Fasten Up Your Future

Evaluation Report

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So-Mo help people to make different choices and build better habits. With So-Mo you gain unrivalled insight into human behaviour.

For over 10 years our distinguished team of behavioural scientists, ethnographers, data scientists and designers have helped hundreds of organisations improve the health, wealth and happiness of the people who work for them and the populations they serve. An exceptional track record is reinforced by numerous case studies, illustrating how we have helped government, public and private organisations to achieve their objectives and enjoy tangible results.

Nicola Wass
CEO So-Mo

Acknowledgements

We would like to express our sincere gratitude to The Road Safety Trust for their generous support and unwavering commitment to the advancement of road safety. Their investment in the evaluation of this research has been instrumental in ensuring that our work can make a meaningful impact young drivers.

We extend our thanks to our valued partners at Transport for West Midlands, whose collaboration and expertise have been indispensable throughout this project.

We aknowledge the contribution of West Midlands's Fire Service. Their commitment and enthusiasm for the project ensured the campaign was both arresting and high quality.

We would also like to thank the team of young co-designers and community workers from the Concord Youth Centre in Birmingham for their valuable input in the making of the campaign. Their insights and knowledge were paramount to the development of this project.

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Executive Summary

Findings from previous studies

In 2019, So-Mo conducted ground-breaking research on seatbelt usage among South Asian communities in Birmingham and discovered an alarming non-wearing rate of 38% (observational study of 507 vehicles, 2019, So-Mo), which was an astonishing six times higher (DfT, 2021) than the average rate observed across the UK.

To address this, the goal was to create culturally tailored campaigns that resonate with young South Asians and encourage seatbelt usage. The campaign involved the collaboration of young adults from South Asian communities to create optimised campaign posters and short videos.

So-Mo and BCC were successfully funded by the RST to develop and test the campaign prototypes. The prototypes leveraged **anticipated regret.** Anticipated regret is the negative emotion felt when comparing the expected outcome of inaction (not wearing a seatbelt) with the outcome of taking action. Insights from Phase 2 showed promising results, with the tailored campaigns outperforming existing local and national campaigns across all metrics. The engagement of young people from the South Asian community in Birmingham was particularly successful, indicating the effectiveness of customising campaigns for specific target demographics.

What this study added

This study tested these insights in the real-world by embedding them in a series of videos and posters that were launched as an online social media campaign: "**Fasten up your Future**". The young people we worked within the previous Phase reported spending a significant amount of their time on various social media platforms, namely Instagram, TikTok, and YouTube. This study, therefore, assessed how culturally tailored and behaviourally optimised seatbelt awareness-themed videos and images would perform on these social media platforms.

Key Insights

We were able to reach around 72.5% (470,697) of the estimated young people population in West Midlands, demonstrating the power of using social media to promote road safety messaging.

Out of the surveyed participants who had prior exposure to the campaigns (N=131), **47% (62) reported that they always wore their seatbelt. 40.5% (53) reported they wore their seatbelt more after viewing the campaign. If we extrapolate this to the Instagram audience who saw the campaign (470,697), we potentially increased seatbelt use among 190,632 young people across the West Midlands.**

The **campaign message was remembered by**

73% (96) who saw the campaign assets. Extrapolated to the Instagram audience **this means up to 343,608 people have seen and remembered this safety message.**

How we did this

The impact of the campaign was evaluated using social media analytics and a behavioural online survey that captured information on the campaign's visibility, reach, effectiveness, and tailoring based on age, gender, and ethnicity on Instagram, TikTok and YouTube.

Why this is important

The insights gained in this study highlight that social media platforms provide a good medium to reach young people, present road safety information and encourage behavioural change.

Furthermore, the insights also emphasise the importance of engaging your target audience in the design of interventions to ensure that the content created is tailored to their interests. In this project, it was the concept of **anticipated regret** that resonated with young people from the West Midlands. Leveraging anticipated regret ensured that the codesigned content was more likely to encourage behavioural change when compared to non-tailored content.

Background
- previous commissions

Seatbelts provide one of the simplest and most effective ways a vehicle occupant can protect themselves from harm. In spite of this, in 2021, over 200 people died in collisions, whilst not wearing a seatbelt (PACTS, 2022). The 200 who died constitute 30% of all reported deaths, yet **the national non-wearing rate is estimated to be ~6%** (DfT, 2021). This statistic alone should act as both a wake-up call and a trigger for action. This health disparity instigated a series of So-Mo commissions to describe and investigate the problem of low seatbelt use.

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Background

Phase 1, 2019: Understanding the problem

This phase of research was funded by Birmingham City Council. In 2019, So-Mo, on behalf of Birmingham City Council (BCC) , delivered pioneering research into seatbelt use amongst South Asian Communities. This work uncovered **non-wearing rates of 38%. A staggering 6 times higher than the UK average (DfT, 2021).**

Sadly, young South Asian people between the age of 16-24 are at most risk of being seriously injured or killed due to seatbelt non-use (Wass, 2019).
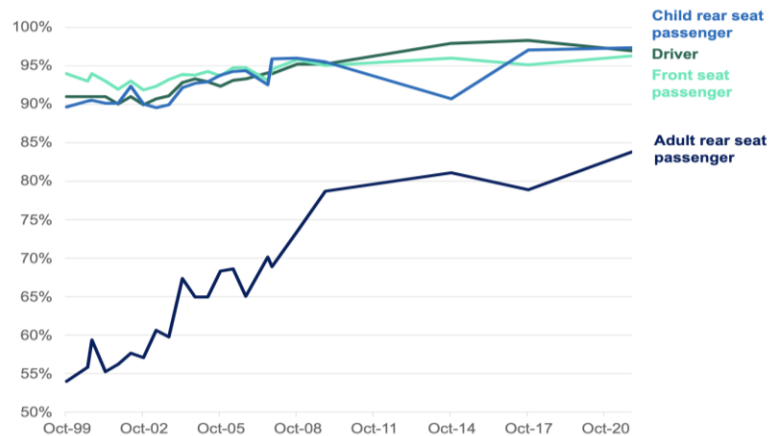

Fig. 1.Overall seatbelt use for car occupants (including taxi and private hire vehicles), England (1999 to 2014), England and Wales (2017 and 2021). Source: Dft (2021)

Phase 2, 2021: Research and Development

This phase of research was funded by The Road Safety Trust (RST) with contributions from Birmingham City Council and So-Mo. In collaboration with young people from South Asian communities, So-Mo developed behaviourally optimised, culturally tailored messaging, designed to encourage seatbelt use.

Leveraging emotion and anticipated regret to aid memory consolidation

Emotion is a powerful tool for driving behaviour change. However, **individuals are more likely to empathize and experience an emotional response when they can identify with the central figure of a campaign** (Noar et al., 2007). If viewers cannot relate to the campaign actor, their empathy and emotional response tend to decrease, leading to weaker activation of intent and lower message recall.

The rate people forget is exponential meaning information is rapidly forgotten over time if it's not actively reviewed or reinforced.

Herman Ebbinghaus demonstrated that people forget 90% of learnt information within a week, his research was replicated recently by other memory researchers (Murre & Dros, 2015). That is why it is important to create content that is emotionally and personally relevant to the target audience to ensure the message you are conveying is attended to, processed deeply and converted to long term memory.

Considering this, our goal was to develop seatbelt awareness campaigns that would resonate with young South Asians. Initially, to achieve this, we collaborated with young people from South Asian communities and created culturally tailored campaign posters that were optimised for behavioural impact, specifically targeting seatbelt usage.

Another strong concept that we discovered during our sessions with the young people was anticipated regret.

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Phase 2 - Birmingham City Council & RST

Anticipated regret is the negative feeling individuals experience when they compare the expected outcome of deciding not to act with the outcome they would have had if they had acted. It plays a role in influencing intentions and behaviours and has been studied across various fields like marketing, medicine, and real estate (Brewer et al., 2016). Despite this, there is limited research on its connection to seatbelt behaviour.

Through the conversations and activities we had with the young people, it became evident that they would be more likely to change their seatbelt wearing behaviour if they were made to think about consequences of not wearing a seatbelt, for example, missing out on important life events.
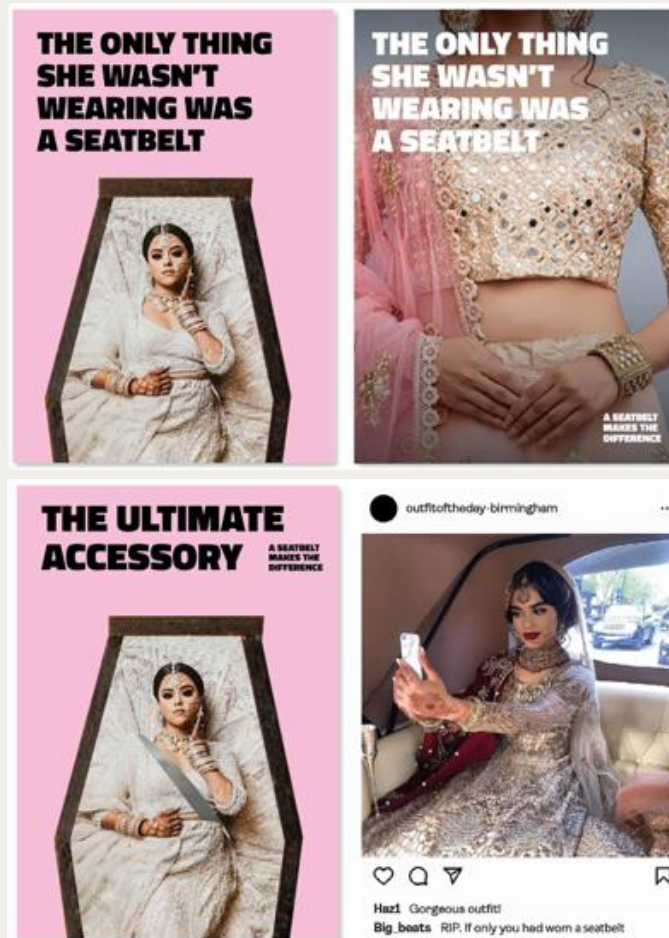
Anticipated regret

Fig. 2. Early-stage prototypes developed by the young people.

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Phase 2 - Birmingham City Council & RST

Behaviourally optimised tailored campaign prototypes were codesigned with young South Asian teenagers from Birmingham.

These campaigns were then evaluated using a **randomised survey,** completed by 400 16–22-year-olds living in Birmingham.

This showed the tailored posters performed significantly better than a national, regional and an information-only poster (not tailored).

This outcome confirmed that 1) codesign and tailoring are effective tools to deliver impactful campaigns in a laboratory setting and 2) anticipated regret and emotion activate intention to wear a seatbelt.

