Message Not Received. Evaluation Report 2022

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CONTENTS

Final report   # Intro

This report presents the findings from the 'Message Not Received' project. A project So-Mo conducted with BCC to understand how to reduce serious injuries and deaths resulting from traffic collisions.

Using So-Mo's framework, THIS, BCC made startling discoveries, identified the behavioural solution likely to have the greatest impact and co-designed a behaviourally optimised campaign.

Findings from the ethnographic research and co-design allowed BCC and So-Mo to view the world from the young person's perspective and gather behavioural insights that would inform the campaign, ensuring it was meaningful and reflected the values and lives of young South Asian people today.
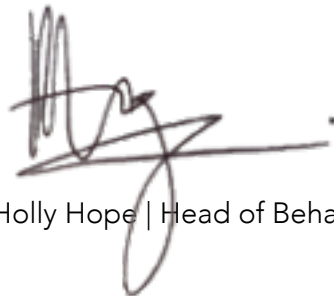
In this report, you will review the background to the project, the final designs, the methodology to test the campaigns and the initial results.

We are very proud of this work, and hope you see its value as much as the young people who designed the campaigns with us.

This work will be presented to the international and national road safety audiences at POLIS and RSGB and is shortlisted for a CIHT Research Initiative of the Year Award.

Nicola Wass | CEO | So-Mo   Dr Holly Hope | Head of Behavioural Science | So-Mo

So-Mo

Nudge technologists

We make change easy

We make change happen, because we focus on making it easy for people to change.

For over 10 years So-Mo have been using Behavioural Science to help people make different choices and build better habits. Collectively these small changes have achieved a big impact.

We're committed to the principles of, 'Nudge for Good' so as you'd expect, a lot of our clients come from within government, the public sector and international NGOs. This does not limit us. We will work with anyone looking to achieve positive change through insight-led policy and design.

Our ground-breaking work has helped 100s of organisations improve the health, wealth and happiness of the people they employ and the populations they serve. So, if you are looking to make small changes that achieve a big impact, we'd love to speak with you.
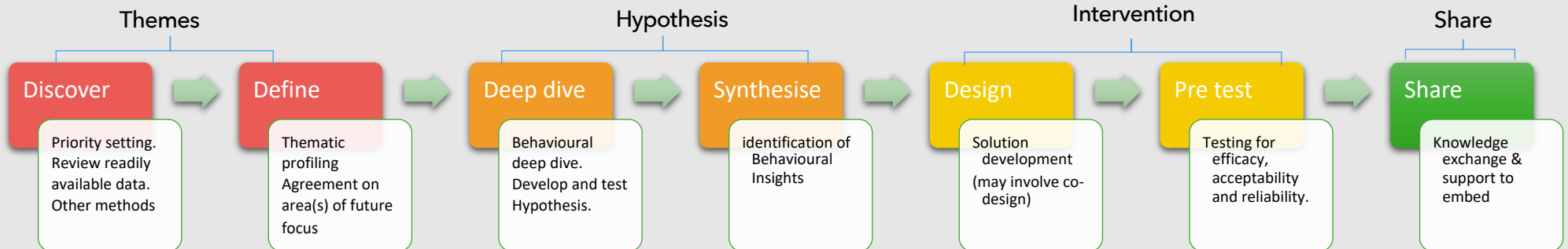
So-Mo. We make change easy.

How we work   THIS

Our Approach and
Framework

Our behavioural framework, THIS, blends insights and methods from behavioural economics, cognitive and social psychology, together with the principles and practice of service and experience design.

The insights we uncover using THIS are used to craft nudge-based, testable solutions.

Our work is always fascinating, often challenging but above all, it offers the opportunity to make real difference to the world we inhabit now and the world of tomorrow.

Themes

Hypothesis

Intervention

Share

Discover	Define	Deep dive	Synthesise	Design	Pre test	Share
Priority setting. Review readily available data. Other methods	Thematic profiling Agreement on area(s) of future focus	Behavioural deep dive. Develop and test Hypothesis.	identification of Behavioural Insights	Solution development (may involve co-design)	Testing for efficacy, acceptability and reliability.	Knowledge exchange & support to embed

Executive Summary

Message Not Received

In 2019, Birmingham City Council (BCC) identified that a particular area of Birmingham had disproportionately high road accident casualty figures and commissioned So-Mo to investigate and understand the reasons behind high casualty rates and identify a way to reduce these figures in line with BCC's Road Safety and Action Plan.

An observational study identified that the rate of non-seatbelt use was not only a key contributor to high casualty figures, but that the rate of non-seatbelt use was far greater than anyone had envisaged.

Whilst nationally, the **rate of non-use of seatbelts** was sitting at around 8% (DfT 2018), locally it was a 38%. **A staggering 5x times higher than the national average!**

Another key insight was that previous national seatbelt campaigns (considered instrumental in achieving one of the lowest road-casualty-rates in the world), had repeatedly failed to reach and engage

people from these communities, resulting in a health-inequality that had remained hidden and unaddressed for many years.

The Road Safety Trust found this work to be of wider national interest and subsequently funded Birmingham City Council and So-Mo to design a solution based on the integration of Behavioural Science and co-design. This required the involvement of the people most impacted by this problem, namely young adults of Pakistani, Bangladeshi and Indian heritage in Birmingham.

We engaged 25 young people from South Asian communities in Birmingham to co-design a seatbelt campaign with us. By the end of the co-design stage, we were able to select two very strong posters that were then tested in a randomised control trial on a cohort of 400 young people in Birmingham.

Survey results showed that the posters we co-designed together with the young outperformed the national, regional and control posters and were more likely to

initiate behavioural change (i.e., wearing a seatbelt; see pages 15-23 for more detailed information).

We believe that the concepts we developed can be rolled out as a full campaign to promote seatbelt awareness in Birmingham. Furthermore, we are confident that the approaches we employed to conduct this research can be adapted to tackle other road safety issues both regionally and nationally.

Introduction

Background

Message Not Received

Road casualty figures in parts of East Birmingham are disproportionately high. Interventions that have been effective elsewhere have achieved little impact.

Birmingham City Council (BCC) concluded that generic approaches to road safety were achieving limited traction and commissioned So-Mo to help them understand the problem.

BCC's Hypothesis

BCC initially thought that young men driving recklessly in high performance cars, lay at the heart of the problem.

The Data

When we interrogated collision data, alongside evidence from community interviews, we discovered that whilst young men driving high performance cars are visible and annoying to residents, the actual number of casualties attributable to them was very small. Tackling this problem would have made no difference to the area's casualty figures.

The real reason we were seeing higher deaths and injuries, was explained by a very large number of passenger casualties. This strongly suggested that

passengers were not wearing seatbelts.

To test this hypothesis, So-Mo observed seatbelt use at casualty hotspots in East Birmingham. An observation of 507 vehicles uncovered a significant disparity.

Nationally, the rate of passenger non-use is 8%, locally it is sitting at 38%, a staggering 5 times higher!

When we overlayed collision data with consumer and sociodemographic data, it transpired that 80% of these casualties were experienced by people of South Asian origin.

Whilst this problem affected all ages, it was particularly pronounced amongst the 16- 24 age group.

Decades of high-profile, well regarded seatbelt campaigns and changes in the law, had achieved one of the highest wearing rates in the world. So what had gone wrong?

Message not received?

Prior campaigns, had all sought to change behaviour by eliciting a powerful emotional response in the viewer.

Heightened emotion aids engagement and memorability of message, - but only when the viewer is able to identify with the person they are seeing.

People are more likely to empathise and feel an emotional response when they identify with the campaign 'actor' and its content" (Noar et al., 2007)

A failure to reflect the lives and aspirations of South Asian people had inadvertently resulted in 'message-not-received'. We had uncovered a health-inequality that had remained hidden and unaddressed for many years.

