

Changing behaviours: smart solutions to the 'wicked' issues

Explaining experimental research designs

1. Randomised control trials

Randomised control trials are the 'gold standard' of research methods. They give evidence of the impact of a policy that isolates the intervention so we can be sure it is working. They work by first deciding on an untested or unproven innovative intervention. Then a large number of individuals, areas or groups with a similar mix of features are selected. The people, neighbourhoods, or groups are then randomly selected either to receive the intervention, or not receive any treatment (the control group). By working across a large number, and by randomly selecting, we can be sure that it was that factor that caused the effects, rather than any observable or unobservable characteristics of the areas or groups. However, control trials are not always possible for many practical reasons. They also need to be used together with other methods if we want to understand more about how the policy is creating the effects.

2. Design experiments

A complement, or alternative, is a design experiment. Essentially the design experiment has one area or group where an experimental intervention takes place. This area of group is matched to a control area or group which does not get the intervention, in order to see if the intervention genuinely has an impact. Design experiments need to be about a decisive intervention, which is highly innovative, they allow regular reviews of progress, and possibilities for redesign of the intervention. The design experiment delivers more credible results than comparable methods such as action research, although it shares some features with action research. There are experiments that are easy to implement, potentially quick acting, and low cost.

Unlike randomised control trials, the intensity of observation in a design experiment requires a small number of settings where the experiment can be carried out, often in just one setting. It is not possible to imagine the design experiment happening across a large-number study design. Therefore, this type of design focuses down on one set of behaviours, and then to one or two innovative and potentially quick acting interventions designed to change those behaviours, in only a few neighbourhoods or client groups. The advantage is close observation of the experiment to see what the causal mechanisms are – why and how the intervention might be working and the ability to make incremental changes to the intervention where required.

3. Examples of experimental designs to shift entrenched behaviours

We present three examples of possible randomised control trials and design experiments in the **box** below. The method could be applied to a wide range of other interventions to tackle negative behaviour. In one sense, the **point of the experimental design is not the specific entrenched behaviour** but the lessons we learn about mechanisms for behaviour change, using a specific behaviour as a test case. Projects can be constructed in such a way that the findings would have wider applicability to ways that local authorities can create behaviour change in cost effective and effective ways across the board.

Examples of experimental design to tackle entrenched behaviours

1. Reducing truancy - a randomised control trial

Select schools across the region with higher than average levels of unauthorised absenteeism and truancy. Despite government spending of £885m on efforts to improve school attendance between 1998 and 2004, the National Audit Office (NAO) has concluded that the rate of unauthorised absence proved difficult to tackle.

Randomly select a sample of 60-80 schools to work with. Then randomly allocate the schools into two groups, an intervention group and a control group, and track change in the schools before and after an initiative to reduce truancy in the intervention group of schools.

Collect baseline data on truancy and unauthorised absence levels. Then measure levels in the schools that had and had not received the intervention at the end of the intervention period. In addition gather information on parents' and pupils' attitudes to education and absenteeism before and after using a survey, focus groups and interviews.

One possible preventative intervention could include:

- a school based awareness raising campaign involving pupils, parents/carers and local communities;
- incentives for pupils to achieve, and celebrate the efforts of pupils achieving 100% attendance; and
- partnership with local businesses to promote regular school attendance.

Another possible intervention could be to target a particular year group and run a day of workshops with them on the issue. This would involve participatory and interactive sessions. There would also be follow-up sessions.

2. Teen binge drinking - a design experiment

Teen binge drinking is associated with several factors, which vary for different young people. One is stress or depression, another is peer pressure. Teen risky drinking often happens outdoors. This offers a range of possible interventions that could be tested. In each case an intervention would be tracked against a control group (groups could be made up of individuals, neighbourhoods or areas, schools etc). The members of the groups are randomly selected. In each case changes would be tracked before and after the intervention period on both groups using a mix of statistical and qualitative data.

Possible interventions are:

- creating an alcohol exclusion zone where young people are banned from public drinking in a random sample of places where young people gather to drink
- setting up a milk bar in a random sample of the zones where street drinking is an issue
- targeting young people identified as having problems with binge drinking for advice, support, mentoring or counselling, tested against young people identified as having issues who just receive a leaflet or information pack

3. Tackling litter dropping - a randomised control trial

Select a set of 60-80 'fast food litter hotspots' across residential neighbourhoods in one local authority area. The sample would focus on particular streets. Surveys have found that discarded fast food packing and food has got worse as a problem in recent years¹, and that members of the public identify discarded food and its wrappings as one of the top two worst litter items. Fast food litter is seen as messy, unhygienic, and difficult to pick up and therefore more offensive than other types of littering².

Randomly allocate the hotspots into two categories. The first category of streets would have litter wardens patrolling at peak hours to prevent litter dropping, including use of fixed penalties. The second category of streets would be the 'control' group, and would have just have the usual public notices stating that litter dropping was banned, if these exist.

Then collect baseline data on levels of litter dropping by:

- a 'vox pop' street poll on cleanliness,
- video evidence
- observer assessment
- interviews with street cleaners
- any statistical data held by the local authority

The intervention would last for eight weeks, after which there would be a return visit to see how litter dropping had changed, using the same methods.

¹ DEFRA, 2004 *Reducing litter caused by 'food on the go' – A Voluntary Code of Practice for local partnerships*

² Public Behavioural Study into Littering 2001: ENCAMS 2001. www.encams.org