Next, we wanted to translate and test these insights in a real-life setting.

Tailoring

Fig. 3. The two campaign assets codesigned in Phase 2 of work. Both scenarios (education and wedding) were generated by the young people from the online community.

Current phase of work

Phase 3 - this section reports on the campaign

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Current phase: Rationale

Based on the discoveries made in prior phases of work, we created and launched an online social media campaign to raise awareness of the importance of seatbelt use. This was funded by Transport for West Midlands (TfWM; campaign) and RST (evaluation).

To achieve behaviour change, young people need the opportunity to change, therefore we developed a social media strategy designed to achieve the maximum reach and engagement of young people who lived in the West Midlands, an area identified to have sub-optimum seatbelt use. The campaign ran on platforms young people use to share news and information (**Instagram, TikTok,** and **YouTube**).

Simply achieving reach is not enough to trigger a shift in behaviour. Once we reached the young people, we needed a way to motivate them to change their seatbelt behaviour.

TikTok

Instagram

YouTube

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To achieve this, we co-produced **three** one-minute-long **videos** that used the behavioural insights uncovered in the previous phase in content and message design. These featured anticipated regrets that resonated with young South Asians in the West Midlands.

These were later shortened to around 30-seconds to increase the number of complete views. In other words, we wanted more people to watch to the end in order to gain the most impact from the videos and the important messages they contained.

To conduct a real-world evaluation of the campaign's impact, we used evidence from social media analytics together with the results of a targeted survey.

Tailoring

Each video utilised a distinct interpretation of "anticipated regret" and was customised based on insights we acquired in Phase 2 and codesign sessions in Phase 3 with the young people from the Concord Youth Centre in Birmingham. Recognising that boys are more prone to driving without seatbelts, we designed two videos for a male audience and one for a female audience.

Rationale cont.

Boxing

Life Goals

Car Culture
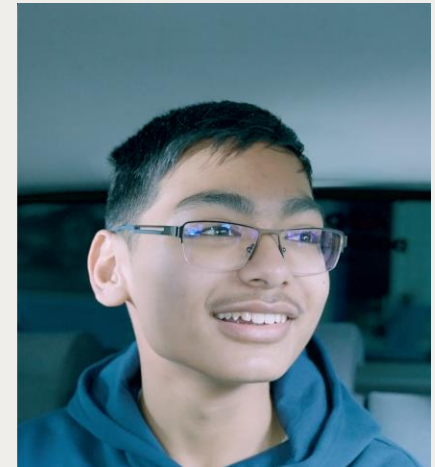
Education

Wedding

Info Only

Boxing - Belt

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

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

WEAR YOUR SEATBELT ON EVERY CAR JOURNEY **TO PROTECT YOURSELF FROM INJURY OR DEATH**

AHMED, 21 WON THE FIGHT, BUT LOST HIS FUTURE **FASTEN UP YOUR FUTURE**
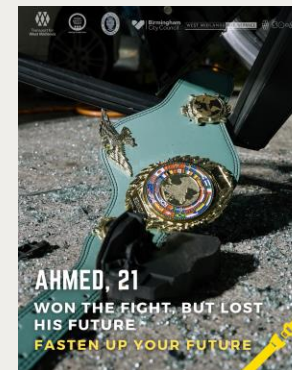
*non-tailored asset

**not used in the evaluation

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Current phase: Campaigns

Unfulfilled Potential - Boxing and Education

All the young people exhibited a strong determination to work diligently in the present, aspiring for a prosperous future that would enable them to support their families. To transform this into a compelling campaign asset, we prompted these young people to articulate the fundamental elements required for them to attain success.

- Still image: Education emerged as a pivotal factor; many regarded it as a crucial step to achieving a good life and valued doing well at school or college.

- Video asset: In Birmingham, boxing is considered a popular sport amongst the South Asian community. Birmingham has produced more than its fair share of title winners. Our ethnographic research also revealed that boxing is regarded as a "way out" for boys who do not consider college education as a realistic aspiration, presenting an alternative narrative to the educational path. This narrative explored the idea of triumph over adversity, and then the protagonist failing to reap the benefits to be acquired from winning his first title.

Fig. 4. Still images from the Boxing themed video

Click here to watch the extended version of the Boxing video.

Click here to watch the shortened version of the Boxing video.

Fig. 5. Resized Education poster from Phase 2.

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Campaigns cont.

**Unaccomplished goals -
Life Goals (video) and wedding (still)**

Still image: Weddings, despite being related to family events, hold great significance for young South Asian people, something they wouldn't want to miss. **The wedding theme also struck a chord with many boys, who perceive it as a pivotal element of their future.**

The video: While the girls concurred on their desire to establish families and raise children, they also expressed a profound commitment to cultivating careers, achieving independence, and to supporting their families. Consequently, we depicted their aspirations more broadly, beginning with education as the gateway to self-reliance, in a video which also featured the main character achieving a good career, house and marriage.

Fig. 6. Still images from the Life Goals themed video.
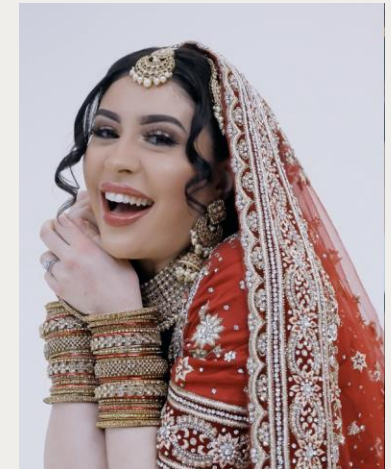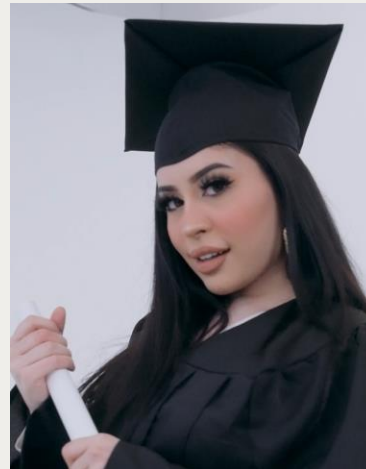
Fig. 7. Resized Wedding poster from Phase 2

Click here to watch the extended version of the Life Goals video.

Click here to watch the shortened version of the Life Goals video.

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Campaigns cont.

Loss of a loved one - Car Culture

A prevailing anticipated regret among the young people we worked with in Phase 2 and 3 revolved around the **fear of losing loved ones**.

Most had younger siblings for whom they felt a profound sense of responsibility. The young people expressed that the potential **loss of a younger sibling** would be a more compelling motivator to wear seatbelts than contemplating their own loss of future.

Moreover, given that numerous young males expressed an **interest in cars, car culture and car modifications**, (many were saving up for their own cars), we formulated a video concept that ingeniously merged an exhilarating car theme with the prospect of losing a younger sibling.

Fig.8. Still images from the Car Culture video

Click here to watch the the Car Culture video.

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Evaluation aims & hypotheses

The **aim** of Phase 3 research was to deliver a real-world campaign and then assess whether the insights we had uncovered in previous phases wer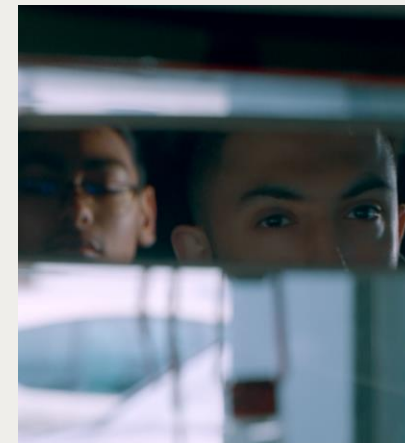e powerful enough to create an actual shift in attitudes and behaviour. Therefore, the discussion in the remainder of the report focuses on an evaluation of campaign efficacy and effectiveness.

For a message to be remembered, there must be evidence of cognitive and/or emotional processing, to embed it in long-term memory. This could be demonstrated through better recall or greater interaction with the campaign assets.

We evaluated the impact of the campaign both quantitatively and qualitatively.

We **hypothesised** that:

1. Compared to campaign assets, which did not incorporate any behavioural levers of tailoring (Information Only), the tailored assets would have greater efficacy, effectiveness and memorability.

2. We also hypothesised that tailored assets would perform better than Information Only in relation to cognitive/emotional processing.

3. We also wanted to know if one campaign asset out-performed the others.

We used social media analytics and a behavioural online survey to capture important information on the impact of the live campaign.

We examined the following questions:

Attention & Engagement:

• Determine the visibility of the campaign by assessing the reach and exposure of the campaign assets.

• Analyse the campaign's reach by monitoring the number of impressions, views, clicks, and shares across various online platforms. In the videos, how long did people watch for? This gives an indication as to how engaged they were in the narrative.

Intention/attitudinal shift and behaviour change:

• Did people change their intention after viewing the campaign?

• Have they already changed their behaviour as a result of viewing the campaign.

Long-term recall (memorability):

• Did people remember seeing the campaigns?

• Of those who saw the campaign which was recalled best?

• Did people remember the narrative and/or the key message?

Cognitive/emotional processing

• Did people understand the message?

• Did the campaign elicit emotion?

• Did they interact with the campaign?

Tailoring

• Was there variation in response based on age, gender or ethnicity?

Please refer to Appendix A for Social Media Strategy and Appendix B for full Survey Analysis Plan.

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Campaign strategy and timeline

We placed the campaign on multiple platforms because to reach as many and different types of young people as we could (See Table 1).

Along with the short form videos, we also promoted the posters from Phase 2 (as illustrated on page 13).

As mentioned earlier, each asset explored a different theme within the wider concept of anticipated regret. All themes were derived from ethnographic research and engagement with young people form the communities we were targeting.

Life Goals and Wedding assets were tailored to young women and featured a South Asian protagonist and aspirations derived from codesign with our South Asian women cohort.

Boxing, Education and **Car Culture** assets were tailored to young men and featured South Asian male protagonists.

Information Only is an asset created in a previous phase to test effect of different types of message framing. The poster was designed to be salient but contained no tailoring or message-framing using behavioural levers.

To effectively evaluate the impact of the different types of assets (i.e., does video content convey the message better than still images), we used all three types of assets:

- Short form video (tailored and behaviourally optimised)
- Posters (tailored and behaviourally optimised)
- Information only poster (factual , educational content)

The budget allowed an asset to be placed on the young person's feed up to three times.

Table 1. Campaign assets evaluated, platforms and asset release dates on each platform.