Introduction

Evidence from the data

Passenger casualties by area of Birmingham

When we looked at passenger casualties in A2 North between 2013-2017, they were substantially higher than in comparator areas; A2 South (similar size, deprivation and ethnicity), Central East (similar size and deprivation) and North Birmingham (similar size and deprivation).
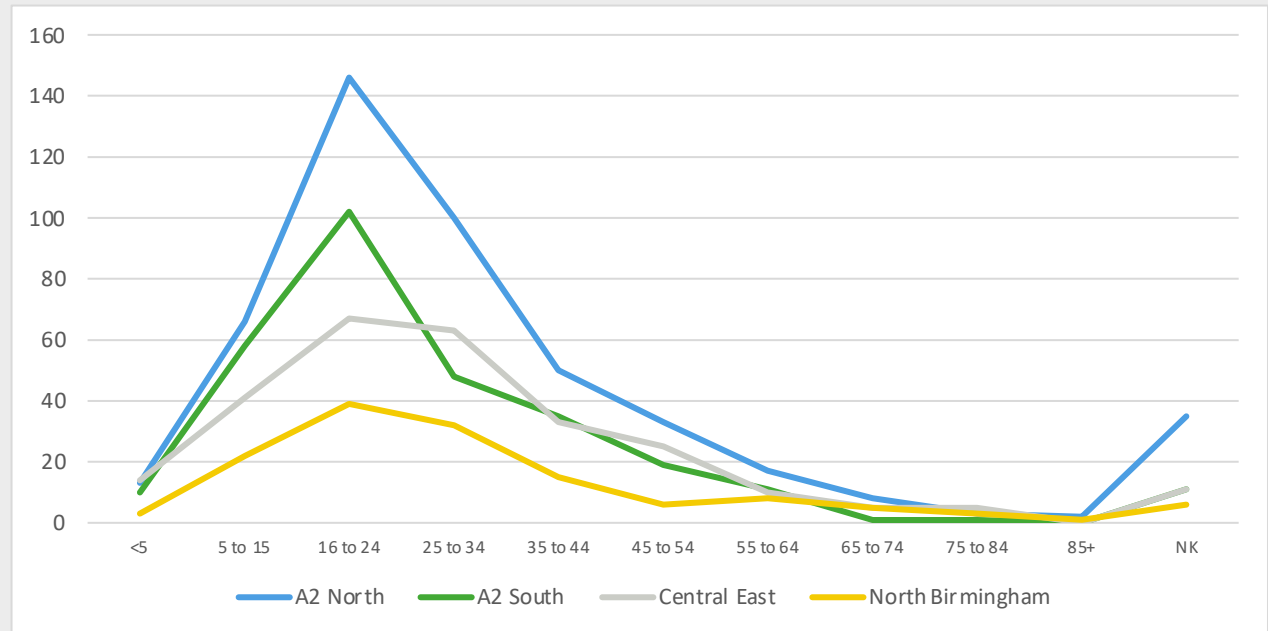
38% of all pedestrian casualties were in A2 North, meaning A2 North were over-represented in the number of passenger casualties between 2013 and 2017.

The absolute difference in the number of passenger casualties was most pronounced in the 16-24 age group.

Whilst 16-24-year-olds were at the highest risk of being a passenger casualty in all areas, the risk was much higher in A2 North. There were 146 casualties in A2 North, compared to 102 in A2 South, 67 in Central East and 39 in North Birmingham among people aged 16 to 24 years.

Therefore we decided to focus on young people for this phase of work.

Introduction

Evidence from the data

Using the same methods as the DfT we captured seatbelt non-use, for all occupants, drivers only and passengers. We compared our rates with seat belt rates from the most recent national survey (2018).

We calculated 95% confidence intervals around our estimates so we could be certain that the rates in A2 North were definitely higher than the national rates.

Seatbelt non-use was higher in A2 North across all categories but it was highest for passengers.

Seat belt non-use in A2 North compared to UK

Occupant (number observed)	A2 North	Upper limit (95%CI)	Lower limit (95%CI)	National average
All (507)	25 %	33 %	17 %	4 %
Drivers (334)	22 %	31 %	12 %	1 %
Passengers (129)	38 %	49 %	22 %	5 %

Taken from insights report from "Insights into Road Safety" submitted 31.12.19

Introduction

So-Mo Logic & Approach

Our Logic

We hypothesised that:

1. If we could increase use of seatbelts, we would see a reduction in passenger casualties.

2. Any intervention to increase seatbelt use would need to be targeted and tailored to a South Asian population.

Approach

In order to do this, we needed a way to

- View the world from the perspective of young, South-Asian people, living in Birmingham today.

- Uncover behavioural insights that could inform a new set of safety messages.

- Tailor those insights to reflect the lives and values of young South Asian people.

But it was 2021 and the UK was in lockdown.

Message Not Received

You Know it Makes Sense   1963

Your Seatbelt is their Security 1970

Clunk Click Every Trip 1971

The Clunkers
Late 70's / Early 80's

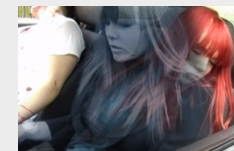Belt up in the Back 1998 (& 2007)

Clunk Click Even on the Shortest Trip 1981

The Blunders 1983

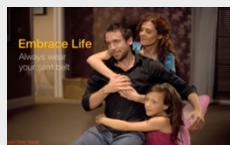**Don't Do It** 1983

Elephant
1993

THINK! Wear a seatbelt
2003

THINK! Reverse Advert
2006

Three Strikes
2008 (& 2010)

Embrace Life
2010

Richard didn't want to die
2011

A failure to reflect the lives and aspirations of South Asian people had inadvertently resulted in 'message-not-received'.

Methods

So-Mo Approach
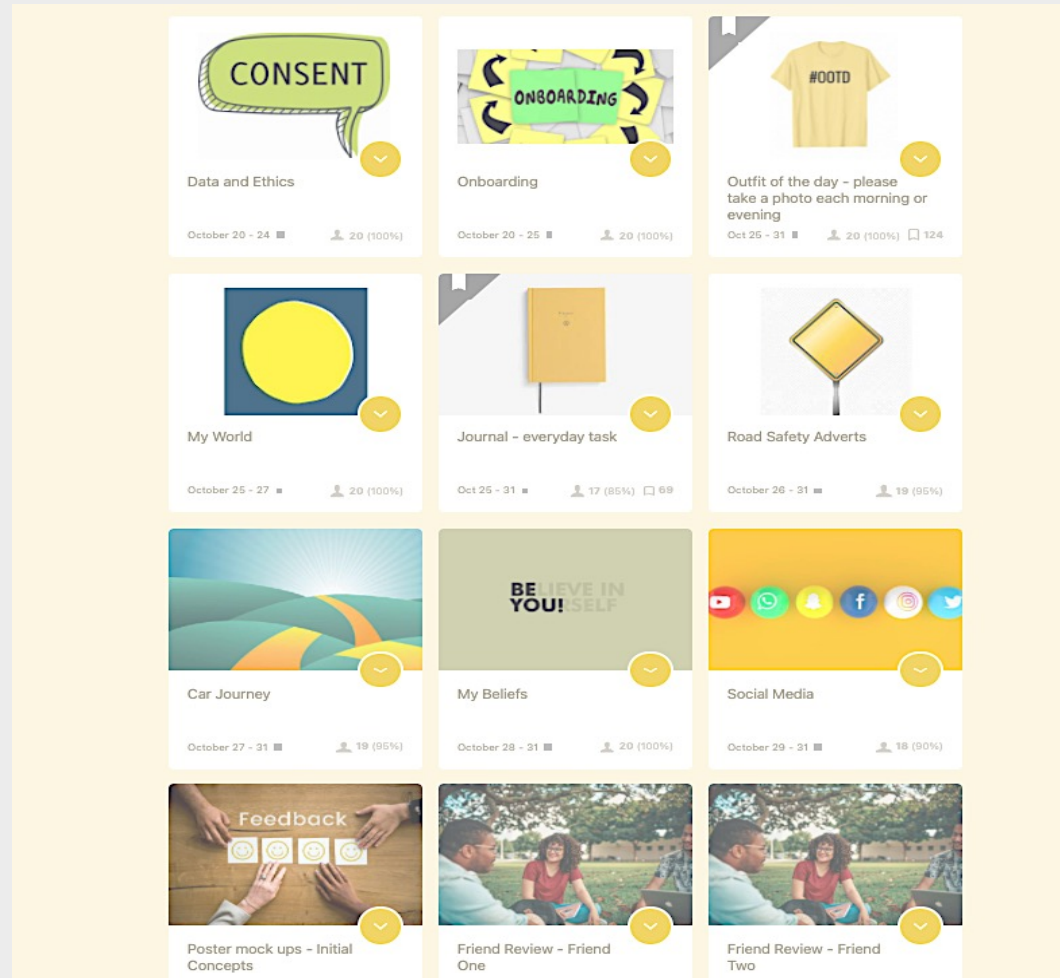
Co-design and Mobile Ethnography

We devised an innovative way to engage 25 young people of Pakistani and Bangladeshi heritage, through the creation of an online community. The community was hosted on an online platform.

