A Nudge in the Right Direction: Applying Behavioural Analytics

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New Horizons in Responsible Gambling
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Session goals

1. Understand nudging and how it might complement current RG strategies.

2. Identify data sources that can be used to inform nudging strategies in a gambling context, and how to effectively leverage data from these sources.

3. Create nudging strategies to encourage effective use of precommitment tools across various touchpoints within gambling environments.

Complementing Traditional RG Strategies with Nudging
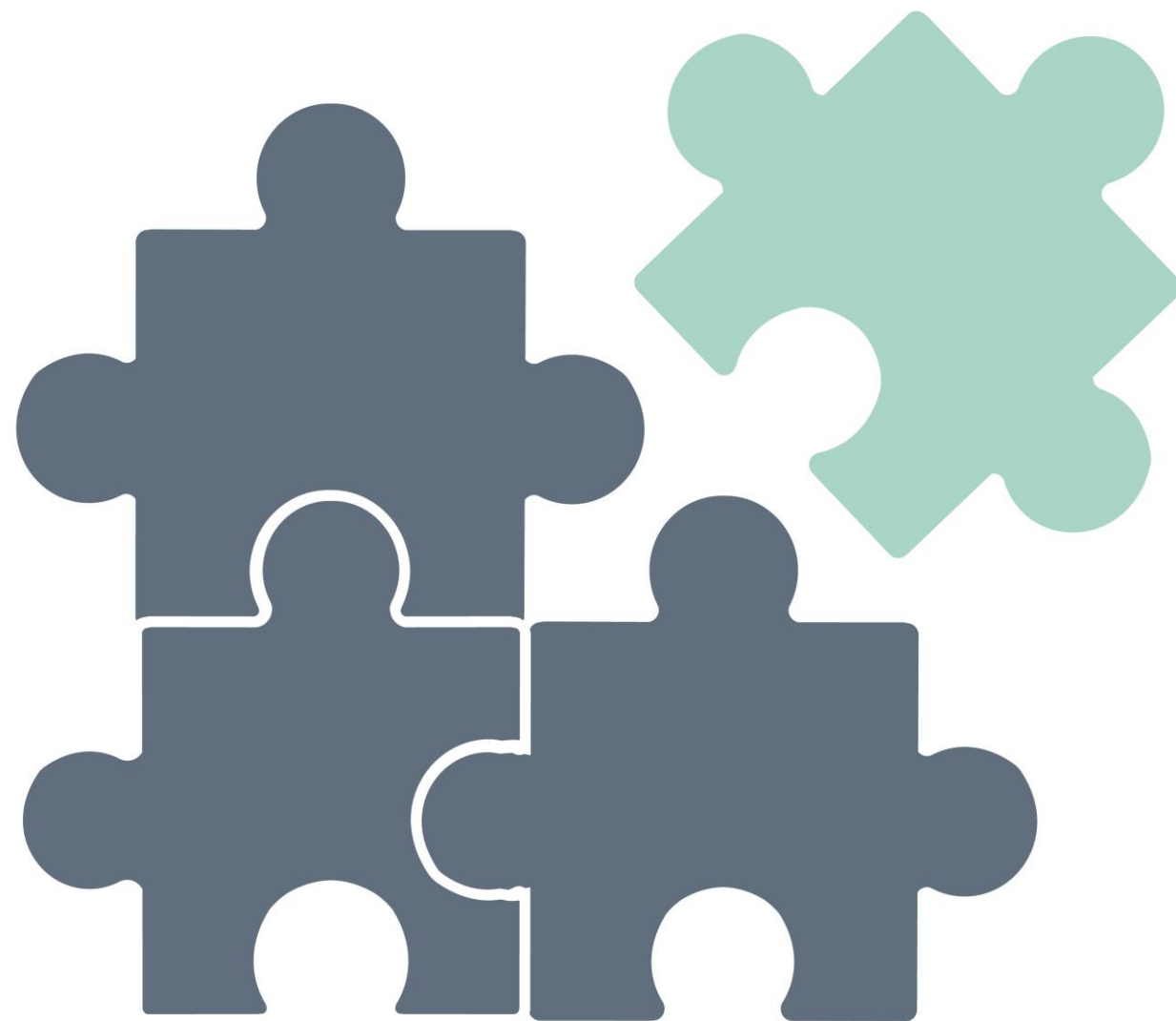
Traditional RG strategies

- Traditional RG strategies are rooted in an informed choice model

- These strategies assume that adequate information + support tools = safe behaviour

- Research shows that these RG strategies are fairly effective for low and moderate risk gamblers (Hing et al., 2016)

- Heuristics and bias may limit a player's ability to effectively apply RG information to their gambling behaviour
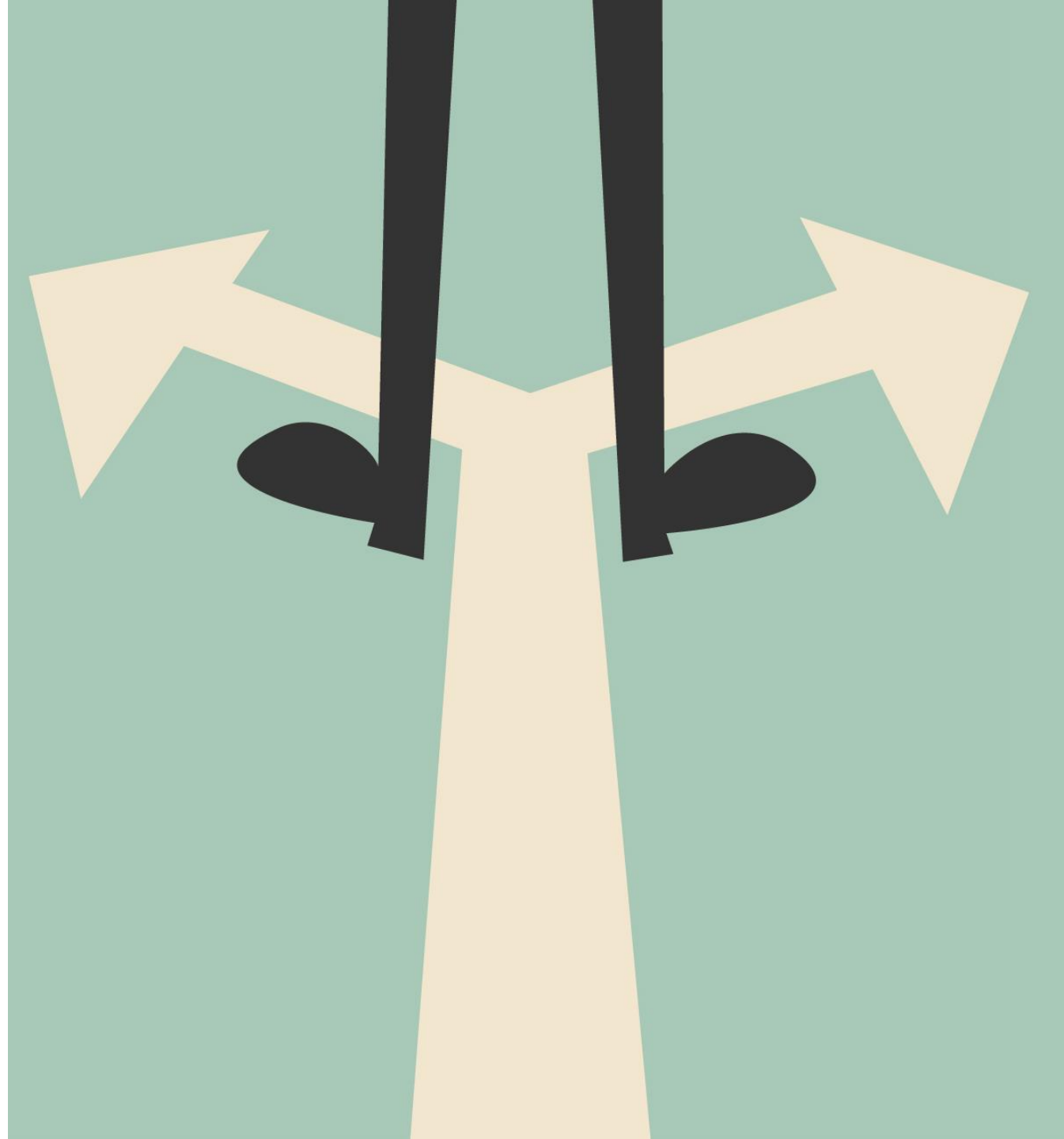
Heuristics, bias, and gambling

