Case Study: A Proposed Protocol to Evaluate Energy Savings Communications Campaigns

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ABSTRACT

The French Environment and Energy Management Agency (ADEME) has drawn up a methodological protocol to evaluate energy savings communications campaigns in order to improve campaign design.

When evaluating communications campaigns, it is difficult to measure behaviour change, even though that is the major purpose of the campaigns. Additionally, it is essential that campaigners understand the effect of the campaign and the mechanism for that effect so they can improve a communications campaign. The paper describes the evaluation protocol and how it addresses these two challenges. This paper describes our proposed approach.

ADEME will conduct a pre-test survey to measure the baseline attitudes and behaviour of our target population. A campaign, as described in this paper will be launched and a post-test immediately, after the campaign, will be conducted to see the changes in attitudes and behaviour. ADEME will also identify a counterfactual group who hadn't seen the campaign, which will enable us to observe any changes in attitudes and behaviour from the treatment group to determine the impact of the campaign. We will conduct a third survey six to twelve months after the campaign to identify a trajectory for the changes in attitudes and behaviour. To determine what aspects of the campaign influenced behaviour, we will conduct in-depth qualitative interviews to see which parts of the original logic chain were successful and which ones failed.

Introduction

The French Environment and Energy Management Agency (ADEME) implements large-scale communications campaigns to raise awareness and provide information to consumers and professionals (enterprises and local authorities), with the goal of stimulating behaviour change. ADEME wanted to improve its evaluation practices by developing a methodological protocol to evaluate energy savings communications campaigns.

Since 2008, ADEME’s communications budget has sharply increased to support the government’s environmental policy. This has raised the importance of properly evaluating energy savings communications campaigns.

ADEME has substantial expertise in the evaluation field. ADEME’s evaluation committee (the board of directors) chooses the strategic evaluations to be conducted each year. This committee has identified energy savings communications campaigns as a strategic evaluation for the agency. Communications campaigns have never before been evaluated using this approach (as a public policy), so it was necessary to develop a protocol. The aim of the protocol was to evaluate communications campaigns in order to understand the impact of these campaigns on behaviour and to improve the design of future campaigns.

ADEME intended to test the protocol this year, but the evaluation has not been launched yet. This paper aims to present the protocol.

Objectives of the protocol

The protocol suggests methods to:

- Measure behaviour change resulting from communications campaigns
- Understand the effect of the campaign and the mechanism by which that effect was achieved to inform improvements to a communications campaign.

The method must recognize the realities of the evaluation practices existing in ADEME. As Mayne (1999) says, evaluation is useless without utilization of its conclusions by designers and managers.

Definition of the scope of the protocol

ADEME defines a communications campaign as a measure of public policy aiming to encourage consumers to adopt greener behaviour. Tax shelters, training, quality-labels, restrictive regulation, etc. are other measures that can be used to reach the same objective.

An evaluation must encompass all elements of a particular policy, so the protocol initially considered communications campaigns developed by ADEME that are not accompanied by other public measures (example: communication campaign on “minor” behaviours for energy savings).

Communications campaigns encompass various actions:

- Events
- Conferences (Targeting professionals)
- Information: folders, Internet, etc.
- Editorial: books for professionals (guidebook)
- Partnership to relay communication campaign (with enterprises and local authorities)
- Media campaigns including press relation, TV, radio and outdoor advertising
- Environmental education in school: training for teachers, design of tools for teachers, etc.

The protocol aimed to encompass all these actions. However, the analysis of scientific literature highlighted that the greatest challenge in evaluating communication campaigns lies mainly in evaluating media campaigns (cf. Figure 1 below). Moreover, conferences, editorial, etc. can be evaluated more easily because the beneficiaries are known or could be known, whereas in a media campaign the first data to find is the size of the group of beneficiaries. Then, in a national media campaign, contrary to other communication actions, a counterfactual (a group of people not exposed to the campaign) is difficult to construct. Thus, the protocol mainly focused on the media campaign.

For convenience, we will use “communication campaign” in the paper but it refers mainly to media campaign.