The co-design stage consisted of three parts. First, participants were presented with a set of tasks that gave us greater insights into their world and how we might tailor the prototypes. We were able to interact with them during their online journey, by asking follow-up questions when needed or initiating discussions. The participants were also asked to upload images/videos to illustrate their experiences.

In the second part, the information provided by the user group was summarised and presented back to them, so it could be refined. We then held sessions where we taught them about behavioural science and how it can be applied to a poster. We discussed different ways of phrasing a message, and ways you can use imagery to make messaging more salient. Then we allowed the young people to ideate and develop themes that the design team then realised as ~20 prototypes.

In part three, the young people shortlisted the theme and prototypes. The messaging and imagery were further refined based on young people's feedback. From this, we agreed on two prototypes that would be further developed with the design and photography team.

The activities page of the Recollective platform.

Methods

So-Mo Approach
(continued)

By using digital ethnography, we were able to learn about the lives, dreams and ambitions of South Asian teenagers living in Birmingham.

We were very interested in risk perception. Risk perception is a critical determinant of health behaviour.

The young people we profiled demonstrated a low sense of personal susceptibility to being killed or injured in a car. Not only this, but seatbelts came low on their list of risky behaviours. We surmised that any campaign that focused on death and injury as an outcome of seatbelt avoidance was unlikely to be effective.

We needed a new way to unlock this challenge.

Eventually, we uncovered a powerful behavioural insight that we suspected may be the key to unlocking this problem.

Major Insight: Although threat-based messages have been shown to arouse fear, our group's fear of death was minimal. Instead, it turned our that all our young people were highly susceptible to something known as 'anticipated regret'.

Mobile Ethnography
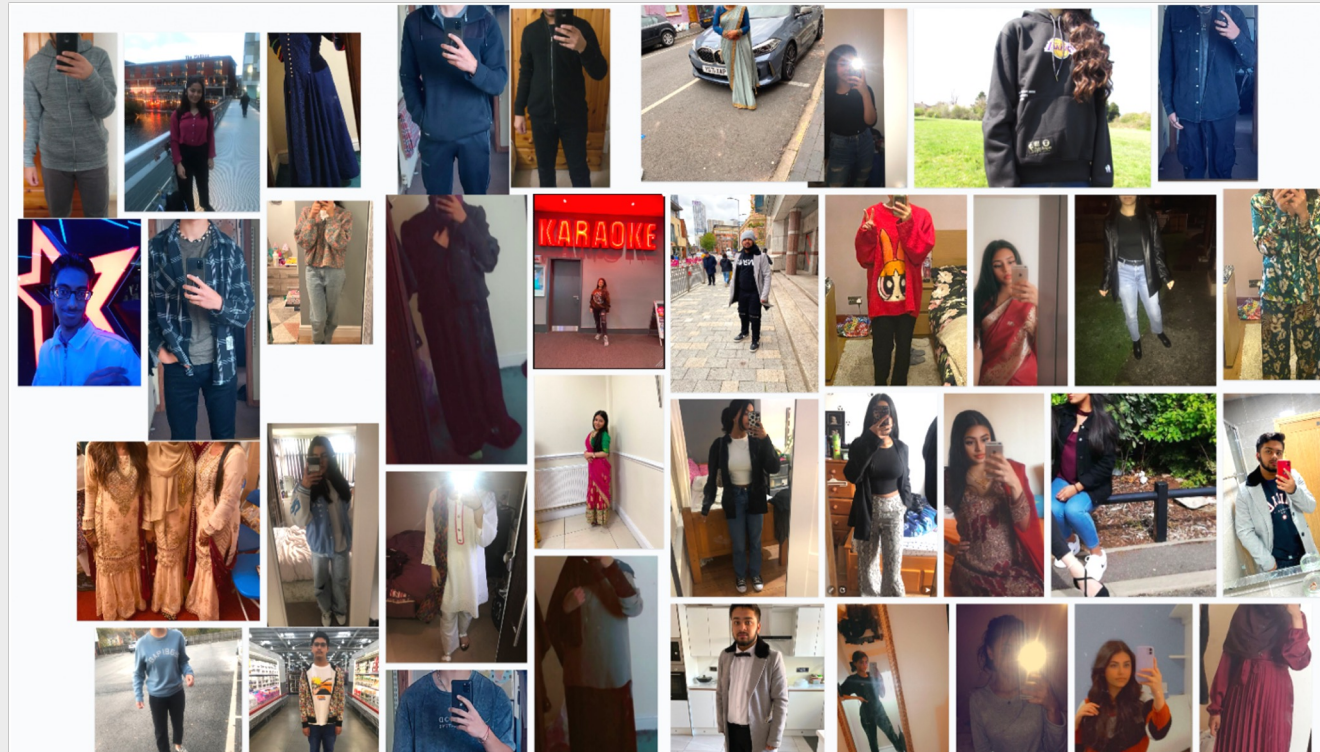
Over several weeks, 25 young people shared their lives, their hopes and their opinions with us.

Methods

So-Mo Approach
(continued)

Mobile Ethnography & Co-Design

Anticipated regret is the feeling experienced right now, of regret we may feel in the future, about decisions we are currently considering making.

Anticipated Regret has a strong and stable association with health behaviour (Brewer et al, 2016).

We worked with the young people and the award-winning design agency Smiling Wolf to develop the concept of anticipated regret across a range of scenarios. Marriage and education came through as strong themes.

One young person discovered a UAE road safety campaign that had used an image of a mortar board discarded on the road. This was presented as a good example of an artifact that symbolised a lost future.

We recreated this concept then supercharged it by embedding behaviourally optimised messaging.

Examples of co- designed concepts, designed to trigger feelings of anticipated regret.

Methods

Online Survey - Randomised Design

So-Mo Approach
(continued)

Design

We evaluated the campaigns using an online survey.

Each participant was randomised to see one of five possible campaigns. Two were co-designed by young South Asian people from Birmingham (C & D, see page 11), two were previous national campaigns (A & B, see page 12) and one was a decoy campaign we created with no tailoring that was 'information only' (E, see page 12).

Participants

Participants were 16-22 year olds living in Birmingham. We wanted to understand the value of co-design and cultural tailoring and therefore split the cohort into 2 segments; those who identified as South Asian and those who were from other ethnic groups.

Recruitment

BCC and West Midlands Fire Service (WMFS) approached schools they worked with in the area to promote the study. In addition, community connectors from the area promoted the study. To increase survey promotion, there was a prize at the institution level for those that provided the highest number of responses. For participants, there was a prize draw of £100.

Eligible participants were provided with information about the study, and clicking to proceed indicated consent to participate.

Outcomes

The survey was designed to assess which of the 5 campaigns was most likely to increase seatbelt use across the following metrics:

- Potential to change behaviour (self-reported intent to act) 10 point likert scale.

- Normative change to behaviour (intent of others to wear a seatbelt) 10 point likert scale.

- Emotional saliency (where the campaign elicits an emotional response), respondent could select up to 10 emotions (sad/ angry/ worried/ scared/ angry/ disgusted/ surprised/ confused / encouraged / motivated). Their responses were reported in two ways, as a count and as a single binary outcome "felt emotion" (yes/no).

- Likelihood of sharing campaign (yes/no).

We also tested if young people who viewed the tailored campaigns whether they were memorable, asking them to select the correct risk statistic from 3 options, or they could indicate they "don't know".

Analysis

The mean for each cohort and scale outcome was compared using linear regression. The effect of a tailored campaign versus one of the other comparator campaigns was reported as its mean difference with 95% confidence intervals.