Asset	Platform	Release Date
Boxing (long) - video	Instagram	10.5.23
Boxing (short) - video	Instagram	1.6.23
Car Culture - video	Instagram	10.5.23
Life Goals (long) - video	Instagram	10.5.23
Life Goals (short) - video	Instagram	1.6.23
Info only poster	Instagram	10.5.23
Education poster	Instagram	3.6.23
Wedding poster	Instagram	3.6.23
Boxing (short) - video	TikTok	6.6.23
Car Culture - video	TikTok	6.6.23
Life Goals (short) - video	TikTok	6.6.23
Boxing (long) - video	YouTube	9.5.23
Boxing (short) - video	YouTube	1.6.23
Car Culture - video	YouTube	9.5.23
Life Goals (long) - video	YouTube	9.5.23
Life Goals (short) - video	YouTube	1.6.23

Campaign Evaluation

Approaches and measures

Survey

The survey was promoted on social media, we used sponsored posts and aimed to recruit 500 young people aged 16-24 from West Midlands.

The online survey was incentivised to increase uptake. Initially, we offered each participant a £5 Amazon voucher. After 190 survey responses, this was changed to entry into a £500 prize draw due to nearly 41% of the responses to the Amazon Voucher incentive being duplicate entries. In total, 434 people completed the survey; however, after removing duplicates and people who did not meet survey requirements, we were left with 218 valid survey responses.

The survey captured demographic information, and respondents' views on seatbelts.

They were asked to select which of the assets, if any, they recalled seeing before.

Dependent on their response they were then given follow up questions about the asset they remembered the best.

If they did not recall having seen one of the campaign assets in their social media feeds, they were randomly assigned one of the campaign assets.

The assets that were included in the survey were as follows:

• Boxing (short)

• Life Goals (short)

• Car Culture

• Education & Wedding posters (as a single option)

• Information Only poster (see Fig.9).

They were asked for information on: what they thought the campaign asset was about, their emotional response, any real-world response they may have made after previously viewing one of the campaign assets and their future intention to wear a seatbelt (see Appendix C for Survey Question Logic).

Social media analytics

Social media analytics data was described across poster campaigns and information only poster which was used as a decoy.

The aim of this was to see:

• If there is a difference in engagement between the behaviourally optimised tailored campaign assets and the information-only and still image assets.

• What behavioural science contributes to the success of the campaign.

• If there is one asset that out-performs the others

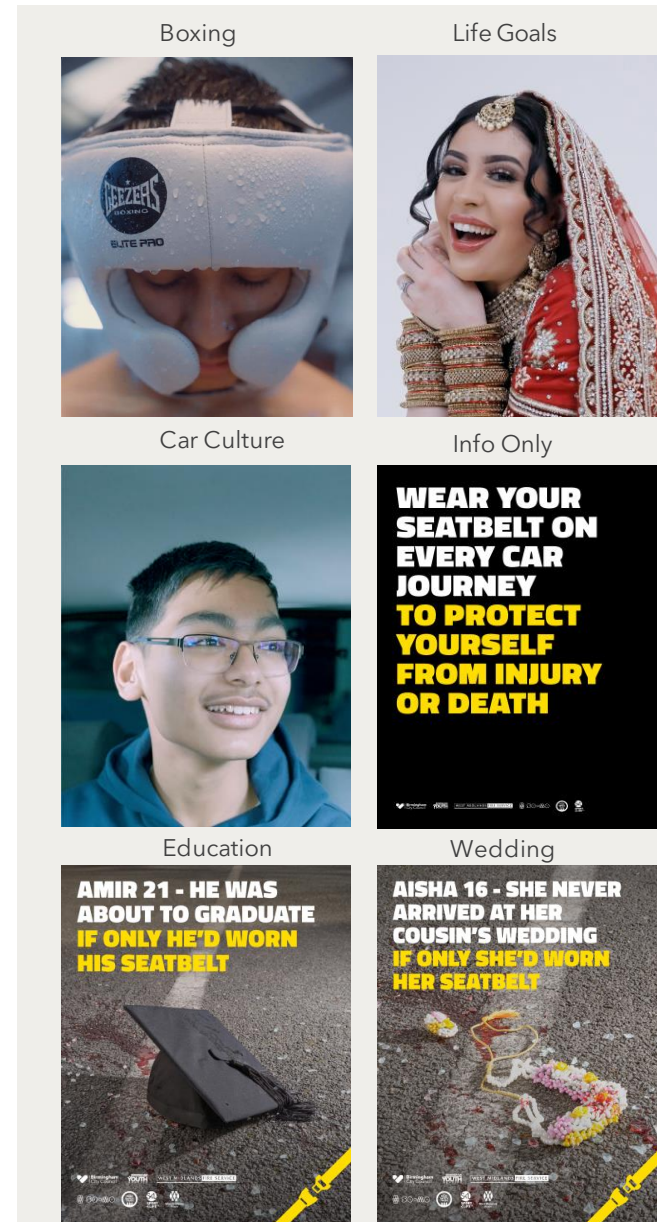For the social media targeting strategies, please refer to Appendix A.

Fig 9: Assets included in the evaluation survey.

Evaluation

Survey *(Quantitative)*

Survey responses measuring intention/attitudinal shift and behaviour change, cognitive/emotional processing, and tailoring were compared and analysed using linear regression models for the respective data types.

Qualitative

Free text comprehension of the narrative and the key message were captured and analysed using a framework analysis, where the text was organised into themes determined by the logic model of change that underpinned this work. The comprehension them categories were converted into a comprehension score, these scores were compared for tailored and non-tailored assets, using simple descriptives.

Social media analytics *(Quantitative)*

Attention and engagement were captured using metrics such as impressions, clicks (to the TfWM campaign landing page), retention, and post interactions (shares, likes, saves).

Qualitative

We undertook a thematic analysis of social media comments. We used a framework analysis, comments were organised by evaluation outcomes (comprehension, positive, negative and neutral emotion).

Methods

Table 2. Measured variables and assessment methods.

Measure	Social Media		Survey	
	Qual	**Quant**	**Qual**	**Quant**
Attention & engagement		X		
Intention/attitudinal shift and behaviour change			X	X
Long-term recall (memorability)			X	X
Cognitive/emotional processing	X		X	X
Tailoring			X	X

Key Insights

Insights derived from Qualitative and Quantitative analyses

Summary

Here we present a
summary of our key
insights from the evaluation

Main findings

Targeted social media reaches young people
Using targeted paid for advertising reached 72.5% (470,697) of young people aged 16 to 24 living in the West Midlands. Half of those surveyed who had seen the campaign before (65) reported a failure to regularly wear a seatbelt. This demonstrates that social media is a good tool to reach young audiences for the purposes or reducing road risk. More people watched the short videos to the end than the long videos.

The campaign was highly effective in terms of behavioural change
82% (53) of people who responded that they did not always wear a seatbelt, reported that they had increased seatbelt usage after viewing the campaign. This confirms that behaviourally optimised, messaging and content promoted on social media channels can achieve behaviour change.

Videos improve cognitive processing
Tailored videos outperformed tailored posters in comprehension (i.e., peoples' ability to remember the narrative and understand the key message), suggesting higher cognitive processing of videos (i.e., videos elicit more active mental processing). This implies that videos may excel in conveying a story compared to posters, potentially influencing content recall, emotional connection, and subsequent actions.

Tailoring improves emotional processing
All tailored assets elicited more emotions compared to the Information Only poster which aligns with our Phase 2 finding that heightened emotion is a driver of behavioural change. The fact that all tailored assets elicited more emotions than non-tailored assets increases the likelihood that people will remember them and, consequently, fasten their seatbelts.

The campaign content and messages were memorable
73% (96) of people who reported seeing one or more of the campaign assets in the past were able to remember the key message of the campaign, namely, to wear your seatbelt. Studies of memory suggest 90% of learnt information is forgotten within a week, the campaign was shown up to 4 to 8 weeks prior to answering the survey question, indicating better than expected long-term recall of the message (Murre & Dros, 2015).

The Life Goals video had twice as many recognisable narratives compared to other tailored assets, suggesting that its narrative may be more memorable or easier to interpret. This also reinforces our recommendation to create road safety videos that align with current social media trends, such as employing rapid transitions to tell a story, as seen in the shortened Life Goals video.

Tailoring is required to optimise behaviour change
Even though we did not have enough statistical power to conclude whether the tailored assets were better perceived by the intended demographic and between genders, it was clear that the tailored assets excelled in evoking emotions and promoting behavioural change. Consequently, we want to highlight the significance of tailoring road safety content to the specific demographic your message aims to reach, as this increases the likelihood of achieving behavioural change.

Key Insights

Here we present evidence of the scale and scope of influence.

In order for behaviour change to occur, a young person must first have the opportunity to reflect on their behaviour and reframe their choices. For us, this meant we had to be able to reach them and focus their attention in a cost-effective way.

(Attention) Visibility

There are around 649,583 young people in West Midlands (Census, 2021). The goal was to achieve an overall reach of 50% of this demographic (324,791).

At the beginning of the campaign, our social media analytics expert estimated that:

Instagram had a potential reach of around 342,000 16-24 year olds living in the West Midlands.

TikTok had a potential reach of 250,000-355,000 13-24 year olds.

YouTube does not provide estimates due to strict privacy regulations and fluid audience size.

Using Instagram and TikTok, we were able to reach at least 50% of the target demographic.

On Instagram, the total reach gained for all assets was estimated at 470,697 and TikTok was

Attention & Engagement

We expected to reach 50% of young people in West Midlands. We estimated the reach was 72.5% (470,697), based on social media analytics.

around 355,534 (please refer to Appendix D for detailed reach and engagement). We calculated this by dividing impressions (the number of times our content was displayed) by frequency (the amount of times our ads were seen by a unique user). We used Instagram to estimate our overall reach because this platform had the largest estimated potential reach, it showcased all the assets and promoted for the full period of the campaign. On Instagram, we estimated that we reached 72.5% (470,697) of the young people in West Midlands.

We acknowledge that this approach might have introduced duplicate counts as one person could have had a chance to see more than one asset. However, considering that we reached more than the estimated numbers on Instagram and TikTok, we are confident that exceeded our target of reaching 50% of the young people in the West Midlands.

If we investigate assets and platforms individually, the Boxing video was the highest promoted video on Instagram and TikTok, as defined by the platforms inhouse analytics, used to suggest the most optimal distribution of paid advertising

budget. This could also be explained by the fact that this video was endorsed by the stakeholders affiliated with its production (videographer, actors, boxing community etc.). The assets that gain more initial engagement are then "prioritised" by the platform algorithm.

On YouTube, the Car Culture video gained the most visibility which could be attributed to the fact that the other two videos were shortened four weeks after the campaign launch, and their extended versions were subsequently not promoted. Considering the total values, the Boxing videos exhibited the most extensive reach.

Interestingly, the Education, Wedding and Information Only posters all gained more visibility than the Car Culture and both Life Goals videos on Instagram, confirming that still image assets might have a greater potential to reach target audience on this platform because of its niche.