- Research shows that people do not always make rational decisions about their behaviour

- Instead, they use heuristics (mental shortcuts) to simplify judgement and decision making

- Heuristics = bias

- Common heuristics and biases in gambling

  - The "sunk-cost effect"
  - "Mental accounting"
  - The "representatives heuristic" (or "gambler's fallacy")

  - An "Illusion of control"
  - "Othering"

Why nudging might help

- Nudging strategies:
    - Acknowledge that people do not always act in their own best interest
    - Consider real human behaviour in the development of policies and programs
- In other words:
    - Nudging strategies in gambling account for mental shortcuts and biases that are leading to gambling problems, and help people to play safely anyways

Understanding Nudging

The "dual process" model helps explain nudging

System 1: Fast

Automatic intuitive, effortless

2x2

Driving

Daniel Kahneman,
Nobel Laureate

System 2: Slow

Reflective deliberate, analytic

24x17

Learning to drive

"It turns out that the **environmental effects** on behavior are a lot stronger than most people expect" **Daniel Kahneman, Nobel Laureate**

Which would you choose?

Imagine that you want to buy a subscription to The Economist and **you can choose from the following three options:**

1. Online subscription (£59.00)
One-year subscription to Economist.com.

2. Print subscription (£125.00)
One-year subscription to the print edition of The Economist

3. Online + print subscription (£125.00)
One-year subscription to the print edition of The Economist plus online access.
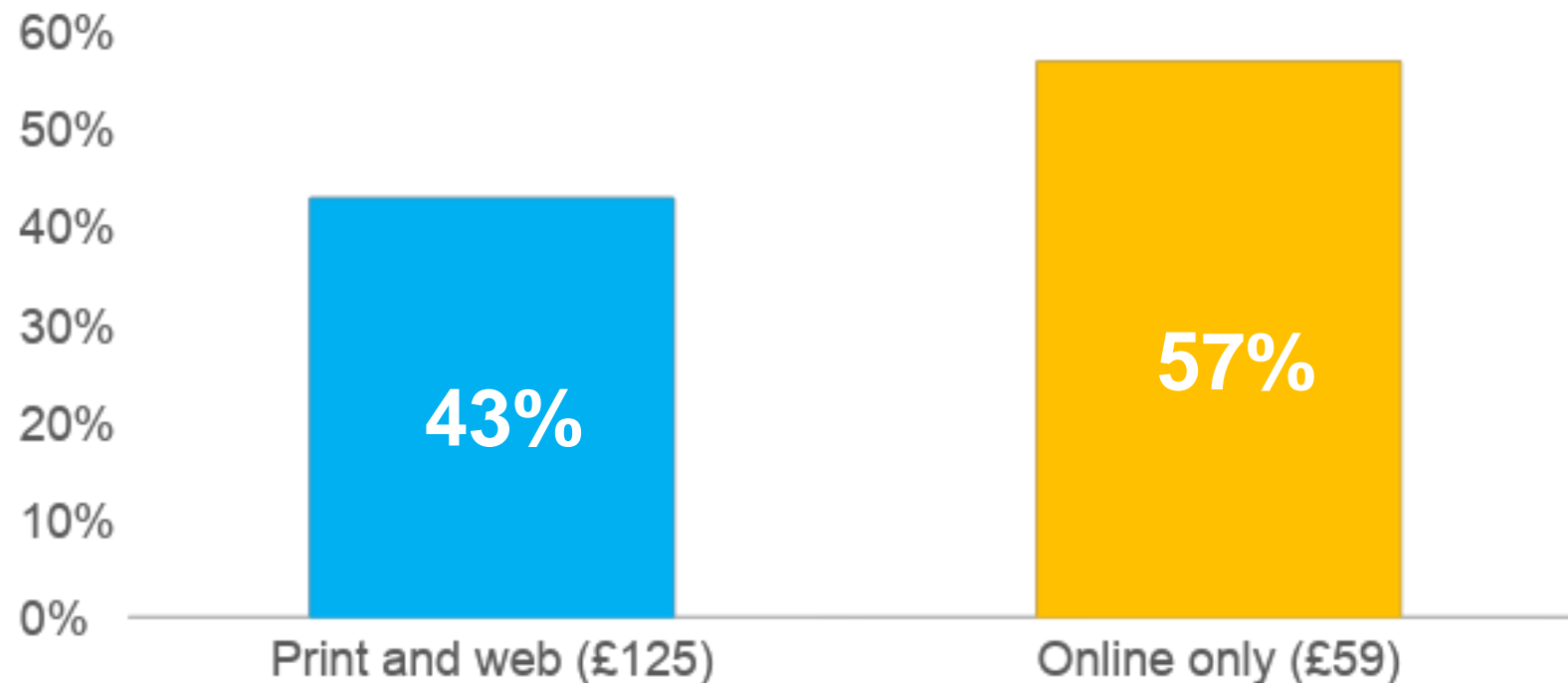
Which would you choose?