The emotion count of tailored and comparator campaigns was calculated and compared using negative binomial regression, coefficients from the model were extracted and exponentiated so they could be presented as a count ratio.

Logistic regression was used to compare campaigns on emotional response (yes/no) and sharing (yes/no). The effect of Campaign C or D versus one of the other comparator campaigns was reported as an odds ratio with 95% confidence intervals.

Significance for all analyses was set at the 0.05 level.

The Tailored Campaigns (Conditions C and D)

C

AISHA 16 - SHE NEVER ARRIVED AT HER COUSIN'S WEDDING IF ONLY SHE'D WORN HER SEATBELT

You are 3 times more likely to die in a car crash if you don't wear a seatbelt. Fasten up your future.

D

AHMED 21 - HE WAS ABOUT TO GRADUATE IF ONLY HE'D WORN HIS SEATBELT

You are 3 times more likely to die in a car crash if you don't wear a seatbelt. Fasten up your future.

The Comparator Campaigns (conditions A, B and E)

A
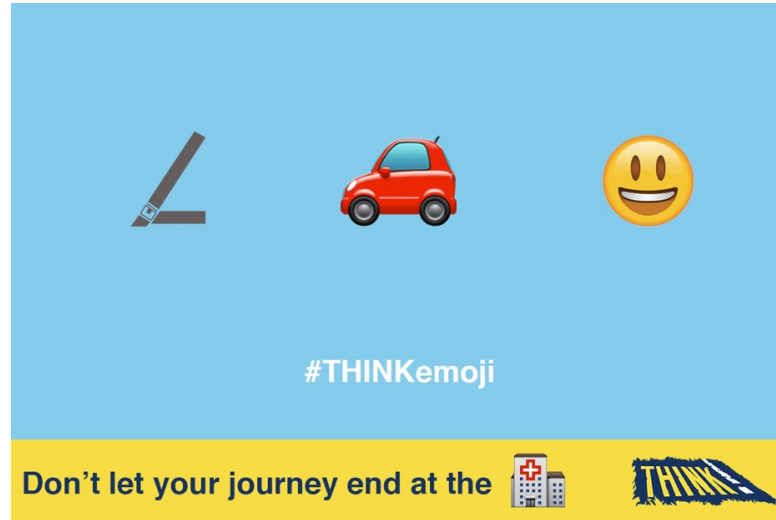
B

E

Sample

Message Not Received

400 young people completed the survey, 76 were randomised to comparator condition A, 73 to comparator B, 81 to tailored campaign featuring Aisha, 79 to the tailored campaign D and 91 to the information only campaign.

Overall, 217(54%) were female and 185 (46.3%) were South Asian.

The proportion of young people who viewed each campaign who reported being Female and South Asian did not significantly vary (Chi2 *P* value was greater than 0.05).

This demonstrate the randomisation was successful.

Numbers of responses for each campaign by gender and ethnicity

		Gender			Ethnicity		
Campaign condition		Female	Male	Total Gender	South Asian	Other	Total Ethnic
A	N	42	31	73	39	37	76
(local campaign)	%	57.5	42.5	18.8	51.3	48.7	19
B	N	41	31	72	33	40	73
(national campaign)	%	56.9	43.1	18.6	45.2	54.8	18.2
C	N	43	37	80	40	41	81
(Aisha tailored)	%	53.7	46.3	20.6	49.4	50.6	20.3
D	N	46	32	78	35	44	79
(Ahmed tailored)	%	59.0	41.9	20.1	44.3	55.7	19.8
E	N	45.0	40	85	38	53	91
(information only)	%	52.9	47.1	21.9	41.8	58.2	22.8
Column Total		217	171	388*	185	215	400
P chi2				0.93			0.74

*12 YP not included in table (9 did not give a gender and 3 identified as non-binary).

Key Findings

Message Not Received

Campaign D (tailored campaign featuring Ahmed) performed the best.

- Young people who viewed Campaign D had significantly higher intent to wear a seatbelt than those who viewed the previous national campaign (B) and information only (E).

- Campaign D also had significantly higher scores on influencing the intent of others to wear a seatbelt than either campaign B or E.

- Campaign D elicited the largest immediate emotional response, significantly stronger than campaign B and was most likely to be shared.

Emotional saliency provided the strongest evidence of cultural tailoring.

- Overall, young people from a South Asian background, the cohort the campaigns were co-designed with and tailored to, consistently scored the tailored campaigns higher than young people from other backgrounds.

- The strongest emotional response to the tailored campaigns was from young people from an Asian background.

- Young South Asian people who viewed Campaign D were significantly more likely to report feeling emotional than those who viewed either the previous local and national campaign (A & B) as well as the information only campaign (E).

- These effects were not as conclusive among young people from other backgrounds.

Campaign B (previous national campaign) did the worst.

- On all measures (emotional saliency, intent to wear a seatbelt, intent of others to wear a seatbelt and likelihood of sharing the campaign) the THINK campaign that used emojis to convey a safety message performed the worst.

- Both tailored campaigns C and D performed significantly better than the previous national campaign B on all outcomes.

A more detailed set of results with tables and graphs are presented on the following pages.

Intention to Wear a Seatbelt

Tailored Campaign D had the highest mean intention, followed by campaign C, A , E and B. These results suggest that the tailored co-designed Ahmed poster has the greatest potential to increase young peoples' intention to wear a seatbelt.

The next page ascertains if the difference in mean scores between Ahmed and Aisha and the other campaigns is *significant* and **conclusive**.

If the probability of a higher mean score occurring by chance is less than 1 in 20 (p<0.05), we consider the difference between mean scores as *significant*.

If the lower confidence interval of the mean difference is above 0 then we consider this **conclusive** evidence that there is a real difference between the co-designed campaign and the comparators.

We present the mean difference between tailored Campaigns (C or D) and each comparator campaign (A, B, D and E). Mean difference is presented for all young people and then segmented into young people who identified as South Asian and young people who did not (other). Birmingham is a diverse city, so this is not a predominantly White / White British group.

There is a significant association between type of campaign and intention to wear a seatbelt

| | Intention to wear a seatbelt | | | | | | | | |
| | All Young people | | | South Asian | | | Other | | |
Campaign	N	*Mean	**SD	N	*Mean	**SD	N	*Mean	**SD
A (regional)	76	7.12	2.61	37	6.84	2.74	39	7.43	2.45
B (national)	73	5.60	3.32	40	5.38	3.48	33	5.85	3.15
C (Aisha)	81	7.16	2.71	41	6.68	2.88	40	7.65	2.47
D (Ahmed)	79	7.51	2.75	44	7.48	2.98	35	7.54	2.45
E (Information)	91	6.65	3.00	53	6.73	3.13	38	6.54	2.83

*Based on the average scores from a 10-point likert scale question.

** SD scores the distribution of scores around the mean when the SD is smaller, this means the mean is a more accurate reflection of the sample's score.

Intention to Wear a Seatbelt

The graph displays the mean difference (MD) estimates derived from the regression analysis that represent the difference in reported intention to wear a seatbelt between tailored and comparator campaigns.

Intention to wear a seatbelt.

1) Overall type of campaign significantly associated with intention to wear a seatbelt (p = 0.003).

2) On average, **campaign C scored 1.5 points** (MD= 1.52, 95%CI 0.64-2.49), p<0.005) and **campaign D scored almost 2 points higher** (1.91, 95%CI 0.97-3.40, p< 0.001) than the comparator national campaign B.

3) Campaign D almost scored 1 point higher on intention to wear a seatbelt than E, the information only campaign (MD= 0.85, 95%CI -0.02-1.73, p =0.06).

4) There was a similar pattern of results for the South Asian and Other ethnicity cohorts.

Young people have greater intent to wear a seatbelt after tailored campaigns (C & D) than prior campaign (B)

Intention measured on a 10 point scale

Important notes:

The **mean difference** (MD) is the mean score of the **Tailored** campaign (C or D) minus the mean score of the **comparator** (A, B, or E).

Mean difference is log transformed to aid readability.