*It might help the reader to review the videos as they read the results. Links to all the videos are available on pages 13 to 15.

Key Insights

Engagement

Here we present evidence of the level of engagement, based on SM metrics

Still images on Instagram and videos on TikTok generated the most positive engagement (likes and clicks).

Engagement

We measured engagement by:

- First, by looking at likes/reactions, shares, comments and click throughs to the TfWM campaign page generated.

- Secondly, by examining the viewers watching patterns and % of video viewed (did they watch till the end?).

On Instagram, the Education and Wedding posters received more engagement in terms of likes/reactions, clicks comments and post shares (see Appendix D) than the videos implying that still assets might overall perform better on a platform like Instagram.

On TikTok, the Car Culture video achieved the highest engagement out of all videos implying that this story might have worked better for the TikTok audience.

On YouTube, the highest engagement was reached by the long Boxing video potentially due to this video being endorsed by the involved parties (i.e., videographer, actors, famous boxers, etc.).

Comments

The campaign assets overall did not elicit a high number of comments from viewers, however, as mentioned earlier, we did not proactively push for this. The only asset across all platforms that elicited comments was the Education poster on Instagram, although these comments did not contribute constructively or provide any valuable insight. Regardless, after conducting a thematic analysis of the comments , several trends emerged:

- Organically posted videos (video content shared on the social media platforms without paid promotion) received overwhelmingly positive comments on the campaign's social media pages, with emojis and support for creators. These comments did not directly discuss the campaign's themes.

- Comments on ads were unconstructive, often consisting of brief, one-word responses, or offensive language, aligning with previous research on online trolling behaviour (Bishop, 2014; Sanfilippo et al., 2018).

To counter this and enhance engagement in online campaigns, we would suggest the following approaches:

- Increase followers and collaborate with influencers for organic support.

- Implement strict comment moderation, removing harmful comments, and promote positive engagement to create meaningful discussions around campaign messages.

Please refer to Appendix E for a more detailed overview of the comments analysis.

Key Insights

Continued

Attention & Engagement

Views for all video assets on all platforms dropped steeply by the 25% mark, but shortened videos retained more of their audience.

Getting to the end message

The goal of the campaign was to promote seatbelt usage. Therefore, it was crucial that young people viewed the last 10 seconds of the videos for the behavioural messaging and emotional content to be viewed and have effect. As such, we were interested to learn about viewing patterns.

An initial review of campaign assets demonstrated that views for all video assets dropped steeply after 25% of the video had played (10-15 seconds).

To maximise retention, we re-edited the Boxing and Life Goals videos taking them down from 60 seconds to around 30 seconds. This doubled the number of people who watched until the end message on YouTube. Four times the number of people watched Boxing, and ten times the number of people watched Life Goals until the end on Instagram.

Only the shortened versions were shown on TikTok (~713,300 plays, and 2242 watched until the end message).

Overall, whilst larger audiences were reached on TikTok and Instagram, more young people watched till the last 10 seconds on YouTube (14.2%, 5862 people).

If we compare the Boxing, Life Goals and Car Culture videos, it was evident that the opening scenes of the Life Goals videos (especially the short version) generated more interest among viewers than the Boxing and Car Culture videos on all platforms, reaching the highest view count by the 25% mark (please see Appendices F,G,H).

It could be because this video mimicked 'self-made' content trending on social media at the time which may have therefore resonated with the young audience.

After the 25% mark, there were small differences between the videos in performance on Instagram. On YouTube, Car Culture video retained more viewers than Life Goals and Boxing. This might be because Car Culture had a story which required you to watch the last 10 seconds to see its conclusion. On TikTok, more young people watched Car Culture and Life Goals videos till the end message than Boxing. Life Goals video may have performed better here because it most closely aligned with TikTok style content (i.e., using rapid transitions). The peak moment in Boxing (the protagonist winning the fight) occurred in the middle of the video, with hindsight this peak should have come at the end of the video to motivate viewers to continue watching to the end.

Social media platform allocation

Based on our insights, it might be more valuable to allocate content to social media platforms based on the type of asset you want to advertise.

Instagram was more cost effective when advertising images. In our experience, the still assets achieved more opportunities to be viewed and engaged with (based on likes, comments, shares, etc) than the videos (please see the Appendices J, K).

Furthermore, TikTok and YouTube achieved overall more complete video views, therefore in terms of video ads, these platforms might be more suitable. TikTok could potentially be a more cost-effective platform considering that it encouraged more interactions (likes, clicks, shares) despite the fact that it was utilised 4 weeks less than the other two platforms.

YouTube is the best platform for videos that are more than 30 seconds long. We would emphasise that these videos require a compelling narrative with a strong reason to watch until the end to be successful in the competitive space of online media advertising.

Key Insights

Evidence of behavioural change

Here we present evidence of behaviour change from survey responses

We observed a behavioural shift - 82% (53) of people whose behaviour could be changed reported they had increased their seatbelt usage after viewing the campaign assets.

One of the main goals was to determine whether the tailored campaign assets effectively motivated individuals to increase their seatbelt usage.

To achieve this, we asked people who had previously viewed the campaign on their social media whether there had been any change to their actual behaviour post viewing.

After removing non valid or duplicate responses we had 218 valid survey responses (please refer to Appendix B for survey analysis approach and Appendix L for descriptive statistics). The responses were divided in 2 groups – those who had seen the campaign before (N=131) and those who had not (N=87).

To estimate behaviour change we asked participants (N=131) who had seen the campaign assets before if their seatbelt wearing behaviour had changed. Respondents could answer "I always wear my seatbelt", "I wore my seatbelt more", "I wore my seatbelt less" or "I asked someone to wear a seatbelt", or "the campaign did not change my behaviour".

47.3% (62) reported that they already wore their seatbelts all the time, meaning no behaviour

change required.

4.6% (6) responded "the campaign made no impact on my behaviour".

4.6% (6) responded "I asked someone to wear their seatbelt".

3.1% (4) selected two responses "I always wear my seatbelt" and "I wore my seatbelt more", meaning we could not be certain of behaviour change.

40.5% (53) reported they wore their seatbelt more after viewing the social media campaign. Meaning, 82% (53/65) of people who might not be wearing their seatbelt regularly, reported wearing their seatbelt more after viewing the campaign.

Nobody reported wearing their seatbelt less, which is important to note because this would be an adverse outcome for our campaign.

Instagram was the only platform on which we advertised both video and still image content. Based on the reach (the number of individual account holders who saw at least one of the assets during the campaign) we reached 470,697 young people (acknowledging that the reach metric does

not exclude people who have seen more than one asset and could therefore be double counted).

If we extrapolate the results from the survey to this population, it is conceivable that the **seatbelt-wearing behaviour of up to 190,632 (40.5%) people could have been positively influenced, representing 82% of people who reported they did not always wear their seatbelt. A further 21,652 were prompted to ask someone to put on a seatbelt by the campaign, which, considering that the total number of young people in West Midlands is over 600k, is a great achievement for a 2-month campaign.**

Survey:
- **218 - valid responses**
- **131 – seen campaign assets before**
- **87 – not seen campaign assets before**

Key Insights

Continued

Comparison of campaign assets

We compared young people's intention to wear a seatbelt after viewing the tailored assets and Information Only poster. The mean intention to wear a seatbelt was higher for young people who viewed the tailored assets but when we compared the mean scores, the mean difference was not significant (not presented; please see Appendix I). Therefore, there is signal for increased intention, but it was not conclusive.

However, people reported that their friends would be more likely to wear a seatbelt if they saw the tailored video assets, especially the Life Goals and Car Culture videos when compared to Information Only ($p<.05$; see Table 3).

Similarly, people were also more likely to share these two videos with others ($p<.05$) when compared to the Information Only poster (see Table 4). This highlights, again, that tailored content is more likely to be noticed and encourage people to action.

Results were not conclusive for the Education & Wedding posters.

Overall, a conclusive change in mean score of 1 to 1.4 on a ten-point scale, represents a 10-14% shift in intention, which is substantial.

Evidence of behavioural change

	Mean (SD)*	Unadjusted Mean difference (95%CI)	Adjusted Mean difference (95%CI)
Info Only	6.9 (2.5)	ref	ref
Boxing	7.8 (2.1)	**0.95 (0.12, 1.78)**	**0.97 (0.10, 1.84)**
Car Culture	8.1 (1.5)	**1.17 (0.20, 2.13)**	**1.23 (0.23, 2.22)**
Education & Wedding	7.3 (2.0)	0.44 (-0.41, 1.28)	0.42 (-0.45, 1.29)
Life goals	8.1 (2.0)	**1.19 (0.24, 2.15)**	**1.29 (0.31, 2.26)**

Table 3: Mean scores of "My friends would be more likely to wear a seatbelt if they saw this campaign" question. Both routes combined.

	Mean (SD)*	Unadjusted Mean difference (95%CI)	Adjusted Mean difference (95%CI)
Info Only	6.1 (3.0)	ref	ref
Boxing	7.6 (2.6)	1.45 (-0.69, 1.66)	**1.27 (0.06, 2.84)**
Car Culture	7.4 (2.6)	**1.25 (0.30, 2.60)**	**1.41 (0.15, 2.66)**
Education & Wedding	6.6 (2.5)	0.48 (-0.69, 1.66)	0.55 (-0.69, 1.79)
Life goals	7.5 (2.0)	**1.36 (0.21, 2.50)**	**1.43 (0.19, 2.67)**

Table 4: Mean scores of "I will tell people I know about this campaign" question. Both routes combined

Note: SD = Standard Deviation, **bolded** values indicate difference between mean scores was significant

*When comparing mean scores, if the Mean Difference (MD) (mean score of the Information only asset subtracted from the tailored asset) and the 95% confidence interval (CI) (a measure of the possible range of values the MD could be) is above 0, then this indicates a statistically conclusive positive result, meaning the tailored asset performed better than the information only asset..

Key Insights

Here we present evidence of comprehension from the framework analysis of survey free text responses

These campaigns used heightened emotion and anticipated regret as the primary drivers of change.

As mentioned in the earlier chapters, research shows that heightened emotion increases levels of **attention**, **engagement** and **recall of message**.

In Phase 2 of the research, we established a strong link between feelings of anticipated regret and an increase in intention to wear a seatbelt. For this reason, in the evaluation stage, we:

- First, assessed if the participants processed and understood the campaign assets.

- Second, measured the participants' emotions when exposed to the campaign assets (tailored and non-tailored).

To assess if the assets were processed and understood (recalled comprehension), we asked the participants who <u>had not</u> seen the campaign assets before to describe the story and explain the key message (we discuss long-term recall on page 29).

