



accidents don't have to happen

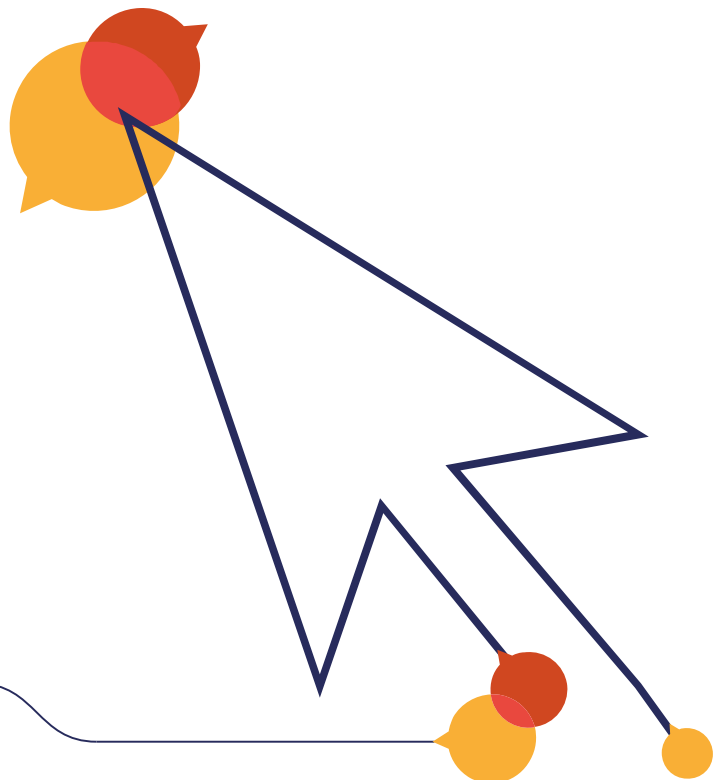
The Importance of Evaluation

A Guide for Senior Managers

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Introduction

Road safety practitioners deliver a number of road safety education, training and/or publicity interventions, including but not limited to road safety education resources, workshops for schools and colleges, post-test driver training, cyclist and pedestrian training, videos, posters and leaflets.

Many of these road safety education interventions will aim to change the behaviour of road users by:

- Developing safer attitudes e.g. against drink-driving
- Improving knowledge and understanding of road safety; and
- Teaching people new skills, such as cycle training or hazard awareness.

It is common to gather and analyse feedback from those who participate in interventions, but it is less common to test whether the intervention that is being delivered leads to changes in participants' knowledge, attitudes and behaviour. This is despite the fact that it has never been more important to demonstrate the value of road safety interventions. The financial climate for road safety, like many other public service functions has been difficult in recent years and is likely to remain so for the foreseeable future. To ensure that organisations continue to invest their limited resources in road safety and education schemes, it is vital that the benefits of these schemes are clearly demonstrated.

Whether a practitioner works for a local authority, the emergency services, for a charity or any other organisation concerned with road safety, if they are putting time, money and effort into conveying road safety messages to any road user, they will want to know whether their efforts are working, as will the people who are funding the road safety intervention.

A recent survey conducted by RoSPA found that practitioners faced barriers to evaluating interventions in terms of time and money and their organisation's willingness to evaluate road safety interventions, and to take on board the recommendations that evaluation projects produced. Therefore, this short guide has been produced for senior managers to highlight the importance of including evaluation in interventions and programmes, to highlight the extra value provided by evaluation and to address barriers to evaluation.



What is evaluation?

Evaluation is a way to test whether road safety interventions are having their intended effect. Evaluation is a cyclical process, meaning that the findings of an evaluation project can feed into future road safety activities. When well thought out, evaluation can be a very useful tool.

Evaluation looks at cause and effect, exploring what changes were caused by an intervention. It also makes judgements on effectiveness and efficiency, helping practitioners to find out whether the intervention achieved the outcomes it was meant to and what the end results of the intervention were. Efficiency judgements also mean that evaluation enables them to see whether there was any wastage of resources and whether the time, money and resources they invested resulted in the best possible outcomes.

There are two main types of evaluation: formative and summative:

- **Formative evaluation** is carried out in the development phase of an intervention with the purpose of making improvements and;
- **Summative evaluation** is carried out after an intervention has been finalised and initial changes have been made.

Both of these types of evaluation can involve evaluating the delivery and effects of an intervention. For further information on the types of evaluation, visit the [Road Safety Evaluation](#) website.