Where the point and the line (95% confidence interval) is **above 0**, this indicates the **Tailored** campaign C or D performed significantly better than the **Comparator** campaigns (A, B & E).
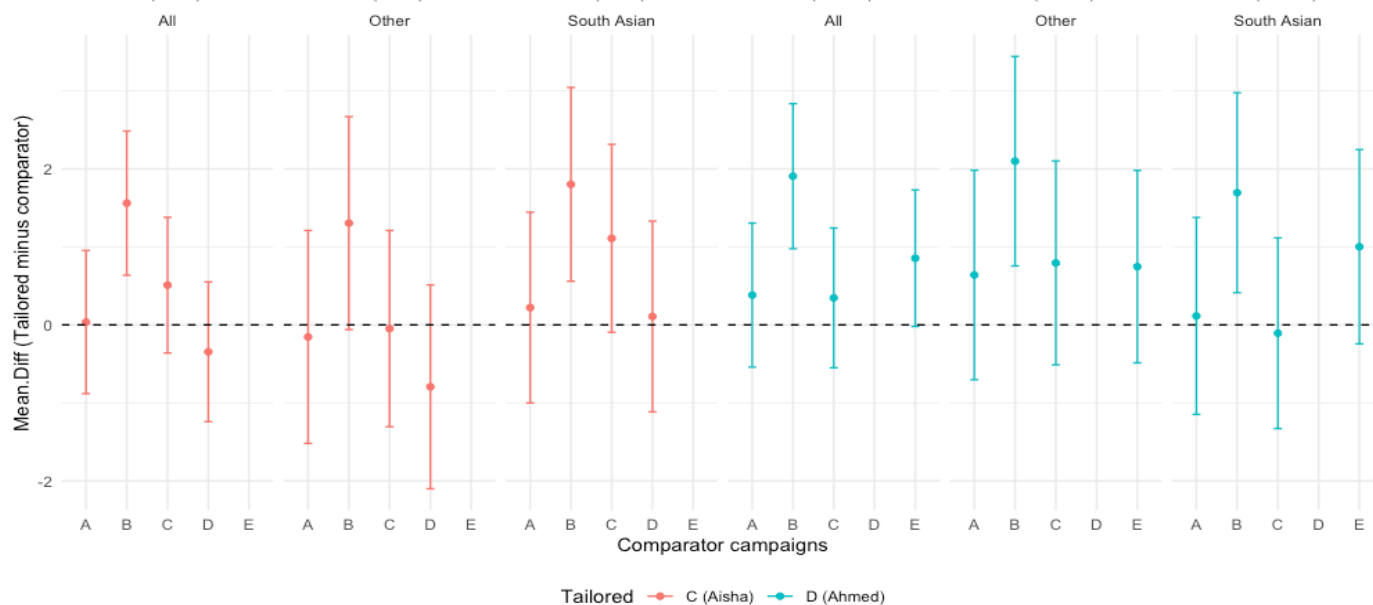
Influence on Others

The graph displays the mean difference (MD) estimates derived from the regression analysis that represent the difference in reported intention of others to wear a seatbelt between tailored and comparator campaigns.

Results were very similar for young people's normative view of behaviour (what they think others would do).

Intention of others to wear a seatbelt.

1) Overall type of campaign significantly associated with intention of others to wear seatbelt (p-value = 0.003).

2) Campaign D scored 2 points higher (MD= 1.78, 95%CI 0.89-2.86) and campaign C scored 1.5 points higher (MD= 1.46, 95%CI 0.56-2.36) on intention of others to wear a seatbelt than campaign B (national).

3) There was a similar pattern of results for the South Asian and Other ethnicity cohorts.

Young people believe tailored campaigns (C & D) are more likely to influence others to wear a seatbelt than prior campaign (B)

Intention of others measured on a 10 point sca

Important notes:

The **mean difference** (MD) is the mean score of the **Tailored** campaign (C or D) minus the mean score of the **comparator** (A, B, or E).

Mean difference is log transformed to aid readability.

Where the point and the line (95% confidence interval) is **above 0**, this indicates the **Tailored** campaign C or D performed conclusively better than the **Comparator** campaigns (A, B & E).

Emotional Saliency
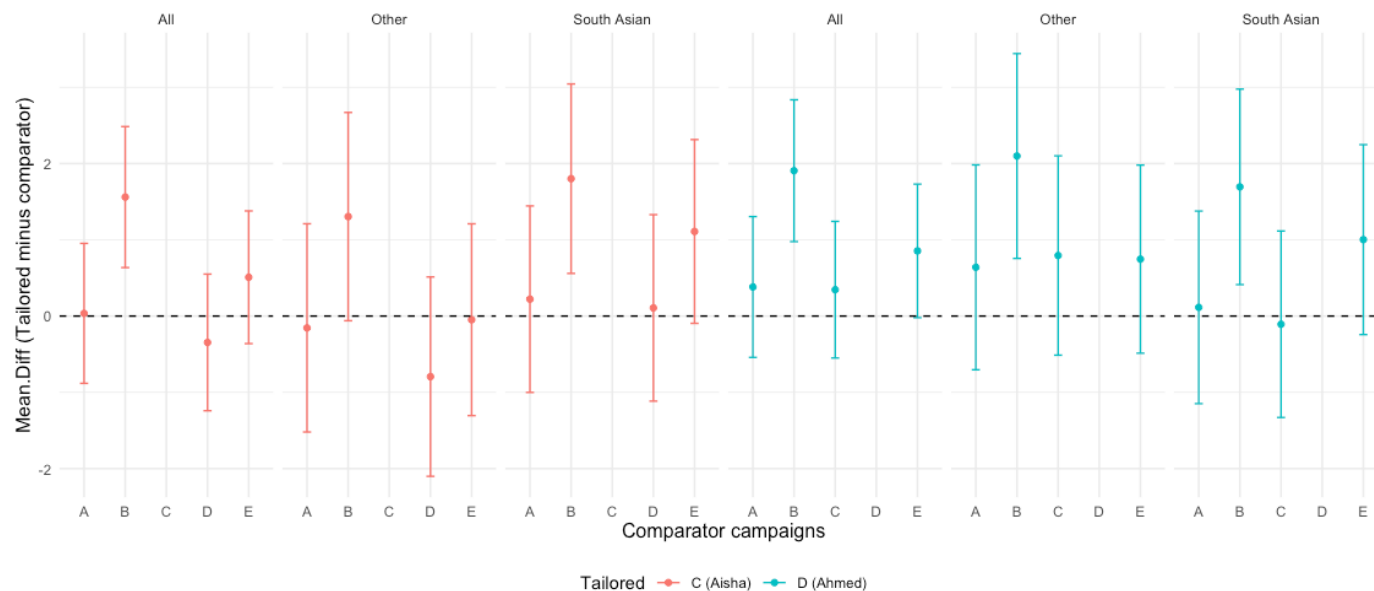
1. 77% of young people who saw tailored campaign C and 79% of young people who saw campaign D reported at least one emotion. This high emotional response to tailored campaigns was significantly different from the other campaigns.

2. The most reported emotions after viewing campaign C or D included feeling: Sad (C: 32/70, D: 24/63) Scared (C:18/70, D: 16/63, Uncomfortable (C:17/70, D: 17/63, Worried (C:17/70, D: 14/63).

3. As discussed before, emotion aids memory.

4. Of those who saw tailored campaigns C and D (N=160), we asked if they could recall the risk statistic from the campaign and 69% chose the correct answer.

5. More South Asian young people correctly recalled the risk statistic (74 %) than young people from other ethnic backgrounds (65%).