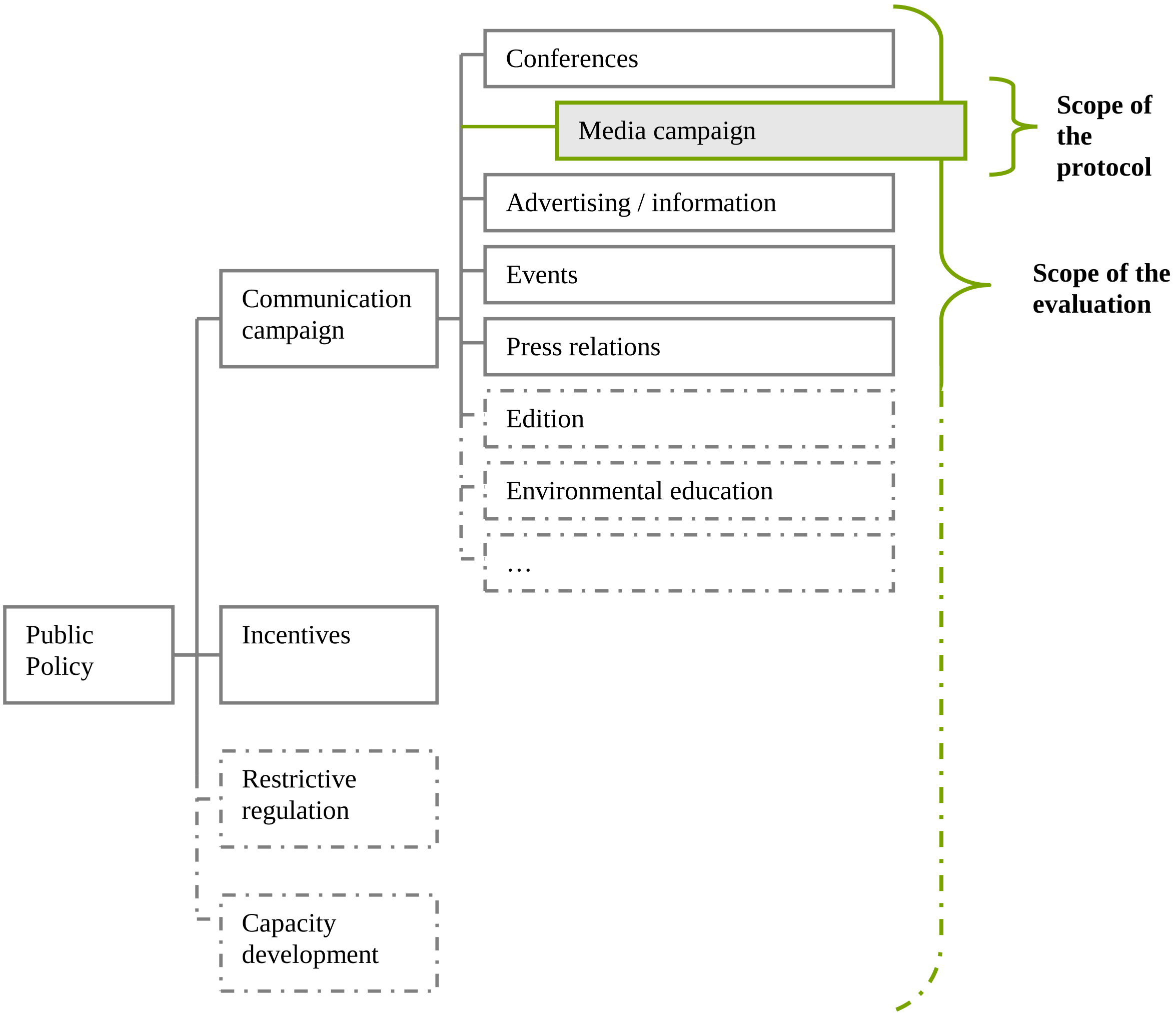


Figure 1. Scope of the protocol

Challenges to evaluate energy savings communications campaigns

The evaluation of communications campaigns is necessary and useful; nevertheless this activity faces many specific methodological challenges (Coffman, J. 2002 and 2003, Maresca, B. 2002):

- Imputing behaviour change to a communications campaign is difficult because there are various factors influencing behaviour;
- Communications campaigns target a large number of people. In the case of ADEME, they are nationwide (since the republic is one and indivisible). Thus, it is difficult to distinguish a control group that has not been exposed to the campaign to make comparison.
- Scientific knowledge about effects of a communication campaign is still limited. It is difficult to measure effects that are not well understood or predictable.
- Existing methods in evaluation of public policies are not suitable to assess the impact of communications campaigns.
- The aims of communications campaigns are long term.