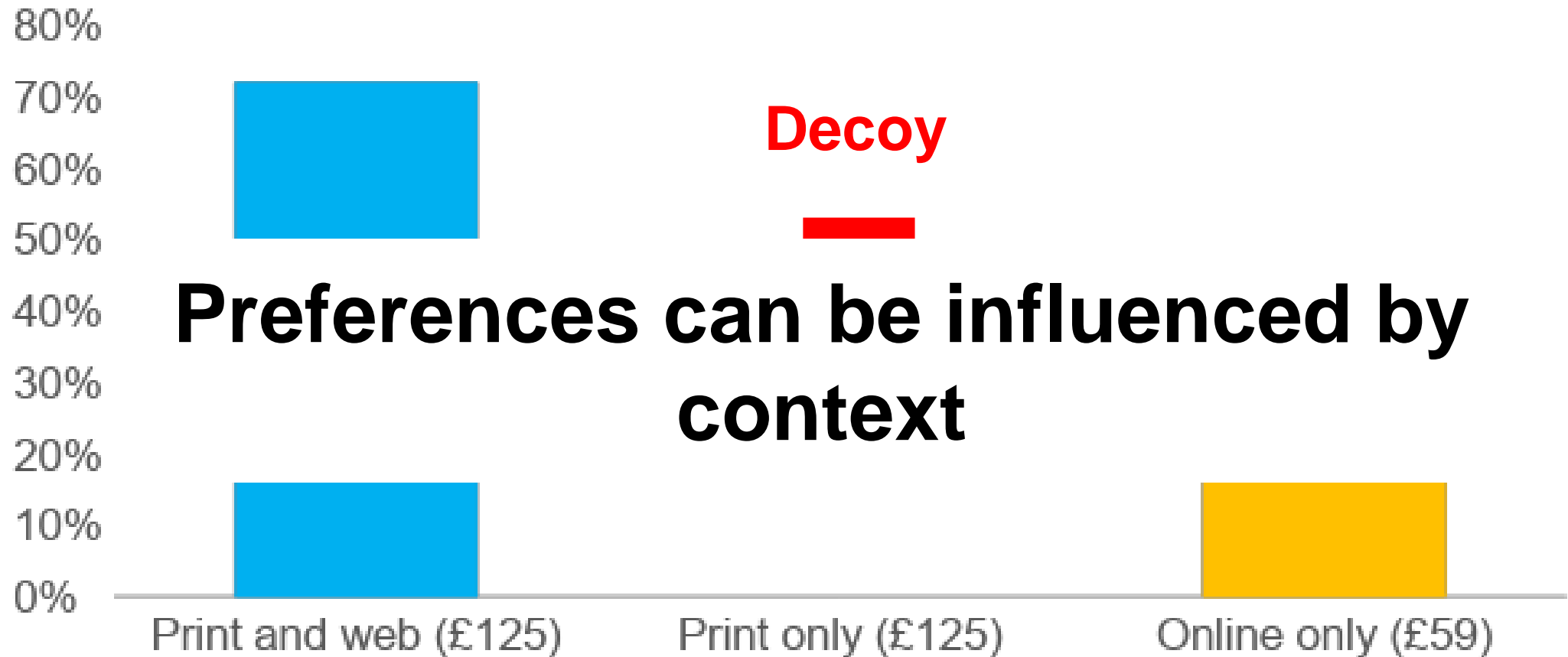A group of MBA students were asked the same question and this is what they chose:

Which would you choose?

However, when presented with only two choices the proportion of students that choose the print and web option drops to 43%:

Source: Kivetz, R., Netzer, O., Srinivasan, V. 2004. Extending Compromise Effect Models to Complex Buying Situations and Other Context Effects. Journal of Marketing Research, Vol. XLI, 262-268.

EAST: Our framework for generating behavioural change

THE BEHAVIOURAL INSIGHTS TEAM.

EAST
Four simple ways to apply behavioural insights

Owain Service, Michael Hallsworth, David Halpern,
Felicity Algate, Rory Gallagher, Sam Nguyen, Simon Ruda, Michael Sanders
with Marcos Pelenur, Alex Gyani, Hugo Harper, Joanne Reinhard & Elspeth Kirkman.

IN PARTNERSHIP WITH | Cabinet Office Nesta.

If you want people to change their behaviour, make it…

Easy

Defaults

Friction costs

Simplify messages

Attractive

Attract attention

Personalise

Rewards & incentives

Social

Social norms

Peer networks

Commitments & reciprocity

Timely

Timely prompts

Present bias

Implementation intentions

Case Studies: Applying Nudging Inside and Outside of the Gambling Industry

Increasing credit card repayments

Minimum repayments are typically featured prominently on statements sent to card holders and are a regulatory requirement.

This minimum repayment can act as an anchor that leads to lower repayments. Over time this significantly increases the cost of credit cards.

We ran an **online experiment** allocating participants to different interface designs.

Changing the repayment interface

Question: When would you like your debt to be cleared?
Please use the slider to indicate your repayment period

March 2022   August 2021   January 2021   May 2020   October 2019   February 2019

Date when debt repaid: **March 2022**
If my monthly repayments continue to be: **£169**
Total amount I repay: **£8,718**
Total interest I will pay: **£3,718**

What we found

Average repayment amount (in £)

Number input	225.7
Slider + minimum default	260.4 **
Slider + higher default	270.9 **
Timing slider	276.4 **
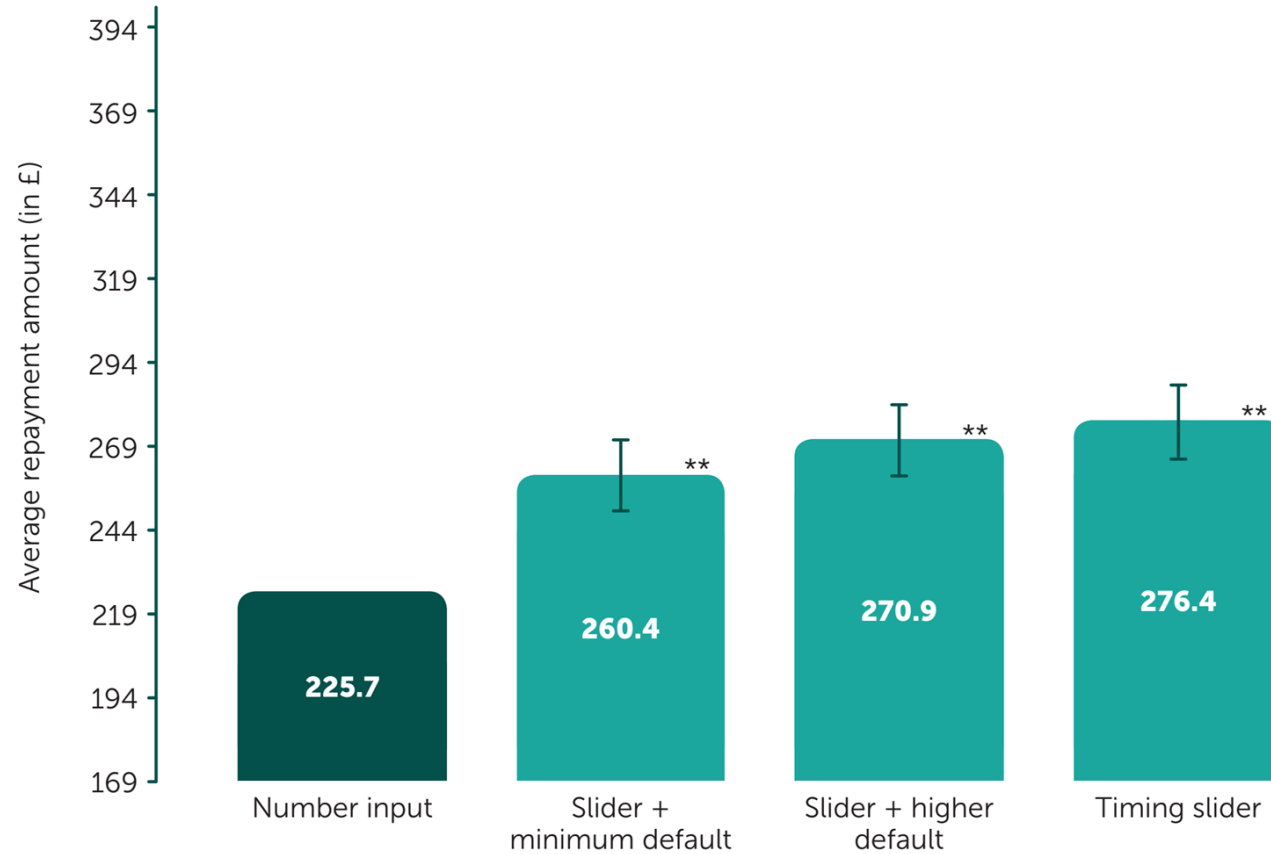
N = 1,736