Tailored campaigns were emotionally salient

		All			South Asian			Other		
		Emotion			Emotion			Emotion		
		No	Yes	Total	No	Yes	Total	No	Yes	Total
A Regional	N	34	42	76	16	23	39	18	19	37
	%	44.7	55.3		41.0	59.0		48.7	51.4	
B National	N	35	38	73	15	18	33	20	20	40
	%	48.0	52.1		45.5	54.6		50.0	50.0	
C Aisha	N	19	62	81	6	34	40	13	28	41
	%	23.5	76.5		15.0	85.0		31.7	68.3	
D Ahmed	N	17	62	79	5	30	35	12	32	44
	%	21.5	78.5		14.3	85.7		27.3	72.7	
E Information	N	34	57	91	12	26	38	22	31	53
	%	37.4	62.6		31.6	68.4		41.5	58.5	
Total	N	139	261	400	54	131	185	85	130	215
	%	34.8	65.3		29.2	70.8		39.5	60.5	

Emotion*= feeling Sad/ Angry/ Worried/ Scared/ Angry/ Disgusted/ Surprised/ Confused / Encouraged / Motivated after viewing campaign

Emotional Impact

Evidence that South Asian young people responded with more emotion to tailored campaigns

1. The relative difference in the rates of emotional response to campaigns was significant (p=0.0002).

2. Young people reported double the emotion after reviewing the tailored campaigns featuring Aisha compared to the prior **regional** campaign (A) (Count Ratio = 1.84, 95%CI 1.35-2.51), national campaign (B) (Count Ratio = 2.61, 95%CI 1.85-3.70), and the the information only campaign E (Count Ratio = 1.87, 95%CI 1.40-2.51).

3. Young people also reported double the emotion when reviewing the tailored campaigns featuring Ahmed compared to the prior **regional** campaign (A) (Count Ratio = 1.56, 95%CI 1.13-2.14), national campaign (B) (Count Ratio = 2.21, 95%CI 1.56-3.17), and the information only campaign E (Count Ratio = 1.59, 95%CI 1.17-2.15).

4. This perhaps is NOT surprising given that the tailored campaigns were the only poster that used emotion as a motivational lever.

5. However, when we stratified by ethnic background the increased emotional response to tailored campaigns was conclusive (Count ratio confidence intervals were clearly above 1) for South Asian young people.

6. This indicates that there is evidence that the tailored campaigns were emotionally salient to the target cohort.

Post hoc, we compared the emotional response of South Asian young people and young people from other backgrounds to tailored and comparator campaigns and discovered the following:

1. Compared to other young people, young South Asian people had a significantly higher emotional response to the co-designed campaigns (1.92 versus 1.42 emotions, p=0.035.

2. However, South Asian viewers reported half the emotion when viewing non-tailored campaigns and their responses were not significantly different from young people of other backgrounds (0.94 versus 0.82 emotions, p=0.35).

3. This provides good evidence that the tailoring was effective.

Emotion*= feeling Sad/ Angry/ Worried/ Scared/ Angry/ Disgusted/ Surprised/ Confused / Encouraged / Motivated after viewing campaign.

Where the Count Ratio and the 95% confidence interval is above 1, this indicates the tailored campaign C or D performed better than the comparator campaigns (A, B & E).

Getting the Message Out

If a campaign is more likely to be shared, then it will have a much greater reach and impact. Campaign D (Ahmed) performed the best.

1) Young people were 2 times more likely to share campaign D compared to the prior local campaign (A) (OR= 2.16 95%CI 1.11-4.20), and the prior national campaign (OR= 2.33, 95%CI 1.18-4.60).

2) It appears that campaign D might also be shared by more young people than campaign C or E, but these effects do not reach statistical significance.

3) This pattern of results was evident among South Asian young people and young people from other Asian backgrounds.

4) Whilst campaign D was the most shared campaign for all young people, there was some evidence of tailoring for campaign C. Young South Asian people were 3 times more likely to share the campaign featuring Aisha than young people from other ethnicities, (OR= 3.38, 95%CI 1.25-9.10).

Young people would share tailored campaign (D) more than prior campaigns (A and B) and possibly all other campaigns

Tailored	Comparator	Cohort	OR of sharing Tailored over comparator	SE	LCI	UCI
C (Aisha)	A (regional)	All	1.16	0.35	0.59	2.29
	B (national)	All	1.25	0.35	0.63	2.51
	D (Ahmed)	All	0.54	0.33	0.28	1.02
	E (Information only)	All	0.83	0.32	0.44	1.56
D (Ahmed)	A (regional)	All	2.16	0.34	1.11	4.20
	B (national)	All	2.33	0.35	1.18	4.60
	C (Aisha)	All	1.86	0.33	0.98	3.54
	E (Information only)	All	1.55	0.31	0.84	2.86

Odds Ratio of sharing is log transformed to aid readability.

Where the point and the line (95% confidence interval) is above 1, this indicates the tailored campaign C or D performed better than the comparator campaigns (A, B & E).

Discussion

Message Not Received

Implications

Future implications

These findings clearly demonstrate the impact of co-design to create tailored campaigns.

They also suggest that more broadly embedding devices such as anticipated regret in campaigns to prevent unsafe behaviours among young people are likely to be effective, especially when the object of regret is tangible and valued.

Overall, the tailored co-designed campaigns outperformed the campaigns with no cultural tailoring or embedded behavioural science insights on all metrics (intention, emotion and sharing) for all respondents.

Focusing on future losses that are more tangible to young people than death or serious injury, such as university graduation, missing a wedding or other cherished future life events/ goals appears to have high potential to change behaviour.

Campaign D, the tailored campaign featuring Ahmed who missed out on graduation, was the best performing campaign.

Campaign C, the tailored campaign featuring Aisha who missed out on her cousin's wedding was less successful than the Ahmed poster. Potentially we may be seeing gender effects. Prior studies

show women respond to campaigns with men as the protagonist, but the reverse is not always true.

The strongest emotional response to the co-designed campaigns was from South Asian young people, the cohort the campaigns were co-designed with and tailored to.

Recommendations and Future roll out

BCC are keen to act on this and develop the messages and the insights we uncovered into a fully fledged campaign.

Given the size of effects, we can be confident that the tailored approach and use of behavioural science will deliver a more effective message and supporting imagery.

Overleaf are our main recommendations.

7 Recommendations to guide future rollout

1. **Gender Representation.** Even though the co-design group selected themes that were gender stereotypical, we recommend that the campaign continues to feature male and female protagonists together with a range of cherished future life events/ goals pertinent to this cohort.

2. **Active engagement of disadvantaged young people & uncovering their future goals, dreams and ambitions.** We also recommend that further insight is targeted, specifically at disengaged young people to understand what aspirations could be used to signify 'loss of future' where milestones such as graduating from university may not feel realistic or desirable. This would broaden the applicability of the current campaign posters that could be turned into a series of images that have a wide cross-sectional appeal.

3. **Consideration of media and channel.** To prevent future "message not received ", the channels of communication need to be carefully considered and the campaign adapted to meet the needs of the target cohort. During our engagement with the young people, we discovered that they use social media to learn about news and to communicate with each other. It would not be ideal to develop this as a 'print only' campaign.

4. **Maintaining a commitment to insight led co-design.** A light touch, behavioral Insights and codesign methodology should be used to discover other scenarios that would trigger anticipated regret along with and the best platforms / means to achieve widespread, reach and engagement. (recommendation 3). This sort of activity should be conducted in partnership with organisations such as Birmingham Youth Services, schools/ colleges and community groups such as Concord Youth Centre.

5. **Commitment to co-production & inclusion of specialists in their field.** To optimise the effectiveness of final campaign, companies who have a track record in delivering online campaigns should be commissioned to co-produce the final roll-out. So-Mo have a number of trusted collaborators who excel in the relevant fields.

6. **Commitment to measuring future impact.** Analytics can be embedded in campaigns to measure reach, engagement, sharing and sentiment on social channels. Finally, Stats-19 data can be used to monitor if passenger casualties among young people in East Birmingham decrease after campaign release.

7. **Maintaining a commitment to innovation in approach.** Perhaps most important of all is the opportunity to use the learning and approach used in this project to tackle other challenges and develop the capabilities of those responsible for Road Safety and Behaviour Change.

Final Word

Message Not Received

Perhaps the greatest opportunity is in sharing the learning gained from this project.