Thus, methods for measuring communications campaign impacts must address two challenges: imputing effects to the campaign and understanding whether and how the campaign affects behaviour.

Taking account of real practices

The response to these challenges must take account of the background and working practices of communications managers. Evaluation is useless if designers and managers are not using its conclusions to develop and improve their programmes.

To ensure that real practices are recognised, evaluation at ADEME is co-managed by a person from the evaluation service and by the manager of the policy being evaluated. This protocol has been designed for the use of evaluation staff. However, because the campaign manager has a stake in the evaluation, he or she is more likely to use the conclusions of the evaluation.

In France there is little or no evaluation of public interest communications campaigns. A literature review led in 2008 shows that the INPES (French agency for prevention and education for health) is the only institution in France that have practices of communications campaigns evaluation that go beyond post-test. Elsewhere, practices are focused on pre-intervention and post-intervention tests to evaluate the awareness and recognition of the message, but this method does not allow evaluation of attitude and behaviour change.

Moreover, communications managers have little knowledge of evaluation of public policy (mainly because they come from private sector). Current practices of evaluation by communication managers are the following:

- Qualitative surveys for the design of the campaign
- Pre- and post-test to evaluate before and just after the campaign (quantitative surveys)
- Opinion polls used to evaluate behaviour change at the national scale

To improve these methods and measure the impact of communication campaign, best practices (mainly from North America) are known:

- The involvement of evaluators since the design of the campaign (Coffman, J., 2003)
- Psychosocial theories are helpful for designing communication campaign and for evaluation since it helps to (re)construct the intervention logic (Lehman, J., 2007, Coffman, J., 2003, Behave project, 2006). Moreover, the use of psychosocial theory improves the impact of communication campaigns (as evidenced in the sector of road safety: Delhomme, P., 2001)
- The impact of campaign can be measured by two main methods: attribution and contribution analysis, which S. Sutton (2002) terms causal paradigm and social change paradigm. The essence of the debate is knowing whether the evaluation should focus its efforts on behaviour change (the final objective) or on all the intermediate steps. "*Measuring only awareness and/or behavior change doesn't let you know if a campaign failed because of a poor message, lack of message saturation, or some other cause, such as poor implementation*" (Sutton, S., 2002). The obvious fact is that post-test is not a sufficient method to evaluate the impact of communication campaign.

But compromises with best practices are required to construct the protocol in order to maximise the use of evaluation by communications managers. The main compromises are as follows:

- Whereas the literature recommends basing the design of the campaign on psychosocial theory (that explain how attitude and behaviour change), this can be daunting for communications managers. Therefore, we recommend in the protocol that the logic frame of the campaign be formalized, which is currently rarely done (for a list of the psychosocial theories that can be used: Jackson, T., 2004).
- The protocol uses the same survey approach as the campaign manager would normally use: it is based on pre- and post-test. This reassures the communications manager and involves them in the evaluation method. However, as a consequence, the selection of the sample and counterfactual creates some biases.

The protocol: explanation of the methodological choices

ADEME protocol is composed of three parts: recommendations for considering evaluation in the beginning of the campaign, a quantitative survey at three stages, and qualitative interviews of the target audience at the end of the campaign. The idea is to lead an attribution analysis with the same sample of people to quantify the impact of the energy savings campaign, with qualitative interviews to understand the success or failure of the campaign.

Design of the campaign: the necessity of thinking evaluation

A good practice is to formalize the campaign objectives when the policy is designed. This practice is also useful for the evaluation. Generally, evaluation is more effective if it is anticipated at the design stage.