Barriers to evaluation

RoSPA surveyed road safety practitioners and carried out a number of focus groups to find out what the barriers were that prevented effective evaluation. These are summarised below.

Time and resources

In recent years, many road safety teams have seen a decrease in their budgets and some have seen a reduction in the size of their teams. This means that for many road safety teams, time and resources have been focussed on intervention delivery, meaning that evaluation has become less of a priority. Also, in many cases, there is not a separate pot of money designated for the evaluation of the project, making it difficult to justify within the intervention spend.

Alternatively, for other teams, limited resources have driven the need to evaluate road safety interventions. In some cases, funders may require that certain criteria are met and evaluation can be a way of demonstrating this. It can sometimes be possible to save money on intervention delivery through evaluation, as the most expensive delivery method may not be the most effective.

A lack of confidence and experience

In previous RoSPA research, some practitioners cited a lack of confidence and experience with evaluation as a barrier to evaluating their road safety interventions. Practitioners with no experience found it difficult to know where to start, and those who had little experience but had tried to evaluate sometimes found that evaluation did not always go to plan, which could be off-putting. For example, some practitioners had found it difficult to recruit the number of participants required for an evaluation or had found it more difficult than expected to write a survey or topic guide to evaluate their project. The setting of clearly defined aims and objectives can also be problematic for those with little experience of evaluation.

Public perception

For many road safety practitioners, it is their responsibility to deliver road safety interventions in their community and time spent evaluating a project takes time and resources away from delivery, which is not often popular and difficult to justify to community groups who want to see immediate action.

Type of intervention

The type of intervention can also act as a barrier to evaluation. For example, one-off interventions are less likely to be evaluated, as practitioners may feel that the information they get from evaluating the project is not that important.

The size of interventions can act as a barrier to evaluation, as for smaller projects, practitioners may believe that the time needed to evaluate a small intervention could be disproportionate to the time they spend delivering the intervention.



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Larger projects are more likely to be evaluated because more resources are allocated to them, meaning that there is a need to justify resource. However, some larger projects may not be evaluated because practitioners can be nervous that their project will not be reflected positively in the evaluation, leading to funding being cut.



Why evaluate?

Traditionally, road safety interventions have been delivered because they satisfy a number of goals. They are seen as addressing a matter of public concern, they are plausible to those who create and receive them and they are politically uncontroversial. However, without evaluation, it is not clear whether these interventions are effective.

There is often broad and uncritical support of interventions such as driver training because it proceeds on the basis that if it does no good, then at least it does no harm. However, a number of evidence reviews have pointed to the associated increase in collisions for drivers following advanced skill training such as skid control¹. A poorly thought out intervention can cause greater harm, having a negative safety impact.

In the past, a number of interventions have been developed that are not based on formal theory or evidence, but now practitioners must demonstrate the effectiveness of these projects. When interventions are commissioned, more attention is now paid to evaluation. The assumption that an intervention will be effective cannot be supported, so there needs to be some evidence that an intervention delivers what it claims to. There are a number of reasons that evaluation adds value to a road safety intervention.

Economic accountability

Evaluating an intervention means that it is possible to report back to funders on a project's effectiveness and efficiency. The findings of an evaluation can also aid budget-holders in making evidence informed spending decisions and can support bids for future funding. Some funders may also specify that the project must be evaluated in their brief.

Knowledge gain

Evaluation can also be a useful tool for knowledge gain, helping practitioners to understand more about the road safety issue they are aiming to address. It helps them to understand more about the kinds of interventions that can remedy the road safety issue, exploring why their intervention did or did not work. Understanding this and sharing it with other practitioners can mean avoiding replicating unsuccessful interventions.

Learning and development

Finally, evaluation means that practitioners can learn from how the intervention went, identifying what parts of the intervention could be changed to improve its effectiveness and examples of good practice. It also allows them to determine whether their theory of how the intervention would work was accurate.

¹ McKenna, F. (2010) 'Education in Road Safety: Are we getting it right?'

URL: <https://www.racfoundation.org/wp-content/uploads/2017/11/education-in-road-safety-mckenna-080910-report.pdf>

Date Accessed: 08/11/2018.



When should I begin evaluating?