Overall, 87% (75) of people who had not seen the campaign assets before exhibited high and medium comprehension, meaning that they

Cognitive & emotional processing

Videos outperformed tailored posters in comprehension, hinting at higher cognitive processing. This might affect content recall, emotional connection, and subsequent actions.

were able to extrapolate the key message (i.e., "wear your seatbelt"). Furthermore, 57% (49) of the participants were not only able to extrapolate the key message, but also describe the story (see Fig. 11).

These insights imply that the asset narratives were understandable and that it was overall clear to the viewers what they are about. This is an important point as in order to elicit any emotions, the assets need to be understood.

When we reviewed comprehension by asset the Car Culture video, which explored the theme of losing a younger sibling seemed to have a much higher proportion of "high" scores than the others (Car Culture=86%; Life Goals = 69%; Boxing = 70%). This implies that the content of the Car Culture video might have been more emotionally powerful and leveraged strong feelings of anticipated regret.

All video assets exhibited higher comprehension scores than the Education and Wedding posters, perhaps highlighting the limitation of still images, This provides further evidence that videos were more actively processed than images leading to better understanding of the overall narrative.
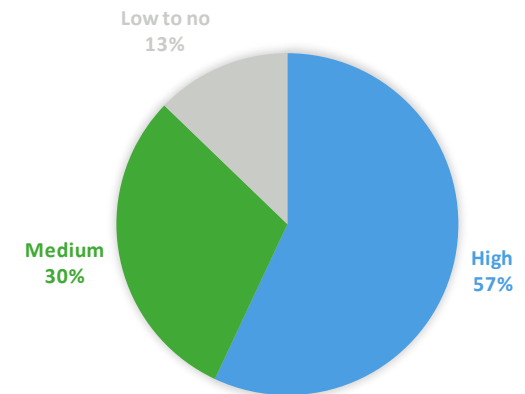

Fig. 11. Total comprehension score for people who had not seen the campaign assets before. N=86 (1 response removed due to missing values)

Comprehension score:
- **High** (recall narrative and key message);
- **Medium** (describe generic narrative, remember key message);
- **Low to no** (generic or no narrative, did not understand the key message

Key Insights

Cognitive & emotional processing

Here we present evidence of emotional response, based on survey responses

All tailored assets elicited more emotions compared to the Information Only poster increasing the likelihood of people remembering them and consequently engage in the intended behaviour.

Emotions

Overall, the campaigns were well comprehended, especially the video assets.

Next, we wanted to see whether the assets also elicited emotions that would drive the behavioural change.

All the **tailored assets elicited more emotions than the Information Only poster. In further analyses young people were 5 to 10 times as likely to elicit emotion compared to the Information Only poster (p<.05).** Everyone who viewed the **Life goals video felt emotion.** This implies that the content of these videos resonated with the young viewers.

When viewing the Information Only poster, which contained no tailoring to elicit emotion more people reported feeling nothing ("I felt nothing") in comparison to the tailored assets. In contrast, many people felt "encouraged" and "motivated" after viewing the tailored assets which implies that they are more likely to remember the content of these ads and perform the encouraged action (i.e., use a seatbelt).

There was a person who felt particularly touched by

the Car Culture video and chose to tell their story:

"This video actually made me shed a tear, myself and my partner was in a very serious car collision on the motorway a few years ago, the m6 was closed for 5 hours due to this and the police and ambulance services couldn't tell me enough how lucky I was that I had my seatbelt on as the whole car was crushed and I would have been dead, I feel so lucky to still live to tell this tale but whenever someone gets in my car I always tell them to make sure they have their Belt on as a seatbelt really did save my life. Many times people laugh at me when I say this to them but I will not move until I hear that belt click." Female, 21

This emphasises the importance of creating content that activates anticipated regret by making people think about things they would not want to miss out on or people they would not want to live without.

Anticipated regret is more likely to elicit more emotions in people and therefore encourage behavioural change.
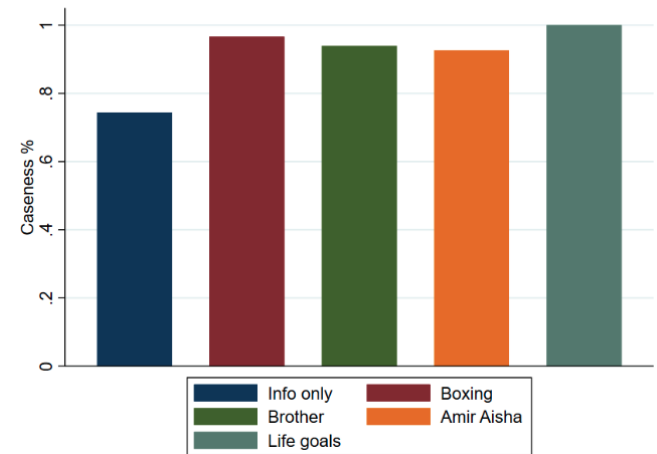

Fig. 12. Caseness (%) of elicited emotions per campaign asset. N=218.

Key Insights

Here we present evidence of recall, based on survey responses

In order for behaviour to change, the content we created would have to be memorable and elicit enough emotion to stay on people's minds.

In terms of memorability, all survey **respondents** reported that they **would remember the tailored assets more compared to Information Only poster**. **The Life Goals and Boxing videos,** in particular, stood our significantly (p<.05) when compared to the Information Only poster. This finding aligns with our previous insights.

Out of 218 people we surveyed, 131 (60%) reported seeing at least one of the campaign assets before on their social media, indicating the campaign was recalled 4 to 8 weeks after it was placed on their social media feed. Not surprisingly, more people reported having seen the Boxing video - potentially due to this receiving a greater share of the advertising budget. They also reported to remember this video best which, again, could be due to the initial exposure it got.

Among those who had seen the campaign assets before, we asked them to recall the narrative and the key message, testing long-term recall of the campaign.

Memorability (recall)

73% (96) of people who reported seeing the campaign assets in the past were able to remember that the key message of the campaign was to wear a seatbelt.

Interestingly, **73% (96) of people who had seen one or more of the assets at some point prior to the survey being launched had correctly retained the key message** (see Fig. 13)**.**

38% (50) of people in this group could describe the narrative and the key message with a high degree of accuracy. These are great results if we consider that some of these individuals would have viewed the campaign assets up to 8 weeks prior to completing the survey.

These results imply that the campaign assets were relatable or engaging enough for people to recall them at a later stage. They also highlight how building in applied behavioural science techniques such as emotion, tailoring and anticipated regret, can enhance cognitive processing and thereby facilitate long-term recall of the key public health messages.

Interestingly, of those with high comprehension, **64% (32)** recalled a narrative specific to one asset, suggesting long-term comprehension of the campaign assets. **The Life Goals narrative was recalled twice as often as the other tailored campaign assets.** This difference could potentially be attributed to the looped narrative structure

which was distinct from the other videos and might have made it easier to describe/recall, the platform it performed well on encouraged video completion, or there was an unmeasured group difference we cannot account for.

"*The story of the campaign was a girl who was a passenger in the car who was sharing her life goals but wasn't given the chance to achieve those things because she died due to not wearing a seatbelt*" Female, 19
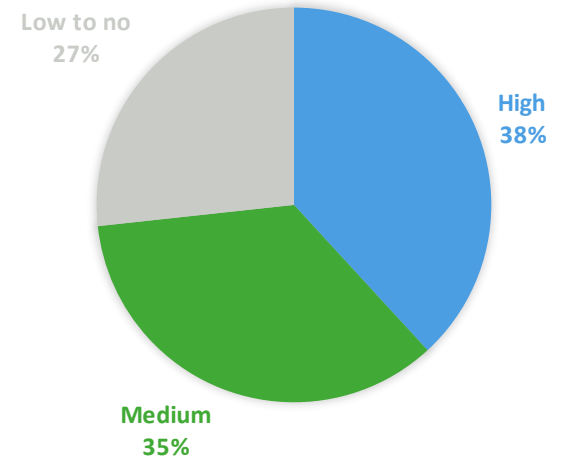

Fig. 13. Total comprehension score for people who had seen the campaign assets before. N=131

Discussion

Implications, limitations and recommendations of these findings

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Implications

The campaign used multimedia assets (i.e., short videos and images/posters). Each of these assets had their strengths and limitations on the three social media platforms (Instagram, TikTok, YouTube).

Implications for future social media campaigns

Length of video: It was evident that videos performed better when cut to around 30 second mark (as opposed to being 1 minute long). More people viewed them until the end and therefore saw the campaign message. However, it can also be speculated that if a video has very strong emotional narrative, such as the Car Culture video, the engagement with the video is likely to be longer, meaning that more people will view it till the end. Regardless, because a significant proportion of views drop by the 25% mark, we suggest any future videos to be no longer than 10–15 seconds if intended to be advertised on social media.

Life Goals: this video generally had a higher likelihood of retaining viewer engagement. This could be attributed to its format, which closely resembles user-generated social media content. It's worth considering adopting this format for future campaigns to maximize initial engagement.

Variety: It is a good idea to accompany a video campaign with static images/posters. Whilst processed superficially compared to videos, these get more reach and can be used as an extension to the videos, ensuring target audience's awareness of the key message of the campaign.

Campaign evaluation using an online survey

To obtain a sufficient number of responses for meaningful insights, incentivisation will be crucial. The total amount we spent on survey advertisement and incentives was £2,663 (1,803 for survey ads, £860 for £5 vouchers, and the £500 prize draw). With 218 valid responses, this roughly translates to £12 per response. While this amount is generally acceptable for participation in a research study, it might be considered excessive for a 5-minute online survey. Therefore, before implementing an online survey advertised through social media, we would recommend evaluating the advantages and disadvantages of various incentivisation methods. We utilised two approaches - a voucher and a prize draw.

- **Vouchers** were effective but there were duplicate entries. We recommend if vouchers are used as rewards, state these will be distributed at the end of the survey period and not daily. This approach may encourage high engagement but reduce the risk of duplicate entries and administration resource.

- On the other hand, the **prize draw** yielded consistent and high-quality responses but fell short of reaching our target response count.

A potential solution for minimising duplicate entries whilst still achieving a high number of valid responses could be to issue the vouchers at the end of the project, thereby removing the instant gratification appeal. Alternatively, the prize draw's duration could be extended to gather more responses.

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Implications cont.

