in general that engineers come up there, they are paid more, they are... respected, and I think the ETP side of it, and the designing interventions is very much seen as the... poorly paid partner in it all."
(road safety, national highways authority)

"We don't have that professional identity, really, which is a weakness at the delivery front line." (Road Safety Officer, local authority)

Road safety education is not held in as high a regard as is highways engineering, and this fact is also reflected when it comes to accountability, with road safety officers not being held accountable.

"We've just had a lot of conversations around the law and accountability around engineering yet there doesn't seem to be the same accountability around a road safety campaign. A road safety engineer would be accountable in law if they created a roundabout that was dangerous and deathly but a road safety officer – the work that we do they don't look at... nobody evaluates and nobody looks at them, and we don't make anything better – and sometimes make things worse – but apparently we're not accountable for that, and it doesn't have the same presence."
(Road Safety Officer, local authority)

Qualifications

A related topic, raised in more than one of the groups, was the qualifications required to design and deliver educational behaviour change interventions in road safety. The lack of qualifications is contributing to the sense of not having a professional identity, with practitioners coming from a variety of backgrounds and organisations, thus having differing levels of qualifications for the role.

"I think the profession just needs to be the profession; you need to have some professional qualification for it. That makes sense. Like we used to do phase two and stuff like that, we should all be doing the foundation courses. [We need an] understanding of what the road safety officer's role is, and actually they do need to have some kind of qualifications... And just because you've been a police officer 50 years doesn't mean you suddenly qualify for respect."
(Road Safety Officer, local authority)

There were also discussions about the level of training available for learning about designing and delivering educational behaviour change interventions. One local authority uses the NVQ (National Vocational Qualification) in Youth Work to provide a framework for apprentices.

"I mean the only qualification that we find relevant for... road safety specific apprentices is the NVQ in Youth Work. So, it gives them a framework in which they can develop their skills, because we want them working with 16- to 21-year-olds, and that's useful to us." (Road Safety Officer, local authority)

Others feel that the current courses provided by the RSGB Academy, which tend to be two days long, are too short and could lead to overconfidence (which was identified as a potential problem in the survey analysis). Others felt that the training highlighted to them how difficult behaviour change is, and that whilst it gave them an understanding of the topic, it demonstrated to them that they should not be involved in the process themselves.

"And I think the training that is offered to that level of staff is not sufficient to actually do that role. I've been with colleagues who have been on the behaviour change course, and the information that is put across on there... people are coming away from that course feeling like they know and understand behaviour change and can go away and do it. And I think that's really dangerous." (Road Safety Manager, local authority)

"You're right, my outcome of the behaviour change course was that, I think behaviour change evaluation is a nightmare, give me something that is already evaluated, that has been proven to change behaviour and I'll understand that change in behaviour. I understand the words and terminology, but I wouldn't know how to design." (road safety, FRS)

Lack of funding

As with the survey responses, funding is seen as a big weakness for practitioners.

“So that’s one of the big weaknesses. Funding is always going to be a problem because we don’t have the opportunity.” (Evaluation Manager, road safety partnership)

*“Funding. We need to get some; I don’t know how we’ll get that but we need to somehow fund... what does my head in is DfT has its road thing, which is obviously a huge amount... and it’s all capital spend and... I understand the logic for it, but they’re basically assessing the roads on risk... It isn’t roads that crash, it’s people... the only funding that is available for local authorities is the safer roads.”
(Road Safety Officer, local authority)*

4.2.3 Opportunities

Focus group participants were asked to identify the wider opportunities available to the sector in educational behaviour change design, looking beyond front-line practitioners. The groups identified opportunities that have arisen related to a lack of funding (and working smarter as a result), collaboration, and greater levels of commissioning academics to assist practitioners in their work.

Funding

With funding constraints come opportunities. Restrictions on funding motivate practitioners to focus on what they design and deliver, and work in a more collaborative way. It can reduce duplication, especially if funding is tied to specific approaches.

“The lack of funding for authorities has led us to being a lot more collaborative than we ever have been before.” (Evaluation Manager, road safety partnership)

*“I think one of the biggest factors is funding, and if you can tie the funding into specific approaches, those [that] are focused, funnily enough will be the ones that will get delivered... (to prevent reinventing the wheel).”
(Road Safety Manager, local authority)*

Collaboration

Partnership working is a strong opportunity; however, there is still a need to strengthen collaboration and encourage greater partnership working, especially cross-border.