** p<0.01, * p<0.05, + p<0.1

Note: The default repayment is £284 in the 'slider + higher default' condition and £169 otherwise.

We are currently testing the idea in the field.

Equipping friends and family with information to help

Inputs	Intervention	Enhanced timely conversations

Inputs:

⏰ Upcoming deadlines

📅 Exam dates

College activities

📚 Academic resources

🌐 Useful websites

Intervention:

●●●○○ Vodafone 📶   7:22 PM   78 % 🔋

‹ Messages   **Project SUCCESS**   Contact

Today, 7:01 PM

Hi Alice, please check in with James, and ask him if he has already started reading 'The Hunger Games'. They will discuss the book in GCSE English class next week! Thanks, Project SUCCESS

Hi there. I will see James tomorrow, and I'll ask him about it. Thanks.

📷 Text Message   Send
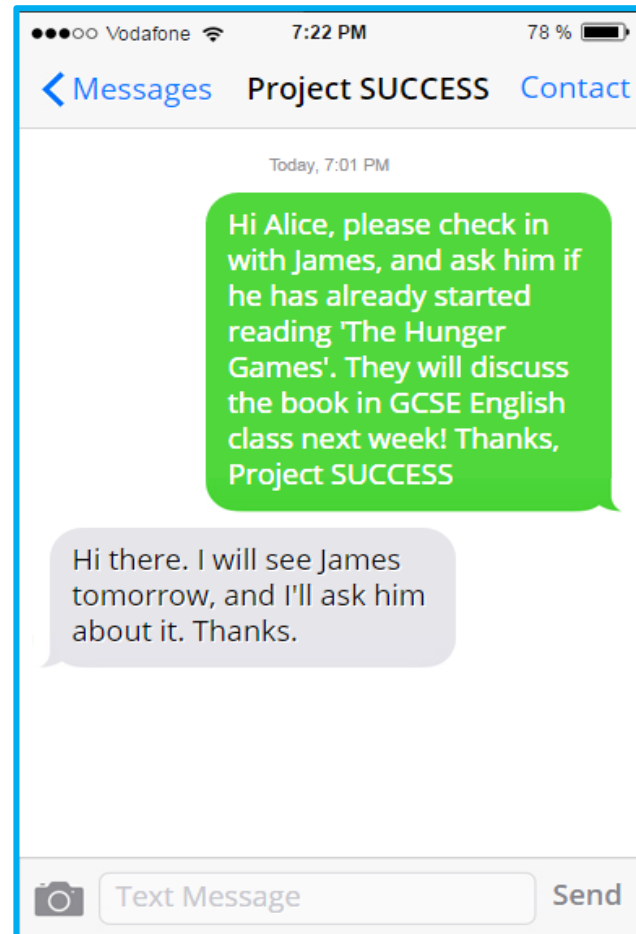
Enhanced timely conversations:

So, you're reading The Hunger Games in class? Who's your favourite character?

Yeah, need to get started on that.

OK, don't forget to read a few chapters before next week's class!

Timely: Study Supporter impact on attendance

Pooled analysis: Effect of Study Supporter On Attendance
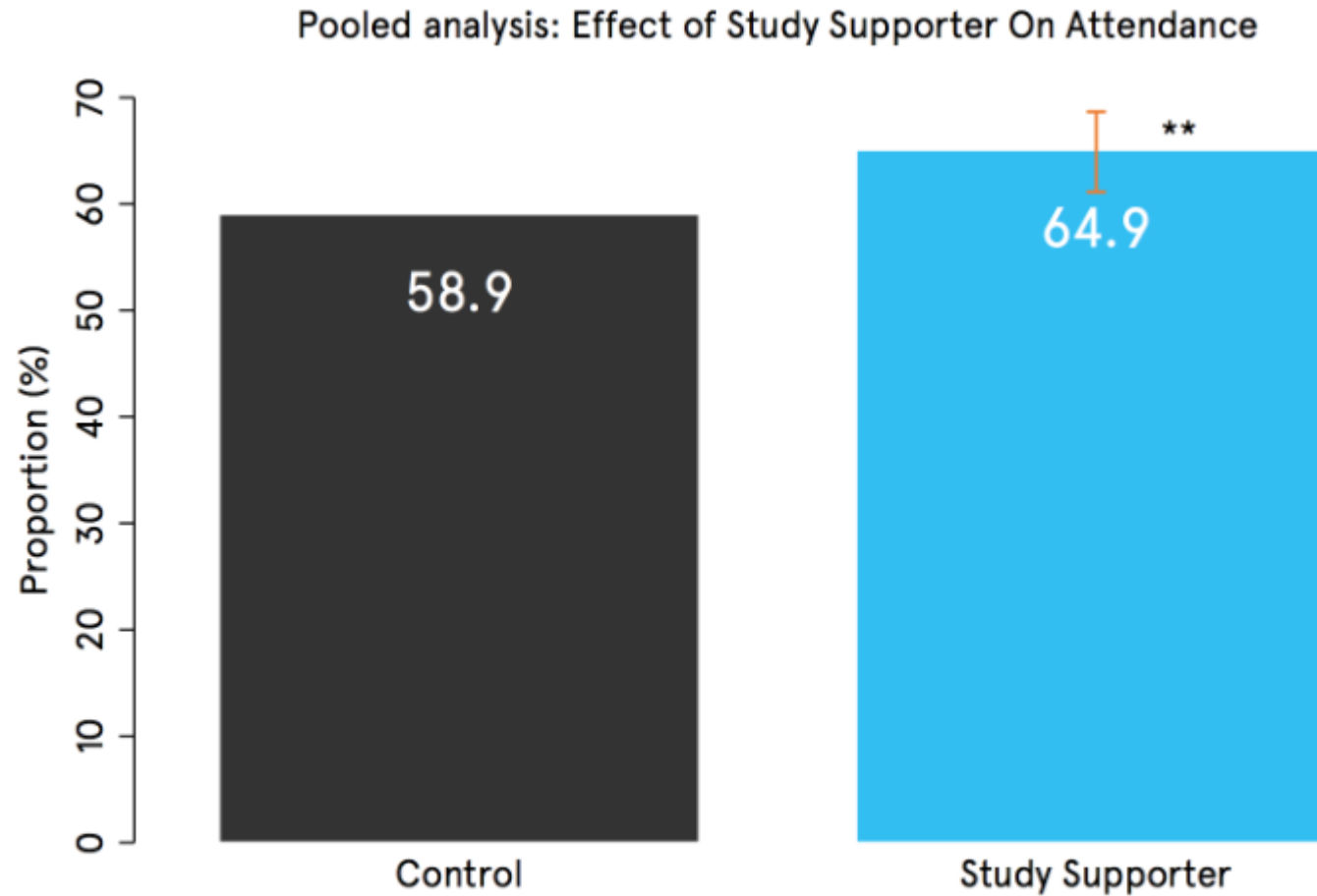
Total N = 854