It is a good idea to plan evaluation into the intervention design so that it is an ongoing process. This will give those involved in the project a clearer idea about the aims and objectives that they would like the intervention to achieve and enables them to put procedures in place for collecting their evaluation data, such as the number of schools that will take part in the evaluation. It also allows those involved to plan a timetable for evaluation². **However, evaluation can be conducted before, during or even after an intervention's delivery.**

Evaluating before an intervention's delivery

If a road safety intervention is relatively new and a small scale test is being conducted, practitioners might choose to focus on improving the design and delivery of their intervention. For example, a practitioner might be unsure of some of the practicalities of their intervention so they could conduct a small-scale trial run. This kind of evaluation will help them to decide what improvements they could make before the intervention is rolled out further.

Evaluating during an intervention's delivery

During an intervention, monitoring data can be collected which will tell those involved in the project what is and is not happening. If they are conducting a formative evaluation, they will need to collect data in the early stages of intervention delivery. Formative evaluations tend to focus on processes (was the intervention delivered as it should have been?) but they can also report on short-term outcomes of the intervention.

Evaluating after an intervention's delivery

After an intervention has been delivered, or if it is an ongoing intervention, after it has bedded in, practitioners can conduct a retrospective evaluation of short and/or long term outcomes of the intervention.

A practitioner might choose to focus only on the effectiveness of the programme if they have already done some testing and decided what the road safety intervention looks like or the intervention has been delivered for some time. For example, the practitioner may have tested the practicalities of how they would like to run their educational workshop and they would now like to find out if there are any changes in the attitudes and knowledge of those who attended the workshop.

² Department for Transport (2004) 'Guidelines for Evaluating Road Safety Education Interventions'

URL: <http://www.roadsafetyevaluation.com/docs/dft-guide.pdf>

Date Accessed: 20/11/2018.



The evaluation process

There are 8 basic steps to any evaluation project.

Step 1- Define the aims and objectives of the evaluation

The first step of the evaluation process is defining the aims and objectives of the evaluation. At this stage, it is vital to consider what the reason for the evaluation is and how it can be carried out. For example, a practitioner may decide that they would like to focus solely on measuring the effectiveness of their intervention.

This step is important because evaluation works by exploring whether the initial aims and objectives of the road safety intervention have been achieved.

An **aim** is what and who the intervention will change. For example, *'to reduce the incidence of drink driving amongst 17-25 year olds'*.

An **objective** is the specific outcome that the intervention intends to achieve. Objectives state the effects the intervention is expected to have, for which group, and by when the change should be achieved. For example, *'to increase the knowledge of 17-25 year olds about the legal penalties for drink-driving by 20%, by September 2019.'*

Objectives should be **SMART**, which stands for:

- **Specific** – Practitioners will need to drill down to exactly what they are planning to change. Is this knowledge, attitudes, behaviours?
- **Measurable** – Can progress against the objective be measured? For example, knowledge may be measured by a quiz or drink-drive attitudes by using the drink-drive items on the Driver Attitude Questionnaire³.
- **Agreed** – There may be a number of members of staff delivering the intervention. The intervention may even be run in partnership with other organisations. It is, therefore, important that the objectives are agreed by all those who will be involved in their implementation.
- **Realistic** – Is it feasible that the objective can be achieved? Practitioners will need to think about what

³ ² Parker, Stradling and Manstead (1996)'Modifying beliefs and attitudes to exceeding the speed limit: An intervention study based on the theory of planned behaviour', *Journal of Applied Social Psychology*. 26(1): 1-19.



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they can actually control. For example, they will not be able to demonstrate that any change in drink-drive casualty rates were solely due to the intervention as there are numerous other factors which could contribute to this change: other drink-drive campaigns, more general alcohol related campaigns such as Dry January, an increase or decrease in the number of vehicles on the road and so forth.

- **Time-bound** – Set a time frame of when the objective should be achieved by.

Having a good set of aims and objectives will mean that:

- A road safety **intervention** is much more focused and well planned. It forces practitioners to think about what is important and what they can realistically achieve.
- The **evaluation** is much more focused and well planned. Progress against objectives is what will be measured for the evaluation.

It is equally important to set aims and objectives for road safety interventions that are already being delivered. Although this might seem a bit backwards, it is still important as this will help to identify what to measure in the evaluation, and will help everyone to be clear about the purpose of the intervention.

If some objectives were set at the time the intervention was first set up, check whether they were SMART, and if not adapt them to make them SMART. If formal objectives were not set when the road safety intervention was first delivered then some will need to be created.