“It could be a lot stronger in terms of how much we could collaborate a lot more. We could be a lot less parochial.” (Evaluation Manager, road safety partnership)

“Yeah, London we do lots of partnership work. With other boroughs, Transport for London, emergency services. But yet a lot of the work is sort of cross-borough because we geographically are quite small areas, and issues cover/cross many boundaries. We often have to work in partnership, and I think the benefits can pool our resources.” (Road Safety Officer, local authority)

Interestingly, after discussing the differences in professional identity between engineers and road safety officers, one group discussed how the different aspects of road safety delivery should work together as one discipline.

“Definitely a weakness in terms of separating engineering and education, enforcement and others.” (Road Safety Manager, local authority)

*“But I think engineering **is** behaviour change. If you’re changing the layout of a road, you’re changing it for a purpose, so someone is going to use it differently, and I don’t think we blur those lines enough.” (Road Safety Manager, local authority)*

Commissioning academics

Following the discussion on scarcity of qualifications, and on opportunities to collaborate with others, the idea of more frequent commissioning of academics to support road safety practitioners was mentioned. This provides opportunities for academics, too, with there being a need to demonstrate impact from research, creating a reciprocal relationship.

“I think we need to use them more, and actually commission them more: they’re the experts. We shouldn’t be experts in behaviour change, and we are not here to be psychologists or anything like that. Just know that we just need to be educated enough to be able to apply it. So actually, I think there needs to be more reliance on academics, experts and get them to go off and do the studies to actually help inform our work.” (Road Safety Officer, local authority)

"I think there's massive opportunities in terms of academic interest and impact. Academics are being really challenged in whether their research is actually having an impact, and so there's great opportunities there in terms of linking with the researchers as they're being pushed to link with you. So, I think there's lots of opportunities there." (Campaigns, national government)

4.2.4 Threats

There were a number of threats identified which were associated with those who work away from front-line practice but who influence road safety. Some threats were related to politics and issues of localism and short-termism. Funding differences, evaluation and training were also raised as threats from other players in road safety.

Short-termism

One external threat that was identified was the pressure for immediate results, and how this is at odds with the recommended practices of spending time analysing a problem, identifying an appropriate solution to it, then designing and testing that solution before widespread roll-out and larger evaluation – all of which takes time.

"I think one of the outstanding weaknesses is short terms of senior leaders or political people that want a quick win from everything." (road safety, national highways authority)

Training

Training was also discussed as a threat, with front-line practitioners needing training to understand the work of others. In this context, it was about the ability to translate and use the academic literature, which could, in the absence of good training, be misinterpreted, misused or ignored.

"But if you don't fully understand the aspects of it and you've not been afforded the opportunity or training or the exposure towards the different elements of it, how does the academic literature... how does that feed into it?" (road safety, national highways authority)

"I think the complexities are something to get your head around it, and it is really quite a complex world... That's when you've lost all the practitioners in the room, because they don't fully understand the model, because they haven't been trained and they are probably not working at the same academic level." (Road Safety Manager, local authority)

Localism

Political localism can be a threat to good practice. It can undo the good practices of being evidence-led through being directed by politicians, by altering the focus of road safety behaviour change or causing it to be delivered in a different place, or to different target groups, from that which was originally planned.

“On the politician side at a local level, I always find that they can be a threat to quite good road safety messages, because they’ve always got a specific ideal around what they want and what area they want to work in, and it’s always about localism.”
(Road Safety Manager, local authority)

Evaluation

Away from front-line practitioners, evaluation is important for the whole sector to understand duplication, economies of scale and what is effective. This is seen as a threat because of the resources being put into multiple different interventions without knowing what works.

“I think a part of the issue is that interventions that are out there at the minute... there’s very few that are well evaluated. How much money and time and resource and effort is going into lots of people doing lots of things all slightly differently, or without actually even knowing if it works?” (road safety, national highways authority)

Funding differences across areas

Different funding levels across the country are seen as a threat to consistent delivery of road safety behaviour change education.

“We’ve got some authorities that have got a lot of money, and we’ve got some authorities that have got no money at all and are not doing anything proactive. And it’d be interesting to compare, but are those authorities that have got no money – when will that show and how will it show? Yeah, because we were able to evidence it on the motorcycle stuff with [a local authority] when they lost their DfT funding and they were doing a huge project and motorcycling [casualties] went up massively, and you could kind of directly correlate it.” (road safety, national highways authority)

“There are 33 local authorities in London... some are financially well off; some are financially poorly off.” (Road Safety Officer, local authority)

4.2.5 In an ideal world

After undertaking the SWOT analysis, focus group participants were asked to describe what educational behaviour change design in road safety would 'look like' in their ideal world. Some of the themes discussed in more detail relating to the ideal worlds of participants had already been raised in the surveys: there were calls for guidance and leadership; and the identification of behaviour change models recommended for use in the sector.