The protocol first proposes tools (check lists, logic frame, etc.) to construct or reconstruct the logic of the communications campaign, which sets forth the anticipated causal chain between communications and the behaviour change objectives of the campaign. The link between the TV spot on energy saving and the objective of behaviour change toward green behaviours relies on psychological theory. The assumptions behind the logic should be formalized, and the earlier in the design stage it is done the better it is.

Even if the campaign is not based on a theory, constructing a logic chain is useful to the evaluation. This exercise would show communications managers the usefulness of the design of intervention logic and the usefulness of using psychological theories to do so. Qualitative surveys can be used at the design stage to define the audience and the behaviour targeted and to adapt the theory to reality.

The protocol will test the logical frame using quantitative and qualitative means. The result of the evaluation will identify areas that do not work according to plan and will propose revisions of the logical frame.

Quantitative survey before, just after and one year after the campaign

ADEME protocol proposes to follow the same sample of people at different periods of time (before, just after and one year after the campaign) using quantitative surveys to measure awareness, attitude and behaviour change. The survey before gives the baseline of awareness, attitude, and behaviour, while the two other surveys give the change in terms of attitude and behaviour.

This is the heart of the evaluation protocol since it is the method that allows assessment the impact of the energy savings communications campaign on behaviour. It is based on two principles:

- The comparison between surveys enables the change in attitudes and behaviours to be measured. Having separate samples at each step prevent evaluators from following the trajectory of people and understanding factors of success or failure of the campaign. Gifts or incentives can reduce the rate of withdrawal of the sample in between the first and last surveys. A randomized sample of 1500 to 2000 people is probably necessary to still have about 1000 people in the sample at the third survey. Nevertheless, the choice to sample the same set of people produces bias: the questionnaire can act as a communication action and reinforce artificially the effect of the campaign.
- A control group (counterfactual) will be set up with people declaring that they have never seen the TV advertising (even after the interviewer has shown them the campaign ads) in the survey just after the campaign. Randomized control group is not available because the

French energy efficiency communications campaigns are nationwide. According to the results of the post tests of past campaigns, people who declare that they had never seen the campaign fluctuates between 20% and 65%. Taking into account the lowest and the highest estimates, both the sample of people who have seen the campaign and the control group will be large enough to analyze results. This counterfactual implies a bias: people who do not see the campaign will not have the same characteristics as the population targeted and the initial sample. However, no other solution was possible.

The chart below summarizes the mechanism of the evaluation protocol. The baseline will be determined by the first survey before the campaign. The two surveys after the campaign will determine the global change in attitudes and behaviours. The sample of people declaring that they had never seen the campaign will give the counterfactual. Subtracting the counterfactual from the global change gives the impact of the campaign.