Impact

The strengths of a behaviourally optimised, targeted and tailored social media intervention is demonstrated by the evidence of reach, cognitive and emotional processing and the evidence that people viewing the campaign could recall with accuracy the key messages after a period of time had elapsed. More impressive was the evidence that the campaign had a positive effect on both intention to wear a seatbelt and self-reported evidence of actual behavioural change. Extrapolating survey population to the wider YP audience **we potentially changed the behaviour among 40.5% (190,632) people who saw the campaign representing 82% of people do not always wear their seatbelt.**

Memorability

The finding that the message and narratives of the campaign were recalled without reinforcement or review after 4 to 8 weeks demonstrates campaign recall deviated from the expected exponential memory loss illustrated in Ebbinghaus's forgetting curve (Fig.14). Potentially, the campaign message was remembered by up to 343,608 people, extrapolating survey responses to the IG

audience. It should be noted that Herman Ebbinghaus and subsequent memory researchers demonstrated that repeated presentation of stimuli at increasing intervals, also aids long-term recall. Therefore, we would suggest that our, and other, social media campaigns designed to embed road safety messaging are promoted to audiences more than once to increase memorability.

However, we do not believe that a social media approach is sufficient on its own. It should be considered as a strategy to complement existing interventions to promote and enforce the use of seatbelts as standard.

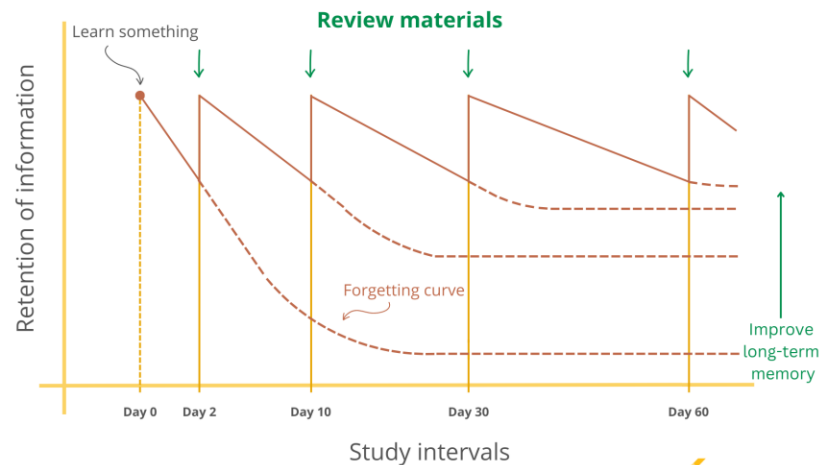Fig.14 Ebbinghaus's Forgetting Curve illustrates how information is rapidly forgotten over time if it's not actively reviewed or reinforced. The curve is steepest right after learning something new and then gradually levels off. Repeated opportunities to learn levels the curve further. The forgetting curve was defined in 1885 by German psychologist Hermann Ebbinghaus (1850-1909) in his book Memory.

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Limitations

As with any study, there were several limitations.

Firstly, despite our initial goal of obtaining 500 responses, once we cleaned the data, removing duplicate responses and responses which fell outside the criteria, we achieved 218 valid, individual responses. Given more time and a larger budget, it is plausible that we could have achieved the desired 500 responses, as we observed a gradual but consistent increase in responses after introducing the prize draw. This limitation significantly hindered our ability to derive meaningful insights into the variation in campaign performance for South Asian young people, which is the group we codesigned with. We made every effort to reach this audience for the evaluation to ensure we captured their views, but due to social media restrictions, we could only promote the survey to young-people, generally.

Secondly, we recognise that a survey supported by social media analytics may not be as effective in measuring behaviour change as using harder measures of behaviour, for example observing seatbelt use before and after the campaign among young people or examining Stats 19 data. However, this would be a difficult and complex undertaking on account of the high number of variables which would need to be taken into consideration. Over a short timeframe, even achieving correlation would be a significant undertaking.

Thirdly, there are certain limitations when utilising self-reported results. We do acknowledge this and would therefore recommend that a longitudinal study be undertaken alongside an iterative approach which repeats the campaign over defined intervals and supports it with other initiatives such as face to face engagement and enforcement. This is worth considering how proof of principle has been achieved.

Fourthly, the social media strategy was designed to optimise reach. This does not align with a formal evaluation approach which would standardise experimental conditions. Therefore, we had to make certain assumptions when evaluating the campaign performance and the performance of individual assets. This is a challenge all researchers will face when evaluating real-world performance of multiple assets in an online campaign.

Fifthly, the budget was spent carefully to ensure we did not overspend early and oversaturate young people's feed with too many presentations of the same asset. In future research, this could be manipulated to determine when saturation is reached with respect to engagement with a public health campaign.

Whilst the survey numbers are small, the finding that only 47% (62) of this cohort indicated they always wear their seatbelt provides further evidence that the seatbelt wearing rate in this region of the UK is low. It contrasts with the 95% wearing rate, nationally. The national statistics for seatbelt use will of course hide local variations, which will be contributing to road deaths and injuries on the UK's road.

Fasten up Your Future

Future recommendations

If a similar project was to be designed in the future, here are the recommended considerations:

- Employing a mixed approach in terms of campaign materials (i.e., using both videos and stills) to maximise the reach of the campaign message and enhance the likelihood of behavioural change.

- Create custom videos, preferably under 20 seconds, that emulate trending social media video styles. For instance, the Life Goals video adopted a style reminiscent of user-generated content with rapid transitions, which was *trending* at the time when we were developing the video concepts with young people.

- Although the short videos performed better in social media setting and we recommend they should be even shorter, a short video is limited to the extent it can tell a compelling story, elicit emotion and leave a lasting impression. Cinema advertising may represent a better platform to present long-form video, because the audience is guaranteed and placement before films made for an adolescent or young adult audience would enable targeting of message.

- Consider utilising Snapchat. Although we did not use this platform due to budget constraints,

it has an approximate reach of over 100k young people in the West Midlands and could serve as a potential alternative to Instagram, TikTok, or YouTube.

- Consider organic campaigns when seeking meaningful, constructive feedback from the community or target audience. While we did not extensively focus on or measure this aspect in this project, our observations based on the engagement we received through ads compared to organic posts suggest that people are more inclined to offer meaningful insights or reactions when they have a personal connection with the campaign creator. This, however, will require frequent content posting on these channels and monitoring of responses.

In conclusion, social media is an important platform that can be used to reach large audiences who are known to be susceptible to specific health risks. If used properly, it offers a powerful tool to reduce known health disparities particularly among young people, who are active users of these platforms. Content is key, a behaviourally optimised campaign should include tailoring, which is vital to ensure that the information is not only seen, but processed sufficiently so it can be recalled. Understanding and embedding the levers of change relevant to a particular population will ensure that the campaign is received positively and has the greatest chance of changing behaviour.

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Appendices

Appendix A

Social media strategies & analysis

The campaign aimed to reach a large portion of the young population in the West Midlands, estimated at around 649,583. The goal was to achieve an overall reach of over 50% of this demographic, ensuring that each ad asset had the opportunity to be seen, processed, and remembered by the target audience.

The social media analytics was outsourced to Easytech Solutions Ltd.

Social media targeting

To reach our target demographic, we used the following targeting strategies:

- Age-Based Targeting: The campaign focused on 16-24-year-olds. However, due to platform restrictions, only TikTok was allowed for targeting users under 18, while Instagram and YouTube had a minimum age limit of 18 for targeted advertising.

- Interest-Based Targeting: The campaign targeted users based on their interests, such as boxing, lifestyle, cars, etc., using hashtags.

Ethnicity-based targeting was not available on any of the platforms. Even though the campaign had data on areas in the West Midlands with higher South Asian populations, the decision was made not to limit the campaign to these specific areas. Restricting the target area could have significantly reduced the overall reach and would not have been cost-effective. Instead, the campaign ads were displayed to all 16-24-year-olds in the West Midlands. It is important to note that adding more filters to the target audience would increase advertising costs.

To prevent audience fatigue from repeated ad exposure across different platforms, the ads were initially launched only on Instagram and YouTube (from May 9th to July 24th). On TikTok, the ads were live from July 6th to July 24th.

Budget allocation

With a fixed campaign budget of £2,500 and three platforms to advertise on, the budget was allocated as follows:

- Instagram: Initially, all three videos were placed within a single ad group. Assets with strong initial performance received more exposure automatically (i.e., the algorithm prioritised them). To address the imbalance, distinct ad groups were later assigned to videos that were not performing as well, as the algorithm was favouring the best-performing video. Images introduced on June 3rd, 2023, were incorporated into one of the three video ad groups.

- TikTok: Based on insights from Instagram, each video on TikTok was given its own ad group to ensure balanced exposure.

- YouTube/Google: Each video was assigned its own ad group for better control over the ad performance.

The campaign made use of broad targeting within the chosen demographics of age and location, taking into account that narrowing the targeting would be more expensive. The goal was to maximise the campaign's reach within the available budget.

Retention measures

To measure retention for each video on each platform, we referred to "Video Plays" (Instagram & TikTok) or "Video Views" (other platforms). For a view or play to be counted, the video should have been watched for at least 1 second (TikTok & Instagram) or 3 seconds (YouTube).

Appendix B

Survey analysis

Survey

We aimed to obtain 500 valid responses from young people aged 16-24 in the West Midlands. We initially offered a £5 Amazon voucher per unique response, however, after 190 survey responses this was changed to entry into a £500 prize draw due to nearly 41% of the responses to the Amazon Voucher incentive being duplicate entries.

At the end of the survey period, we received 218 valid survey responses. The responses were divided into two groups – those who had seen the campaign before (N=131) and those who had not (N=87).

Qualitative outputs

In the survey, we asked the participants to recall the narrative of the campaign asset they have seen (or were shown) and identify the key message of this campaign.

Narrative scoring

Those who could recall the narrative and mentioned seatbelt received 1. Those who remembered narrative but did not mention seatbelt received 2. Those who provided a generic narrative (could not assign to a specific campaign) but mentioned seatbelt, got 3. Those who provided no narrative and did not mention seatbelts, got 4. Those who reported that they do not remember got 5. And those who put N/A got 6.

Key message scoring

Those who indicated that the key message is about wearing seatbelt received 1. Those who did not mentioned seatbelts but said the ad is about road safety or being safe on roads, received 2. Those who did not mention seatbelts or road safety, received 3. Those who put N/A received 4. Those who said I don't know, received 5.

Comprehension Score

We constructed the comprehension score in the following way.

Those who scored 1&2 in narrative and 1&2 in key message were assigned high comprehension.

Those who scored between 3-6 in narrative and 1&2 in key message, were categorised as having medium comprehension. Those who scored 1-6 in narrative and 3-5 in key message, were categorised as having low comprehension.

Scoring of Information Only poster

It was excepted for an N/A option to be assigned as a narrative for the Information Only poster. Those who selected N/A for narration but understood the key message were assigned medium comprehension. There were individuals who did try to interpret the poster, and these were assigned high comprehension.

Quantitative outputs

Quantitative analyses were conducted using mainly ordinal regression approach. For the statistical hypothesis testing, $\alpha=.05$ was used as a cut off.

