

“Dublin Bus Anti -Vandalism Campaign”

IRELAND

DUBLIN BUS MODE REPOSITIONING CASE STUDY REPORT

Definition of the problem

Vandalism on the route 27 leading to perceived lack of safety and lack of travelling comfort with a down turn in off-peak usage of the bus.

Facts and perceptions

The route 27 was suffering from poor passenger behaviour along with drinking, eating, smoking and vandalism and this was believed to be affecting patronage levels. Damage to the bus was caused by children from age 8 upwards and included graffiti, seats slashed and stone throwing at bus windows. It was hoped that an improvement of the on-bus environment would lead to better quality of travel, the freedom to travel without fear and an increase in bus usage. The campaign targeted schoolchildren and their parents along with the travelling public on Route 27 Quality Bus Corridor to the Northwest of Dublin, involving the residential area of Coolock/Darndale. A similar area was used as a control site – Finglas (Route 40)

Method chosen to address the problem

Competition to design bus side posters, shelter posters and calendar

Process and reason for choice

Extensive qualitative and quantitative attitudinal pre-implementation research was conducted with schoolchildren in the area to elicit their motivations, lifestyle and aspirations. From this it was seen that the need to be recognised and make one's mark was important so it was decided that the campaign should involve the children themselves.

A competition involving 4 schools in the area was held in June 2002 where children were invited to submit paintings, poems or songs with the theme 'How the bus is useful to me'.

The best entries were chosen to be included in a calendar, posters on the side of the bus and on bus shelters. A prize-giving ceremony was also held, at which every child received a present in addition to the prize-winners.

Objectives

To reposition the bus/service in the minds of children so that they will respect the mode, leading to:

- reduced damage levels
- perception of safer environment
- greater use by off-peak travellers

To reposition the bus/service in the minds of bus users and potential users so that they

- will feel safer
- perceive the bus as a safe pleasant mode of travel
- use the bus as much as their travel wishes dictate and not be inhibited

Leaders and partners

The campaign was led by Dublin Bus with support from its subcontractor ISS the contract company with responsibility for cleaning the buses, More Group who are responsible for bus shelters and Viacom who provide the advertising panels on bus sides. A local Dublin radio station, FM104 and a local cinema, UCI, sponsored some of the prizes. The campaign was also supported by co-operation from the school principals and teachers of the classes involved. Local Garda community officers were also involved.

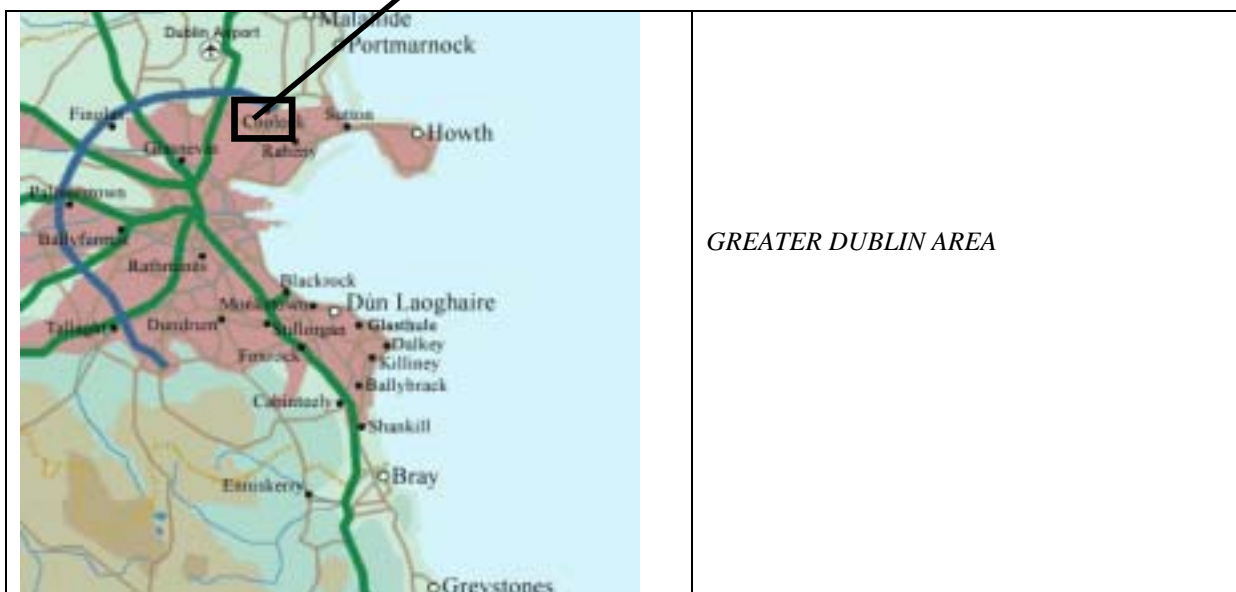
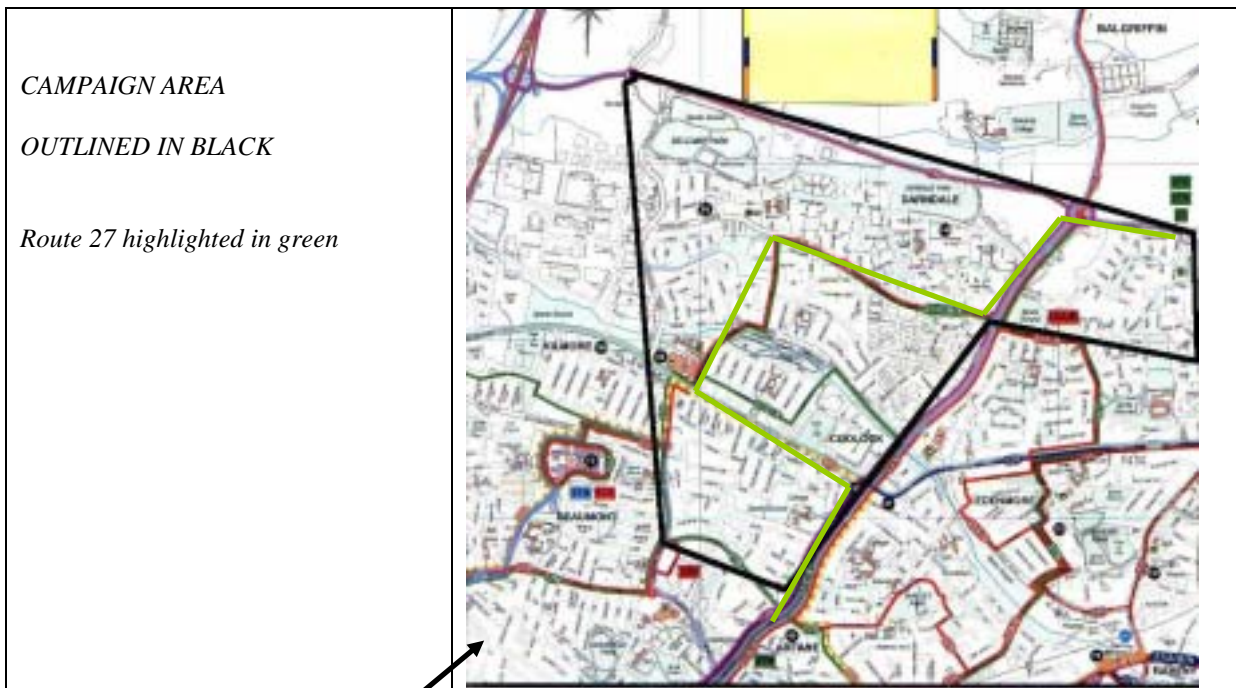
Details

Target group

The target groups for the campaign were schoolchildren and their parents as well as other members of the travelling public.

Region covered

Residential areas at the outer city end of route 27.



Size

An area of approximately 44 KM² with a population of approximately 6500.

External factors

A bus fares increase was announced immediately before the post-implementation survey. There were changes in two senior manager posts during the period of the campaign, the Engineering Manager for route 27 retired and a new Traffic (operations) Manager for the route 40 was appointed.

Timescales

Evaluation element	Survey title	Other measurements	Date
Qualitative data collection			
3 focus groups with children aged 12-14	Focus groups		November 01
Self completion questionnaires	Children/ schools survey	Sample size =198	January 02
Quantitative data collection	Before survey		
Interviews	Residents in test area		February 02
	Residents in control area		April 02
Passenger counts *		Off peak passengers on target routes	Ongoing
Observation counts		Number of vandalism /graffiti cases	Ongoing
Cost analysis		Cost of vandalism / graffiti	Ongoing
Campaign design			
Competition			May-June 02
Judging and prize-giving			June 02
Bus /Shelter poster design			July – August 02
Posters in the field			September 02
Calendar design			Sept – Dec 02
Calendar distribution			December 02
Quantitative data collection	After survey		
Interviews	Residents in test area		Dec 02 – Jan 03
	Residents in control area		Dec 02
Analyses of survey results			Jan 03 – Mar 03
Final report			April 03

* For commercial reasons Dublin Bus has declined to release passenger numbers on its routes.

Funding

Sponsorship was provided by Viacom in the form of providing bus sides to display the posters for 2 weeks; More group provided 8 bus shelters for 2 weeks to display the posters; UCI Cinemas provided cinema tickets as competition prizes, a local radio station, FM104, provided CDs and concert tickets as prizes. Dublin Bus funded the other costs of production of posters, applications forms, and the prize of a trip to an adventure centre.

Explanation of campaign message

The main campaign message was 'The Dublin Bus is Here for Us'. This was taken from one of the posters designed by the children and became the strapline for all of the other posters and calendar.

It places the bus in the community, emphasising its usefulness. The underlying message in the campaign was the involvement of schoolchildren with the bus company with the intention of raising the profile of the company as caring, involved, trying. It also shows recognition of the children's work.

Explanation of campaign tools

Competition to design winning posters for inclusion in a calendar and for display on bus sides and on bus shelters.

Location

The strapline was displayed on one of the sides of each of the 14 buses running along the route 27 for four weeks in September 02.

One of the winning posters was displayed on eight bus shelters along the route for the same four weeks.

The calendar was distributed free to households in the campaign area as well as one copy to all primary schools in Dublin. Each member of Dublin bus staff received a calendar also.

Implementation of Campaign

Responsibilities

Dublin Bus Quality and Commercial Department had the main responsibility for implementing and managing the campaign. They were aided by the schools liaison bus driver from Clontarf depot, Gerry Charles, who is also a worker director on the Board of CIE (the holding company for Dublin Bus) and the schools liaison officer for the Garda Síochána.

Judging of the competition entries was done by a local artist Brian Dennington in conjunction with Dublin bus, More group, Garda Síochána, FM104 and Interactions Ltd. Prizes were presented by the Quality and Commercial Manager for Dublin Bus, Mr. Peter Scott.

Developing the winning entries into posters and calendar was done by artist Brian Dennington.

Process

The first tool was the competition for children to design a poster, poem or song with the theme 'How the bus service is useful to you. This was open to 4 schools and over 200 entries were received.

Dublin Bus Schools' Competition
 St. Joseph's, St. Francis's, Deemdale School and Coláiste Dhúlaigh

This competition is open to 5th & 6th class and 1st year pupils from the above schools. The theme of the competition is:
HOW THE BUS SERVICE IS USEFUL TO YOU

You can enter under either (or both) of the following categories:-

- 1) **POEM / SONG** - Write a poem or a song (e.g. rap song) that shows how the bus is useful to you (your family, friends etc.)
- 2) **POSTER OR PICTURE** - Design a poster or draw or paint a picture that shows how the bus service is useful to you (your family, friends etc.)

You can enter by yourself or you can join in a group to enter (maximum of 6 people per group entry)

Your Music (song/poem) or Poster must be accompanied by an entry form which you can get from (name of teacher) _____

PRIZES
 Prizes will be awarded for the winning entries in both the Poster and Music (song / poem) category in each school as follows:-

For each school	Poster	Song / poem
Individual winner	2 UCI Cinema tickets	2 UCI Cinema tickets
Group entry	1 UCI Cinema ticket for each group member	1 UCI Cinema ticket for each group member

Best Overall entry	Poster	Song / poem
Best individual entry	CD of your choice 2 Concert tickets Visit to FM104 studios	Visit to FM104 studios where your song will be recorded on CD or minidisk 2 Concert tickets CD of your choice
Best Group Entry	2 days at Carlingford Adventure Centre (1 day overnight as a group) Visit to FM104 studios 2 Concert tickets CD of your choice	2 days in Carlingford Adventure Centre (1 day overnight as a group) Visit to FM104 studios where your song will be recorded on CD or minidisk 2 Concert tickets CD of your choice

Following judging, prize-giving took place at a large party for the school classes involved. Refreshments were provided by Tayto, Coca Cola and Cadbury.



‘The Dublin Bus is Here for Us’

One of the winning entries was chosen as the strapline or ‘brand image’ for the campaign.

This was enhanced with stronger colours and used on the subsequent posters and calendars.



The ultimate campaign tools were the posters and calendar developed from the children’s work as seen below.

The strapline was displayed on the side of 14 buses running along the route for two weeks in September 02.

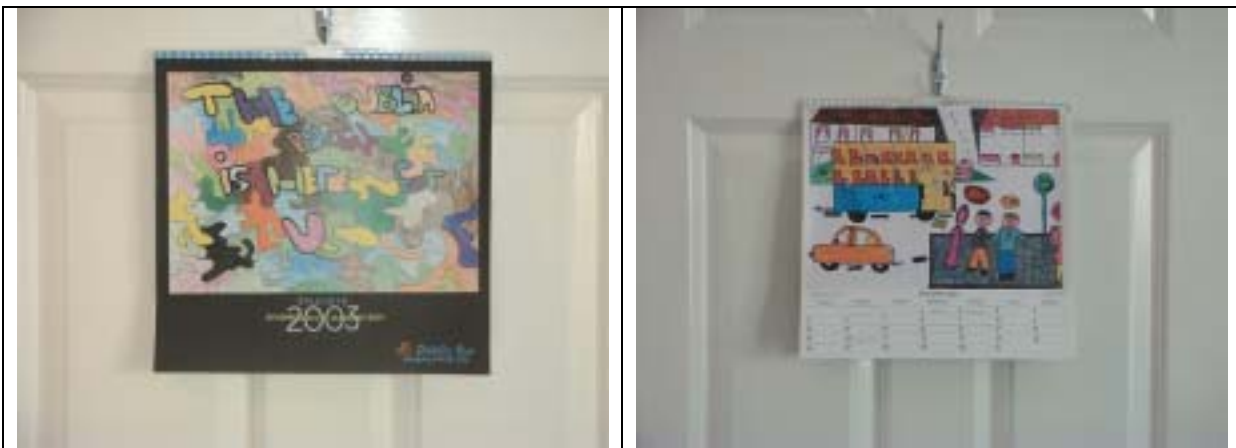


Dublin Bus is here for us: Eirish Curran of St Patrick's National School in Phibsboro and Jade O'Shaughnessy of St Joseph's National School in Ballybrack, both aged 11, pictured with the results of their artwork on the No 27 bus. Photos by Damien Kinsella.

One of the winning posters was displayed on a number of bus shelters along the route for the same two weeks.



12 of the best entries were chosen for inclusion in a calendar which became the Dublin Bus corporate calendar for 2003. This was distributed free to households in the campaign area as well as to all primary schools in Dublin. Each member of Dublin bus staff received a calendar also.



Input and output analysis and management issues / context / external factors / costs
Inputs

Medium	tick those which apply	Design costs	Production costs	Distribution costs
n'paper – national				
newspaper – local				
magazine – national				
magazine – local				
radio – national				
radio – local				
SCHOOLS LIAISON				
- telephone calls	✓			
- personal visits	✓			
COMPETITON DESIGN				
Poster	✓			
Leaflet	✓			
info pack	✓			
CAMPAIGN DESIGN				
Bus Poster	✓	€2,928.20	€1,891.16	
Shelter Poster	✓		€750.20	
Calendar	✓		€15,047	€1,210
OTHER				
press conference				
drama event				
Roadshow				
Prize-giving	✓			
Ad hoc inputs				
COMPETITON PRIZES				
CDs	✓			
Cinema tickets	✓			
Concert tickets	✓			
Day trip	✓		€510	

Outputs

Medium	✓ tick those which apply	Pre-tested (✓ if yes)	Personalised (✓ if yes)	Where*	Total exposures (estimated)	Target group exposures (estimated)	Duration (e.g. hours or days)
n'paper – national							
newspaper – local							
magazine – national							
magazine – local							
radio – national							
radio – local							
television – national							
television – local							
telephone call							
personal visit							
Bus Poster	✓			5	15,000	4,000	14 days
Shelter Poster	✓			7	15,000	4,000	14 days
Calendar	✓			2 12 3 4	15,000	6,500	400 days approx
postcard							
info pack							
letter							
ad other product							
CD							
diskette							
website							
WAP site							
mob. phone text							
press conf.							
drama event							
roadshow							
other pub. meet							

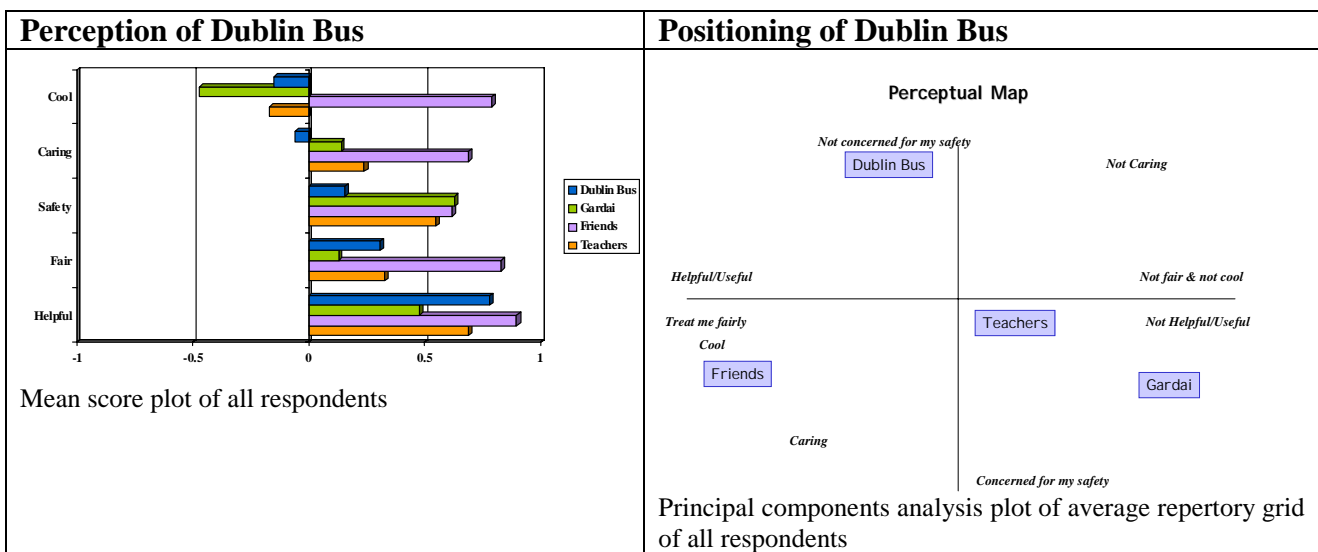
Campaign Assessment

Methodology

Initial research was conducted with schoolchildren in the area using focus groups to elicit their views on vandalism and vandals, comparing it with other social problems, and the image of the bus company in comparison with other forms of authority in their lives. The results of these focus groups were used to design an attitudinal survey for a larger group of schoolchildren.