The approach used is highly transferable. From decarbonising our cities through to active travel – indeed, any problem where the solution is dependent on a large-scale shift in population level behaviour. These urgent challenges require large scale shifts in behaviour. When every individual counts, we cannot afford to leave segments of the population behind. So-Mo and Birmingham City Council are committed to sharing the learning from this pilot. To date this work is being shared and profiled in the following ways:

International	National	Regional	Wider Recognition
• POLIS 2022 (November), presenter • Agilysis Webinar 2022 (June), presenter	• RSGB 2022 (November), speaker slot & workshop • Joining the Dots 2023 (March), presenter	• WM Regional Road Safety Strategic Group Meeting 2022 (June), presenter • WM Combined Authority workshop 2022 (July), presenter, workshop organiser	• CIHT Awards 2022 nominee • A promotional video of study participants will be shared at conferences, workshops and on So-Mo/ BCC / RST website

Acknowledgements

Message Not Received

First of all, we would like to thank the Road Safety Trust for supporting and funding this project. Without them, we would not have been able to uncover this hidden health inequality and design strategies to mitigate it.

We would also like to thank the 25 young people who worked with us on this commission. We have no doubt that we would have never achieved such a powerful result without their trust, involvement and wisdom.

Thank you also to the Birmingham City Council, West Midland Fire Service, Birmingham Youth Service, Sport 4 Life UK for connecting us with the communities and bringing the various stages of this project together.

THE
**ROAD
SAFETY
TRUST**

Making Roads Safer

"I think our community gets stereotyped or misunderstood a lot of the time and by taking the time to carry out this research, it helps avoid these misunderstandings and produce a more effective ad." *Co-designer age 16)*

"I am glad to have helped on the project and even more proud that it is maximising its impact. Thank you for the opportunity to be part of a massive initiative and cause, I hope this isn't the end of my involvement with SO-MO as I am keen for further opportunities to maximise impact and make a real difference." *Co-designer age 18*

"Their innovation and creativity combined with well-established behaviour change and psychological approaches have delivered on the projects and changed how we think and work as a team with impact beyond immediate project commissions."
Mel Jones, Head of Transport Planning and Network Strategy, Birmingham City Council

<u>References</u>

1. Brewer, N. T., DeFrank, J. T., & Gilkey, M. B. (2016). Anticipated regret and health behaviour: A meta-analysis. *Health psychology : official journal of the Division of Health Psychology, American Psychological Association*, *35*(11), 1264–1275. https://doi.org/10.1037/hea0000294.

2. Noar, S. M., Benac, C. N., & Harris, M. S. (2007). Does tailoring matter? Meta-analytic review of tailored print health behaviour change interventions. *Psychological Bulletin, 133*(4), 673–693. https://doi.org/10.1037/0033-2909.133.4.

Appendix

Survey Questions

Before we start

1* Please type in the name of the school/college or youth organisation who sent you the link to this survey.

2* What is your age?

☐ 16 or over

☐ 15 or under

Informed Consent

Why am I being asked to take part in this survey?

* This study has been developed by a group of young people who are keen to improve road safety in their area. The aim of this survey is to find out which road safety campaigns are effective and which are not. By taking part in this survey, you will help their efforts to save lives. It will take you no longer than **10 minutes** to complete this survey.

What will you be asked to do?

In this survey, you will be asked questions about yourself and your views on road safety and seatbelt wearing. You will also be asked to look at a campaign poster and provide your thoughts on it.

The examples/images shown in the survey are not based on any real events or individuals. Please feel free to withdraw from the survey if any of the content makes you feel uncomfortable.*

How will your data be stored and used?

Your responses will be anonymous and confidential, this means, the information you provide cannot be linked back to you or shared with your school/college/youth organisation. Your anonymised data will be stored on a secure server in the UK and will only be viewed by the people directly involved in this research. You can stop the survey at any time. However, you will not be able to withdraw your responses once you have started the survey.

Prize draw

All the participants who complete this survey will be able to sign up to win **£100** cash prize. In order to be considered for the prize draw, you will have to provide your full name and email address. These details will not be linked to your survey responses.

To find out more about this research project, please [click here.](#)

To access our Privacy Notice, please [click here](#).

Please click 'I consent' if you agree with the aforementioned information and you will be directed to the survey. Click 'I do not consent' to exit the survey.

If you need to talk to someone about how any of the content made you feel, please contact Child-Line on 0800 1111.

☐ I consent   ☐ I do not consent

A bit about you

3* What is your gender?

☐ Male   ☐ Female

☐ Prefer not to say

☐ Other (Please Specify)

4* Ethnicity

☐ Indian, Indian British   ☐ Pakistani, Pakistani British

☐ Bangladeshi, Bangladeshi British   ☐ Chinese, Chinese British

☐ Asian - Other (type in the box below)   ☐ Black, Black British

☐ Black, Caribbean   ☐ Black, African background

☐ Black - Other (type in the box below)   ☐ White, English

☐ White, Welsh   ☐ White, Scottish

☐ White, Northern Irish   ☐ White, British

☐ White, Irish   ☐ Gipsy or Irish Traveller

☐ White, Roma   ☐ White - Other (type in the box below)

☐ Mixed, White and Black Caribbean   ☐ Mixed, White and Black African

☐ Mixed, White and Asian   ☐ Mixed, Other (type in the box below)

☐ Other (Please Specify)

5* Please provide the first part of your home postcode (i.e. B1 or B23)


Be as honest as possible!

In the next section, there are no right or wrong answers, and we want you to be **completely honest in your answers**. Your responses will be completely anonymous and will not be linked with your school/college/youth organisation.

Please click 'Next' to continue.

Your Views

6* When I get in the car, I always wear my seatbelt even on short journeys.

1	2	3	4	5	6	7	8	9	10

Strongly disagree   Strongly agree

7* When you are in a car with members of your **family**, how many usually wear their seatbelts?

☐ None of them do   ☐ Only the driver

☐ Some do, some don't   ☐ Most do

☐ All of them do

8* When you are in a car with your **friends**, how many usually wear their seatbelts?

☐ None of them do   ☐ Only the driver

☐ Some do, some don't   ☐ Most do

☐ All of them do

What would you do?

How much do you agree or disagree with these statements?

9* If I'm in a car crash and am not wearing a seatbelt, there is a high chance I will die.

1	2	3	4	5	6	7	8	9	10

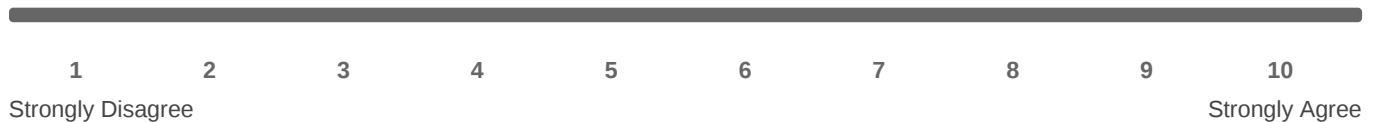Strongly Disagree   Strongly Agree
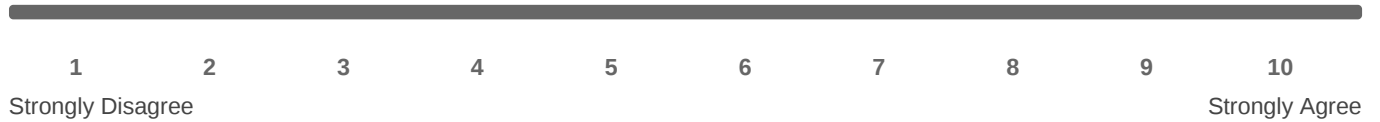
10* *Imagine* you are going out with your friends. Your mate picks you up in their car, when the car arrives it already has 5 people in it. They make room for you, but you realise there are not enough seatbelts.
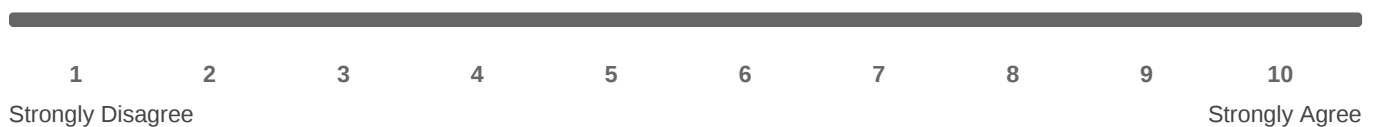On a scale from 1 to 10, **how likely are you to get in the car?**

1	2	3	4	5	6	7	8	9	10

Extremely Unlikely   Extremely Likely
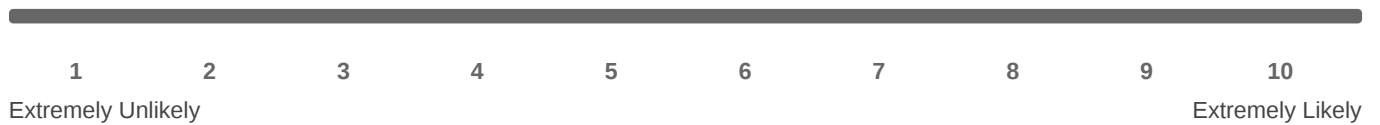
11* My parents would think less of me if I did not wear a seatbelt.