The groups also put forward practical solutions addressing some of the challenges identified in the surveys. It was suggested that designers and deliverers might not need to be, or perhaps should not be, the same practitioners, and that separating these roles out would avoid an individual having to perform too many roles, and consequently being a specialist in too few. There were calls for clarity at conferences, where mixed messages are often delivered by speakers, leading to more confusion amongst practitioners. Speakers are seen to disagree sharply with one another, making it difficult for attendees to know which approach is the correct one to use. One way of mitigating this would be through a mentoring scheme, whereby practical support and advice is offered to practitioners by experts. There was also a recognition that there are too many similar interventions already available, and that there is a need to stop designing new ones and instead take stock of the effectiveness of what is already being delivered. One solution which would mitigate problems related to skills, knowledge and confidence would be the central design of licensed road safety educational products, to then be delivered consistently across the country.

Guidance and leadership

There were two ways in which national guidance was discussed in an ideal world. The first was about the need for leadership and strategic direction, especially with the loss of road safety targets (which were abolished in 2010 by the Coalition Government).

"I think at the same time as those targets disappeared, we moved to the national framework for road safety, which is much looser. It wasn't as focused."

(Road Safety Manager, local authority)

"If, when you look at one of the key impacts that people talk about that DfT did have was when the road safety targets were removed, and I think that had quite a significant impact down at that lower level in terms of some authorities."

(road safety, national highways authority)

One way in which this perceived leadership gap has been filled is by Highways England.

"I think part of the gap was – in terms of support for local authorities – was filled by Highways England. Which is surprising really, because traditionally Highways Agency didn't do a great deal for us. And I think that that's been really quite useful. I don't know how sustainable it is long-term, but there has been money and support."
(Road Safety Manager, local authority)

The second element of leadership was the call for national guidance, related to the need for endorsed behaviour change models and the provision of licensed products. National guidance would create consistency, reduce duplication, and increase potential effectiveness.

"I think the first stage is national guidance, as there is no national guidance. It's a free-for-all." (Road Safety Manager, local authority)

Fewer behaviour change models

One of the challenges highlighted in the survey was knowing how to identify an appropriate behaviour change model to use. In the focus group discussions, different groups suggested that, in an ideal world, there would be a limited number of recognised behaviour change models, and clear examples of how to apply them.

"I remember going to an event in Coventry, where we actually had the chap who had written the original behavioural change model handbook, and he spoke about these 83 models, but that was daunting. Robert West, I mean, wow, that was really impressive. That was Moses presenting the tablets. But it's really quite daunting for a practitioner in that field. We didn't need to know many of them. We just needed to have the two or three that we needed to work with. And Fiona has done a good job with that. And I think that's what we need to do. And it needs a model, and it needs two or three good worked examples – you know, case studies."
(Road Safety Manager, local authority)

"Can't [we] just have the one model rather than the ten models?" (Road Safety Manager, local authority)

"I think the industry needs to come up with the kind of models that we feel are appropriate to the industry. Then when you go on your behaviour change course with RSGB, it follows the national guidance and it's going... these are the models that are appropriate." (Road Safety Manager, local authority)

Designers verses deliverers

Perhaps the need to condense behaviour change theories into fewer models is not actually needed in an ideal world, and instead there would be clearer distinctions between the roles of designers and deliverers. It was identified as a weakness for front-line practitioners that their roles are too diverse, and that perhaps there is a need for more specialists.

"There is that expectation that one person, one road safety officer can do the whole process, rather than actually putting the investment into the design side of it and the evaluation side of it, and that will probably give you a more well-rounded product." (road safety, national highways authority)

"I think the frustrating thing for me is that we're still a profession of butcher, baker, candlestick maker." (Road Safety Officer, local authority)

"Good deliverers aren't necessarily good designers, and vice versa." (Road Safety Manager, local authority)

Clarity at conferences

Confusion amongst practitioners has been highlighted elsewhere in the focus groups and in the survey. It was felt that there could be a greater level of clarity at conferences, by making sure that organisers ensure that clear, consistent messages are presented.

"So even with the conferences – I mean, road safety people love a conference, but actually let's have who's overseeing and who's checking what people are saying at these conferences, because you go back to your local authority [and think] well what does any of that mean for me?" (road safety, national highways authority)

Mentoring

Another way of ensuring consistency of message would be through a 'critical friend' scheme. This could be a mechanism for bridging the gap between academia and practice, and starting to help practitioners collaborate with experts.