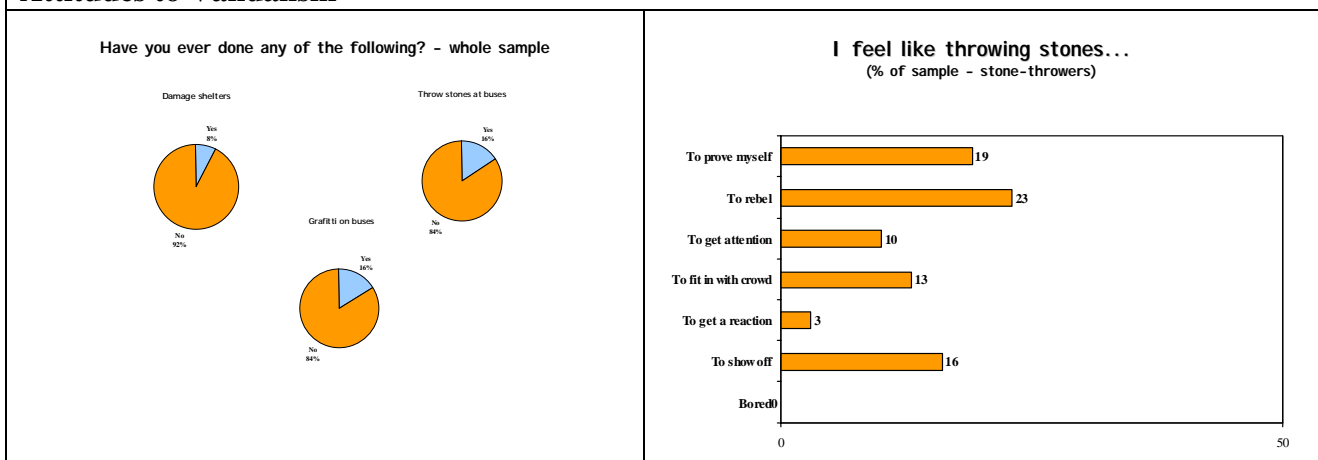
Qualitative research and attitudinal survey with school children

The following graphs show some of the results obtained from the research with school children.



Dublin Bus is seen as useful/helpful but uncaring.
 Campaign challenge – to make be seen Dublin Bus as more caring and demonstrate to children that they are noticed.

Attitudes to Vandalism



Some of the children admitted to some form of vandalism and were able to explain why they did it. Vandalism is a way of rebelling against an unfair, uncaring authority.

Perception of vandals



Sad loser, Acting cool
Bad home life
Depressed



No harm, making my mark
Being known (my name)
Muppet



For the chase, OK if no hurt
Getting own back when
authority not fair



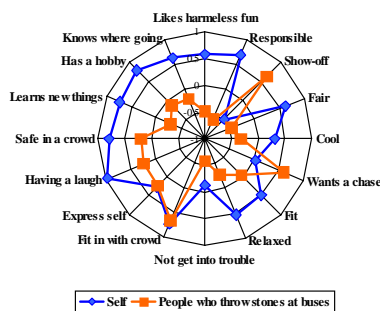
This is art, cool
OK to do anywhere

Cartoons above were commissioned for the study and used in focus groups as visual stimuli. Graffiti is a way of making one's mark and can be cool if it is art.

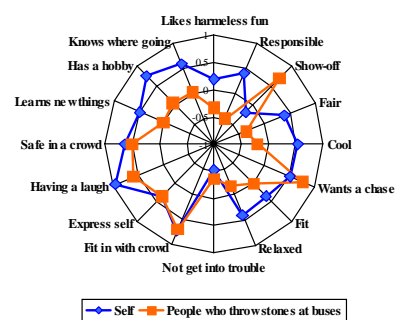
Throwing stones at buses is also OK if no one gets hurt.

The stereotype of the vandal (stone-thrower) and self-perceptions

Perceptions of self and stone-throwers - whole sample

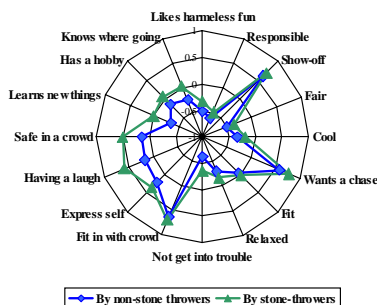


Perceptions of self and stone-throwers - by stone-throwers

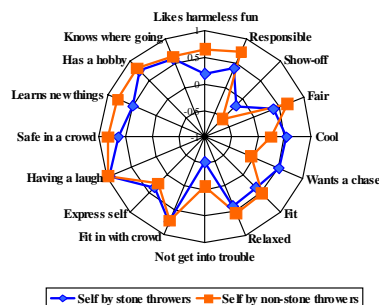


There is gap between how one sees oneself and how one sees vandals – even if one has admitted to being a vandal. The 'self-image' is of a fair, cool, responsible person in control of one's life and having an interest in trying out new things; the vandal on the other hand is a show-off and wants a chase but seems to have no purpose in life. Denial of belonging to a stereotype is a common phenomenon in psychological studies of criminality.

Perceptions of stone-throwers - by stone-throwers and non-stone throwers



Perceptions of self by stone-throwers and non-stone throwers





The insights collected through this process were used to design a campaign that would involve the children, giving them something interesting to do in a responsible manner but also allow them to have fun with friends and be cool.

The **initial** part of the campaign consisted of a competition for schoolchildren to design/compose a poem, song or poster illustrating how the bus is useful to them. As well as involving the children and allowing them to ‘make their mark’, it showed the bus company as caring. This part of the campaign could not be evaluated using the standard survey instruments developed for the TAPESTRY project because of its intellectual complexity and higher level language than would be comprehended by children in this deprived area. The questionnaire used for the attitudinal survey of schoolchildren can be found at Appendix A.

The winning entries were used to design the **second** part of the campaign - a calendar distributed to local households, an on-bus poster and a poster displayed in bus shelters.

The expected outcome of the campaign was a reduction in vandalism in the area, resulting in an increase in feelings of safety on the bus and greater use of the bus route.

The main target group of the survey therefore was residents (adults) living along the route and these were surveyed before and after the campaign using the CAF questionnaire (Appendices B).

The survey sample was selected because they live along the 27 bus route (outer parts of the route). The area shown on the map (page 3) was divided into 8 equal sized areas and a target was set of 25 completed questionnaires from each area. The sampling strategy was random-structured sampling as follows: Sampling was specified as a door-to-door survey starting from a designated start point within each sample area. Every 5th house was selected and one person interviewed. The questionnaire was administered by face-to-face doorstep interviews. There were no incentives for taking part.

For a brief review of the campaign materials see Appendix C.

Target groups / sample size

The total population targeted by the campaign 6500+. The target for the survey was 200 responses - restricted because of budget. (Ideally in excess of 384 interviews would have been specified in order to achieve accuracy of +/- 5% within 95% confidence limits.) The target of 200 was not quite reached in either the before (190) or after (199) surveys. (180 responses were targeted in the control area.)

Control and target site questionnaires were both sampled in the same way.

	n – “before”		n - “after”		Matched samples?		
	Q’nnaire out	Q’nnaires back	Q’nnaire out	Q’nnaires Back	Yes completely	Yes – could be some of the same people but cannot match one for one	No - Independent
Target group	200	190	200	199		✓	
Control group	180	180	200	177		✓	

Comparison of before and after results

<p>10% of the ‘post-campaign’ sample reported that they had used the route more in the previous three months compared with only 1% in the before survey</p>	<p style="text-align: center;">Increase in use of Route 27</p> <p style="text-align: center;">Use 27 more in last 3 mths</p> <p style="text-align: center;">■ Period 1 ■ Period 2</p>
<p>Frequent off-peak reported use (2 – 5 days per week) has increased.</p>	<p style="text-align: center;">Usage of Route 27 - off-peak</p> <p style="text-align: center;">■ Period 1 ■ Period 2</p>

<p>Respondents are now more aware of issues such as vandalised bus shelters, rowdy passenger behaviour and smoking on bus.</p>	<h3 style="text-align: center;">Awareness of Issues</h3> <table border="1"> <caption>Awareness of Issues - Mean Scores</caption> <thead> <tr> <th>Issue</th> <th>Period 1</th> <th>Period 2</th> </tr> </thead> <tbody> <tr><td>Road safety</td><td>3.0</td><td>2.9</td></tr> <tr><td>pollution</td><td>2.7</td><td>2.3</td></tr> <tr><td>cars on roads</td><td>3.3</td><td>3.5</td></tr> <tr><td>VANDALISED BUS SHELTERS</td><td>1.7</td><td>2.4</td></tr> <tr><td>SMOKING ON BUS</td><td>2.2</td><td>2.9</td></tr> <tr><td>eat/drink on buses</td><td>2.2</td><td>2.2</td></tr> <tr><td>litter on buses</td><td>2.1</td><td>2.1</td></tr> <tr><td>stonk throwing</td><td>2.1</td><td>2.1</td></tr> <tr><td>VANDALISM ON BUS</td><td>2.1</td><td>2.2</td></tr> <tr><td>rowdy passengers</td><td>2.2</td><td>2.6</td></tr> <tr><td>safety on buses</td><td>2.1</td><td>1.9</td></tr> <tr><td>safety waiting</td><td>1.9</td><td>1.7</td></tr> </tbody> </table>	Issue	Period 1	Period 2	Road safety	3.0	2.9	pollution	2.7	2.3	cars on roads	3.3	3.5	VANDALISED BUS SHELTERS	1.7	2.4	SMOKING ON BUS	2.2	2.9	eat/drink on buses	2.2	2.2	litter on buses	2.1	2.1	stonk throwing	2.1	2.1	VANDALISM ON BUS	2.1	2.2	rowdy passengers	2.2	2.6	safety on buses	2.1	1.9	safety waiting	1.9	1.7
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<p>Previously, passenger behaviour and the route passing through unsafe areas were the main reasons for avoiding the route. These have decreased dramatically. The route being too long is now the main reason for avoidance of route 27.</p>	<p style="text-align: center;">Reasons for avoiding Route 27</p> <table border="1"> <caption>Reasons for avoiding Route 27 (Estimated Data)</caption> <thead> <tr> <th>Reason</th> <th>Period 1 (%)</th> <th>Period 2 (%)</th> </tr> </thead> <tbody> <tr> <td>too long</td> <td>18</td> <td>18</td> </tr> <tr> <td>unsafe areas</td> <td>18</td> <td>10</td> </tr> <tr> <td>destination</td> <td>8</td> <td>2</td> </tr> <tr> <td>another route</td> <td>10</td> <td>5</td> </tr> <tr> <td>too crowded</td> <td>5</td> <td>5</td> </tr> <tr> <td>passengers</td> <td>22</td> <td>12</td> </tr> <tr> <td>not safe waiting</td> <td>8</td> <td>2</td> </tr> <tr> <td>income cost</td> <td>12</td> <td>2</td> </tr> </tbody> </table>	Reason	Period 1 (%)	Period 2 (%)	too long	18	18	unsafe areas	18	10	destination	8	2	another route	10	5	too crowded	5	5	passengers	22	12	not safe waiting	8	2	income cost	12	2
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<p>The need for safer and better conditions has decreased.</p>	<p style="text-align: center;">Would use Route 27 more if...</p> <table border="1"> <caption>Would use Route 27 more if... (Estimated Mean Scores)</caption> <thead> <tr> <th>Condition</th> <th>Period 1</th> <th>Period 2</th> </tr> </thead> <tbody> <tr> <td>Safer on bus</td> <td>3.5</td> <td>2.8</td> </tr> <tr> <td>safer waiting</td> <td>3.3</td> <td>2.7</td> </tr> <tr> <td>safer walking</td> <td>3.3</td> <td>2.6</td> </tr> <tr> <td>better condition</td> <td>3.4</td> <td>2.5</td> </tr> </tbody> </table>	Condition	Period 1	Period 2	Safer on bus	3.5	2.8	safer waiting	3.3	2.7	safer walking	3.3	2.6	better condition	3.4	2.5												
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Score distributions and Chi² tests

The following tables show the score distributions for each issue for before and after the campaign, comparing the control group (route 27) and the sample group (route 40). Where cell frequencies are too small for Chi² one or more sub-samples have been combined where possible.

Awareness of problems

Respondents were asked how serious certain issues were in their area.

Note: these questions do not seem to have worked in the sense that people may have understood the question to mean how serious an issue is in general terms rather than how often it occurs in their area. Therefore there is an inconsistency in the results that cannot be explained by demographics or other variables. Only the 'awareness of problems' section of the questionnaire was affected by this phenomenon. Nevertheless the control sample was 'purified' to include only those who appear to have understood the question to imply actual occurrence of a problem. The sample size for the control group is therefore reduced as can be seen by the numbers in the results tables.

Summary

The table and graph below show that in the sample group awareness of bad behaviour on bus has increased between period 1 and period 2.

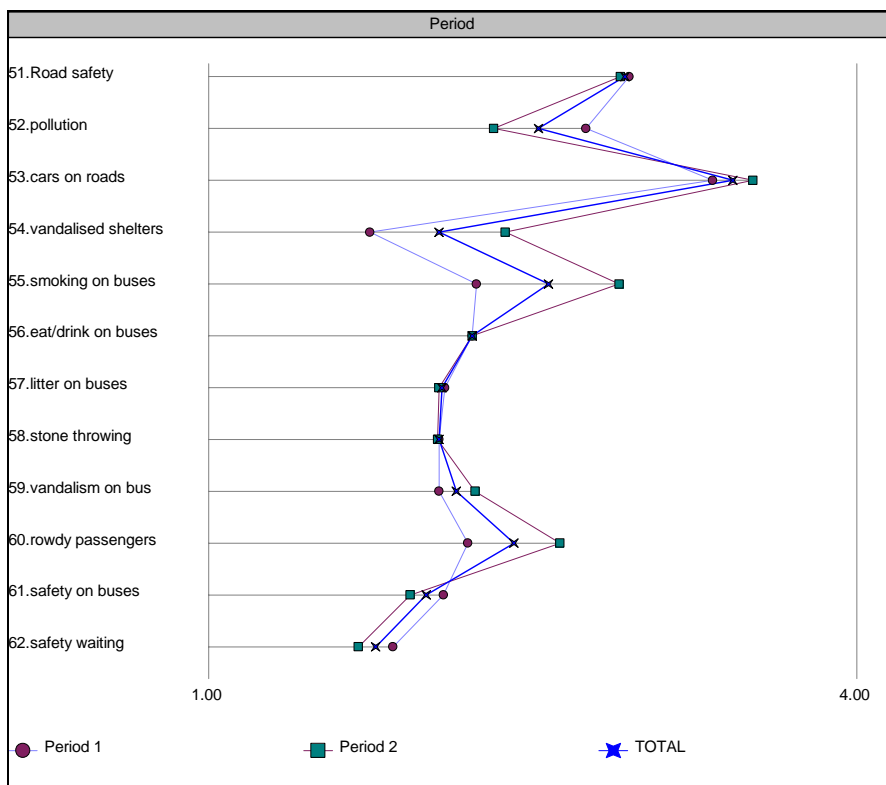
Period	51.Road safety	52.pollution	53.cars on roads	54.vandalised shelters	55.smoking on buses	56.eat/drink on buses	57.litter on buses	58.stone throwing	59.vandalism on bus	60.rowdy passengers	61.safety on buses	62.safety waiting
Period 1	2.95	2.75	3.33	1.75	2.24	2.23	2.09	2.07	2.07	2.20	2.09	1.86
Period 2	2.91	2.32	3.52	2.38	2.90	2.22	2.07	2.07	2.24	2.63	1.93	1.70
TOTAL	2.93	2.53	3.43	2.07	2.58	2.23	2.08	2.07	2.15	2.42	2.01	1.78

Cell values are means calculated ignoring non-responses. Discriminating criteria are highlighted. Highlighted numbers indicate significantly different category means (t-test) from the rest of the sample (to a confidence (1-p) of 95%).

Parameters are established by the notation: Very serious (4), Fairly serious (3), Slight problem (2), No problem (1).

This table is based on the sub-sample '27' containing 388 observations and defined by the following filter:

Area/Route = "Route 27"



Road safety

Period 1

Area Code_T	Road safety Very serious	Road safety Fairly serious	Road safety Slight problem	Road safety No problem
Sample	46	96	41	7
Control	42	27	25	5
TOTAL	88	123	66	12

Dependence is highly significant. Chi2 = 16.04, df = 3, 1-p = 99.89%. Cases highlighted in blue (or pink) are those for which the observed frequency is significantly higher (or lower) than the expected frequency.