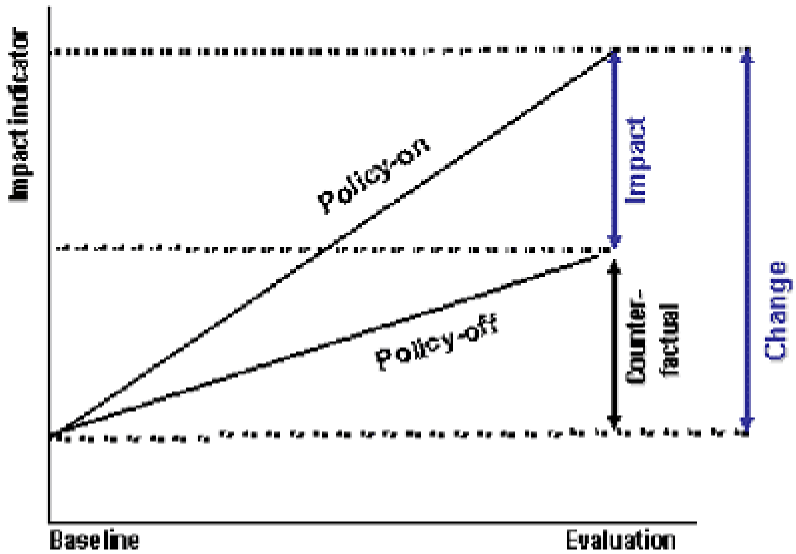
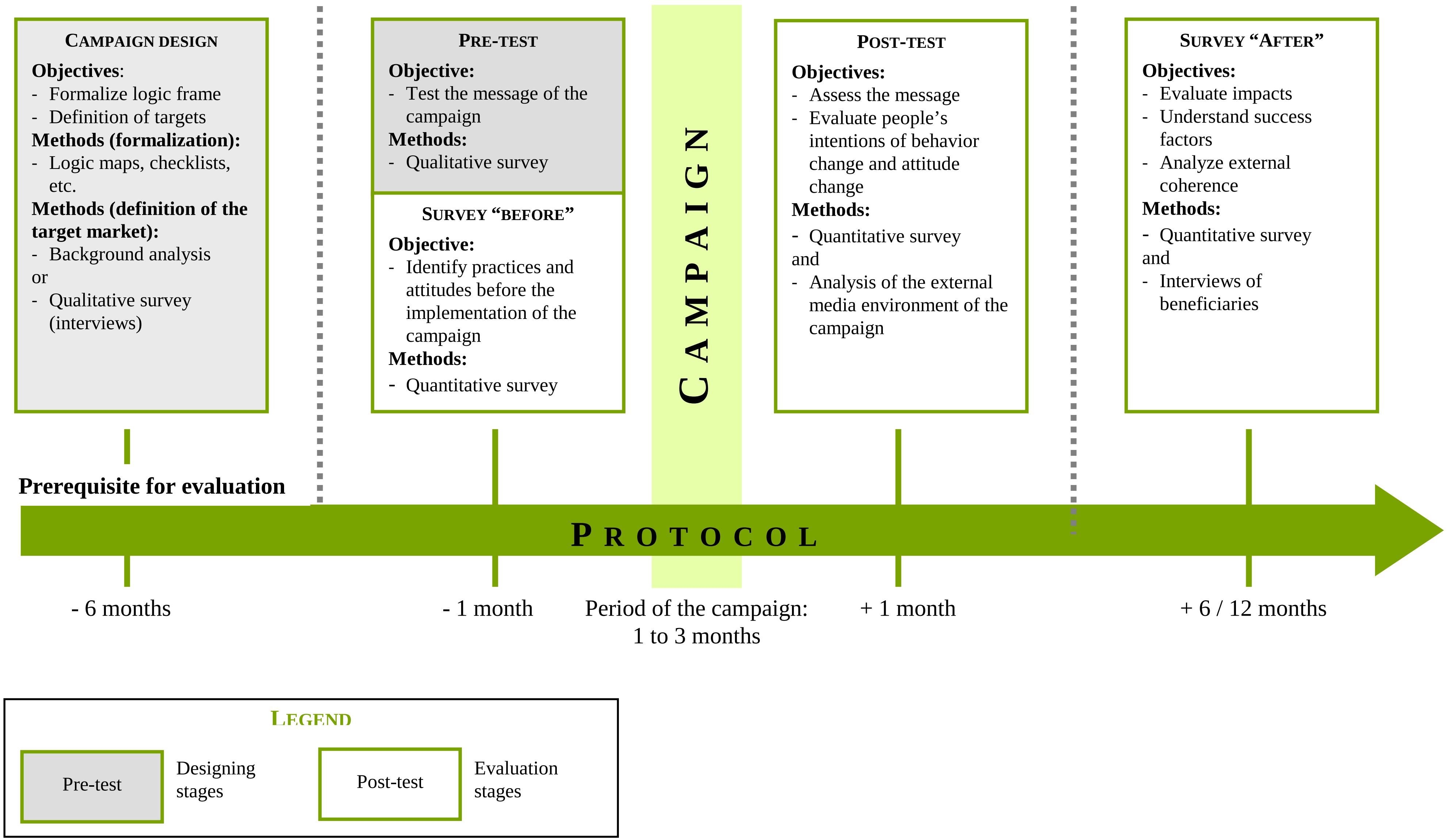


Figure 2. Evaluating the impact of public policy: using a counterfactual
Source: http://ec.europa.eu/europeaid/evaluation/methodology/methods/mth_att_en.htm

This chart explains the sequence of the evaluation protocol with the objectives and methods of each step.