"So, the kind of the critical friend's element I think to it, that's slightly independent. Can go and not challenge people, but just kind of nicely question – and people have been receptive to that." (road safety, national highways authority)

“Doing some kind of mentoring or something.” (Road Safety Officer, local authority)

“I think we should look at those regional structures. And it’s probably a small team, and just moving from region to region over a relatively short period of time, and trying to inject something into this process. Saying, look, this is the model that we’re confident with. Here are case studies against which you can actually modify what you’re doing locally.” (Road Safety Manager, local authority)

Stop reinventing the wheel

Another theme that emerged from all three focus groups was that practitioners are often reinventing the wheel: taking something that was done elsewhere, changing it slightly, and then putting their own logos on it. A practical solution would be to undertake reviews of all road safety behaviour change education interventions, understanding what is effective and worth retaining, and stopping everything else.

“I don’t think anything we do as a profession now should compete and go design something else. We’ve just done motorcycling, 39 in the East of England... we’ve got interventions coming out of our ears in the industry. We don’t need anything new. We need to know out of what we’ve got, is there anything worth keeping?” (Road Safety Manager, local authority)

Licensed products

However, an alternative approach would be to stop expecting practitioners to need to understand behaviour change theories and design interventions themselves. Conference agenda could include presentations about how to deliver the recommended interventions, rather than attempting to upskill practitioners on what they should be designing themselves. This would limit the confusion felt by some, and reduce the perceived need for a limited number of approved behaviour change models. The way to do this would be through the provision of centrally designed and evaluated licensed products.

“I think that highlights the importance of doing things on a much bigger national scale, where actually locally... where you are picking up something that has had external evaluation.” (road safety, FRS)

“In effect what you’d need to take out of it is to have a resource – or resources – just as with the driver diversion courses. That has been honed and honed over a decade or more to get the measures, the message across.” (Road Safety Manager, local authority)

*“But in our profession with Driver2020, the DfT [will] give us something nationally, that is evaluated over three years – it’s proven to work, does change behaviour.”
(road safety, FRS)*

“An intervention level around what people should be doing or how they should be doing it. But having that overarching as a country, this is what we believe, and this is the direction that we think we should be going in.” (road safety, national highways authority)

It was felt that the design of licensed products would need to arise from a collaboration of academics, practitioners and intermediaries, to ensure that it is evidence-led and practical to deliver.

*“The intermediate layer needs to liaise, don’t they, on operational level? This intermediate layer, then go to the academic layer and find out what is there and that they design the product that meets the needs of us at the operational level, to sort of bring in that academic work down to the operational level, but making sure that academic work is being done based on what is needed. It’s linking the two, isn’t it?”
(Road Safety Manager, local authority)*

This co-design approach would give practitioners ‘ownership’ of the interventions, which is something that is seen as important. For some, ownership of the schemes they have designed is one of the barriers to evaluation, because there is a reluctance to have their work judged by others. It could be that co-design would reduce the sensitivities associated with offering up their interventions for assessment.

Additionally, interventions need to be flexible enough to be tailored to local conditions without compromising the essential elements which have been designed and evaluated by the experts.

“In the 1960s when the marketing people came up with a solution for how to make the perfect cake, you basically just added water to the powder and put it in the oven, and you had the perfect cake – and the housewives of the time didn’t use it because they felt they were deskilled. What they had to do was to redesign it and take three or four elements out of it. So, you actually then assembled it and you thought you’d made your own cake. I think if it’s too prescriptive and you can’t have the local elements, it loses a bit.” (Road Safety Manager, local authority)
*“From my point of view, one intervention isn’t going to fix everything. It’s great having different things, but there’s all these different styles of interventions. All I need to know is which one has been evaluated, to make a difference to that age group.”
(Road Safety Officer, local authority)*

5. Conclusions from the Survey and Focus Groups



The survey produced a useful insight into how educational behaviour change interventions in road safety are currently being designed and delivered. There have been some clear successes in changing the way in which practitioners evaluate their interventions, and how they incorporate behaviour change into their design processes. Other successes include partnership working and the use of innovative approaches. There were still challenges for many practitioners, however. These included uncertainty as to how to incorporate behaviour change and evaluation into their practices, as well as how to convince others to make those changes themselves. There were practical problems related to funding, resources and time, and these need to be overcome.

For many of the survey respondents, the resources provided (especially Fylan (2017)) have been useful in helping them to change their approaches, and the RSGB Academy's courses are also helpful in this regard. However, not all respondents accessed these resources and courses, and it was clear that

there was a wide range of different types of practitioners involved in design and delivery of educational behaviour change, displaying differing levels of knowledge and confidence in using behaviour change theories and evaluating interventions. The small sample sizes meant that the segmentation of the respondents was merely an indication of what the different types of practitioner might look like, but the survey results could nevertheless be used in further work aimed at understanding differing practitioner wants and needs. The survey seemed to suggest that a 'one-size-fits-all' approach would not be appropriate when providing support and resources.