1	2	3	4	5	6	7	8	9	10

Strongly Disagree   Strongly Agree

12* My friends would think less of me if I did not wear a seatbelt.

1	2	3	4	5	6	7	8	9	10

Strongly Disagree   Strongly Agree

Road Safety Training

13* How often in the past 12 months have you taken part in school/college activities about road safety?

☐ Never   ☐ Once

☐ Twice   ☐ More than twice

☐ Other (Please Specify)

[   ]

14* How often in the past 12 months have you taken part in activities about road safety outside of school/college?

☐ Never   ☐ Once

☐ Twice   ☐ More than twice

☐ Other (Please Specify)

[   ]
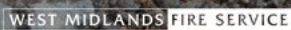
Important!

You are about to see a road safety poster. **You will only have one chance to look at the poster, so take your time and have a really good look.**

Campaign Poster

What did you think?

15* How did this poster make you feel? Tick all boxes that apply to you.

☐ Scared   ☐ Worried

☐ Angry   ☐ Confused

☐ Surprised   ☐ Uncomfortable

☐ Encouraged   ☐ Sad

☐ I felt nothing   ☐ Cringe

☐ Disgusted   ☐ Motivated

☐ Other (Please Specify)

_____

16* After viewing this poster I am more likely to wear a seatbelt.

1	2	3	4	5	6	7	8	9	10

Strongly disagree   Strongly agree

17* This poster would make people I know more likely to wear a seat belt.

1	2	3	4	5	6	7	8	9	10

Strongly disagree   Strongly agree

18* If you saw this poster on social media, would you share it with your friends and/or family?

☐ Yes   ☐ No

☐ Don't know

☐ Other (tell us why)

_____

What did you think?

Your views

19* Below is the scenario we asked you to imagine earlier:
Imagine you have a plan to go out in the evening with your friends. Your best mate decides to pick you up in their car. When they arrive, the car already has 5 people in it. They make room for you, but there are not enough seatbelts.
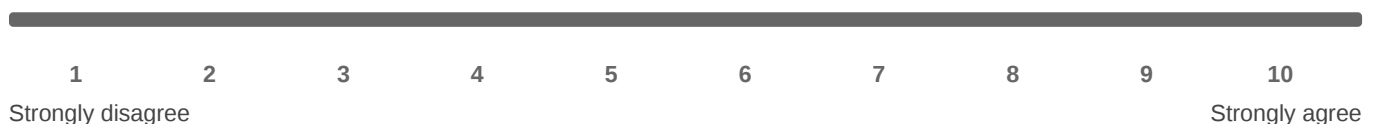On a scale from 1 to 10, **how likely are you to get in the car now that you have seen the poster?**

1	2	3	4	5	6	7	8	9	10

Extremely Unlikely   Extremely Likely
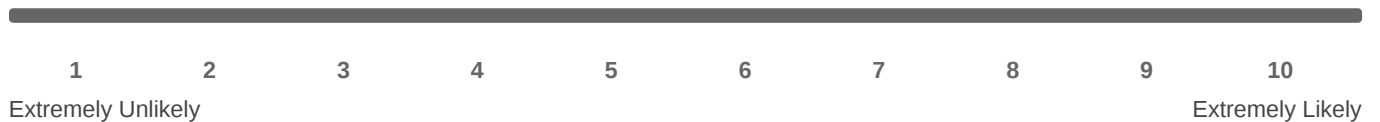
20* On a scale from 1 to 10, how much do you agree/disagree with this statement: **If I don't wear a seatbelt and I am in a car crash there is a high chance I will die.**

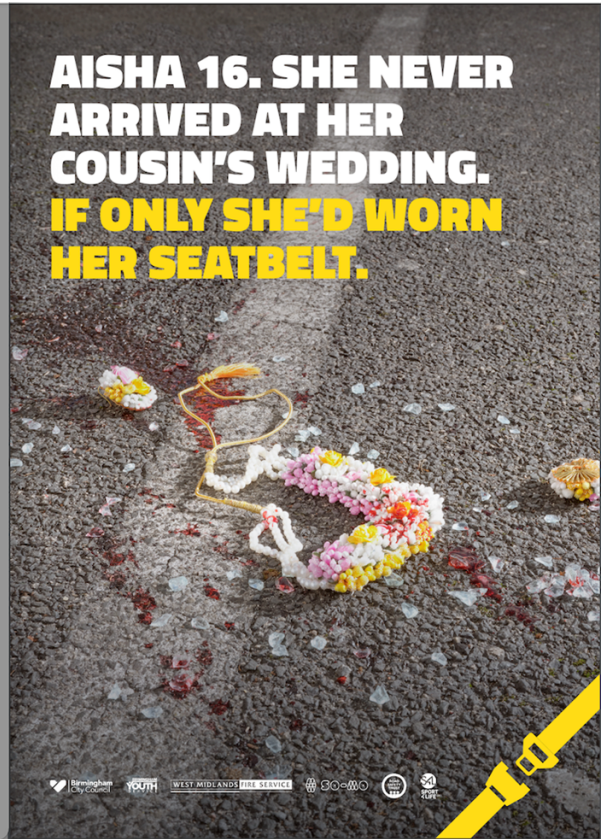| 1	2	3	4	5	6	7	8	9	10

Strongly Disagree   Strongly Agree
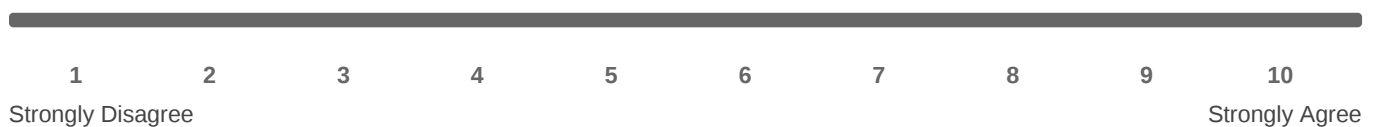
21* On a scale from 1 to 10, how much do you agree/disagree with this statement: **If I don't wear a seatbelt, I risk not having the future I want.**

1	2	3	4	5	6	7	8	9	10

Strongly disagree   Strongly agree

Can this happen?

22* On a scale from 1 to 10, **how likely is it that you will be in a car crash?**

| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |

Extremely Unlikely   Extremely Likely

23* On a scale from 1 to 10, **how likely is it that someone you know will be in a car crash?**

| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |

Extremely Unlikely   Extremely Likely

Poster Details

Earlier in this survey, were you shown any of these posters?

24*

☐ Yes   ☐ No

Poster details

25* This poster had a safety statistic, can you remember what it was?

☐ You are 2 times more likely to die in a car crash if you don't wear a seatbelt

☐ You are 3 times more likely to die in a car crash if you don't wear a seatbelt

☐ You are 4 times more likely to die in a car crash if you don't wear a seatbelt

☐ I can't remember

Prize Draw

Please indicate below if you would like to be considered for the prize draw to win **£100**. If you would like to be considered for the prize draw, you will be asked to provide your full name and email address. **This information will not be linked to your survey responses or shared with anyone outside of this study.** More information can be found in our [Privacy Notice](#).

26* Would you like to enter the prize draw?

☐ Yes ☐ No

27* Providing your details to enter the prize draw is voluntary. Please select one of the following statements.

☐ I consent to providing my details for a chance to win £100

☐ I do not consent to providing my details and do not want to enter the prize draw.

Your details

If you would like to be considered for the £100 prize draw, please provide below your full name and email address. **Your details will not be linked to your survey responses or shared with anyone outside of this study.**

Please provide your full name and email for the prize draw.

Name *

Email Address *

g