*** p<0.001, ** p<0.01, * p<0.05, + p<0.1
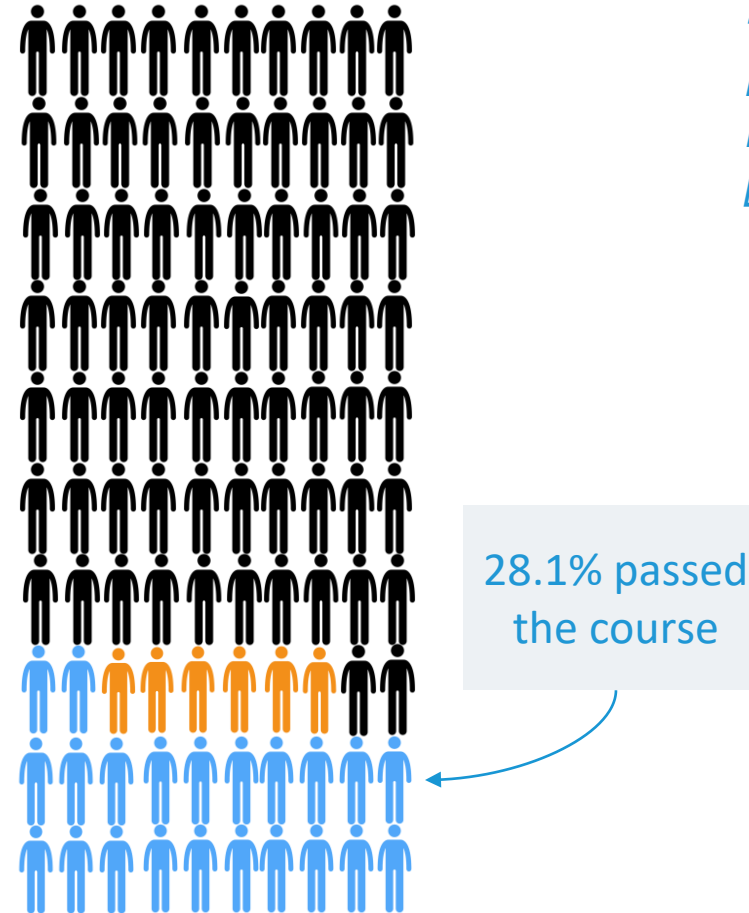Estimates controlling for gender, age and college fixed effects