This table is based on the sub-sample 'p1' containing 289 observations and defined by the following filter:

Period = "Period 1"

The distribution difference between 'Sample' and 'Control' is highly significant. (Chi2 = 16.04, 1-p = 99.89%)

Period 2

Area Code_T	Road safety Very serious	Road safety Fairly serious	Road safety Slight problem	Road safety No problem
Sample	64	63	56	13
Control	34	30	26	12
TOTAL	98	93	82	25

Dependence is not significant. Chi2 = 2.51, df = 3, 1-p = 52.61%.

This table is based on the sub-sample 'p2' containing 300 observations and defined by the following filter:

Period = "Period 2"

The distribution difference between 'Sample' and 'Control' is not significant. (Chi2 = 2.51, 1-p = 52.61%)

Interaction of 'Period' and 'Area/Route' for 'Road safety'

	Sample	Control	TOTAL
Period 1	2.95	3.07	2.99
Period 2	2.91	2.84	2.89
TOTAL	2.93	2.96	2.94

The table values are the means of the variable Road safety for each pair of citations.

One-way analysis of variance:

- Global effect of 'Period' is slightly significant (V_inter = 1.69, V_intra = 0.82, F = 2.06, 1-p = 85.26%)
- Global effect of 'Area Code_T' is not significant (V_inter = 0.10, V_intra = 0.82, F = 0.13, 1-p = 27.92%)
- Discriminating modalities (to a confidence (1-p) of 95%) are highlighted

- **There were no meaningful shifts in attitudes towards road safety.**

2 factors analysis of variance

- Principal effect of 'Period' is slightly significant (V_inter = 1.69, V_intra = 0.82, F = 2.05, 1-p = 85.13%)
- Principal effect of 'Area Code_T' is not significant (V_inter = 0.10, V_intra = 0.82, F = 0.13, 1-p = 27.89%)
- Interaction of 'Period' and 'Area Code_T' is not significant (V_inter = 1.09, V_intra = 0.82, F = 1.32, 1-p = 75.08%)

Warning, the dependence is between 'Period' and 'Area Code_T' is not significant. Chi2 = 0.00, df = 1, 1-p = 5.22%.

Warning, the dependence is between 'Period' and 'Area Code_T' is not significant. Chi2 = 0.00, df = 1, 1-p = 5.22%.

Highlighted numbers indicate significantly different category means from the rest of the sample (to a confidence (1-p) of 95%).

This table is based on the sub-sample 'new total' containing 589 observations and defined by the following filter:

Area Code_T Amongst "Sample ; Control"

Pollution

Period 1

Area Code_T	pollution Very serious	pollution Fairly serious	pollution Slight	pollution No problem
Sample	30	86	70	4
Control	32	32	27	4
TOTAL	62	118	97	8

Dependence is highly significant. Chi2 = 13.69, df = 3, 1-p = 99.66%. Cases highlighted in blue (or pink) are those for which the observed frequency is significantly higher (or lower) than the expected frequency.

This table is based on the sub-sample 'p1' containing 289 observations and defined by the following filter:
Period = "Period 1"

The distribution difference between 'Sample' and 'Control' is highly significant. (Chi2 = 13.69, 1-p = 99.66%)

Period 2

Area Code_T	pollution Very serious	pollution Fairly serious	pollution Slight	pollution No problem
Sample	32	39	85	40
Control	18	33	31	20
TOTAL	50	72	116	60

Dependence is slightly significant. Chi2 = 7.30, df = 3, 1-p = 93.71%. Cases highlighted in blue (or pink) are those for which the observed frequency is significantly higher (or lower) than the expected frequency.

This table is based on the sub-sample 'p2' containing 300 observations and defined by the following filter:
Period = "Period 2"

The distribution difference between 'Sample' and 'Control' is slightly significant. (Chi2 = 7.30, 1-p = 93.71%)

Interaction of 'Period' and 'Area/Route' for 'pollution'

	Sample	Control	TOTAL
Period 1	2.75	2.97	2.82
Period 2	2.32	2.48	2.38
TOTAL	2.53	2.72	2.59

The table values are the means of the variable pollution for each pair of citations.

One-way analysis of variance:

- Global effect of 'Period' is highly significant (V_inter = 28.88, V_intra = 0.81, F = 35.56, 1-p = >99.99%)
- Global effect of 'Area Code_T' is significant (V_inter = 5.61, V_intra = 0.85, F = 6.57, 1-p = 98.97%)
- Discriminating modalities (to a confidence (1-p) of 95%) are highlighted

<ul style="list-style-type: none"> Perceptions of pollution as a problem decreased in the sample area 	<p>2 factors analysis of variance</p> <ul style="list-style-type: none"> - Principal effect of 'Period' is highly significant ($V_{inter} = 28.88$, $V_{intra} = 0.81$, $F = 35.62$, $1-p = >99.99\%$) - Principal effect of 'Area Code_T' is highly significant ($V_{inter} = 5.61$, $V_{intra} = 0.81$, $F = 6.92$, $1-p = 99.14\%$) - Interaction of 'Period' and 'Area Code_T' is not significant ($V_{inter} = -0.82$, $V_{intra} = 0.81$, $F = -1.02$, $1-p = 0.00\%$) <p>Warning, the dependence is between 'Period' and 'Area Code_T' is not significant. $Chi2 = 0.00$, $df = 1$, $1-p = 5.22\%$.</p> <p>Highlighted numbers indicate significantly different category means from the rest of the sample (to a confidence (1-p) of 95%).</p> <p>This table is based on the sub-sample 'new total' containing 589 observations and defined by the following filter: Area Code_T Amongst "Sample ; Control"</p>
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Cars on roads

Period 1

Area Code_T	cars on roads Very serious	cars on roads Fairly serious	Slight/ No problem
Sample	101	54	34
Control	79	18	2
TOTAL	180	72	36

Dependence is highly significant. $Chi2 = 23.28$, $df = 2$, $1-p = >99.99\%$. Cases highlighted in blue (or pink) are those for which the observed frequency is significantly higher (or lower) than the expected frequency.

This table is based on the sub-sample 'p1' containing 289 observations and defined by the following filter:
Period = "Period 1"

The distribution difference between 'Sample' and 'Control' is highly significant. ($Chi2 = 23.28$, $1-p = >99.99\%$)

Period 2

Area Code_T	cars on roads Very serious	cars on roads Fairly serious	cars on roads Slight problem	cars on roads No problem
Sample	126	51	12	6
Control	51	30	17	4
TOTAL	177	81	29	10

Dependence is significant. $Chi2 = 10.38$, $df = 3$, $1-p = 98.44\%$. Cases highlighted in blue (or pink) are those for which the observed frequency is significantly higher (or lower) than the expected frequency.

This table is based on the sub-sample 'p2' containing 300 observations and defined by the following filter:
Period = "Period 2"

The distribution difference between 'Sample' and 'Control' is significant. ($Chi2 = 10.38$, $1-p = 98.44\%$)

Interaction of 'Period' and 'Area/Route' for 'cars on roads'

	Sample	Control	TOTAL
Period 1	3.33	3.78	3.49
Period 2	3.52	3.25	3.43
TOTAL	3.43	3.51	3.46

The table values are the means of the variable cars on roads for each pair of citations.

One-way analysis of variance:

- Global effect of 'Period' is not significant ($V_{inter} = 0.44$, $V_{intra} = 0.60$, $F = 0.74$, $1-p = 60.52\%$)
- Global effect of 'Area Code_T' is not significant ($V_{inter} = 1.12$, $V_{intra} = 0.60$, $F = 1.86$, $1-p = 83.04\%$)
- Discriminating modalities (to a confidence (1-p) of 95%) are highlighted

2 factors analysis of variance

- Principal effect of 'Period' is not significant ($V_{inter} = 0.44$, $V_{intra} = 0.58$, $F = 0.77$, $1-p = 61.58\%$)
- Principal effect of 'Area Code_T' is not significant ($V_{inter} = 1.12$, $V_{intra} = 0.58$, $F = 1.94$, $1-p = 83.94\%$)
- Interaction of 'Period' and 'Area Code_T' is highly significant ($V_{inter} = 16.53$, $V_{intra} = 0.58$, $F = 28.69$, $1-p = >99.99\%$)

Warning, the dependence is between 'Period' and 'Area Code_T' is not significant. $Chi2 = 0.00$, $df = 1$, $1-p = 5.22\%$.

Highlighted numbers indicate significantly different category means from the

	rest of the sample (to a confidence (1-p) of 95%). This table is based on the sub-sample 'new total' containing 589 observations and defined by the following filter: Area Code_T Amongst "Sample ; Control"
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Vandalised shelters.

Period 1

Area Code_T	vandalised shelters Very serious	vandalised shelters Fairly serious	Slight problem/No problem
Sample	17	11	162
Control	58	30	10
TOTAL	75	41	172

Dependence is highly significant. Chi2 = 151.63, df = 2, 1-p = >99.99%. Cases highlighted in blue (or pink) are those for which the observed frequency is significantly higher (or lower) than the expected frequency.

This table is based on the sub-sample 'p1' containing 289 observations and defined by the following filter:
Period = "Period 1"
The distribution difference between 'Sample' and 'Control' is highly significant. (Chi2 = 151.63, 1-p = >99.99%)

Period 2

Area Code_T	vandalised shelters Very serious	vandalised shelters Fairly serious	vandalised shelters Slight problem	vandalised shelters No problem
Sample	71	12	32	80
Control	43	19	13	27
TOTAL	114	31	45	107

Dependence is highly significant. Chi2 = 15.09, df = 3, 1-p = 99.83%. Cases highlighted in blue (or pink) are those for which the observed frequency is significantly higher (or lower) than the expected frequency.

This table is based on the sub-sample 'p2' containing 300 observations and defined by the following filter:
Period = "Period 2"
The distribution difference between 'Sample' and 'Control' is highly significant. (Chi2 = 15.09, 1-p = 99.83%)

Interaction of 'Period' and 'Area/Route' for 'vandalised shelters'

	Sample	Control	TOTAL
Period 1	1.75	3.48	2.34
Period 2	2.38	2.76	2.51
TOTAL	2.07	3.12	2.43

The table values are the means of the variable vandalised shelters for each pair of citations.

One-way analysis of variance:
- Global effect of 'Period' is slightly significant (V_inter = 4.48, V_intra = 1.58, F = 2.84, 1-p = 91.17%)
- Global effect of 'Area Code_T' is highly significant (V_inter = 179.23, V_intra = 1.34, F = 134.20, 1-p = >99.99%)
- Discriminating modalities (to a confidence (1-p) of 95%) are highlighted

2 factors analysis of variance
- Principal effect of 'Period' is slightly significant (V_inter = 4.48, V_intra = 1.24, F = 3.62, 1-p = 94.55%)
- Principal effect of 'Area Code_T' is highly significant (V_inter = 179.23, V_intra = 1.24, F = 144.97, 1-p =>99.99%)
- Interaction of 'Period' and 'Area Code_T' is highly significant (V_inter = 24.71, V_intra = 1.24, F = 19.98, 1-p = >99.99%)

Warning, the dependence is between 'Period' and 'Area Code_T' is not significant. Chi2 = 0.00, df = 1, 1-p = 5.22%.

Highlighted numbers indicate significantly different category means from the rest of the sample (to a confidence (1-p) of 95%).
This table is based on the sub-sample 'new total' containing 589 observations and defined by the following filter:
Area Code_T Amongst "Sample ; Control"

▪ **Awareness vandalised shelters as a problem increased significantly in the target area compared with the control area.**

Smoking on buses

Period 1

Area Code_T	smoking on buses Very serious	smoking on buses Fairly serious	Slight/No problem
Sample	28	27	135
Control	42	32	22
TOTAL	70	59	157

Dependence is highly significant. Chi2 = 60.16, df = 2, 1-p = >99.99%. Cases highlighted in blue (or pink) are those for which the observed frequency is significantly higher (or lower) than the expected frequency.

This table is based on the sub-sample 'p1' containing 289 observations and defined by the following filter:
 Period = "Period 1"
 The distribution difference between 'Sample' and 'Control' is highly significant. (Chi2 = 60.16, 1-p = >99.99%)

Period 2

Area Code_T	smoking on buses Very serious	smoking on buses Fairly serious	smoking on buses Slight problem	smoking on buses No problem
Sample	76	42	59	18
Control	18	7	35	42
TOTAL	94	49	94	60

Dependence is highly significant. Chi2 = 52.55, df = 3, 1-p = >99.99%. Cases highlighted in blue (or pink) are those for which the observed frequency is significantly higher (or lower) than the expected frequency.

This table is based on the sub-sample 'p2' containing 300 observations and defined by the following filter:
 Period = "Period 2"
 The distribution difference between 'Sample' and 'Control' is highly significant. (Chi2 = 52.55, 1-p = >99.99%)

Interaction of 'Period' and 'Area/Route' for 'smoking on buses'

	Sample	Control	TOTAL
Period 1	2.24	3.20	2.56
Period 2	2.90	2.01	2.60
TOTAL	2.58	2.59	2.58

The table values are the means of the variable smoking on buses for each pair of citations.

One-way analysis of variance:
 - Global effect of 'Period' is not significant (V_inter = 0.16, V_intra = 1.15, F = 0.14, 1-p = 29.04%)
 - Global effect of 'Area Code_T' is not significant (V_inter = 0.01, V_intra = 1.15, F = 0.01, 1-p = 12.26%)
 - Discriminating modalities (to a confidence (1-p) of 95%) are highlighted

2 factors analysis of variance
 - Principal effect of 'Period' is not significant (V_inter = 0.16, V_intra = 0.96, F = 0.17, 1-p = 31.33%)
 - Principal effect of 'Area Code_T' is not significant (V_inter = 0.01, V_intra = 0.96, F = 0.01, 1-p = 12.87%)
 - Interaction of 'Period' and 'Area Code_T' is highly significant (V_inter = 111.63, V_intra = 0.96, F = 116.01, 1-p = >99.99%)
 Warning, the dependence is between 'Period' and 'Area Code_T' is not significant. Chi2 = 0.00, df = 1, 1-p = 5.22%.

Highlighted numbers indicate significantly different category means from the rest of the sample (to a confidence (1-p) of 95%).
 This table is based on the sub-sample 'new total' containing 589 observations and defined by the following filter:
 Area Code_T Amongst "Sample ; Control"

▪ **Awareness of smoking on buses increased significantly compared with the control area**

Litter on buses

Period 1

Area Code_T	litter on buses Very serious	litter on buses Fairly serious	Slight/No problem
Sample	24	14	152
Control	64	11	21
TOTAL	88	25	173

Dependence is highly significant. Chi2 = 97.36, df = 2, 1-p = >99.99%.
Cases highlighted in blue (or pink) are those for which the observed frequency is significantly higher (or lower) than the expected frequency.

This table is based on the sub-sample 'p1' containing 289 observations and defined by the following filter:
Period = "Period 1"

The distribution difference between 'Sample' and 'Control' is highly significant. (Chi2 = 97.36, 1-p = >99.99%)

Period 2

Area Code_T	litter on buses Very serious	litter on buses Fairly serious	litter on buses Slight problem	litter on buses No problem
Sample	32	21	71	71
Control	19	23	30	30
TOTAL	51	44	101	101

Dependence is significant. Chi2 = 8.39, df = 3, 1-p = 96.15%.
Cases highlighted in blue (or pink) are those for which the observed frequency is significantly higher (or lower) than the expected frequency.

This table is based on the sub-sample 'p2' containing 300 observations and defined by the following filter:
Period = "Period 2"

The distribution difference between 'Sample' and 'Control' is significant. (Chi2 = 8.39, 1-p = 96.15%)

Interaction of 'Period' and 'Area/Route' for 'litter on buses'

	Sample	Control	TOTAL
Period 1	2.09	3.44	2.55
Period 2	2.07	2.30	2.15
TOTAL	2.08	2.85	2.34

The table values are the means of the variable litter on buses for each pair of citations.

One-way analysis of variance:
 - Global effect of 'Period' is highly significant (V_inter = 22.61, V_intra = 1.17, F = 19.34, 1-p = >99.99%)
 - Global effect of 'Area Code_T' is highly significant (V_inter = 97.21, V_intra = 1.07, F = 90.50, 1-p = >99.99%)
 - Discriminating modalities (to a confidence (1-p) of 95%) are highlighted

2 factors analysis of variance
 - Principal effect of 'Period' is highly significant (V_inter = 22.61, V_intra = 0.97, F = 23.24, 1-p = >99.99%)
 - Principal effect of 'Area Code_T' is highly significant (V_inter = 97.21, V_intra = 0.97, F = 99.90, 1-p = >99.99%)
 - Interaction of 'Period' and 'Area Code_T' is highly significant (V_inter = 21.39, V_intra = 0.97, F = 21.98, 1-p = >99.99%)

Warning, the dependence is between 'Period' and 'Area Code_T' is not significant. Chi2 = 0.00, df = 1, 1-p = 5.22%.

Highlighted numbers indicate significantly different category means from the rest of the sample (to a confidence (1-p) of 95%).
This table is based on the sub-sample 'new total' containing 589 observations and defined by the following filter:
Area Code_T Amongst "Sample ; Control"

- Litter is not seen as a great problem in the sample area. Its importance decreased in the control area**

Stone throwing at buses

Period 1

Area Code_T	stone throwing Very serious	stone throwing Fairly serious	Slight/No problem
Sample	23	30	137
Control	49	39	10
TOTAL	72	69	147

Dependence is highly significant. Chi2 = 101.22, df = 2, 1-p = >99.99%.
Cases highlighted in blue (or pink) are those for which the observed frequency is significantly higher (or lower) than the expected frequency.