Figure 3. The protocol



A pre-test is a quantitative survey often carried out before the launch of the campaign to test the communication message. The protocol would add some questions on attitudes and behaviours to use results of this survey as the baseline for measuring the campaign's impact (figure 2).

Then, in order to maximize the use of existing practice (and so engage the campaign managers), the protocol proposes to take advantage of the post-test, a survey usually carried out just after the end of the communications campaign to evaluate the understanding of the message. Post-tests provide indicators such as:

- Recall of the campaign without and then with prompting (How much people remember?)
- Understanding of the message (How much people understand? What are the misunderstandings?)
- Attractiveness of the message
- Degree of engagement (How much people are interested in the campaign?)
- Recognition of the institution backing the campaign
- Intention to change behaviour

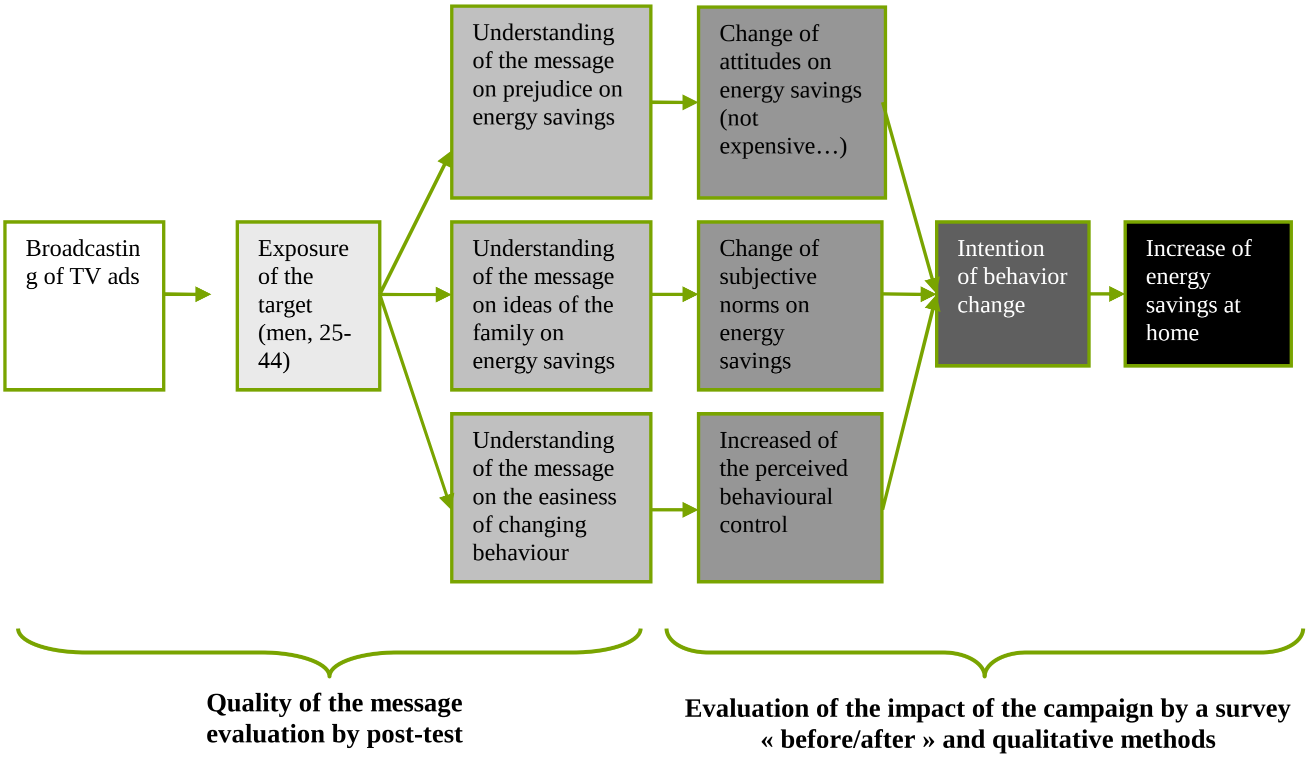


Figure 4. Result chain and relevance of post-test
(in part based on the Ajzen's theory of planned behaviour, in Jackson, T., 2004)