Timely: Study Supporter impact on attainment

No Study Supporter texts
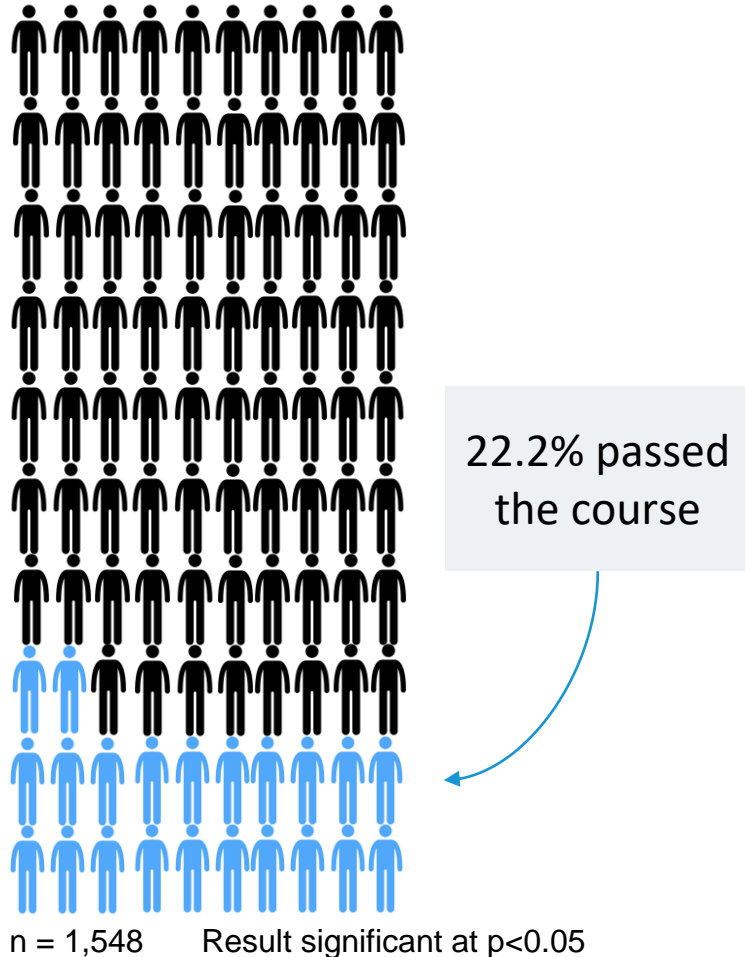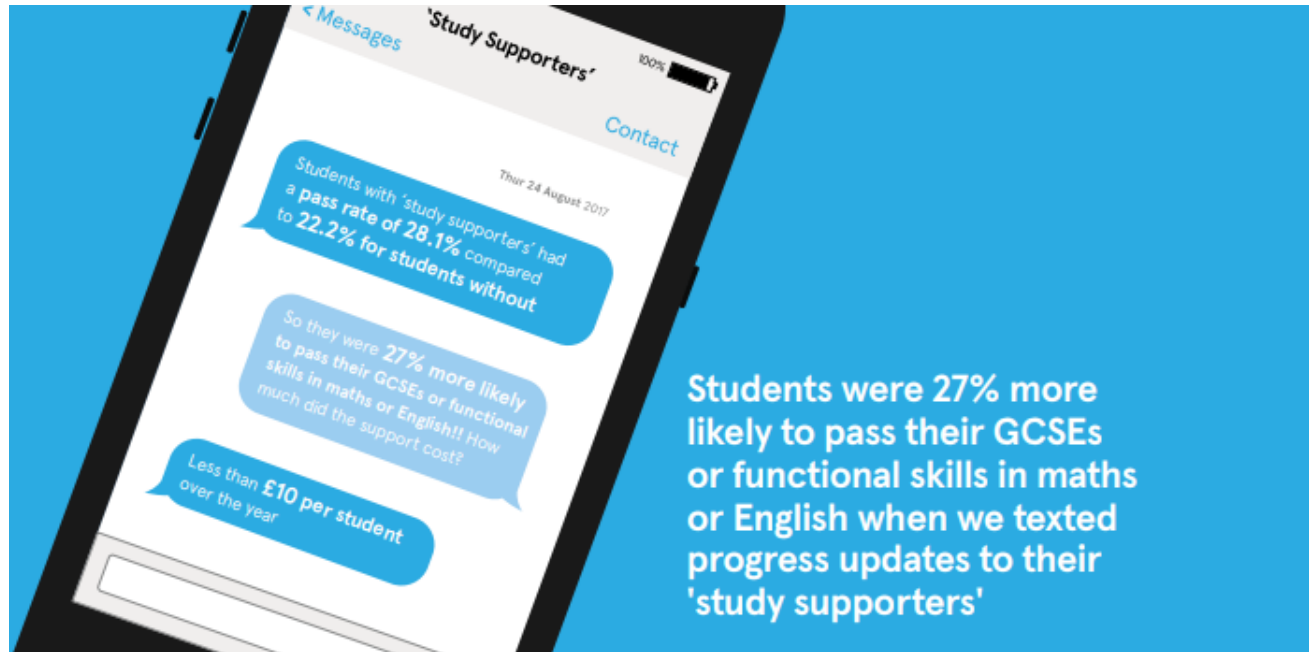
Study Supporter received weekly texts

22.2% passed the course

28.1% passed the course

n = 1,548   Result significant at p<0.05

"[Before] they didn't even know if I had exams... I think [our relationship] became closer [because of the messages]"

<£10 cost per student over a year

Helping young people save

Students were 27% more likely to pass their GCSEs or functional skills in maths or English when we texted progress updates to their 'study supporters'

Helping young people save
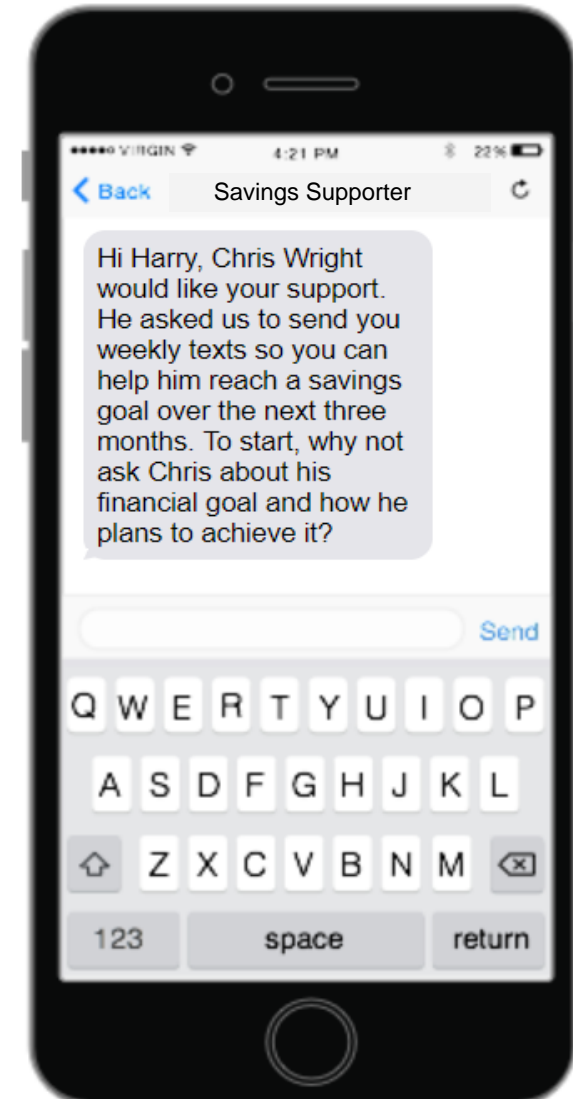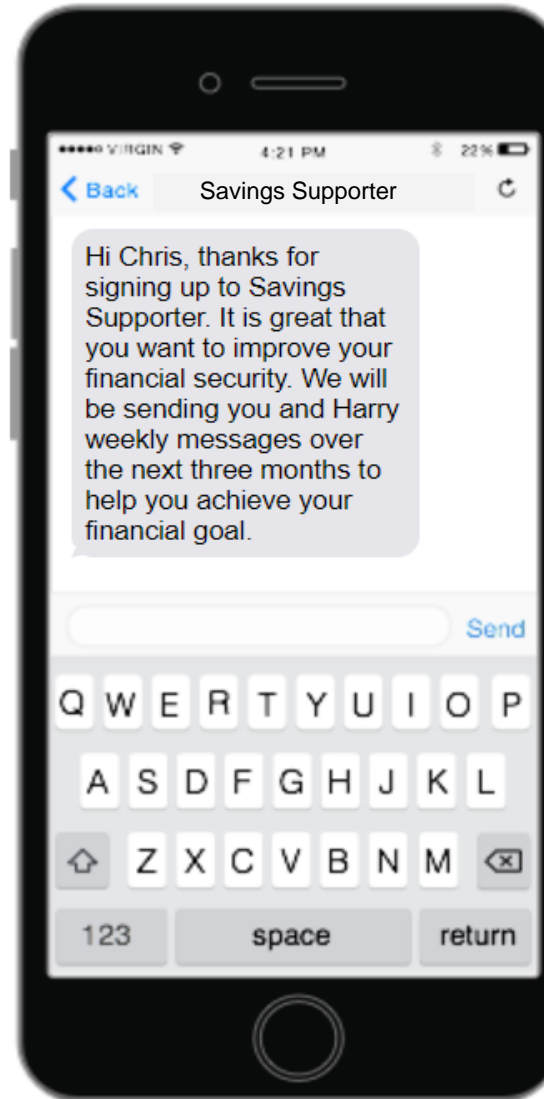
Can we boost applications for teaching posts in rural areas?