This table is based on the sub-sample 'p1' containing 289 observations and defined by the following filter:
Period = "Period 1"

The distribution difference between 'Sample' and 'Control' is highly significant. (Chi2 = 101.22, 1-p = >99.99%)

Period 2

Area Code_T	stone throwing Very serious	stone throwing Fairly serious	stone throwing Slight problem	stone throwing No problem
Sample	44	17	43	92
Control	27	13	26	36
TOTAL	71	30	69	128

Dependence is not significant. Chi2 = 4.04, df = 3, 1-p = 74.32%.
Cases highlighted in blue (or pink) are those for which the observed frequency is significantly higher (or lower) than the expected frequency.

This table is based on the sub-sample 'p2' containing 300 observations and defined by the following filter:
Period = "Period 2"

The distribution difference between 'Sample' and 'Control' is not significant. (Chi2 = 4.04, 1-p = 74.32%)

Interaction of 'Period' and 'Area/Route' for 'stone throwing'

	Sample	Control	TOTAL
Period 1	2.07	3.40	2.52
Period 2	2.07	2.30	2.15
TOTAL	2.07	2.84	2.33

The table values are the means of the variable stone throwing for each pair of citations.

One-way analysis of variance:
- Global effect of 'Period' is highly significant (V_inter = 20.40, V_intra = 1.33, F = 15.32, 1-p = 99.98%)
- Global effect of 'Area Code_T' is highly significant (V_inter = 97.91, V_intra = 1.23, F = 79.51, 1-p = >99.99%)
- Discriminating modalities (to a confidence (1-p) of 95%) are highlighted

2 factors analysis of variance
- Principal effect of 'Period' is highly significant (V_inter = 20.40, V_intra = 1.14, F = 17.91, 1-p = 99.99%)
- Principal effect of 'Area Code_T' is highly significant (V_inter = 97.91, V_intra = 1.14, F = 85.98, 1-p = >99.99%)
- Interaction of 'Period' and 'Area Code_T' is highly significant (V_inter = 20.16, V_intra = 1.14, F = 17.71, 1-p = 99.99%)

Warning, the dependence is between 'Period' and 'Area Code_T' is not significant. Chi2 = 0.00, df = 1, 1-p = 5.22%.

Highlighted numbers indicate significantly different category means from the rest of the sample (to a confidence (1-p) of 95%).

This table is based on the sub-sample 'new total' containing 589 observations and defined by the following filter:
Area Code_T Amongst "Sample ; Control"

▪ **There was no effect in relation to stone throwing**

Vandalism on bus

Period 1

Area Code_T	vandalism on bus Very serious	vandalism on bus Fairly serious	vandalism on bus Slight problem	vandalism on bus No problem
Sample	25	26	76	63
Control	78	16	2	0
TOTAL	103	42	78	63

Dependence is highly significant. Chi2 = 147.94, df = 3, 1-p = >99.99%. Cases highlighted in blue (or pink) are those for which the observed frequency is significantly higher (or lower) than the expected frequency.

This table is based on the sub-sample 'new p1' containing 289 observations and defined by the following filter:
 Period = "Period 1"
 and Area Code_T Amongst "Sample ; Control"
 The distribution difference between 'Sample' and 'Control' is highly significant. (Chi2 = 147.94, 1-p = >99.99%)

Period 2

Area Code_T	vandalism on bus Very serious	vandalism on bus Fairly serious	vandalism on bus Slight problem	vandalism on bus No problem
Sample	51	20	48	76
Control	30	19	30	23
TOTAL	81	39	78	99

Dependence is significant. Chi2 = 9.84, df = 3, 1-p = 98.00%. Cases highlighted in blue (or pink) are those for which the observed frequency is significantly higher (or lower) than the expected frequency.

This table is based on the sub-sample 'new p2' containing 300 observations and defined by the following filter:
 Period = "Period 2"
 and Area Code_T Amongst "Sample ; Control"
 The distribution difference between 'Sample' and 'Control' is significant. (Chi2 = 9.84, 1-p = 98.00%)

Interaction of 'Period' and 'Area/Route' for 'vandalism on bus'

	Sample	Control	TOTAL
Period 1	2.07	3.79	2.65
Period 2	2.24	2.55	2.34
TOTAL	2.15	3.15	2.49

The table values are the means of the variable vandalism on bus for each pair of citations.

One-way analysis of variance:
 - Global effect of 'Period' is highly significant (V_inter = 13.41, V_intra = 1.42, F = 9.45, 1-p = 99.76%)
 - Global effect of 'Area Code_T' is highly significant (V_inter = 163.21, V_intra = 1.22, F = 134.05, 1-p = >99.99%)
 - Discriminating modalities (to a confidence (1-p) of 95%) are highlighted

2 factors analysis of variance
 - Principal effect of 'Period' is highly significant (V_inter = 13.41, V_intra = 1.09, F = 12.30, 1-p = 99.94%)
 - Principal effect of 'Area Code_T' is highly significant (V_inter = 163.21, V_intra = 1.09, F = 149.61, 1-p = >99.99%)
 - Interaction of 'Period' and 'Area Code_T' is highly significant (V_inter = 32.74, V_intra = 1.09, F = 30.02, 1-p = >99.99%)

Warning, the dependence is between 'Period' and 'Area Code_T' is not significant. Chi2 = 0.00, df = 1, 1-p = 5.22%.

Highlighted numbers indicate significantly different category means from the rest of the sample (to a confidence (1-p) of 95%).
 This table is based on the sub-sample 'new total' containing 589 observations and defined by the following filter:
 Area Code_T Amongst "Sample ; Control"

▪ **There has been no effect on perceptions of vandalism**

Rowdy passengers

Period 1

Area Code_T	rowdy passengers Very serious	rowdy passengers Fairly serious	Slight/No problem
Sample	32	24	134
Control	66	25	5
TOTAL	98	49	139

Dependence is highly significant. Chi2 = 112.83, df = 2, 1-p = >99.99%. Cases highlighted in blue (or pink) are those for which the observed frequency is significantly higher (or lower) than the expected frequency.

This table is based on the sub-sample 'new p1' containing 289 observations and defined by the following filter:
 Period = "Period 1"
 and Area Code_T Amongst "Sample ; Control"
 The distribution difference between 'Sample' and 'Control' is highly significant. (Chi2 = 112.83, 1-p = >99.99%)

Period 2

Area Code_T	rowdy passengers Very serious	rowdy passengers Fairly serious	rowdy passengers Slight problem	rowdy passengers No problem
Sample	53	40	80	23
Control	16	13	35	38
TOTAL	69	53	115	61

Dependence is highly significant. Chi2 = 28.03, df = 3, 1-p = >99.99%. Cases highlighted in blue (or pink) are those for which the observed frequency is significantly higher (or lower) than the expected frequency.

This table is based on the sub-sample 'new p2' containing 300 observations and defined by the following filter:
 Period = "Period 2"
 and Area Code_T Amongst "Sample ; Control"
 The distribution difference between 'Sample' and 'Control' is highly significant. (Chi2 = 28.03, 1-p = >99.99%)

Interaction of 'Period' and 'Area/Route' for 'rowdy passengers'

	Sample	Control	TOTAL
Period 1	2.20	3.64	2.68
Period 2	2.63	2.07	2.44
TOTAL	2.42	2.83	2.56

The table values are the means of the variable rowdy passengers for each pair of citations.

One-way analysis of variance:
 - Global effect of 'Period' is highly significant (V_inter = 8.80, V_intra = 1.19, F = 7.41, 1-p = 99.34%)
 - Global effect of 'Area Code_T' is highly significant (V_inter = 27.80, V_intra = 1.16, F = 23.87, 1-p = >99.99%)
 - Discriminating modalities (to a confidence (1-p) of 95%) are highlighted

2 factors analysis of variance
 - Principal effect of 'Period' is highly significant (V_inter = 8.80, V_intra = 0.93, F = 9.42, 1-p = 99.76%)
 - Principal effect of 'Area Code_T' is highly significant (V_inter = 27.80, V_intra = 0.93, F = 29.76, 1-p = >99.99%)
 - Interaction of 'Period' and 'Area Code_T' is highly significant (V_inter = 124.56, V_intra = 0.93, F = 133.35, 1-p = >99.99%)

Warning, the dependence is between 'Period' and 'Area Code_T' is not significant. Chi2 = 0.00, df = 1, 1-p = 5.22%.

Highlighted numbers indicate significantly different category means from the rest of the sample (to a confidence (1-p) of 95%).
 This table is based on the sub-sample 'new total' containing 589 observations and defined by the following filter:
 Area Code_T Amongst "Sample ; Control"

- Relative to the control the sample retains a higher level of awareness of rowdy passengers

Safety on buses

Period 1

Area Code_T	safety on buses Very serious	safety on buses Fairly serious	Slight/No problem
Sample	27	26	137
Control	48	44	4
TOTAL	75	70	141

Dependence is highly significant. Chi2 = 117.79, df = 2, 1-p = >99.99%. Cases highlighted in blue (or pink) are those for which the observed frequency is significantly higher (or lower) than the expected frequency.

This table is based on the sub-sample 'new p1' containing 289 observations and defined by the following filter:
 Period = "Period 1"
 and Area Code_T Amongst "Sample ; Control"
 The distribution difference between 'Sample' and 'Control' is highly significant. (Chi2 = 117.79, 1-p = >99.99%)

Period 2

Area Code_T	safety on buses Very serious	safety on buses Fairly serious	safety on buses Slight problem	safety on buses No problem
Sample	26	18	70	83
Control	8	8	31	55
TOTAL	34	26	101	138

Dependence is not significant. Chi2 = 4.37, df = 3, 1-p = 77.62%. Cases highlighted in blue (or pink) are those for which the observed frequency is significantly higher (or lower) than the expected frequency.

This table is based on the sub-sample 'new p2' containing 300 observations and defined by the following filter:
 Period = "Period 2"
 and Area Code_T Amongst "Sample ; Control"
 The distribution difference between 'Sample' and 'Control' is not significant. (Chi2 = 4.37, 1-p = 77.62%)

Interaction of 'Period' and 'Area/Route' for 'safety on buses'

	Sample	Control	TOTAL
Period 1	2.09	3.46	2.55
Period 2	1.93	1.70	1.85
TOTAL	2.01	2.55	2.19

The table values are the means of the variable safety on buses for each pair of citations.

One-way analysis of variance:
 - Global effect of 'Period' is highly significant (V_inter = 70.83, V_intra = 1.10, F = 64.49, 1-p = >99.99%)
 - Global effect of 'Area Code_T' is highly significant (V_inter = 48.17, V_intra = 1.15, F = 41.74, 1-p = >99.99%)
 - Discriminating modalities (to a confidence (1-p) of 95%) are highlighted

2 factors analysis of variance
 - Principal effect of 'Period' is highly significant (V_inter = 70.83, V_intra = 0.89, F = 79.19, 1-p = >99.99%)
 - Principal effect of 'Area Code_T' is highly significant (V_inter = 48.17, V_intra = 0.89, F = 53.86, 1-p = >99.99%)
 - Interaction of 'Period' and 'Area Code_T' is highly significant (V_inter = 75.13, V_intra = 0.89, F = 83.99, 1-p = >99.99%)

Warning, the dependence is between 'Period' and 'Area Code_T' is not significant. Chi2 = 0.00, df = 1, 1-p = 5.22%.

Highlighted numbers indicate significantly different category means from the rest of the sample (to a confidence (1-p) of 95%).
 This table is based on the sub-sample 'new total' containing 589 observations and defined by the following filter:
 Area Code_T Amongst "Sample ; Control"

- **Safety on bus is less of a problem in both control and sample areas**

Safety waiting

Period 1

Area Code_T	safety waiting Very serious	safety waiting Fairly serious	Slight/No problem
Sample	17	18	155
Control	45	43	8
TOTAL	62	61	163

Dependence is highly significant. Chi2 = 139.65, df = 2, 1-p = >99.99%.
Cases highlighted in blue (or pink) are those for which the observed frequency is significantly higher (or lower) than the expected frequency.

This table is based on the sub-sample 'new p1' containing 289 observations and defined by the following filter:
Period = "Period 1"
and Area Code_T Amongst "Sample ; Control"
The distribution difference between 'Sample' and 'Control' is highly significant. (Chi2 = 139.65, 1-p = >99.99%)

Period 2

Area Code_T	safety waiting Very serious	safety waiting Fairly serious	safety waiting Slight problem	safety waiting No problem
Sample	19	19	42	117
Control	9	11	29	53
TOTAL	28	30	71	170

Dependence is not significant. Chi2 = 2.22, df = 3, 1-p = 47.18%.
Cases highlighted in blue (or pink) are those for which the observed frequency is significantly higher (or lower) than the expected frequency.

This table is based on the sub-sample 'new p2' containing 300 observations and defined by the following filter:
Period = "Period 2"
and Area Code_T Amongst "Sample ; Control"
The distribution difference between 'Sample' and 'Control' is not significant. (Chi2 = 2.22, 1-p = 47.18%)

Interaction of 'Period' and 'Area/Route' for 'safety waiting'

	Sample	Control	TOTAL
Period 1	1.86	3.38	2.37
Period 2	1.70	1.76	1.72
TOTAL	1.78	2.55	2.04

The table values are the means of the variable safety waiting for each pair of citations.

One-way analysis of variance:
- Global effect of 'Period' is highly significant (V_inter = 61.39, V_intra = 1.10, F = 56.03, 1-p = >99.99%)
- Global effect of 'Area Code_T' is highly significant (V_inter = 97.96, V_intra = 1.07, F = 91.74, 1-p = >99.99%)
- Discriminating modalities (to a confidence (1-p) of 95%) are highlighted

2 factors analysis of variance
- Principal effect of 'Period' is highly significant (V_inter = 61.39, V_intra = 0.85, F = 72.16, 1-p = >99.99%)
- Principal effect of 'Area Code_T' is highly significant (V_inter = 97.96, V_intra = 0.85, F = 115.14, 1-p = >99.99%)
- Interaction of 'Period' and 'Area Code_T' is highly significant (V_inter = 49.15, V_intra = 0.85, F = 57.78, 1-p = >99.99%)

Warning, the dependence is between 'Period' and 'Area Code_T' is not significant. Chi2 = 0.00, df = 1, 1-p = 5.22%.

Highlighted numbers indicate significantly different category means from the rest of the sample (to a confidence (1-p) of 95%).
This table is based on the sub-sample 'new total' containing 589 observations and defined by the following filter:
Area Code_T Amongst "Sample ; Control"

- **Safety whilst waiting is less of a concern in both sample and control groups**

Accepting responsibility

This aspect does not apply to this sample group as they are not the ones responsible for the problem of vandalism on the bus route.

Evaluation of the options

Importance of criteria

There are no major differences between period 1 and period 2 except for reliability and safety issues where importance seems to have increased slightly.

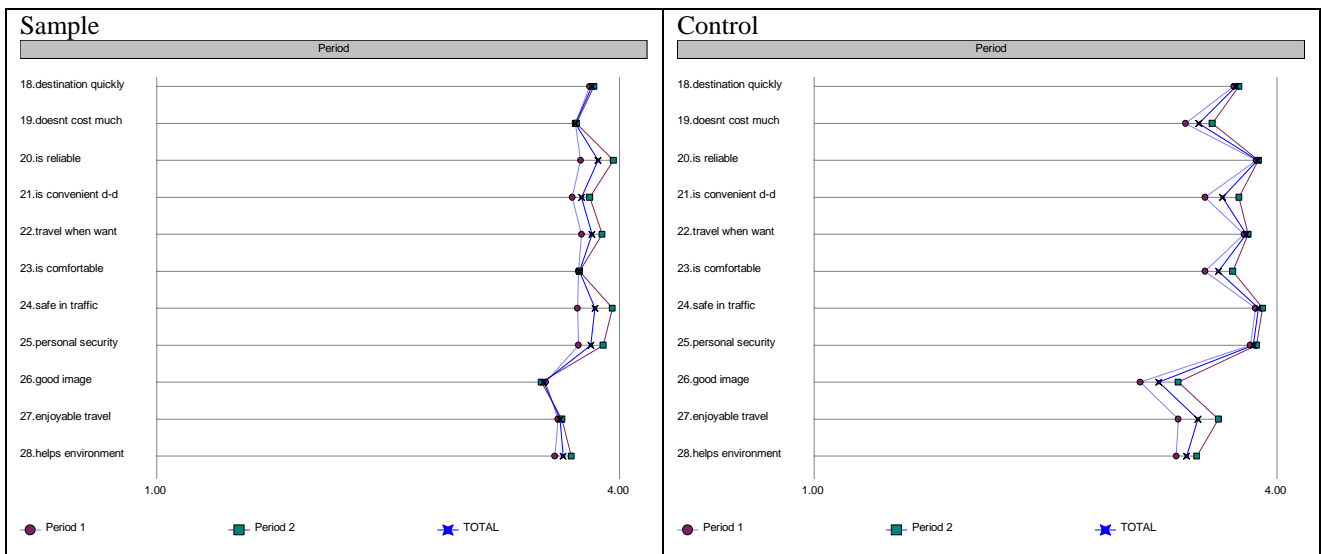
Sample group

Period	18.destination quickly	19.doesnt cost much	20.is reliable	21.is convenient d-d	22.travel when want	23.is comfortable	24.safe in traffic	25.personal security	26.good image	27.enjoyable travel	28.helps environment
Period 1	3.81	3.72	3.75	3.69	3.76	3.74	3.73	3.74	3.53	3.60	3.58
Period 2	3.84	3.72	3.96	3.81	3.89	3.75	3.95	3.90	3.49	3.63	3.69
TOTAL	3.82	3.72	3.86	3.75	3.83	3.74	3.84	3.82	3.51	3.62	3.64

Control

Safety and security issues have not changed their importance in the control group