Logic models

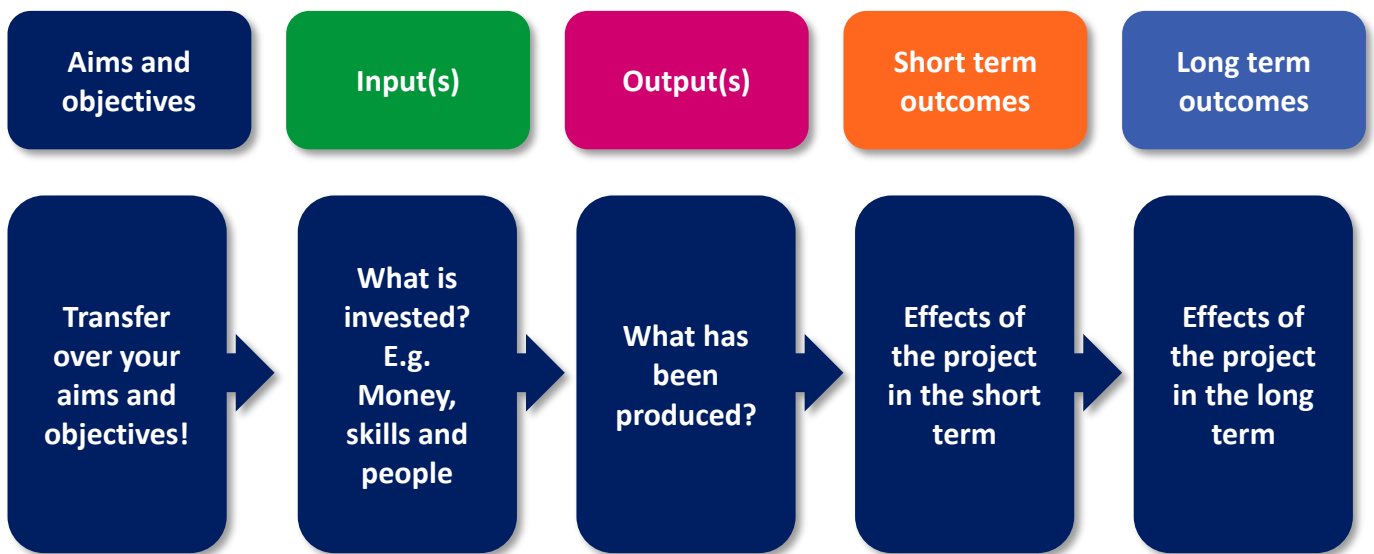
At the aims and objectives stage, it is also a good idea to set up a logic model. This is a project plan that usually fits on to a single piece of paper and is a way of helping others to understand how the intervention will achieve its aims and objectives. Ideally, this should be designed at the beginning of the project, but it can be designed at any stage.

There are several components of a logic model (as illustrated in the following image):

- **Aims and objectives** will need to be transferred over.
- The logic model should also include **inputs**, which are the details of any resources that go into the project and;
- **Outputs**, which are what happens as the result of the inputs e.g. the creation of a road safety workshop.
- The **short term outcomes** should also be included, which are immediate changes that outputs are expected to achieve, and
- **Long term outcomes**, which are the changes over time that outputs are expected to achieve. For example, it might be expected that drivers who attend a vehicle check workshop experience an increase in ability to carry out vehicle checks, which is sustained after 6 months.



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There are two final elements of a logic model that can be added:

- **External factors** should be added. These are factors that are outside of the project team's control that could still affect the success of their intervention. These factors could include the maturation of the target audience, national Think! advertising campaigns, economic conditions, the price of fuel, weather conditions and initiatives by other local bodies. By identifying these external factors, the team will get a better idea of how much impact their intervention is actually having.
- **Finally, intervention assumptions**, which are beliefs about how the intervention will cause the intended outcomes. For example, believing that those who attend a road safety workshop will engage with the content.

A template for a logic model can be downloaded by clicking [here](#).

Step 2- Define the target population

The target population is who the evaluation data is collected from. For example, data could be collected from those who are exposed to the intervention or it can be collected from those who deliver the intervention.

Step 3- Decide on an evaluation design

There are many different kinds of evaluation, but one way that evaluation can be categorised is based on when the evaluation takes place:

- **Formative evaluation** is carried out in the development phase of an intervention with the purpose of making improvements and;



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- **Summative evaluation** is carried out after an intervention has been finalised and initial changes have been made.

In both formative and summative types, evaluation can be used to compare process and outcome data:

- **Process data** measures the delivery of the intervention e.g. *was the workshop delivered as it was intended to be?*
- **Outcome data** considers the effects of the intervention e.g. *are more people wearing a seatbelt after attending a workshop about seatbelt use?*

For more information on evaluation designs, visit the [help and guidance](#) section of the Road Safety Evaluation website.