Comprehension score:

High (recall narrative and key message);

Medium (describe generic narrative, remember key message);

Low (generic or no narrative, did not understand the key message).

Appendix C **Survey question logic**

Questions			What are we measuring?
Indicate your age			Demographics
16 or over What is your age		15 or under End	
Descriptive statistics (gender, postcode, ethnicity)			Campaign reach
Q6: Have you seen any of these campaigns on your social media?			**Attention**: was this campaign seen?
Yes (group A) Q7: Select all the campaigns you can remember seeing on your social media channels		No (group B) A/B test	**Effectiveness**
Q8: What was the narrative about?		Q17: What was the narrative about?	Did people understand the message and remember the story?
Q9: What was the key message of this campaign?		Q18: What was the key message of this campaign?	
Q10: Has your seatbelt wearing behaviour changed?			Did people report change in behaviour due to campaign videos?
Q11: Please select the campaign you remember the best (logic takes to that video)			**Memorability** (boxing video had extra endorsements so most will have probably seen that)
Q12: Tell us how this made you feel		Q19: Tell us how this made you feel	What **emotions** did the campaign elicit in viewers?
Q13: Likert "The campaign is for people like me"		Q20 Likert "The campaign is for people like me"	**Tailoring** (correlation between ethnicity and Likert score)
		Q21: Likert "After viewing this campaign I am more likely to wear a seatbelt "	**Effectiveness**
Q14: Likert "This campaign would make my friends more likely to wear a seatbelt."		Q22: Likert "This campaign would make my friends more likely to wear a seatbelt."	Are people reporting intention to wear their seatbelt?
Q15: Likert "I will remember this campaign"		Q23: Likert "I will remember this campaign"	Resonates/**Tailoring**: Have these campaigns left an impression?
Q16: Likert "I will tell people I know about this campaign"		Q24: Likert "I will tell people I know about this campaign"	Resonates/**Tailoring** (potentially, if controlled for ethnicity)

Appendix D <u>Reach and engagement on Instagram, TikTok and YouTube</u>

Asset	Platform	Impressions	Frequency	Reach	Likes/reactions	Likes/reactions %	Clicks (to campaign website)	Clicks %	Comments	Post Saves	Cost
Boxing (long) - video	Instagram	91,989	1.42		84	0.09%	86	0.09%	0	2	£ 63.72
Boxing (short) - video	Instagram	244,026	1.95		182	0.07%	193	0.08%	0	2	£ 169.19
Car Culture - video	Instagram	43,503	1.22		39	0.09%	40	0.09%	2	0	£ 27.90
Life Goals (long) - video	Instagram	4,035	1.08	470,697	3	0.07%	9	0.2%	1	0	£ 2.78
Life Goals (short) - video	Instagram	59,581	1.34		25	0.04%	25	0.04%	0	0	£ 41.79
Info only poster	Instagram	152,463	2.51		24	0.02%	77	0.05%	1	0	£ 90.88
Education poster	Instagram	105,013	1.48		155	0.15%	179	0.17%	19	3	£ 65.99
Wedding poster	Instagram	82,829	1.27		127	0.15%	118	0.23%	2	0	£ 50.99
Boxing (short)- video	TikTok	323,559	N/A*		394	0.12%	512	0.16%	2	N/A	£ 326.35
Car Culture - video	TikTok	205,578	N/A*	355,534	517	0.25%	638	0.31%	0	N/A	£ 207.65
Life Goals (short) - video	TikTok	243,120	N/A*		311	0.13%	531	0.22%	2	N/A	£ 247.74
Boxing (long)- video	YouTube	28,919	N/A		35	0.12%	14	0.05%	2	N/A	£ 102.62
Boxing (short) - video	YouTube	75,473	N/A		7	0.01%	59	0.08%	0	N/A	£ 274.27
Car Culture - video	YouTube	100,833	N/A	N/A	13	0.01%	101	0.1%	2	N/A	£ 287.79
Life Goals (long) - video	YouTube	19,864	N/A		13	0.07%	25	0.13%	1	N/A	£ 67.17
Life Goals (short) - video	YouTube	49,015	N/A		2	0.004%	65	0.13%	0	N/A	£ 177.67

*The frequency metric was not provided to calculate reach. This was provided automatically.

Appendix E

Engagement - comments on social media

Qualitative engagement with the campaign assets on Social Media

To evaluate the interaction with campaign assets on social media plays a vital role in assessing how effective and resonant the campaign is with its intended audience. Our approach to achieving this involved analysing comments posted on the following social media platforms: TikTok, Instagram, and YouTube. Videos were posted via sponsored ads from the campaign business account and organically on the campaign social media account pages.

After conducting a thematic analysis of the comments, several trends emerged:

1. Positive Emphasis on Organically Posted Videos: The majority of comments on videos that were organically shared on the campaign's social media pages, rather than being paid ads, were overwhelmingly positive. Organically posted content generally gained more comments. They often consisted of emojis and expressed support for the creators and actors involved in the campaign rather than directly discussing the campaign's main themes.

2. Non-Interpretable Comments on Ads: On the other hand, comments on the ads did not contribute constructively to discussions about the campaign asset's content. They were often brief, one-word comments that seemed to be ironic or indicative of trolling behaviour. There were also two comments that used foul or racially offending language. This aligns with previous research suggesting that some individuals engage in online trolling to derive enjoyment from disrespectfully disrupting others' conversations (Bishop, 2014; Sanfilippo et al., 2018).

Social proof and herd mentality play a significant role in online trolling. A negative comment can influence others to view the campaign in the same negative light, diverting attention from the campaign's message and creating a negative feedback loop.

Based on these findings, we recommend the following strategies to increase qualitative engagement with online campaign assets:

1. Grow a Larger Follower Count and Engage Social Media Influencers: To foster more meaningful engagement and insights through social media comments, we would suggest to build a larger follower base on the campaign's social media platforms and collaborate with social media influencers who can endorse the campaigns organically. Though this may require time and active content promotion on social media, it lays the groundwork for more constructive discussions about the campaign with the target demographic.

2. Implement Close Campaign Comment Moderation: Due to the difficulty of completely avoiding online trolls when advertising on social media, we would advise to implement effective comment moderation during campaigns. In some cases, the most appropriate approach might be to remove harmful comments. Moreover, to counteract the detrimental impact of trolling, we would suggest to promote positive social proof and leverage a herd mentality by actively engaging with users who demonstrate constructive and positive behaviour. This approach fosters a healthier and more meaningful discussion around the campaign's messages.

Appendix F

Video retention on Instagram

Asset	Video Plays (total)*	Video Plays at 25%	Video Plays at 50%	Video Plays at 75%	Video Plays at 95%
Boxing (long)	81,639	472	176	103	75
Boxing (short)	210,414	2,737	1,029	563	313
Car Culture	36,005	332	157	105	74
Life Goals (long)	3,359	85	44	37	21
Life Goals (short)	50,152	724	327	216	145

*Number of times a video starts to play

Fig. 14. Overall retention of each video asset based on total video plays.

Appendix G   **Video retention on TikTok**

Asset	Video Plays (total)*	Video Plays at 25%	Video Plays at 50%	Video Plays at 75%	Video Plays at 100%
Boxing (short)	298,852	3,085	1,367	873	570
Car Culture	189,875	2,891	1,659	1,195	699
Life Goals (short)	224,600	4,095	2,277	1,611	973

*Number of times a video starts to play
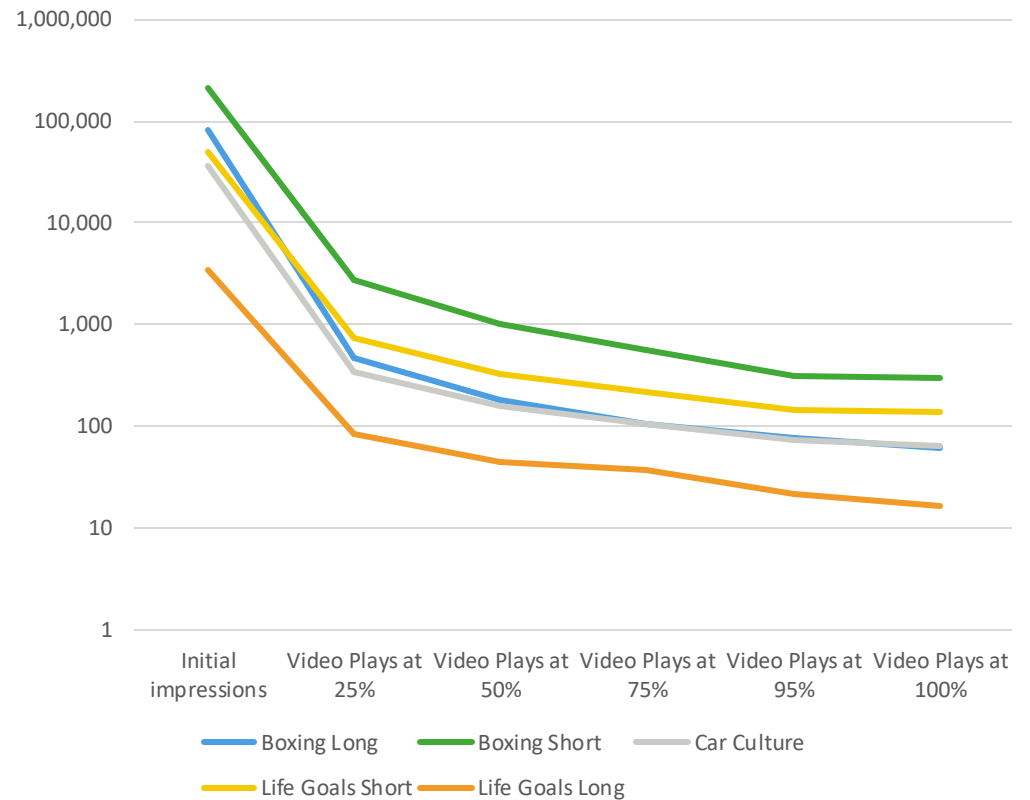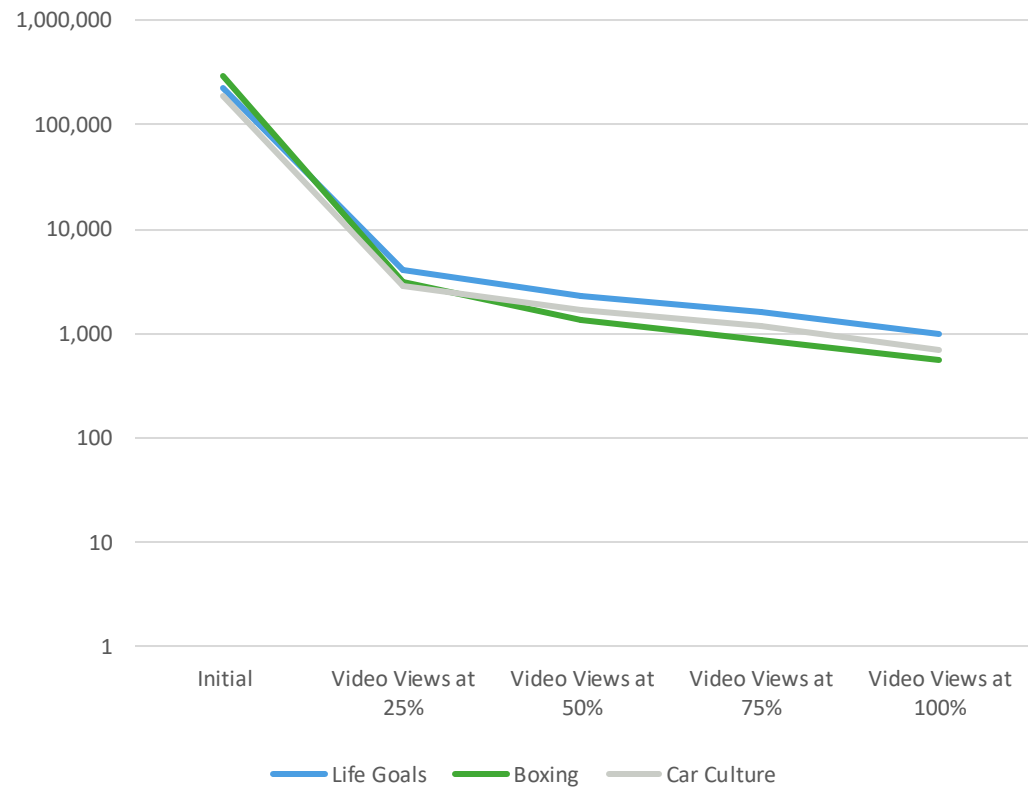