Period	18.destination quickly	19.doesnt cost much	20.is reliable	21.is convenient d-d	22.travel when want	23.is comfortable	24.safe in traffic	25.personal security	26.good image	27.enjoyable travel	28.helps environment
Period 1	3.72	3.41	3.87	3.54	3.79	3.54	3.86	3.83	3.12	3.37	3.35
Period 2	3.76	3.58	3.88	3.76	3.82	3.72	3.91	3.87	3.36	3.62	3.49
TOTAL	3.74	3.50	3.88	3.65	3.80	3.63	3.88	3.85	3.24	3.49	3.42



Get to destination quickly

Period 1	Period 2
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Area Code_T	destination quickly Very imp	destination quickly Fairly imp	destination quickly Slightly imp	destination quickly Not at all	Area Code_T	destination quickly Very imp	destination quickly Fairly imp	destination quickly Slightly imp	destination quickly Not at all
Sample	154	36	0	0	Sample	24	4	0	0
Control	90	9	0	0	Control	26	7	1	1
TOTAL	244	45	0	0	TOTAL	50	11	1	1

Not cost much

Period 1					Period 2				
Area Code_T	doesnt cost much Very imp	doesnt cost much Fairly imp	Slightly imp/Not at all		Area Code_T	doesnt cost much Very imp	doesnt cost much Fairly imp	doesnt cost much Slightly imp	doesnt cost much Not at all
Sample	138	51	1		Sample	147	46	3	1
Control	77	17	4		Control	61	31	6	4
TOTAL	215	68	5		TOTAL	208	77	9	5

Reliable

Period 1					Period 2				
Area Code_T	is reliable Very Imp	is reliable Fairly imp	is reliable Slightly imp	is reliable Not at all	Area Code_T	is reliable Very Imp	is reliable Fairly imp	is reliable Slightly imp	is reliable Not at all
Sample	143	47	0	0	Sample	190	7	0	0
Control	97	2	0	0	Control	82	20	0	0
TOTAL	240	49	0	0	TOTAL	272	27	0	0

Convenient door-to-door

Period 1					Period 2				
Area Code_T	is convenient d-d Very Imp	is convenient d-d Fairly imp	is convenient d-d Slightly imp	is convenient d-d Not at all	Area Code_T	is convenient d-d Very Imp	is convenient d-d Fairly imp	is convenient d-d Slightly imp	is convenient d-d Not at all
Sample	134	54	2	0	Sample	163	31	3	0
Control	61	33	5	0	Control	72	27	2	1
TOTAL	195	87	7	0	TOTAL	235	58	5	1

Can Travel when I want

Period 1					Period 2				
Area Code_T	travel when want Very Imp	travel when want Fairly imp	travel when want Slightly imp	travel when want Not at all	Area Code_T	travel when want Very Imp	travel when want Fairly imp	travel when want Slightly imp	travel when want Not at all
Sample	144	44	1	0	Sample	176	19	1	0
Control	95	4	0	0	Control	72	28	2	0
TOTAL	239	48	1	0	TOTAL	248	47	3	0

Comfortable

Period 1					Period 2				
Area Code_T	is comfortable Very Imp	is comfortable Fairly imp	is comfortable Slightly imp	is comfortable Not at all	Area Code_T	is comfortable Very Imp	is comfortable Fairly imp	is comfortable Slightly imp	is comfortable Not at all
Sample	140	50	0	0	Sample	153	38	6	0
Control	61	33	5	0	Control	57	40	5	0
TOTAL	201	83	5	0	TOTAL	210	78	11	0

Safe in traffic

Period 1					Period 2				
Area Code_T	safe in traffic Very Imp	safe in traffic Fairly imp	safe in traffic Slightly imp	safe in traffic Not at all	Area Code_T	safe in traffic Very Imp	safe in traffic Fairly imp	safe in traffic Slightly imp	safe in traffic Not at all
Sample	139	51	0	0	Sample	188	7	1	0
Control	91	8	0	0	Control	87	15	0	0
TOTAL	230	59	0	0	TOTAL	275	22	1	0

Personal security

Period 1					Period 2				
Area Code_T	personal security Very Imp	personal security Fairly imp	personal security Slightly imp	personal security Not at all	Area Code_T	personal security Very Imp	personal security Fairly imp	personal security Slightly imp	personal security Not at all
Sample	139	50	0	0	Sample	182	9	4	1
Control	91	8	0	0	Control	83	15	3	0
TOTAL	230	58	0	0	TOTAL	265	24	7	1

Good image

Period 1					Period 2				
Area Code_T	good image Very Imp	good image Fairly imp	good image Slightly imp	good image Not at all	Area Code_T	good image Very Imp	good image Fairly imp	good image Slightly imp	good image Not at all
Sample	113	66	9	2	Sample	133	32	26	5
Control	48	35	13	3	Control	43	35	22	2
TOTAL	161	101	22	5	TOTAL	176	67	48	7

Enjoyable travel

Period 1					Period 2				
Area Code_T	enjoyable travel Very Imp	enjoyable travel Fairly imp	enjoyable travel Slightly imp	enjoyable travel Not at all	Area Code_T	enjoyable travel Very Imp	enjoyable travel Fairly imp	enjoyable travel Slightly imp	enjoyable travel Not at all
Sample	116	72	2	0	Sample	140	41	14	1
Control	65	23	9	1	Control	49	41	12	0
TOTAL	181	95	11	1	TOTAL	189	82	26	1

Helps the environment

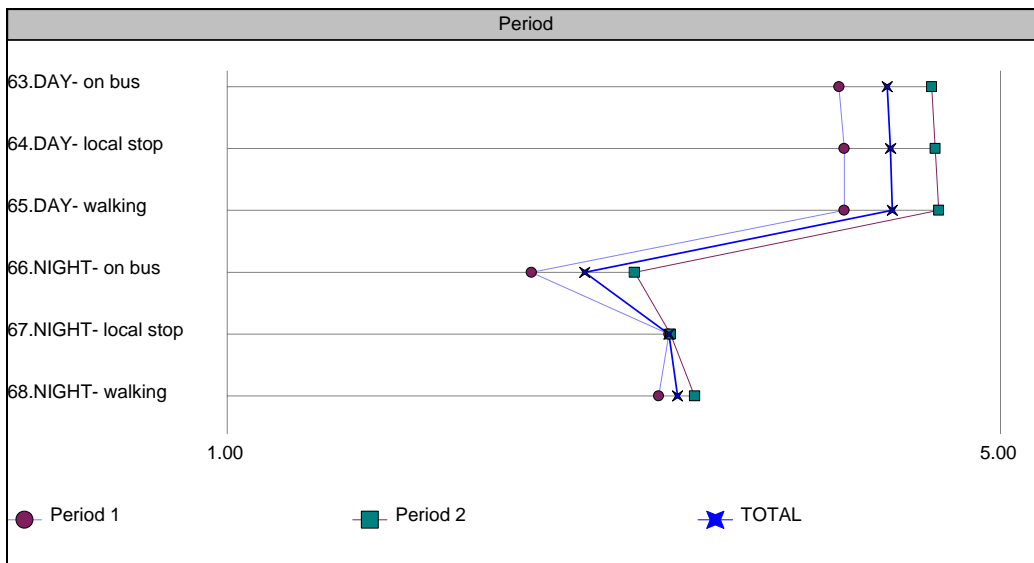
Period 1					Period 2				
Area Code_T	helps environment Very Imp	helps environment Fairly imp	helps environment Slightly imp	helps environment Not at all	Area Code_T	helps environment Very Imp	helps environment Fairly imp	helps environment Slightly imp	helps environment Not at all
Sample	115	72	2	1	Sample	146	40	9	1
Control	65	29	5	0	Control	59	34	8	1
TOTAL	180	101	7	1	TOTAL	205	74	17	2

Perception of the options - Feelings of Safety when using the bus

Feelings of safety have increased on the bus and when walking or waiting by day.

Period	63.DAY- on bus	64.DAY- local stop	65.DAY- walking	6.NIGHT- or bus	67.NIGHT- local stop	68.NIGHT- walking
Period 1	4.17	4.19	4.19	2.58	3.29	3.24
Period 2	4.65	4.67	4.69	3.11	3.29	3.43
TOTAL	4.41	4.44	4.44	2.85	3.29	3.33

Cell values are means calculated ignoring non-responses. Discriminating criteria are highlighted. Highlighted numbers indicate significantly different category means (t-test) from the rest of the sample (to a confidence (1-p) of 95%). Values are based on a scale of 1 (Very unsafe) to 5 (Very safe). This table is based on the sub-sample '27' containing 388 observations and defined by the following filter: Area/Route = "Route 27"



Results in detail – note that because of low cell frequencies the chi square test is not applicable, although ‘significant differences’ are still highlighted.

BY DAY, on bus

Period 1						Period 2					
Area Code_T	DAY- on bus Very unsafe	DAY- on bus Fairly unsafe	DAY- on bus Neither	DAY- on bus Fairly safe	DAY- on bus Very safe	Area Code_T	DAY- on bus Very unsafe	DAY- on bus Fairly unsafe	DAY- on bus Neither	DAY- on bus Fairly safe	DAY- on bus Very safe
Sample	3	4	14	106	63	Sample	2	2	2	51	140
Control	0	1	1	13	83	Control	0	4	1	31	66
TOTAL	3	5	15	119	146	TOTAL	2	6	3	82	206

	Sample	Control	TOTAL
Period 1	4.17	4.82	4.39
Period 2	4.65	4.56	4.62
TOTAL	4.41	4.68	4.51

The table values are the means of the variable DAY- on bus for each pair of citations.

One-way analysis of variance:

- Global effect of 'Period' is highly significant ($V_{inter} = 7.75$, $V_{intra} = 0.51$, $F = 15.06$, $1-p = 99.98\%$)
- Global effect of 'Area Code_T' is highly significant ($V_{inter} = 12.14$, $V_{intra} = 0.51$, $F = 23.76$, $1-p = >99.99\%$)
- Discriminating modalities (to a confidence (1-p) of 95%) are highlighted

2 factors analysis of variance

- Principal effect of 'Period' is highly significant ($V_{inter} = 7.75$, $V_{intra} = 0.47$, $F = 16.45$, $1-p = 99.99\%$)
- Principal effect of 'Area Code_T' is highly significant ($V_{inter} = 12.14$, $V_{intra} = 0.47$, $F = 25.77$, $1-p = >99.99\%$)
- Interaction of 'Period' and 'Area Code_T' is highly significant ($V_{inter} = 15.55$, $V_{intra} = 0.47$, $F = 33.01$, $1-p = >99.99\%$)

Warning, the dependence is between 'Period' and 'Area Code_T' is not significant. $Chi2 = 0.00$, $df = 1$, $1-p = 5.22\%$.

Highlighted numbers indicate significantly different category means from the rest of the sample (to a confidence (1-p) of 95%).

This table is based on the sub-sample 'new total' containing 589 observations and defined by the following filter:

Area Code_T Amongst "Sample ; Control"

BY DAY, - at local stop

Period 1						Period 2					
Area Code_T	DAY- local stop Very unsafe	DAY- local stop Fairly unsafe	DAY- local stop Neither	DAY- local stop Fairly safe	DAY- local stop Very safe	Area Code_T	DAY- local stop Very unsafe	DAY- local stop Fairly unsafe	DAY- local stop Neither	DAY- local stop Fairly safe	DAY- local stop Very safe
Sample	3	4	13	103	67	Sample	1	2	2	51	141
Control	0	1	1	14	80	Control	1	2	1	38	60
TOTAL	3	5	14	117	147	TOTAL	2	4	3	89	201

	Sample	Control	TOTAL
Period 1	4.19	4.80	4.40
Period 2	4.67	4.51	4.62
TOTAL	4.44	4.65	4.51

The table values are the means of the variable DAY- local stop for each pair of citations.

One-way analysis of variance:

- Global effect of 'Period' is highly significant ($V_{inter} = 6.87$, $V_{intra} = 0.49$, $F = 13.94$, $1-p = 99.97\%$)
- Global effect of 'Area Code_T' is highly significant ($V_{inter} = 7.62$, $V_{intra} = 0.49$, $F = 15.42$, $1-p = 99.98\%$)
- Discriminating modalities (to a confidence (1-p) of 95%) are highlighted

2 factors analysis of variance

- Principal effect of 'Period' is highly significant ($V_{inter} = 6.87$, $V_{intra} = 0.45$, $F = 15.15$, $1-p = 99.98\%$)
- Principal effect of 'Area Code_T' is highly significant ($V_{inter} = 7.62$, $V_{intra} = 0.45$, $F = 16.80$, $1-p = 99.99\%$)
- Interaction of 'Period' and 'Area Code_T' is highly significant ($V_{inter} = 17.63$, $V_{intra} = 0.45$, $F = 38.89$, $1-p = >99.99\%$)

Warning, the dependence is between 'Period' and 'Area Code_T' is not significant. $Chi2 = 0.00$, $df = 1$, $1-p = 5.22\%$.

Highlighted numbers indicate significantly different category means from the rest of the sample (to a confidence (1-p) of 95%).

This table is based on the sub-sample 'new total' containing 589 observations and defined by the following filter:

Area Code_T Amongst "Sample ; Control"

BY DAY, - walking to stop

Period 1						Period 2					
Area Code_T	DAY-walking Very unsafe	DAY-walking Fairly unsafe	DAY-walking Neither	DAY-walking Fairly safe	DAY-walking Very safe	Area Code_T	DAY-walking Very unsafe	DAY-walking Fairly unsafe	DAY-walking Neither	DAY-walking Fairly safe	DAY-walking Very safe
Sample	3	4	13	103	67	Sample	0	2	3	50	142
Control	0	1	1	13	81	Control	2	2	4	31	63
TOTAL	3	5	14	116	148	TOTAL	2	4	7	81	205

	Sample	Control	TOTAL
Period 1	4.19	4.81	4.40
Period 2	4.69	4.48	4.62
TOTAL	4.44	4.64	4.51

The table values are the means of the variable DAY- walking for each pair of citations.

One-way analysis of variance:
 - Global effect of 'Period' is highly significant ($V_{inter} = 6.65$, $V_{intra} = 0.51$, $F = 13.12$, $1-p = 99.96\%$)
 - Global effect of 'Area Code_T' is highly significant ($V_{inter} = 6.41$, $V_{intra} = 0.51$, $F = 12.57$, $1-p = 99.95\%$)
 - Discriminating modalities (to a confidence (1-p) of 95%) are highlighted

2 factors analysis of variance
 - Principal effect of 'Period' is highly significant ($V_{inter} = 6.65$, $V_{intra} = 0.46$, $F = 14.32$, $1-p = 99.98\%$)
 - Principal effect of 'Area Code_T' is highly significant ($V_{inter} = 6.41$, $V_{intra} = 0.46$, $F = 13.80$, $1-p = 99.97\%$)
 - Interaction of 'Period' and 'Area Code_T' is highly significant ($V_{inter} = 20.75$, $V_{intra} = 0.46$, $F = 44.70$, $1-p = >99.99\%$)

Warning, the dependence is between 'Period' and 'Area Code_T' is not significant. $Chi2 = 0.00$, $df = 1$, $1-p = 5.22\%$.

Highlighted numbers indicate significantly different category means from the rest of the sample (to a confidence (1-p) of 95%).
 This table is based on the sub-sample 'new total' containing 589 observations and defined by the following filter:
 Area Code_T Amongst "Sample ; Control"

AT NIGHT- on bus

Period 1						Period 2					
Area Code_T	NIGHT- on bus Very unsafe	NIGHT- on bus Fairly unsafe	NIGHT- on bus Neither	NIGHT- on bus Fairly safe	NIGHT- on bus Very safe	Area Code_T	NIGHT- on bus Very unsafe	NIGHT- on bus Fairly unsafe	NIGHT- on bus Neither	NIGHT- on bus Fairly safe	NIGHT- on bus Very safe
Sample	38	61	40	43	7	Sample	35	46	20	54	42
Control	26	10	7	32	27	Control	19	19	20	26	18
TOTAL	64	71	43	75	34	TOTAL	54	65	40	80	60

	Sample	Control	TOTAL
Period 1	2.58	3.24	2.80
Period 2	3.11	3.05	3.09
TOTAL	2.85	3.15	2.95

The table values are the means of the variable NIGHT- on bus for each pair of citations.

One-way analysis of variance:
 - Global effect of 'Period' is significant ($V_{inter} = 11.93$, $V_{intra} = 1.93$, $F = 6.19$, $1-p = 98.74\%$)
 - Global effect of 'Area Code_T' is highly significant ($V_{inter} = 14.35$, $V_{intra} = 1.93$, $F = 7.44$, $1-p = 99.35\%$)
 - Discriminating modalities (to a confidence (1-p) of 95%) are highlighted

2 factors analysis of variance
 - Principal effect of 'Period' is significant ($V_{inter} = 11.93$, $V_{intra} = 1.89$, $F = 6.30$, $1-p = 98.81\%$)
 - Principal effect of 'Area Code_T' is highly significant ($V_{inter} = 14.35$, $V_{intra} = 1.89$, $F = 7.57$, $1-p = 99.39\%$)
 - Interaction of 'Period' and 'Area Code_T' is highly significant ($V_{inter} = 14.73$, $V_{intra} = 1.89$, $F = 7.78$, $1-p = 99.45\%$)

Warning, the dependence is between 'Period' and 'Area Code_T' is not significant. $Chi2 = 0.00$, $df = 1$, $1-p = 5.22\%$.

Highlighted numbers indicate significantly different category means from the rest of the sample (to a confidence (1-p) of 95%).

This table is based on the sub-sample 'new total' containing 589 observations and defined by the following filter:
Area Code_T Amongst "Sample ; Control"

AT NIGHT at local stop

Period 1						Period 2					
Area Code_T	NIGHT- local stop Very unsafe	NIGHT- local stop Fairly unsafe	NIGHT- local stop Neither	NIGHT- local stop Fairly safe	NIGHT- local stop Very safe	Area Code_T	NIGHT- local stop Very unsafe	NIGHT- local stop Fairly unsafe	NIGHT- local stop Neither	NIGHT- local stop Fairly safe	NIGHT- local stop Very safe
Sample	19	36	37	66	31	Sample	32	39	18	55	53
Control	27	16	2	30	23	Control	21	23	18	24	16
TOTAL	46	52	39	96	54	TOTAL	53	62	36	79	69

	Sample	Control	TOTAL
Period 1	3.29	3.06	3.21
Period 2	3.29	2.91	3.16
TOTAL	3.29	2.98	3.19

The table values are the means of the variable NIGHT- local stop for each pair of citations.