The focus groups provided an opportunity to explore these themes in greater detail. Participants identified a number of strengths and weaknesses found in front-line practitioners, and threats and opportunities in relation to the wider behaviour change sector.

Many of these themes echoed those which emerged from the surveys, and provided context to the strengths and weaknesses. Limited qualifications can lead to a lack of professional identity in a diverse sector. In the survey, it was found that not all respondents were evaluating their interventions, a finding that was explained in the focus groups, with participants suggesting that it can feel daunting to have one's work judged; this in turn means that only positive evaluation results are published. There was also an acknowledgement that good-quality evaluations can be expensive, and that this expense can lead to compromises in approach.

Some of these strengths and weaknesses could be turned into opportunities via the wider community of road safety professionals. Reduced funding amounts (up to a point) can in actual fact encourage practitioners to collaborate, and to focus their work more effectively. There are also opportunities for collaborating with academics through a mutually beneficial arrangement to improve skills and knowledge about the use of behaviour change theory in the design and evaluation of interventions.

There are, however, external threats, which are often political in nature. Short-termism, localism and disparity in funding across areas were all seen as challenges to be overcome.

Suggestions were made about how to move forward. One route is an approach where, through national guidance and leadership, practitioners adopt standard behaviour change models in the design of road safety interventions. There would be clearer roles, through the acknowledgement that designers and deliverers do not necessarily have to be the same people. There should perhaps be an acknowledgement that there is a difference between academic and practitioner conferences. Speakers at academic conferences are encouraged to challenge and disagree with one another, to inspire research ideas. Practitioners, however, are looking to academics for support in translating evidence into best practice and advising them on how best to implement that best practice. Practitioner conferences should provide clear guidance on how to use the latest evidence in day-to-day work, with academics thinking about how their presentations impact on the design and delivery of interventions. A mentoring system could be devised to support this. There would be calls to stop designing new interventions and to instead take stock of what is currently being delivered, concentrating on promoting the proven and effective schemes.

An alternative approach would be the creation of licensed products. As with schemes delivered to drivers as an alternative to prosecution, these could involve the production of agreed materials, resources and syllabuses that have been created through an evidence-led approach and evaluated before implementation. There would be a collaborative process, whereby academics and practitioners worked together to ensure that the correct approaches were adopted, whilst also securing ownership at the delivery level. There would need to be the flexibility to tailor interventions to local needs without compromising the ingredients which make the intervention effective.

6. Identifying Best Practice



This chapter reviews some best-practice examples identified through the surveys, focus groups or searching more widely, focusing on the process of the design and evaluation of interventions.

6.1 Reviewing intervention design and evaluation reports

Through the data collection process, respondents were encouraged to share their intervention design and evaluation materials to help with the identification of best practice. Practitioners were asked about their approaches in more detail.

Three organisations are highlighted here, which have all adopted new approaches to road safety behaviour change in the last few years, incorporating some of the aspects identified as desirable in an ideal world.

6.1.1 Kent County Council

Kent County Council have undertaken a review of all of their educational behaviour change interventions in the last couple of years, using Fylan (2017) as a starting point. The Road Safety team uses a 'Tone of Voice' document to ensure that campaigns and broader education work is relevant, consistent, engaging and spoken in a language that resonates with target audiences.

In 2017, Kent County Council commissioned an academic review of the Tone of Voice document to ensure that their approaches were appropriate.

Campaign development processes include the use of the Tone of Voice document and resources such as Fylan (2017) in the design. The most appropriate behaviour change model is identified for each intervention, as is the mixture of BCTs used. The team also use previous campaigns, pre-research and data analysis, advice from marketing experts, and focus group discussions in channel selection and dissemination. All interventions are evaluated.

Existing campaigns were reviewed, and revised accordingly, as part of adopting a more evidence-led approach.

6.1.2 Devon County Council

Devon County Council have also revised interventions in the light of the Fylan (2017) report. One young driver intervention has been reviewed using the stages outlined in the report to define the unwanted behaviours, the target audience, and the aims and objectives of the intervention. It uses the Fylan (2017) model to explain the different influences on behaviour, and how these could be addressed in the intervention. The BCTs used in the evidence have been coded so that it is clear what the active ingredients of the intervention are.

Devon County Council has worked with Plymouth University on the review of this intervention, and on its evaluation to determine effectiveness.

The Devon and Kent approaches show how best-practice guidance, such as Fylan (2017), can be used to review and update current interventions.