Step 4- Select and design data collection methods

The next step is to think about whether to collect quantitative or qualitative data, or both, and what method will be used to collect the data, such as a survey or interview.

Qualitative methods collect non-numerical data. These methods can help to identify the what, where, when, how and why behind the numbers. Some qualitative methods include in-depth interviews, focus groups and observation. In contrast, **quantitative methods** collect numerical data that can be used for statistical analysis. An example of a quantitative method would be a questionnaire.

Step 5- Collect the data

There are several different kinds of data that can be collected throughout the evaluation.

Before the intervention...

When planning the intervention, it is recommended that a needs assessment evaluation is carried out to help decide what kind of intervention should be delivered.

A needs assessment is a process used by practitioners to determine priorities and accurately allocate resources. It involves using data and evidence such as local casualty data to identify whether an intervention is required to remedy a particular road safety issue. It can also be used to identify intervention aims and objectives and gain an idea of the resources required to design and deliver the intervention.

It is also recommended that baseline data is collected at this stage. Baseline data is collected from the individuals who are going to be exposed to the intervention before the intervention is delivered. Collecting this data allows practitioners to gain an understanding of what the target audience already know, how they feel and behave in relation to the road safety issue that the intervention intends to address. This data can then be used to measure any changes in the target audience's knowledge, attitudes or behaviour. For example, baseline data could be collected when delivering a road safety workshop by asking those who will attend the workshop to complete a questionnaire to understand how much knowledge they already have of the road safety issues that will be



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discussed in the workshop. The same questionnaire could then be completed after the workshop, to measure any changes in the attendee's knowledge.

During the intervention...

During the delivery of an intervention, monitoring data can be collected, which can identify what is and is not happening, to ensure that the intervention is going to plan. An example of monitoring data could be measuring how many vehicle check training sessions have been delivered, which could highlight a lack of training sessions in a particular area in the region.

After the intervention...

After the intervention has been delivered, a retrospective evaluation of short and long term outcomes can be conducted.

Step 6- Analyse the data

The next step is to analyse the data that has been collected. This data can help to identify whether the intervention has worked, how it can be improved, if there are any better alternatives, or whether it has any unintended consequences or benefits.

Evaluation can also measure:

- **Cause and effect**, identifying what changes may have been caused by the intervention
- Whether the intervention was **effective**, by achieving the outcomes and that it was meant to and;
- Whether a project is **efficient** and cost effective.

Step 7- Write up and publish your results

Following the analysis of the data, the results of the evaluation should be written up and published, even if they are negative, in an evaluation report. Reports are particularly useful because they contribute to the evidence base of future interventions and can help practitioners to identify best practice interventions and avoid replicating unsuccessful ones.

The [E-valu-it toolkit](#) is a free resource that can be used to help practitioners to evaluate their road safety intervention and write an evaluation report. The reports can then be published, if the practitioner chooses, to the [Road Safety Evaluation website](#).

Step 8- Make any identified improvements

The final step is to make any identified improvements, based on the recommendations included in the evaluation report.



Evaluation support

RoSPA provide free expert support and guidance through the Road Safety Evaluation website, www.roadsafetyevaluation.com. The website hosts lots of information on how to carry out an evaluation project, including [webcasts](#) on each stage of the evaluation process and an [online question bank](#) that can be used to help practitioners to write questions for their evaluation.

The website also hosts the [E-valu-it toolkit](#). The toolkit is a set of questions that help to guide the user through the evaluation process and choose the appropriate evaluation design. The toolkit then generates a report template that can be used to help write a final evaluation report. This can then be published on the Road Safety Evaluation website so that best practice can be established and shared. The team behind the website are also on call to help with any evaluation queries.

Reports produced using the E-valu-it toolkit on the Road Safety Evaluation website can be published privately (meaning that you can keep them privately to the stakeholders you choose) or publicly. Public reports appear on the website for anyone to read. The report can also be published privately at first and publicly later, for example, when they have been approved by the funder.

RoSPA also offer free evaluation skills training to groups of five or more, as long as a room is provided for the delegates. These training sessions can last for half a day or a full day and the topics covered can be tailored to the delegates attending the training.

If you would like to enquire about RoSPA's evaluation services, the road safety evaluation website or arrange a free evaluation training session, please contact Rebecca Needham at rneedham@rospa.com or call 0121 248 2149.





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