One-way analysis of variance:

- Global effect of 'Period' is not significant ($V_{inter} = 0.30$, $V_{intra} = 1.98$, $F = 0.15$, $1-p = 30.13\%$)
- Global effect of 'Area Code_T' is highly significant ($V_{inter} = 15.32$, $V_{intra} = 1.96$, $F = 7.82$, $1-p = 99.46\%$)
- Discriminating modalities (to a confidence (1-p) of 95%) are highlighted

2 factors analysis of variance

- Principal effect of 'Period' is not significant ($V_{inter} = 0.30$, $V_{intra} = 1.97$, $F = 0.15$, $1-p = 30.16\%$)
- Principal effect of 'Area Code_T' is highly significant ($V_{inter} = 15.32$, $V_{intra} = 1.97$, $F = 7.76$, $1-p = 99.45\%$)
- Interaction of 'Period' and 'Area Code_T' is not significant ($V_{inter} = -2.23$, $V_{intra} = 1.97$, $F = -1.13$, $1-p = 0.00\%$)

Warning, the dependence is between 'Period' and 'Area Code_T' is not significant. $Chi2 = 0.00$, $df = 1$, $1-p = 5.22\%$.

Highlighted numbers indicate significantly different category means from the rest of the sample (to a confidence (1-p) of 95%).

This table is based on the sub-sample 'new total' containing 589 observations and defined by the following filter:
Area Code_T Amongst "Sample ; Control"

AT NIGHT- walking to stop

Period 1						Period 2					
Area Code_T	NIGHT- walking Very unsafe	NIGHT- walking Fairly unsafe	NIGHT- walking Neither	NIGHT- walking Fairly safe	NIGHT- walking Very safe	Area Code_T	NIGHT- walking Very unsafe	NIGHT- walking Fairly unsafe	NIGHT- walking Neither	NIGHT- walking Fairly safe	NIGHT- walking Very safe
Sample	20	37	40	62	30	Sample	27	34	19	62	55
Control	36	12	4	25	21	Control	21	19	18	31	13
TOTAL	56	49	44	87	51	TOTAL	48	53	37	93	68

	Sample	Control	TOTAL
Period 1	3.24	2.83	3.10
Period 2	3.43	2.96	3.27
TOTAL	3.33	2.90	3.18

The table values are the means of the variable NIGHT- walking for each pair of citations.

One-way analysis of variance:

- Global effect of 'Period' is slightly significant ($V_{inter} = 4.23$, $V_{intra} = 1.97$, $F = 2.15$, $1-p = 86.11\%$)
- Global effect of 'Area Code_T' is highly significant ($V_{inter} = 31.74$, $V_{intra} = 1.93$, $F = 16.42$, $1-p = 99.99\%$)
- Discriminating modalities (to a confidence (1-p) of 95%) are highlighted

2 factors analysis of variance

- Principal effect of 'Period' is slightly significant ($V_{inter} = 4.23$, $V_{intra} = 1.94$, $F = 2.18$, $1-p = 86.38\%$)
- Principal effect of 'Area Code_T' is highly significant ($V_{inter} = 31.74$, $V_{intra} = 1.94$, $F = 16.35$, $1-p = 99.99\%$)
- Interaction of 'Period' and 'Area Code_T' is not significant ($V_{inter} = -6.24$, $V_{intra} = 1.94$, $F = -3.21$, $1-p = 0.00\%$)

Warning, the dependence is between 'Period' and 'Area Code_T' is not significant. $Chi2 = 0.00$, $df = 1$, $1-p = 5.22\%$.

Highlighted numbers indicate significantly different category means

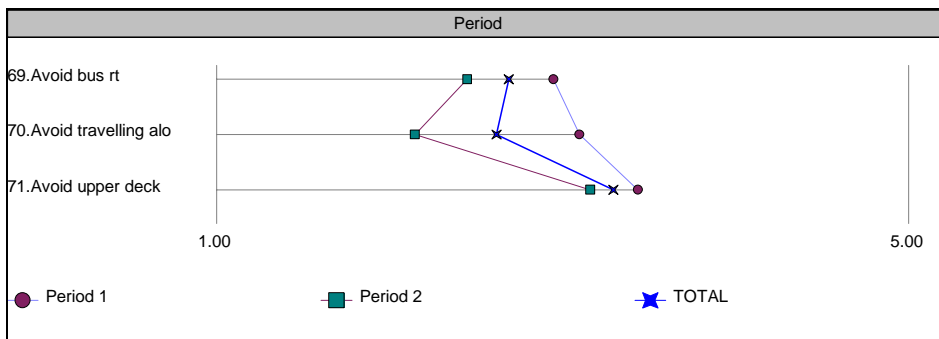
from the rest of the sample (to a confidence (1-p) of 95%). This table is based on the sub-sample 'new total' containing 589 observations and defined by the following filter:
Area Code_T Amongst "Sample ; Control"

Avoid bus route

Avoidance of travelling on route 27 and avoidance of travelling alone has decreased. There is still avoidance of the upper deck.

Period	69.Avoid bus rt	70.Avoid travelling alone	71.Avoid upper deck
Period 1	2.95	3.10	3.44
Period 2	2.45	2.15	3.16
TOTAL	2.70	2.62	3.30

Cell values are means calculated ignoring non-responses. Discriminating criteria are highlighted. Highlighted numbers indicate significantly different category means (t-test) from the rest of the sample (to a confidence (1-p) of 95%). Parameters are established by the notation: Strongly agree (5), Agree (4), Neither (3), Disagree (2), Strongly disagree (1). This table is based on the sub-sample '27' containing 388 observations and defined by the following filter:
Area/Route = "Route 27"



Results in detail – as before the Chi square results are not reliable

Period 1					Period 2					
Area Code_T	Avoid bus rt Strongly agree	Avoid bus rt Agree	Avoid bus rt Neither	Disagree/Strongly	Area Code_T	Avoid bus rt Strongly agree	Avoid bus rt Agree	Avoid bus rt Neither	Avoid bus rt Disagree	Avoid bus rt Strongly disagree
Sample	27	29	47	87	Sample	28	27	8	75	58
Control	8	22	27	40	Control	15	19	1	44	23
TOTAL	35	51	74	127	TOTAL	43	46	9	119	81

Interaction of 'Period' and 'Area/Route' for 'Avoid bus route'

	Sample	Control	TOTAL
Period 1	2.95	2.96	2.95
Period 2	2.45	2.60	2.50
TOTAL	2.70	2.77	2.72

The table values are the means of the variable Avoid bus rt for each pair of citations.

One-way analysis of variance:
 - Global effect of 'Period' is highly significant (V_inter = 30.23, V_intra = 1.59, F = 19.05, 1-p = >99.99%)
 - Global effect of 'Area Code_T' is not significant (V_inter = 0.97, V_intra = 1.64, F = 0.59, 1-p = 55.29%)
 - Discriminating modalities (to a confidence (1-p) of 95%) are highlighted

2 factors analysis of variance
 - Principal effect of 'Period' is highly significant (V_inter = 30.23, V_intra = 1.60, F = 18.92, 1-p = >99.99%)
 - Principal effect of 'Area Code_T' is not significant (V_inter = 0.97, V_intra = 1.60, F = 0.61, 1-p = 55.86%)
 - Interaction of 'Period' and 'Area Code_T' is not significant (V_inter = 0.52, V_intra = 1.60, F = 0.33, 1-p = 42.41%)

Warning, the dependence is between 'Period' and 'Area Code_T' is not significant. Chi2 = 0.00, df = 1, 1-p = 5.22%.

Highlighted numbers indicate significantly different category means

from the rest of the sample (to a confidence (1-p) of 95%).
 This table is based on the sub-sample 'new total' containing 589 observations and defined by the following filter:
 Area Code_T Amongst "Sample ; Control"

Avoid travelling alone

Period 1					Period 2					
Area Code_T	Avoid travelling alo Strongly agree	Avoid travelling alo Agree	Avoid travelling alo Neither	Disagree/Str ongly	Area Code_T	Avoid travelling alo Strongly agree	Avoid travelling alo Agree	Avoid travelling alo Neither	Avoid travelling alo Disagree	Avoid travelling alo Strongly disagree
Sample	27	44	45	74	Sample	14	24	6	85	66
Control	7	21	28	41	Control	11	5	2	54	30
TOTAL	34	65	73	115	TOTAL	25	29	8	139	96

Interaction of 'Period' and 'Area/Route' for 'Avoid travelling alone'

	Sample	Control	TOTAL
Period 1	3.10	2.92	3.04
Period 2	2.15	2.15	2.15
TOTAL	2.62	2.52	2.59

The table values are the means of the variable Avoid travelling alo for each pair of citations.
 One-way analysis of variance:
 - Global effect of 'Period' is highly significant (V_inter = 114.79, V_intra = 1.33, F = 86.23, 1-p = >99.99%)
 - Global effect of 'Area Code_T' is not significant (V_inter = 1.58, V_intra = 1.53, F = 1.03, 1-p = 68.90%)
 - Discriminating modalities (to a confidence (1-p) of 95%) are highlighted
 2 factors analysis of variance
 - Principal effect of 'Period' is highly significant (V_inter = 114.79, V_intra = 1.34, F = 85.72, 1-p = >99.99%)
 - Principal effect of 'Area Code_T' is not significant (V_inter = 1.58, V_intra = 1.34, F = 1.18, 1-p = 72.19%)
 - Interaction of 'Period' and 'Area Code_T' is not significant (V_inter = 0.57, V_intra = 1.34, F = 0.42, 1-p = 47.63%)
 Warning, the dependence is between 'Period' and 'Area Code_T' is not significant. Chi2 = 0.00, df = 1, 1-p = 5.22%.
 Highlighted numbers indicate significantly different category means from the rest of the sample (to a confidence (1-p) of 95%).
 This table is based on the sub-sample 'new total' containing 589 observations and defined by the following filter:
 Area Code_T Amongst "Sample ; Control"

Avoid upper deck

Period 1					Period 2					
Area Code_T	Avoid upper deck Strongly agree	Avoid upper deck Agree	Avoid upper deck Neither	Disagree/Str ongly	Area Code_T	Avoid upper deck Strongly agree	Avoid upper deck Agree	Avoid upper deck Neither	Avoid upper deck Disagree	Avoid upper deck Strongly disagree
Sample	35	67	40	48	Sample	51	57	6	35	46
Control	13	24	24	36	Control	31	14	6	31	20
TOTAL	48	91	64	84	TOTAL	82	71	12	66	66

Interaction of 'Period' and 'Area/Route' for 'Avoid upper deck'

	Sample	Control	TOTAL
Period 1	3.44	3.12	3.33
Period 2	3.16	3.05	3.12
TOTAL	3.30	3.09	3.23

The table values are the means of the variable Avoid upper deck for each pair of citations.
 One-way analysis of variance:
 - Global effect of 'Period' is slightly significant (V_inter = 6.43, V_intra = 1.86, F = 3.46, 1-p = 94.01%)
 - Global effect of 'Area Code_T' is significant (V_inter = 7.62, V_intra = 1.86, F = 4.11, 1-p = 95.92%)
 - Discriminating modalities (to a confidence (1-p) of 95%) are highlighted
 2 factors analysis of variance
 - Principal effect of 'Period' is slightly significant (V_inter = 6.43, V_intra = 1.86, F = 3.46, 1-p = 93.99%)
 - Principal effect of 'Area Code_T' is significant (V_inter = 7.62, V_intra = 1.86, F = 4.10, 1-p = 95.91%)

- Interaction of 'Period' and 'Area Code_T' is not significant ($V_{inter} = -0.23$, $V_{intra} = 1.86$, $F = -0.12$, $1-p = 0.00\%$)
 Warning, the dependence is between 'Period' and 'Area Code_T' is not significant. $\chi^2 = 0.00$, $df = 1$, $1-p = 5.22\%$.
 Highlighted numbers indicate significantly different category means from the rest of the sample (to a confidence (1-p) of 95%).
 This table is based on the sub-sample 'new total' containing 589 observations and defined by the following filter:
 Area Code_T Amongst "Sample ; Control"

Reasons for avoidance of travel

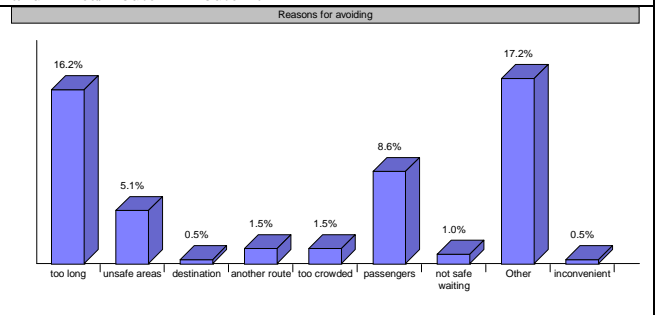
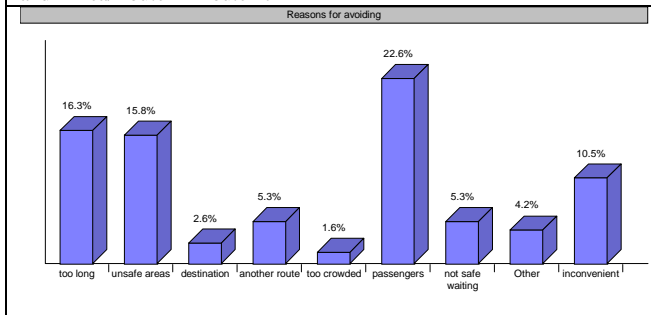
If you avoid travel by Route 27/40 please give reason(s)?

Results for route 27

Period 1			Period 2		
Reasons for avoiding	N° cit.	Percent	Reasons for avoiding	N° cit.	Percent
too long	31	16.3%	too long	32	16.2%
unsafe areas	30	15.8%	unsafe areas	10	5.1%
destination	5	2.6%	destination	1	0.5%
another route	10	5.3%	another route	3	1.5%
too crowded	3	1.6%	too crowded	3	1.5%
passengers	43	22.6%	passengers	17	8.6%
not safe waiting	10	5.3%	not safe waiting	2	1.0%
Other	8	4.2%	Other	34	17.2%
inconvenient	20	10.5%	inconvenient	1	0.5%
TOTAL OBS.	190		TOTAL OBS.	198	

The sum of percentages is less than 100% because of deletions.
 This table is based on the sub-sample '27 p1' containing 190 observations and defined by the following filter:
 Period = "Period 1"
 and Area/Route = "Route 27"

The sum of percentages is less than 100% because of deletions.
 This table is based on the sub-sample '27p2' containing 198 observations and defined by the following filter:
 Period = "Period 2"
 and Area/Route = "Route 27"



Behavior of other passengers has decreased as a reason for avoiding travel.

Behaviour change - Use of bus

Have you changed use of the route in the past 3 months?

Period 1

Area Code_T	Less	Same/More	
Sample	76	114	Dependence is significant. Chi2 = 5.38, df = 1, 1-p = 97.96%. Cases highlighted in blue (or pink) are those for which the observed frequency is significantly higher (or lower) than the expected frequency. This table is based on the sub-sample 'p1' containing 370 observations and defined by the following filter: Period = "Period 1" The distribution difference between 'Sample' and 'Control' is significant. (Chi2 = 5.38, 1-p = 97.96%)
Control	26	73	
TOTAL	102	187	

Period 2

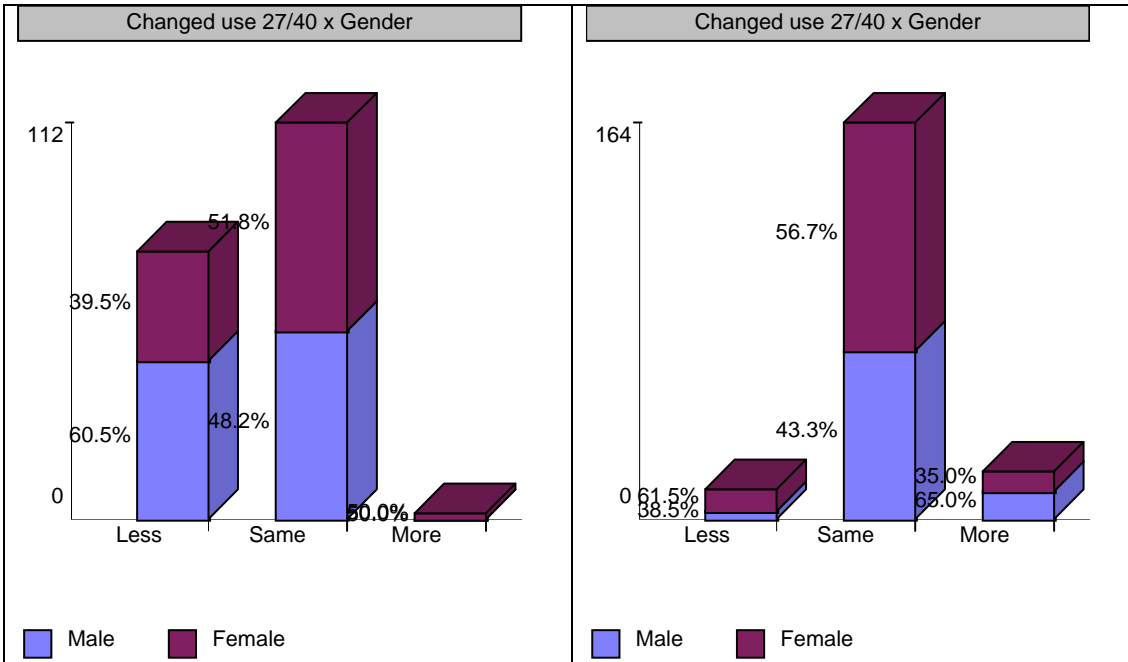
Area Code_T	Less	Same/More	
Sample	13	184	Dependence is not significant. Chi2 = 1.78, df = 1, 1-p = 81.73%. Cases highlighted in blue (or pink) are those for which the observed frequency is significantly higher (or lower) than the expected frequency. This table is based on the sub-sample 'p2' containing 375 observations and defined by the following filter: Period = "Period 2" The distribution difference between 'Sample' and 'Control' is not significant. (Chi2 = 1.78, 1-p = 81.73%)
Control	3	99	
TOTAL	16	283	

The following analyses are for route 27 only according to gender, age and employment.