6.1.3 Highways England

Highways England was mentioned by some of the focus group participants as providing leadership in behaviour change. The organisation has created a Social Research and Behaviour Change Centre of Excellence to provide support and increase behaviour change skills within Highways England, and, where appropriate, to influence behaviour change activities outside of the organisation.

The Centre of Excellence is building on best practice in social research and behaviour change, both internally and externally, to better understand the behaviour of road users, and is developing tools, guides and training to upskill colleagues and build capability across the organisation. It is encouraging a people-centred, evidence-based approach to developing interventions and understanding their impacts, sifting out what works from what does not.

Coincidentally, Highways England is adopting many of the measures suggested in the focus groups as to what practitioners would like to see in an ideal world. Through the creation of a central team, guidance is developed and there is a drive for consistency of approach. Experts and academics are commissioned to provide advice and create the support tools, which are then tested with end users. The Centre of Excellence engages with professionals to provide technical advice and training, so that they can understand the theories and evidence that lie behind an approach, while collaborating with them on the development of interventions, to ensure ownership of them. Whilst it is early days for Highways England, this looks like being an approach that could be emulated more widely across the sector, through a central organisation performing a role similar to that of the Social Research and Behaviour Change Centre of Excellence team.

7. Reviewing the Objectives and Recommendations



This chapter summarises the findings from this study against its objectives, and makes recommendations for the future.

7.1 Reviewing the objectives

There were six main study objectives set out by the RAC Foundation, addressed as follows.

7.1.1 To identify the effect that the Sullman/Fylan work has had on the design and delivery of road safety interventions in the UK over the past two years

This report has found that the Fylan (2017) report has been well received, and has been adopted as a guide by many practitioners. In two of the best-practice examples, existing interventions have been reviewed against the Fylan guide, which is also used by these organisations for designing new interventions. The

resource was reported to be relevant and easy to use, providing a structure and a useful guide for knowing which models and theories should be used. It appears to be a useful reference guide, adopted by many – this was reiterated in the focus groups.

In comparison, the Sullman (2017) report has been accessed by fewer practitioners who completed the survey, and elicited mixed feelings (albeit from a small sample) about how relevant it was to their work. Some found it easy to use, whilst others did not find it practical. This report is a literature review of BCTs used in road safety and other health behaviours, identifying those which are most likely to improve the success of interventions. It is presented as an evidence report, rather than a practical guide, which seems to be reflected in the way it is perceived by respondents. The few respondents who provided comments about how Sullman (2017) had influenced their work stated that it provided an evidence base as to which BCTs are more appropriate for particular age groups.

7.1.2 To report on what proportion of the road safety behaviour change interventions currently being delivered by local practitioners in the UK have been developed with reference to behaviour change theory and/or the Sullman/Fylan work

Survey respondents were asked to estimate the percentage of their interventions which have been designed using specific behaviour change theories, with responses ranging from 0% to 100%, having an average of 32%. Those who indicated that at least one of their interventions had been designed using specific behaviour change theories were asked, unprompted, to list which theories they had used. The most commonly used recognised behaviour change theories were the Theory of Planned Behaviour and the Transtheoretical Model of Behaviour Change (PCPAM⁴), which each accounted for a quarter of the 48 theory usage instances listed.

There were also several respondents whose response did not include a recognised behaviour change theory, even though they stated that they used behaviour change theories in the design of their interventions. This might indicate that some respondents have a belief that they are using behaviour change theories, whereas their knowledge of the theories is actually limited.

The segmentation of the survey respondents showed that some practitioners are not using behaviour change theories at all in their work, whilst others are fully integrating theories in their design. Whilst the samples for the segmentations are small, the indications are that some do not need to use theories (because they are not involved in the design process), some may lack the knowledge of how to use them, and others may not have the confidence to do so.

⁴ PCPAM is so named because of the stages of change: pre-contemplation, contemplation, preparation, action and maintenance (to which termination is often added as a sixth).

7.1.3 To summarise available evaluations of the effect of interventions (based on behaviour change technique evidence, or otherwise) on road user behaviours

All respondents were also asked to indicate what estimated percentage of their interventions they evaluate; the responses ranged from 0% to 100%, with the average value being 45%. On a sliding scale, those who evaluate any of their schemes (37 respondents) were asked to indicate the proportions which are done internally versus externally. Overall, respondents indicated that an average of 78% of evaluations were conducted internally.

As with the incorporation of behaviour change techniques, the segmentation indicated that there are differences in the types of practitioner who evaluates their interventions. The focus groups revealed that failure to evaluate is a weakness in the UK road safety sector, and suggested that there are a number of perceived barriers to evaluating road safety educational behaviour change interventions. There was a general consensus that practitioners are wary of evaluating their work, because in so doing they are subjecting their ideas to judgement by others. This can lead to a situation where only positive evaluations are published or shared, and in which it is not possible to learn about interventions which do not work so well.