The protocol suggests modifications to post-test in order to use its potential for the evaluation process. Modifications are:

- Adding questions on attitudes and behaviours in order to assess impacts of the campaign, and not only outcomes. These questions will be more or less the questions developed by ADEME for its survey on energy savings behaviours of the French people (an in-depth survey at national scale led every year). Questions on behaviour have been used and improved since 2000.
- An analysis of the internal and external context of the campaign (Interactions or interferences with news and media events may explain a good/bad understanding/remembrance of the campaign)

The third survey is carried out between six and twelve months after the campaign, depending on what kind of energy savings behaviour is targeted: change on everyday life behaviour should take less time to happen than change that requires investment (such as purchasing a new boiler). This survey will focus mainly on behaviour changes that are long-term.

Quantitative surveys would provide data to reconstruct people's trajectory (sensitive or not to the energy saving before the campaign > interested in or not just after the campaign > change in behaviour or not one year later). Several people in each trajectory are interviewed in the final step of the evaluation process to provide a better understanding of the reason why the campaign succeeds or fails.

Qualitative survey: understanding mechanism of the campaign

The protocol also uses qualitative methods, namely in-depth interviews, to understand why and how the campaign has met (or not met) its objectives. This would help identify determinants of behaviour change by understanding which parts of the campaign's causal chain were successful and which ones failed. This analysis should be used to enhance and develop the intervention logic for future campaigns. Interviews would be launched just after the final quantitative survey. The difficulty will be to maintain interest of participants, but interviews will concern very few people (around 30).

Moreover, qualitative surveys can help indentify indirect impacts. Interviews would be used as an exploratory tool to understand all the effects of the campaign, expected or not.

Finally, interviews would permit analysis of the external coherence of the campaign: what are other campaigns or events that have affected the energy savings campaign?

Trajectories will be identified through the evolution of awareness, attitude and behaviour in between the three surveys. Four or five trajectories will be selected: trajectory of people who effectively change (success of the campaign), trajectory of people who do not change - partially or entirely - (failure of the campaign), and dissonant trajectories (for example, people identified as sensitized to environment -issues in the first survey, who then say they want to change in the second survey but don't change in the third survey). In each trajectory fewer than ten people will be interviewed. The quality of interviews is of greater importance than the quantity of interviews.

So, we will search to understand the success and failure of the campaign on different kinds of people. We will identify all particularly interesting trajectories and focus on understanding which factors influence behaviour changes.

Conclusion

In the end, this work allows us to draw some conclusions about evaluation of communication campaigns design:

First, the protocol faces the difficulty of the evaluation activity: whereas a protocol explains methods to be applied in all cases, evaluation exercise requires ad hoc methods for each case. The protocol must be adapted to the main purpose of the evaluation: if the focus is on the impact (how much?), quantitative methods are central; if the predominant question is on understanding the effects (how and why?), qualitative methods may be reinforced.

Second, the protocol suits a specific institution (ADEME). Constraints to designing the method come from the specific culture of evaluation of existing communication campaigns and from the objective of measuring the impact of the energy savings campaigns that become preeminent. This implies two constraints: communication managers must take possession easily of the evaluation method (i.e., evaluation design must be articulated to existing surveys of the communication department) and the impact of the campaign must be measured by that method.

Another constraint is that it is not possible to construct a randomized control group of people who have not seen the campaign. Nevertheless, to measure the impact of the campaign, a counterfactual is indispensable. Thus, the protocol proposes a constitution of control group based on people from the initial sample who have never seen the campaign. This solution implies biases (the structure of the sample and the control group would not be the same) but it is the only solution available.

Finally, the implementation of the protocol for a future evaluation will answer the question if the biases are unacceptable or if the method provides interesting data.

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Figures