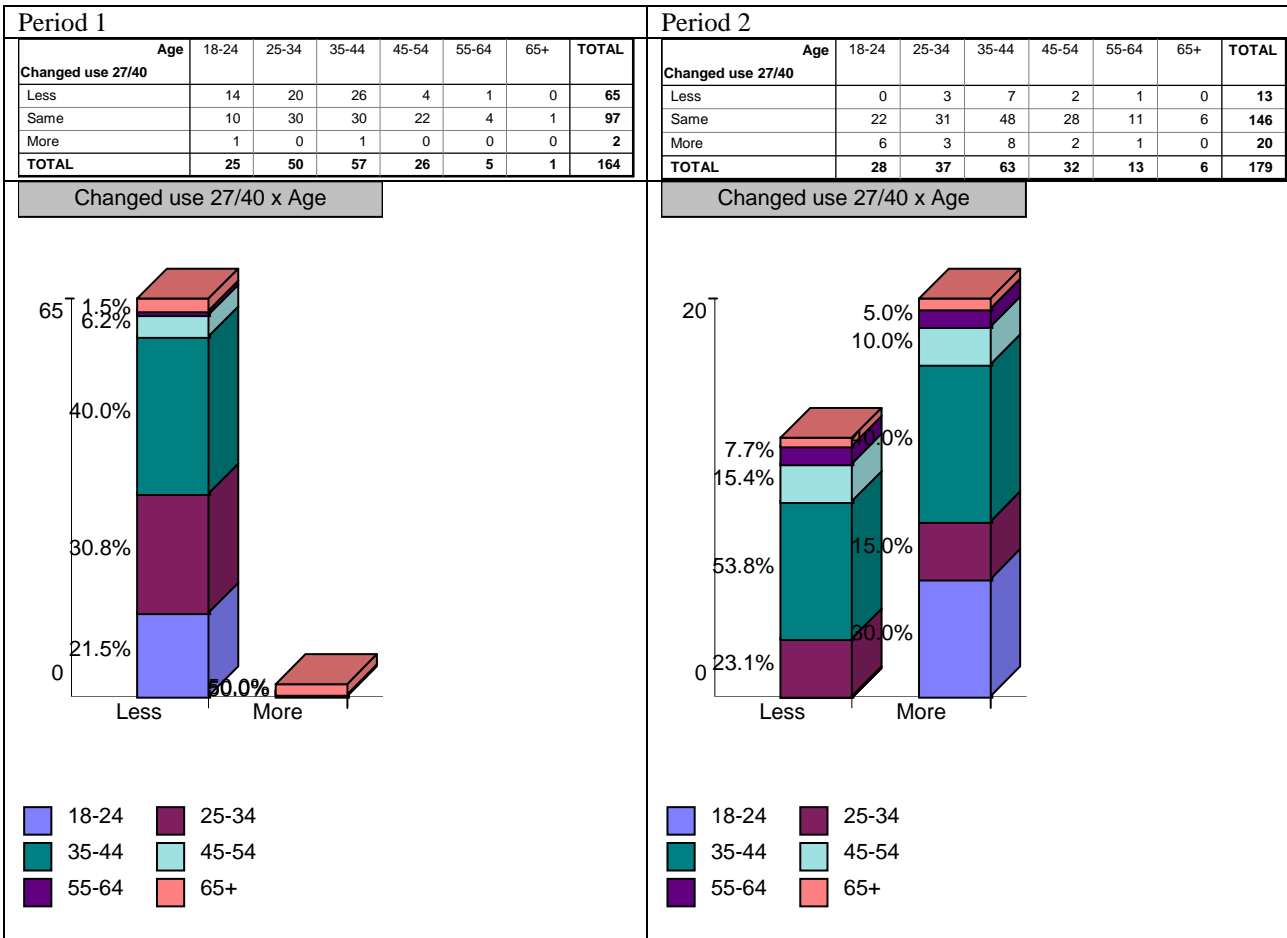
Gender

There does not appear to be any strong effects – possibly due to small sample size.

Period 1				Period 2			
Gender	Male	Female	TOTAL	Gender	Male	Female	TOTAL
Changed use 27/40				Changed use 27/40			
Less	46	30	76	Less	5	8	13
Same	54	58	112	Same	71	93	164
More	1	1	2	More	13	7	20
TOTAL	101	89	190	TOTAL	89	108	197



Age



Employment

Have you changed your use of Route 27/40 in the last 3 months?



Period 1

Employment	Full time	Part-time	Self employed	Homemaker	Education	Looking for work	Unable to work	Retired/pensioner	TOTAL
Changed use 27/40									
Less	39	12	1	8	10	6	0	0	76
Same	55	5	2	30	16	3	0	1	112
More	2	0	0	0	0	0	0	0	2
TOTAL	96	17	3	38	26	9	0	1	190

Period 2

Employment	Full time	Part-time	Self employed	Homemaker	Education	Looking for work	Unable to work	Retired/pensioner	TOTAL
Changed use 27/40									
Less	7	1	0	5	0	0	0	0	13
Same	59	21	4	37	22	11	4	6	164
More	8	2	1	4	2	1	0	1	19
TOTAL	74	24	5	46	24	12	4	7	196

Behaviour change, Intention - Use of bus

Do you intend to change your use of the route in the next 6 months?

On the whole the results show that behaviour has changed – hence there is less intention to change after the campaign.

Period 1

Area Code_T	Less	Same/More	Dependence is slightly significant. Chi2 = 3.14, df = 1, 1-p = 92.37%. This table is based on the sub-sample 'p1' containing 370 observations and defined by the following filter: Period = "Period 1" The distribution difference between 'Sample' and 'Control' is slightly significant. (Chi2 = 3.14, 1-p = 92.37%)
Sample	13	171	
Control	13	83	
TOTAL	26	254	

Period 2

Area Code_T	Change use R27/40 Less	Change use R27/40 Same	Change use R27/40 More	Dependence is slightly significant. Chi2 = 5.16, df = 2, 1-p = 92.43%. Warning, 3 (50.0%) cases have an estimated value of less than 5, the rules of Chi2 are not really applicable. This table is based on the sub-sample 'p2' containing 375 observations and defined by the following filter: Period = "Period 2"
Sample	2	181	13	
Control	2	99	1	
TOTAL	4	280	14	

Would use the bus more if it was if it was safer on bus

Period 1

Area Code_T	Strongly agree/Agree	Safer on bus Neither	Disagree/Strongly	Dependence is highly significant. Chi2 = 10.45, df = 2, 1-p = 99.46%. Cases highlighted in blue (or pink) are those for which the observed frequency is significantly higher (or lower) than the expected frequency. This table is based on the sub-sample 'p1' containing 370 observations and defined by the following filter: Period = "Period 1" The distribution difference between 'Sample' and 'Control' is highly significant. (Chi2 = 10.45, 1-p = 99.46%)
Sample	91	74	24	
Control	30	43	24	
TOTAL	121	117	48	

Period 2

Area Code_T	Safer on bus Strongly agree	Safer on bus Agree	Safer on bus Neither	Safer on bus Disagree	Safer on bus Strongly disagree	Dependence is highly significant. Chi2 = 20.73, df = 4, 1-p = 99.96%. Cases highlighted in blue (or pink) are those for which the observed frequency is significantly higher (or lower) than the expected frequency. This table is based on the sub-sample 'p2' containing 375 observations and defined by the following filter: Period = "Period 2" The distribution difference between 'Sample' and 'Control' is highly significant. (Chi2 = 20.73, 1-p = 99.96%)
Sample	26	43	22	81	23	
Control	18	14	30	26	13	
TOTAL	44	57	52	107	36	

Safety is no longer such a strong element in influencing future intention to use route 27.

Would use the bus more if it was safer waiting

Period 1

Area Code_T	Strongly agree/Agree	safer waiting Neither	Disagree/Strongly
Sample	71	80	38
Control	29	44	24
TOTAL	100	124	62

Dependence is not significant. Chi2 = 1.85, df = 2, 1-p = 60.35%.
 This table is based on the sub-sample 'p1' containing 289 observations and defined by the following filter:
 Period = "Period 1"
 The distribution difference between 'Sample' and 'Control' is not significant. (Chi2 = 1.85, 1-p = 60.35%)

Period 2

Area Code_T	safer waiting Strongly agree	safer waiting Agree	safer waiting Neither	safer waiting Disagree	safer waiting Strongly disagree
Sample	20	37	20	92	26
Control	12	19	30	28	12
TOTAL	32	56	50	120	38

Dependence is highly significant. Chi2 = 21.38, df = 4, 1-p = 99.97%.
 Cases highlighted in blue (or pink) are those for which the observed frequency is significantly higher (or lower) than the expected frequency.
 This table is based on the sub-sample 'p2' containing 300 observations and defined by the following filter:
 Period = "Period 2"
 The distribution difference between 'Sample' and 'Control' is highly significant. (Chi2 = 21.38, 1-p = 99.97%)

Would use the bus more if it was safer walking to bus stop

Period 1

Area Code_T	Strongly agree/Agree	safer walking Neither	Disagree/Strongly
Sample	74	78	37
Control	29	44	24
TOTAL	103	122	61

Dependence is not significant. Chi2 = 2.58, df = 2, 1-p = 72.45%.
 This table is based on the sub-sample 'p1' containing 289 observations and defined by the following filter:
 Period = "Period 1"
 The distribution difference between 'Sample' and 'Control' is not significant. (Chi2 = 2.58, 1-p = 72.45%)

Period 2

Area Code_T	safer walking Strongly agree	safer walking Agree	safer walking Neither	safer walking Disagree	safer walking Strongly disagree
Sample	16	37	19	97	26
Control	11	20	29	29	12
TOTAL	27	57	48	126	38

Dependence is highly significant. Chi2 = 22.34, df = 4, 1-p = 99.98%.
 Cases highlighted in blue (or pink) are those for which the observed frequency is significantly higher (or lower) than the expected frequency.
 This table is based on the sub-sample 'p2' containing 300 observations and defined by the following filter:
 Period = "Period 2"
 The distribution difference between 'Sample' and 'Control' is highly significant. (Chi2 = 22.34, 1-p = 99.98%)

Would you use the bus more if it was in better condition

Period 1

Area Code_T	Strongly agree/Agree	better condition	Disagree/Strongly
Sample	86	74	29
Control	29	45	23
TOTAL	115	119	52

Dependence is significant. Chi2 = 7.16, df = 2, 1-p = 97.21%.
 Cases highlighted in blue (or pink) are those for which the observed frequency is significantly higher (or lower) than the expected frequency.
 This table is based on the sub-sample 'p1' containing 289 observations and defined by the following filter:
 Period = "Period 1"
 The distribution difference between 'Sample' and 'Control' is significant. (Chi2 = 7.16, 1-p = 97.21%)

Period 2

Area Code_T	better condition Strongly agree	better condition Agree	better condition Neither	better condition Disagree	better condition Strongly disagree
Sample	16	31	21	96	30
Control	9	23	28	28	13
TOTAL	25	54	49	124	43

Dependence is highly significant. Chi2 = 20.92, df = 4, 1-p = 99.97%.
 Cases highlighted in blue (or pink) are those for which the observed frequency is significantly higher (or lower) than the expected frequency.
 This table is based on the sub-sample 'p2' containing 300 observations and defined by the following filter:
 Period = "Period 2"
 The distribution difference between 'Sample' and 'Control' is highly significant. (Chi2 = 20.92, 1-p = 99.97%)

Other counts

Measurements were also made of the cost of damage to buses along the route 27. The following graphs show the results of this.

<p>The graph shows the cost of damage on route 27 for 2001 and 2002. The normal sharp increase in October (Hallowe'en) was not as dramatic in 2002.</p>	
<p>The savings (in terms of damage costs) are shown on the graph.</p> <p>Peaks in saving seem to occur after the campaign interventions – the schools competition in June, and the launch of on-bus and shelter posters in September.</p>	
<p>The actual savings are shown here.</p>	<ul style="list-style-type: none"> • Jan – June Total €1610 – Average 268 / month • July – October Total €1720 – Average 430 / month • Nov – Jan Total €1837 – Average 612 / month

Campaign message analysis

	<p style="text-align: center;">Competition</p> <p style="text-align: center;">Involving the children</p>	<p style="text-align: center;">Prize giving</p> <p style="text-align: center;">Acknowledging the efforts of the school children</p> <p style="text-align: center;">Recognising their achievements</p> <p style="text-align: center;">Raising the profile of the bus company - involved, interested, caring</p>
<p style="text-align: center;">Campaign Branding - strapline</p> <p style="text-align: center;">Original winning poster</p>	<p style="text-align: center;">Choosing the children's own work</p> <p style="text-align: center;">Making their mark</p> <p style="text-align: center;">Dublin Bus Corporate Calendar 2003</p>	
<p style="text-align: center;">Involvement of strategic partners</p> <p style="text-align: center;">Viacom - bus sides</p> <p style="text-align: center;">More Group - bus shelters</p> <p style="text-align: center;">Funding provided</p> <p style="text-align: center;">No other campaign message</p>		<p style="text-align: center;">Involvement of other partners</p> <p style="text-align: center;">UCI Cinemas</p> <p style="text-align: center;">FM104 Local Radio</p> <p style="text-align: center;">Funded prizes for competition</p> <p style="text-align: center;">No other campaign message involved</p> <p style="text-align: center;">All partners with the same objective - decrease vandalism</p> <p style="text-align: center;">Garda Siochana</p>

Recall of campaign

<p>Spontaneous recall of campaign</p>	<p>A pie chart illustrating the results of spontaneous recall of the campaign. The largest slice, representing 'No recall', is magenta and accounts for 75% of the total. A smaller slice, representing 'Incorrect recall', is light blue and accounts for 15%. The smallest slice, representing 'Correct recall', is dark blue and accounts for 10%. A legend below the chart identifies the colors: magenta for 'No recall', dark blue for 'Correct recall', and light blue for 'Incorrect recall'.</p>
<p>Prompted recall of calendar</p> <p>67 people recalled receiving the calendar while 131 did not</p>	<p>Pie-chart representation of 'Receive calendar'</p> <p>A pie chart showing the results of a prompted recall regarding receiving a calendar. The 'yes' response is represented by a magenta slice, which is 34% of the total. The 'no' response is represented by a blue slice, which is 66% of the total. A legend to the right of the chart identifies the colors: magenta for 'yes' and blue for 'no'.</p>

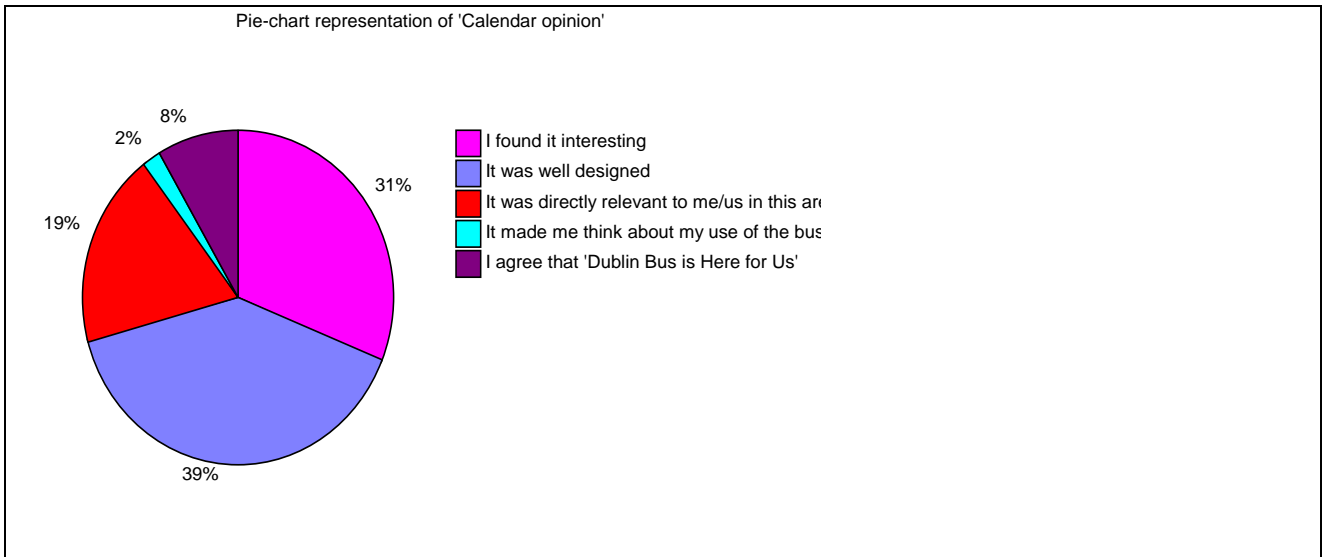
<p>Prompted recall of bus poster</p> <p>8 people recalled seeing the on-bus poster while 190 did not</p>	<p>Pie-chart representation of 'See poster_onbus'</p> <table border="1"> <caption>Data for 'See poster_onbus'</caption> <thead> <tr> <th>Response</th> <th>Percentage</th> </tr> </thead> <tbody> <tr> <td>yes</td> <td>4%</td> </tr> <tr> <td>No</td> <td>96%</td> </tr> </tbody> </table>	Response	Percentage	yes	4%	No	96%
Response	Percentage						
yes	4%						
No	96%						
<p>Prompted recall of shelter poster</p> <p>3 people recalled seeing the poster at bus shelters while 195 did not</p>	<p>Pie-chart representation of 'See poster_stop'</p> <table border="1"> <caption>Data for 'See poster_stop'</caption> <thead> <tr> <th>Response</th> <th>Percentage</th> </tr> </thead> <tbody> <tr> <td>yes</td> <td>2%</td> </tr> <tr> <td>no</td> <td>98%</td> </tr> </tbody> </table>	Response	Percentage	yes	2%	no	98%
Response	Percentage						
yes	2%						
no	98%						