In more than one group, there was a discussion about evaluation standards and how they differ in the road safety sector from those used by colleagues in public health. This can cause tension in terms of the types of evidence required, with road safety practitioners wanting to deliver behaviour change education to large audiences, whilst those in public health want more detailed, longer-term trials.

Lastly, funding is seen as a major challenge, with low budgets limiting the way in which evaluations can be conducted.

7.1.4 To identify the strengths, weakness, opportunities and threats experienced/faced by those seeking to deliver road safety behaviour change interventions

The focus groups explored the strengths and weaknesses of practitioners, alongside the opportunities and threats presented by others who support them. Many of the themes which emerged had been noted in the survey responses.

The identified strengths of practitioners tended to relate to their skills, experience and personalities. They saw strength in the diversity of their backgrounds and in the fact that there is a strong, connected community of practitioners which collaborates well. It was felt that they were well-placed to have a good understanding of the problem by knowing the issues in their area, and discerning which specific roads or communities to target. They felt that practitioners had a passion for their roles in road safety educational behaviour change.

Many of the identified strengths led to discussions about weaknesses from a practitioner point of view. As with the survey responses, participants talked about colleagues' resistance to change, issues to do with evaluation and sharing evaluation results, and a lack of funding. The groups also explored some of the reasons why these might be weaknesses, talking about a lack of professional identity and the need for better qualifications.

Focus group participants were asked to identify the wider opportunities available to the sector in educational behaviour change design, looking beyond front-line practitioners. The groups identified opportunities that have arisen related to a lack of funding (and working smarter as a result), collaboration, and greater levels of commissioning academics to assist practitioners in their work.

There were a number of threats identified which were associated with those who work away from front-line practice but who influence road safety. Some threats were related to politics and issues of localism and short-termism. Funding differences, evaluation and training were also raised as threats from other players in road safety.

7.1.5 To select a number of best-practice examples, to act as case studies for inclusion in the final report

Three best-practice examples were selected for the report, focusing on organisations, rather than specific interventions. These organisations were selected because they can inspire others to adopt an evidence-led, consistent approach to behaviour change design.

Two of the examples are highways authorities, who have used the Fylan (2017) report to review their existing interventions and in the design of new ones. There is a drive to ensure consistency in approach, use research to understand the target problem and the most appropriate solution, collaborate with academics and researchers to advise on the approach, and embed evaluation into all of their work.

Highways England was mentioned in the focus groups as providing leadership in behaviour change. The organisation has created a Social Research and Behaviour Change Centre of Excellence to provide support and increase behaviour change skills within Highways England, and, where appropriate, to influence behaviour change activities outside of the organisation.

Highways England is adopting many of the measures suggested in the focus groups as to what practitioners would like to see in an ideal world. Through the creation of a central team, guidance is developed and there is a drive for consistency of approach. Experts and academics are commissioned to provide advice and create the support tools, which are then tested with end users. The Centre of Excellence engages with professionals to provide technical advice and training so that they can understand the theories and evidence that lie behind an approach, while collaborating with them on the development of interventions, to ensure ownership of them. Whilst it is early days for Highways England, this looks like being an approach that could be emulated more widely across the sector, through a central organisation performing a role similar to that of the Social Research and Behaviour Change Centre of Excellence team.

7.1.6 To provide recommendations as to how the sector might be best supported in the future to deliver road safety behaviour change interventions.

Progress seems to have been made in the last two years in the ways in which road safety behaviour change interventions are designed and delivered. Resources like the Fylan (2017) and Sullman (2017) reports, as well as the RSGB (Road Safety GB) Academy's courses, are upskilling practitioners and providing practical support. There are ways in which this support could be extended.

Firstly, there needs to be an acknowledgement that there are diverse roles in road safety behaviour change in the UK. Not all practitioners are involved in design, and perhaps the roles of designer and deliverer should be formally separated. There are feelings of a lack of professional identity, exacerbated by the limited number of qualifications needed to work in road safety. It is recommended that a review is undertaken of the roles and responsibilities of those who design behaviour change interventions, and how these should differ from those who deliver. The review should examine what entry-level qualifications are required to be appointed a designer or a deliverer. Many evaluations are conducted internally, and it should be acknowledged that evaluators require a different skill set, and that the evaluator would ideally not be a designer or a deliverer, so that independent assessment is encouraged. The review should include a good look at the current RSGB Academy courses to see how these sit alongside other courses, with the ultimate aim being to ensure that designers and deliverers meet minimum qualification requirements. Further research to validate the segments which emerged from the small survey sample would provide greater insight into the needs of the different types of practitioner.