Simpler application plus prompts

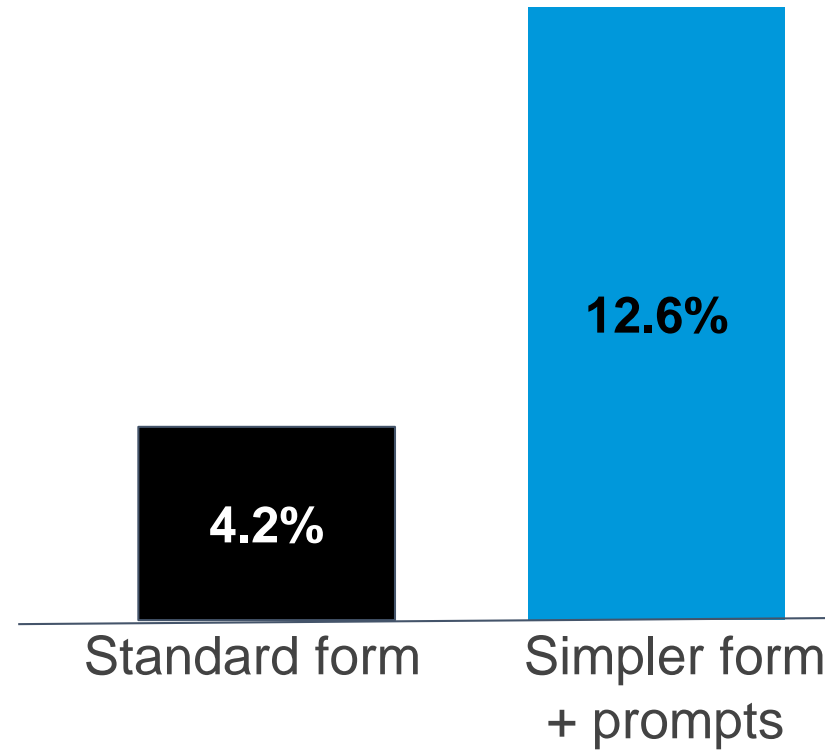## 1. Partially pre-filled forms

2. Prompt to select four rural schools

3. Postcard promoting rural placements

New process triples applications

Teacher applications for rural placements

4.2% — Standard form

12.6% — Simpler form + prompts

n=237

Informing Nudging Strategies with Data

Using data to inform our strategy

Data scientific models can look for patterns in *existing* data to help understand which factors might be most important

This can steer which types of interventions we then trial

Figure 8: Relative predictive importance of categories of data.

31% behaviours/manouevres
22% road characteristics
21% driver/casualty characteristics
19% vehicle type
7% journey purpose

The bars add up to 100 per cent and each one indicates the total amount of importance (similar to correlation, but more general) for all variables in that category. The colours are for cosmetic purposes only.
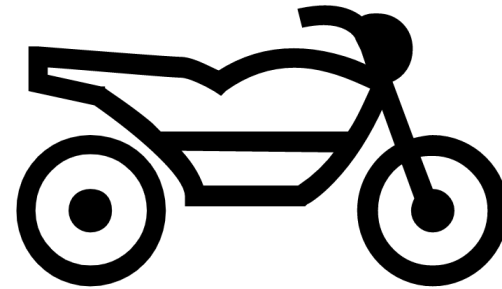
Using data to inform our strategy

Using available data helps us to figure out *who* to target, and *how*
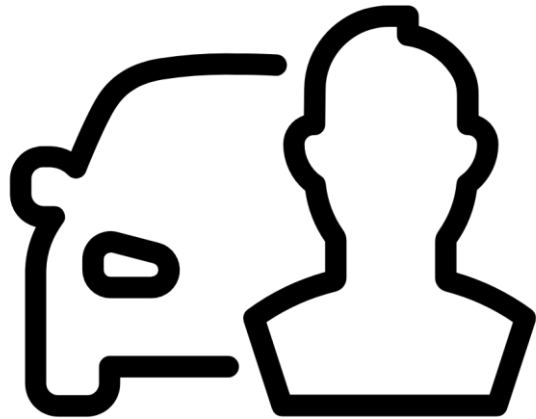
Younger drivers (<25 years old)

Motorcyclists

What are data sources we can use to better understand our players and ground our nudging strategies?

Potential data sources

- Player account data (where available)

- Data on overall play patterns (online, in-venue, etc.)

- Financial data

- Research data (e.g. census, health surveys, etc.)

- Geo data (information on location)

Example data BIT is capturing in ongoing work

From operators	From banks
- Uptake of deposit limit - Dates, times, and amounts of deposits in 30 days after setting deposit limit - Proportion of deposit limit met per day in 30 days after setting limit - Time taken (days) to hit limit - Total amount of deposits during observation period - Value of each bet made during observation period - Total winnings/losses during observation period	- Average monthly/weekly/daily gambling spend and standard deviation (online only and total) - Average number of monthly/weekly/daily gambling transactions (online only and total) - Average monthly spend on gambling (online only) - Ratio of monthly gambling spend to income - Total gambling spend (online only, and total) and standard deviation *just before/after* salary payment - Ratio of monthly gambling spend to contributions to savings accounts - Use bank gambling block functions - Use of credit / overdrafts to gamble

# Creating our own Nudging Strategies

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Creating nudging strategies

- In small groups, we are going to plan nudging strategies designed to **help players make and adhere to pre-committed time and money limits.**

- Brainstorm: What are touchpoints between players and gambling environment (online or in-person) that we could leverage in our nudging strategies?

    - We'll chose 2 or 3 to focus on.