Fig. 15. Overall retention of each video asset based on total video plays.

Appendix H   Video retention on YouTube

Asset	Total views*	Video Plays at 25%	Video Plays at 50%	Video Plays at 75%	Video Plays at 95%
Boxing (long)	2,818	478	263	176	130
Boxing (short)	12,684	4,490	2,756	2,212	1,943
Car Culture	21,646	6,658	4,784	4,148	3,609
Life Goals (long)	1,174	155	68	47	28
Life Goals (short)	2,837	1,319	433	254	152

*Video views are counted after 3 seconds
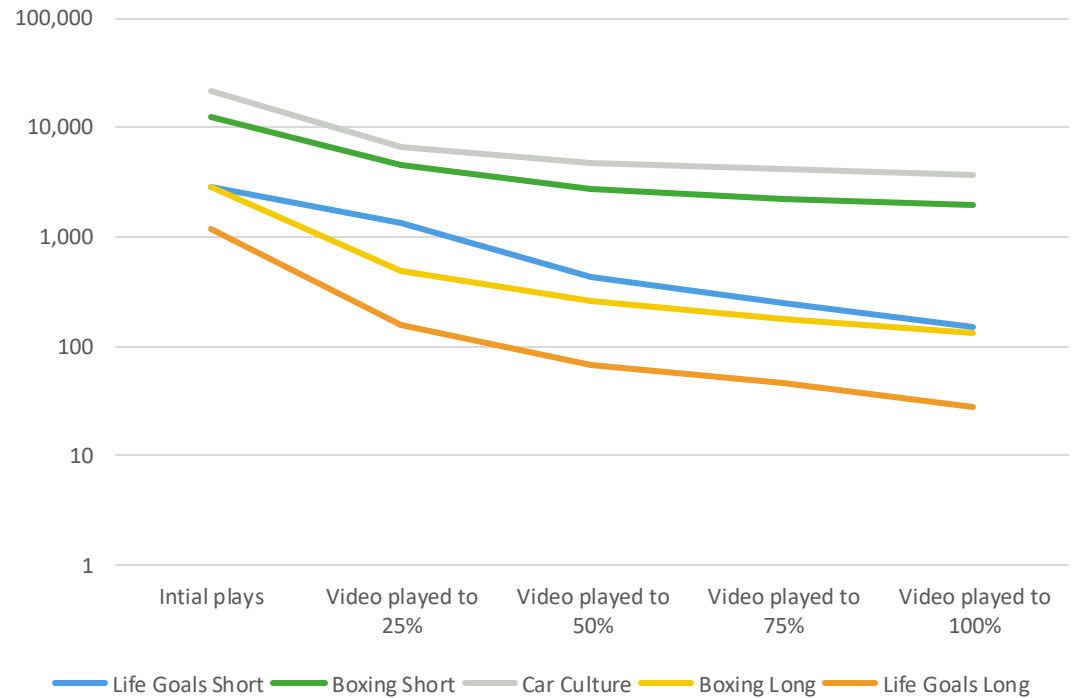
Fig. 16. Overall retention of each video asset based on total views.

Appendix I <u>**Mean scores of intention to wear a seatbelt**</u>

Table 5: Mean scores of the group that had not seen the campaigns before for the question 'After viewing this campaign, I am more likely to wear a seatbelt'.

	Mean score (SD)*	Unadjusted b (95% CI)	Adjusted b (95% CI)
Info Only (non-tailored)	6.8 (3.1)	Ref	Ref
		1.40	1.20
Boxing	8.2 (1.8)	(-0.29, 3.09)	(-0.58, 2.98)
		1.06	1.10
Car Culture	7.9 (2.2)	(-0.86, 2.98)	(-0.91, 3.11)
		0.87	0.89
Education & Wedding	7.7 (2.2)	(-0.88, 2.61)	(-0.97, 2.75)
		1.28	1.39
Life goals	8.1 (2.5)	(-0.73, 3.29)	(-0.66, 3.43)

*When comparing mean scores, if the 95% confidence interval (CI) is above 0, then this indicates a statistically conclusive positive result.

Appendix J   **Costs per video plays and clicks on images on Instagram**

Table 6. Costs per video plays on Instagram

Asset	Video Plays (total)*	Video Plays at 25%	Video Plays at 50%	Video Plays at 75%	Video Plays at 95%	Cost/Full Play	Cost per asset
Boxing (long)	81,639	472	176	103	75	£0.85	£63.72
Boxing (short)	210,414	2,737	1,029	563	313	£0.54	£169.19
Car Culture	36,005	332	157	105	74	£0.38	£27.90
Life Goals (long)	3,359	85	44	37	21	£0.13	£2.78
Life Goals (short)	50,152	724	327	216	145	£0.29	£41.79
				Total	628	£0.49	£305.38

* For a video play to be counted, the video should have been watched for at least 1 second

Table 7. Costs per clicks on images on Instagram

Asset	Reach	Likes/reactions	Clicks	Comments	Cost	Cost Per click	Cost/Click
Info only poster	60,742	24	77	1	£90.88	£3.79	£1.18
Education poster	70,743	155	179	19	£65.99	£0.43	£0.37
Wedding poster	64,997	127	118	2	£50.99	£0.40	£0.43
				Total	£207.86		

Appendix K **Costs per video plays on TikTok and YouTube**

Table 8: Costs per video plays on TikTok.

Asset	Video Plays (total)*	Video Plays at 25%	Video Plays at 50%	Video Plays at 75%	Video Plays at 100%	Cost/Full Play	Cost per asset
Boxing (short)	298,852	3,085	1,367	873	570	£0.57	£326.35
Car Culture	189,875	2,891	1,659	1,195	699	£0.30	£207.65
Life Goals (short)	224,600	4,095	2,277	1,611	973	£0.25	£247.74
				Total	2242	£0.35	£781.74

* For a video play to be counted, the video should have been watched for at least 1 second

Table 9: Costs per video views on YouTube.

Asset	Total views*	Video Plays at 25%	Video Plays at 50%	Video Plays at 75%	Video Plays at 95%	Cost/Full Play	Cost per asset
Boxing (long)	2,818	478	263	176	130	£0.79	£102.62
Boxing (short)	12,684	4,490	2,756	2,212	1,943	£0.14	£274.27
Car Culture	21,646	6,658	4,784	4,148	3,609	£0.08	£287.79
Life Goals (long)	1,174	155	68	47	28	£2.40	£62.17
Life Goals (short)	2,837	1,319	433	254	152	£1.17	£177.67
				Total	5862	£0.16	£909.52

* For a video view to be counted, the video should have been watched for at least 1 second

Appendix L Descriptive statistics from the survey (N=218)

	Route			Asset				Overall
	Route 1	Route 2	Info only	Boxing	Car Culture	Education & Wedding	Life goals	
Sample, N	131	87	39	59	33	54	33	218
Age (mean, SD)	19.7 (2.9)	20.7 (2.3)	20.7 (2.4)	19.7 (2.4)	19.7 (2.3)	20.2 (3.7)	20.4 (2.3)	20.1 (2.7)
Gender (N, %)								
Female	35 (26.7)	44 (50.6)	15 (38.5)	16 (27.1)	15 (45.5)	20 (37.0)	13 (39.4)	79 (36.2)
Male	85 (64.9)	41 (47.1)	23 (59.0)	40 (67.8)	14 (42.4)	31 (57.4)	18 (54.6)	126 (57.8)
Non binary	1 (0.8)	2 (2.3)	0	0	1 (3.0)	1 (1.9%)	1 (3.0)	3 (1.4)
Transgender	1 (0.8)	0	0	1 (1.7)	0	0	0	1 (0.5)
Prefer not to say	9 (6.9)	0	1 (2.6)	2 (3.4)	3 (9.1)	2 (3.7%)	1 (3.0)	9 (4.1)
Ethnicity (N, %)								
White	70 (53.4)	42 (48.3)	23 (59.0)	27 (45.8)	17 (51.5)	30 (55.6)	15 (45.5)	112 (51.4)
South Asian	21 (16.0)	26 (29.9)	6 (15.4)	11 (18.6)	8 (24.2)	13 (24.1)	9 (27.3)	47 (21.6)
Asian (other)	9 (6.9)	6 (6.9)	3 (7.7)	3 (5.1)	3 (9.1)	5 (9.3)	1 (3.0)	15 (6.9)
Black	25 (19.1)	9 (10.3)	4 (10.3)	14 (23.7)	5 (15.2)	5 (9.3)	6 (18.2)	34 (15.6)
Mixed	5 (3.8)	4 (4.6)	2 (5.1)	4 (6.9)	0	1 (1.9)	2 (6.1)	9 (4.1)
Arab	1 (0.8)	0	1 (2.6)	0	0	0	0	1 (0.5)

Note: SD = Standard Deviation