Support mechanisms should be reviewed. One suggestion is for practitioners to adopt standard behaviour change models in the design of road safety interventions, with this being achieved through national guidance and leadership. Clarity could be provided by ensuring that presentations in conferences intended more for practitioners, rather than those aimed at academics, are designed to assist practitioners in the design and delivery of interventions. A mentoring system could be devised to support this, whereby regional workshops are delivered to create consistency and provide local-level assistance in the adoption of best practice. It is proposed that this mentoring system include academics, who would work closely with practitioners in the application of evidence to the design of interventions.

It is recommended that no new interventions are designed and that instead, UK road safety takes stock of what is currently being delivered, concentrating on promoting the proven and effective schemes. One way of doing this would be through licensed products. As with schemes delivered to drivers as an alternative to prosecution, these could involve the production of agreed materials, resources and syllabuses that have been created through an evidence-led approach and evaluated before implementation. There would be a collaborative process, whereby academics and practitioners worked together to ensure that the correct approaches were adopted, whilst also securing ownership at the delivery level. There would need to be the flexibility to tailor interventions to local needs without compromising the ingredients which make the intervention effective.

It is recommended that the Reference Group for this study consider these findings, and collaborate with the sector on the next steps to continue to improve the effectiveness of UK road safety behaviour change interventions.

References

- Christmas, S. (2009). *Nine Big Questions about Behaviour Change*. London: Department for Transport.
- Darnton, A. (2008). *Practical Guide: An overview of behaviour change models and their uses*. Government Social Research Unit. Accessed 15 October 2019 from https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/498064/Behaviour-change_practical_guide_tcm6-9696.pdf
- Dolan, P., Hallsworth, M., Halpern, D., King, D. & Vlaev, I. (2010). *MINDSPACE: Influencing behaviour through public policy*. Institute for Government and Cabinet Office. Accessed 15 October 2019 from https://www.instituteforgovernment.org.uk/sites/default/files/publications/MINDSPACE-Practical-guide-final-Web_1.pdf
- Fylan, F. (2017). *Using Behaviour Change Techniques: Guidance for the road safety community*. RAC Foundation. Accessed 15 October 2019 from https://www.racfoundation.org/wp-content/uploads/2017/11/Using_behaviour_change_techniques_Guidance_for_the_road_safety_community.pdf
- Michie, S., Atkins, L. & West, R. (2014a). *The Behaviour Change Wheel: A guide to designing interventions*. London: Silverback Publishing. Accessed 15 October from <http://www.behaviourchangewheel.com/>
- Michie, S., West, R., Campbell, R., Brown, J. & Gainforth, H. (2014b). *ABC of Behaviour Change Theories*. London: Silverback Publishing.
- Pressley, A., Fernández-Medina, K., Helman, S., McKenna, F.P., Stradling, S. & Husband, P. (2016). *A review of interventions which seek to increase the safety of young and novice drivers*. DfT. Accessed 15 October 2019 from https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/609828/interventions-to-increase-young-and-novice-driver-safety.pdf
- Sullman, M. (2017). *Young Driver Safety: A review of behaviour change techniques for future interventions*. RAC Foundation. Accessed 15 October 2019 from https://www.racfoundation.org/wp-content/uploads/2017/11/Young_driver_safety_a_review_of_behaviour_change_techniques_for_future_interventions_MSullman_March_2017.pdf.pdf
- The Behavioural Insights Team. (2014). *EAST: Four simple ways to apply behavioural insights*. Behavioural Insights Ltd. Accessed 15 October 2019 from https://www.behaviouralinsights.co.uk/wp-content/uploads/2015/07/BIT-Publication-EAST_FA_WEB.pdf



The Royal Automobile Club Foundation for Motoring Ltd is a transport policy and research organisation which explores the economic, mobility, safety and environmental issues relating to roads and their users. The Foundation publishes independent and authoritative research with which it promotes informed debate and advocates policy in the interest of the responsible motorist.

RAC Foundation
89–91 Pall Mall
London
SW1Y 5HS

Tel no: 020 7747 3445
www.racfoundation.org

Registered Charity No. 1002705
November 2019 © Copyright Royal Automobile Club Foundation for Motoring Ltd

Designed and printed by
The Javelin Partnership Ltd
Tel: 0118 907 3494

Produced on paper from a managed
sustainable source which is FSC certified
as containing 50% recycled waste.

Main proofreader:
Beneficial Proofreading Services
Tel: 07979 763116