BIT's EAST framework
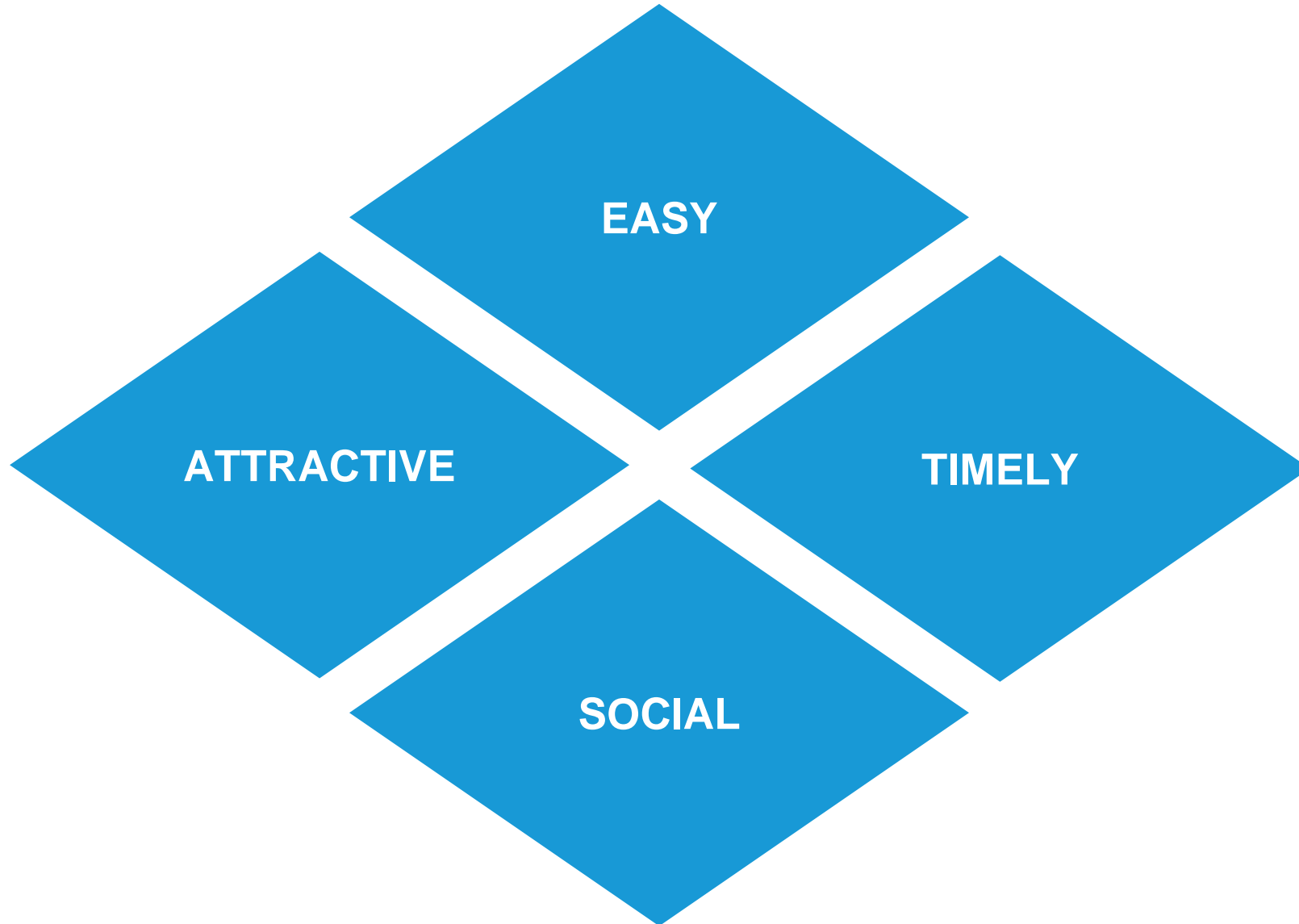
Make it **Easy**
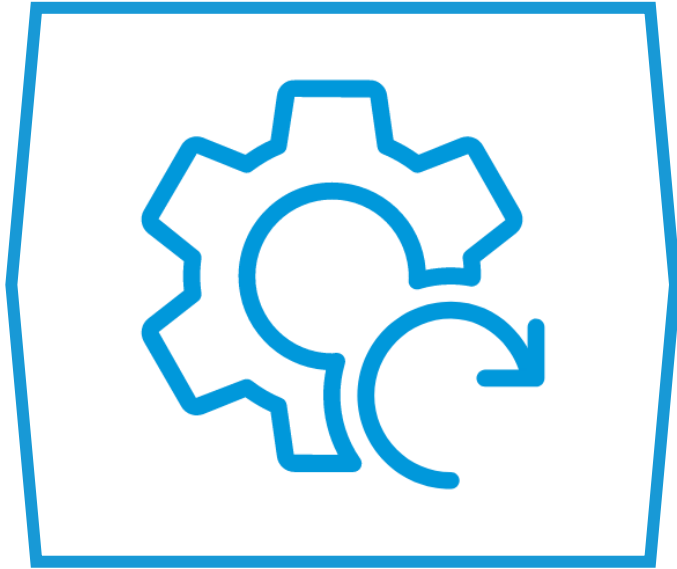
Set intelligent defaults

Reduce the hassle

Simplify

Make it **Attractive**

Attract attention

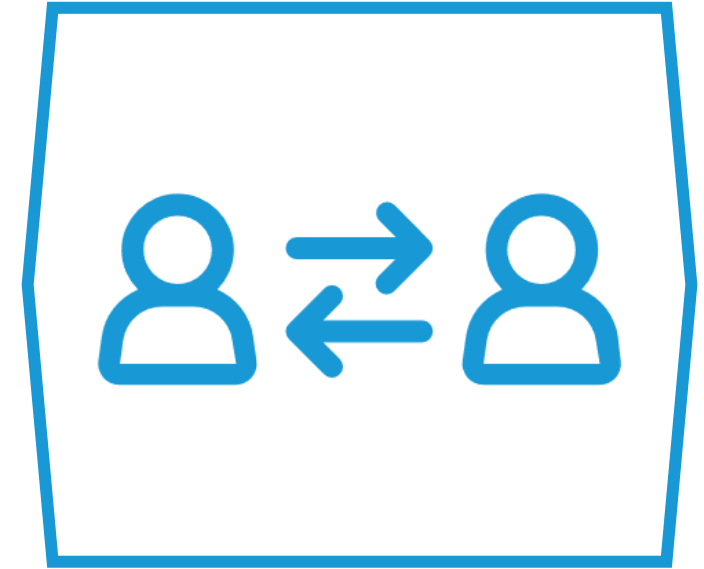**Personalise experience**

Provide incentives

Make it **Social**

Highlight helpful social norms

Leverage networks

Use reciprocity effects

Make it **Timely**

Consider the immediate costs and benefits

Help people plan their response to events

Prompt people when they are likely to be most receptive

Generating your own ideas

ROUND ONE

Create a strategy.

- Self-select into a group based on your touchpoint of interest.

- Using the EAST cards, begin to brainstorm how you could use nudging to enhance use of precommitment tools at your chosen touchpoint.

- Deliverable in 20 minutes: a documented draft plan for a nudging strategy.

ROUND TWO

Time to cross pollinate.

- Select half/one-third of your group to switch to another touchpoint of focus.

- Those who remain with their original touchpoint should take new members through their plan/strategy.

- New members should be ready to ask questions/suggest changes to the strategy/plan.

- Deliverable after 20 minutes: an updated and enhanced plan for a nudging strategy and a presentation plan.

ROUND THREE

Presentations.

- Members from each group will present on their strategy.

- Audience members, GREO, and BIT will provide thoughts and insights on each strategy.

- GREO will take notes and provide all attendees with a summary of each strategy and any relevant feedback.

ON BEHALF
OF
GREO AND
BIT

Thank You

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