Recall of calendar message – those who say they saw the calendar

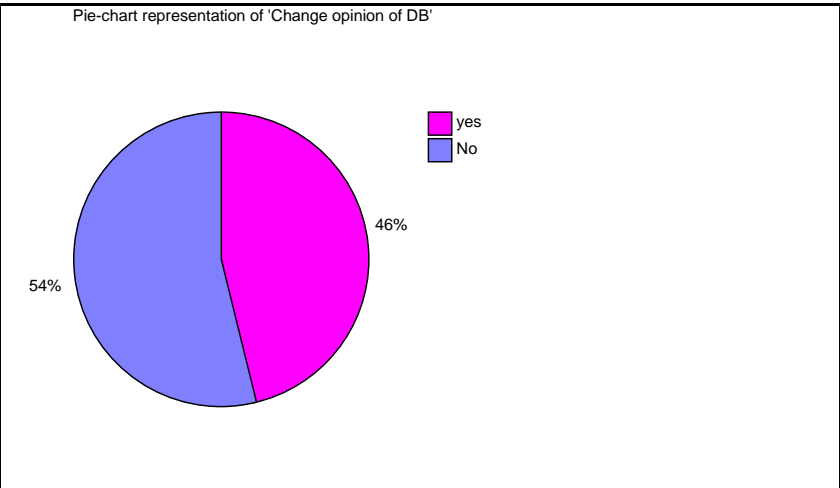
How to use the bus safely
Don't vandalise
Vandalism - keep buses clean
Something about keep the buses tidy; give up your seat
There was kids pictures
Just looked at the pictures
Kids drawings - that is all I remember
A picture by a little girl around the corner was in it. Can't remember what it said.
We love our bus
Only remember children's drawings
Respect your bus
Very good pictures
Children's drawing competition - "It's our bus"
The bus is for us all - for kids
Lovely kids pictures - trying to improve the bus for kids
Great imagination involved
Dublin - this is your bus
"This is our bus"
Safety and clean on bus for kids
"Dublin Bus is here for you"
Respect your bus service
safety
The bus is for us all - look after it.
Lovely kids pictures
Kids pictures and something like "look after the bus for our own safety"

Advertises Dublin Bus and kids drawings
Kids pictures
Dublin Bus is our Bus
All about the buses
Pictures of bus done by kids
Pictures of the 27 Bus - drawings
Local children - schools in area
Picture of the buses made into a drawing. Picture done by the schools. The buses are there for us, not to damage them.
Very talented children, very professionally made, very good opinion, very good for children and school.
Dublin Bus drawings through the children's eyes
Dublin Bus - respect the bus
Dublin Bus is our bus.
Promoted by Dublin Bus and UCI cinemas
Childrens drawings of the 27 route
Drawings by the local children
All the local schools took part in making it - pictures of buses
Done by the school, lovely, colourful
All the pictures of the bus
Art competition
First class! Should be for sale in local shops.
Quicker on the bus
Drawing by children
Children's art - local

Reaction to Calendar – those who saw the calendar (n=67)



46% (n=31) of those who had seen the calendar said that it changed their opinion of Dublin Bus



How did it change your opinion of Dublin bus – those who said it changed their opinion (n=31)

acknowledging kids
All lovely art done by kids in school
Brilliant drawing
colourful
doing something
Doing something for kids
Dublin Bus involved
encourage pride in the bus to stop vandalism
Encouraging local children
encouraging the kids
gets kids involved
Getting involved in area
Getting the children involved
Good idea
Good idea not always knocking the area
Good idea the kids involved
good public relations
I feel it would help kids to think twice before they harm the bus
I feel more warm towards Dublin Bus
I think they are trying to improve things
I thought it was a great idea to make children conscious that the bus is for us all
I thought it was a very nice touch
Interesting
Involved in the local area
Kids in school very proud of it
local
Local schools involved
Lovely calendar
made big effect in presentation for winners
makes them feel important
pride
Quality
s good
s great that they are getting children interested
School children from the area made it
Show Dublin Bus is trying
Showing interest in the area
that is good
They are trying to train children in looking after bus
They included kids
They made an effort
Very positive
Working with the kids

Campaign Assessment Tool

1. Strategy		
Aim	1. Was an overall aim specified for the campaign?	YES – Reduce vandalism & increase perceptions of safety when using the bus
	2. Does the aim relate to an overall company policy/strategy/vision?	Introduction of new QBCs depends on success of existing QBCs in getting more people to use the bus;
	3. Does the aim directly support the overall explicit policy/strategy?	YES - Reduction in vandalism to lead to an increase in bus usage (especially off-peak)
Objectives	4. Was a main objective set which supported the aim?	YES - Reduction in vandalism to lead to an increase in bus usage (especially off-peak)
	5. Was more than one objective set?	YES – reduce vandalism; increase perceptions of safety; increase bus use
	6. Were all objectives congruent or compatible with the main aim and objective?	YES
Targets	7. Were behavioural change targets set?	No specific targets were set
	8. Were attitudinal change targets set?	No specific targets were set

2. Management/Co-ordination		Comment
Campaign management	1. Was there top level support for the campaign?	YES; while the initial involvement was the Quality & Commercial department of Dublin Bus, the management team including the Managing Director supported the whole TAPESTRY initiative. Also the Board of CIE, the holding company for the 3 main transport operators, was aware of and supported the campaign.
	2. Was a defined management structure/system in place?	NO
	3. Was an overall campaign 'Champion' or manager appointed?	YES – Peter Scott, Quality & Commercial Manager, Dublin Bus, was the overall manager. However, because of the level of interest, there were many 'champions' all with different responsibilities. A worker-director on the Board of CIE (driver/union rep Gerry Charles from Clontarf depot) took over the liaison with the schools and ensured the implementation of the campaign.
	4. Was the campaign manager knowledgeable about the issues?	YES
	5. Is there top level support for the campaign manager?	YES
	6. Were all players involved from the outset/early on?	No -
	7. Was the roll out planned?	YES but there was some delay resulting in the competition being rushed through at the end of the school year.
	8. Was market research planned?	YES; fundamental research was conducted with school children before the nature of the campaign was considered. Pre and post implementation surveys were also conducted with residents.

3. Resource Allocation		Comments
Financial resources	1. Was financial resource allocation planned?	NO
	2. Was financial allocation adequate?	YES
Time resources	3. Was adequate time allowed a) for campaign development b) for roll out	YES
Human Resources	4. Was human resource allocation planned?	NO
	5. Was human resource allocation executed as planned?	
	6. Was there continuity of staff?	YES
	7. Did staff have skills in communications/marketing?	Some did
	8. Were staff knowledgeable of the social issues? a. cultural issues? b. mobility issues?	YES Everyone involved was aware of the social deprivation of the area, as well as the vandalism and attitude to bus use.
Management monitoring	9. Was a framework for campaign assessment set up?	YES; there was continuous measuring of the costs of vandalism on the route, as well as pre-and post implementation surveys with residents
	10. Was there a mechanism for information to reach the campaign manager?	YES – the campaign manager was involved directly
	11. Was there a mechanism for information to reach a higher strategic level?	YES – through management meetings in Dublin Bus and to the Board of CIE through worker/director Gerry Charles
	12. Did campaign management take notice of previous campaign assessment/ learning?	YES; previous experience in other European case studies showed that direct involvement of children in some activity brought about more behavioural and attitudinal change. This was taken on board by the campaign team when considering the nature of the campaign.

4. Partnerships/synergies	Comment
Involvement of other partners (private/social) or sponsors	1. Were there Strategic partners, i.e. not participating, just supporting (financially or in other ways)? YES – Gardai Siochana, Viacom, CSS, More Group, Interactions Ltd
	2. Were there Operating partners - Direct input to campaign operation / materials and content? The local community gardai advised on school involvement and the competition; UCI (local cinema) and FM104 (local radio) gave financial support; Interactions, as well as conducting the market research, advised on competition and campaign design and implementation
	3. Were the strategic partners' objectives and campaign contributions in line with the campaign objectives? YES The Garda Siochana supported the campaign because its community involvement aspect matched their own strategy and activities in the area; The cleaning contractors to Dublin Bus (ISS) supported the idea while Viacom provided free display space on bus sides and More Group provided free display space on bus shelters; - all of these feel the impact of vandalism on buses and saw the need to reduce it.
	4. Were the operating partners' objectives and campaign contributions in line with the campaign objectives? YES The local branch of UCI cinemas felt that the an anti-vandalism campaign was worthwhile and provided financial support in the form of prizes
	5. Was there synergy with other organisations /cities doing similar things? NO

5. Research		Comment
Was market research commissioned to:	1. Identify a clearly defined target audience - group to which campaign is directed?	Yes – school children directly and parents and other residents indirectly
	2. How many target audiences were identified? Were they differentiated, ie. Was an effort made to tailor the campaign for different audiences (i.e. the campaign made use of market info.) or were the differences ignored?	2 audiences were identified and differentiated (see above). The campaign sought to address schoolchildren by involving them in the competition. By then displaying their work in public, both the children and adults were targeted together but at different levels – children by showing that their work was acknowledged and appreciated, adults by showing that the bus company was doing something for the community and doing something about vandalism.
	3. Identify key audiences (those most likely to change - early or likely adopters)?	NO
	4. Identify criteria for relating to the life of the audience; audience lifestyle, behaviours, needs, priorities, preferences, motivators?	YES – the children’s need to be recognised and make their mark; to be interested and involved in some activity; achieving something.
	5. Was research carried out to provide baseline data for further tracking/feedback? (prior to roll out)	YES – baseline research with both children and adults
	6. Was this knowledge used to inform the design of the brand image	YES – the need to recognise the children’s involvement meant that the campaign was in the form of the children’s work – no major changes were made to the original designs of the children; one of the images was chosen as the strapline for the brand – ‘The Dublin Bus is Here for Us’

	6. Design	
Context	1. Real life <input checked="" type="checkbox"/> Fantasy <input type="checkbox"/>	The campaign was based on the life experiences and perceptions of the children and the community itself.
Message	2. Were there multiple messages within one communication? If YES, how many	The main message was 'The Dublin Bus is Here for Us'
	3. Did the campaign have a clear message Did the message(s) relate to the audience's lifestyle/behaviours? Did the message(s) relate to the audience's aspirations? Did the message(s) relate to the objectives?	YES – 'The Dublin Bus is Here for Us' Yes – using the bus Yes – having a useful bus service Yes – repositioning the bus in the minds of the people
	4. Cognitive (rational, logical) <input type="checkbox"/> 5. Affective (appealing to emotions) 6. Explicit Implicit	The main message was cognitive - 'The Dublin Bus is Here for Us'. However, this was also an affective message with implicit messages such as: <i>The involvement of the company in the community</i> <i>The usefulness of the bus service</i> <i>The recognition of the children's work</i> which in turn subliminally implied a better bus service that people would respect and not vandalise and therefore use more Low involvement processing' whereby (implicit) commercials do not actively engage with the minds of the audience can be most effective. Most transport / mobility advertising is explicit.
Argument	7. Validating (behaviour change) 8. Invalidating (current behaviour)	The message was a validating one to encourage behaviour change (decrease vandalism) and attitude change (perception of the bus) Lasting personal attitudinal and behaviour change is most effective when campaigns and communications provide attractive alternatives and then validate the choice made (by enhancing the image etc). Invalidating advertising – often using shock tactics may be less successful because of the phenomenon of denial – whereby people attribute blame to 'them' not me. Such commercials are often not 'seen' even though people actually look at and listen to them.

Content	9. Use of colour <input type="checkbox"/> sound <input type="checkbox"/> animation / cartoons <input type="checkbox"/> shock tactics <input type="checkbox"/> Other <input type="checkbox"/>	Colourful posters designed by children
	10. Passive <input type="checkbox"/> Active <input type="checkbox"/> Audience involvement <input type="checkbox"/>	Audience involvement – children took part in a competition – their work put on display.
Message givers	11. Icons / famous actors / sports people,	No involvement
	12. Public / ordinary people / peers, etc	Peers
	13. Officials / institutions / authority, etc	No official presence obvious in the campaign
Tone (tone of voice or attitude of the message giver)	14. Positive Negative	This was a positive, persuasive, appealing campaign
	15. Offering new alternatives Restricting (no choices, less freedom)	
	16. Persuasive / Coercive	
	17. Authoritative/Dictatorial/Humorous	
Mood communicated by message	18. Appealing to conscience/Appealing to audience aspirations	
	19. Shocking	
	20. Upbeat 21. Fear	
Creative style	22. Was a specific creative style defined/decided upon? Graphic - using drawings/cartoons People/Things, etc.	Children's drawings were used throughout.
Brand image	23. Was a clear brand image specified?	YES – 'The Dublin Bus is Here for Us' was used throughout as the brand image
	24. Was a clear brand image used / achieved?	
	25. Is the branding clear and consistent across all media?	
	26. Was brand image based on research on life of audience ?	YES – see above under research
Concept testing	27. Was the campaign concept pilot tested with a sample of the target audience? (mood boards,etc)	NO

	7 Implementation and Roll-out	This section is merely a check-list of options
Media choice	28. Radio/ TV	
	29. Cinema	
	30. Posters / Wall displays	X
	31. Flyer / leaflet	X
	32. Newspapers, magazines, journals	
	33. Email	
	34. Internet	
	35. Direct mail	
	36. Play	
	37. Competition	X
	38. Action packs	
39. Press conference		
40. Sponsored event	X – prize giving	
Timing	41. Campaign timing takes account of other environmental factors, e.g. school holidays, major sport events	X
Roll-out	42. Was there a step-by-step action plan	X
	How was the roll-out implemented? All at once <input type="checkbox"/> Drip feed <input type="checkbox"/> Teasers followed by main campaign <input type="checkbox"/> Intermittent <input checked="" type="checkbox"/> Continuous <input type="checkbox"/>	
Delivery - where delivered	Home <input checked="" type="checkbox"/> Work/school <input checked="" type="checkbox"/> Street <input checked="" type="checkbox"/> Shops <input checked="" type="checkbox"/> On vehicle <input checked="" type="checkbox"/>	Calendars to homes, schools and shopping centre, posters on buses and on shelters
	43. Did delivery depend on involvement of others, e.g., teachers (if so were they involved from the outset)	Delivery of calendar to homes by Scouts; delivery of posters on buses and shelters by Viacom/ More Group who were involved from the outset and specified timescales for implementation

Tracking	44. Did a feedback mechanism to campaign management operate	YES – post implementation surveys but only for the purposes of TAPESTRY. No ongoing programme in place.
	45. Were there before <input type="checkbox"/> and after surveys <input type="checkbox"/>	YES
	46. Were there counts <input type="checkbox"/> observations <input type="checkbox"/>	YES – on-going tracking of costs of vandalism on the route as well as passenger carryings
	47. Audience reaction – recall, like it, use it, influenced by it, can relate to it	All addressed during the post-implementation survey
	48. Audience opinion of choice of media	
	49. Audience opinion of message givers	

CONCLUSIONS

Awareness of the seriousness of vandalism was relatively low to start with in the target group. By comparison, the issues were regarded as more serious in the control area. This seemed to show a greater tolerance for bad passenger behaviour and on-street vandalism in the target area. However, when prompted people admitted to avoiding the bus route because of safety reasons.

The campaign appeared to be successful in raising the awareness of these issues as serious problems that can be tackled. The campaign showed that Dublin Bus was no longer tolerant of the behaviour, and was doing something about it in a way that showed its commitment to the local community and in a way that involved the local school children. Reactions to certain aspects of the campaign were very positive and it was successful in reducing the costs of vandalism as well as improving the image of the bus route and the bus company. Reported usage of the bus route also increased.

The success of this campaign can be understood from reading the Campaign Assessment Tool section (page 51). The main reasons were:

- There was enthusiasm for the whole initiative from the start. The strategy of the company to introduce more Quality Bus Corridors was dependent on the success of existing QBCs. The route 27 QBC was less successful than others in attracting new business and off-peak passenger numbers were lower than expected. Aware that safety and vandalism were at the root of this problem, Dublin Bus knew that it had to address these issues to ensure the introduction of future QBCs. Therefore the success of the campaign was driven by the high level strategies of the company.
- Other organisations suffering from the same problem were invited to participate from the start.
- The involvement of people from all levels within the company ensured that the problem was understood and addressed correctly and that the campaign was designed and implemented properly. Management at the bus depot of the route experiencing the problems were involved from the start and provided on-the-ground information about the problem. This local knowledge was invaluable and would not have been available at other levels in the company.
- A schools liaison person (usually a bus driver) with responsibility for developing relationships with schools and schoolchildren in the area operates from each depot. This was also an invaluable asset in implementing the campaign.
- The fact that this person was also a worker-director on the Board of CIE (holding company) meant that information from the ground made its way directly to the top, generating interest in and support for the initiative.
- Research was conducted with residents to elicit their perceptions of the bus route and to measure exactly the perceived levels of vandalism and lack of safety. Although this was useful as a baseline measurement against which to compare future changes and determine the success of any initiatives, the company also realised it needed to understand the mind of the vandal. Vandals were also the target of the campaign and therefore it was important that research should also be conducted with them.
- Using the eliciting techniques and methodologies of Personal Construct Psychology and Repertory Grids, Interactions was able to provide insights into the reasons for vandalism and how to speak to vandals using a communications campaign.