



# The effects of incentivisation of travel choices on habitual travel patterns

## Case Study: Step2Get, London

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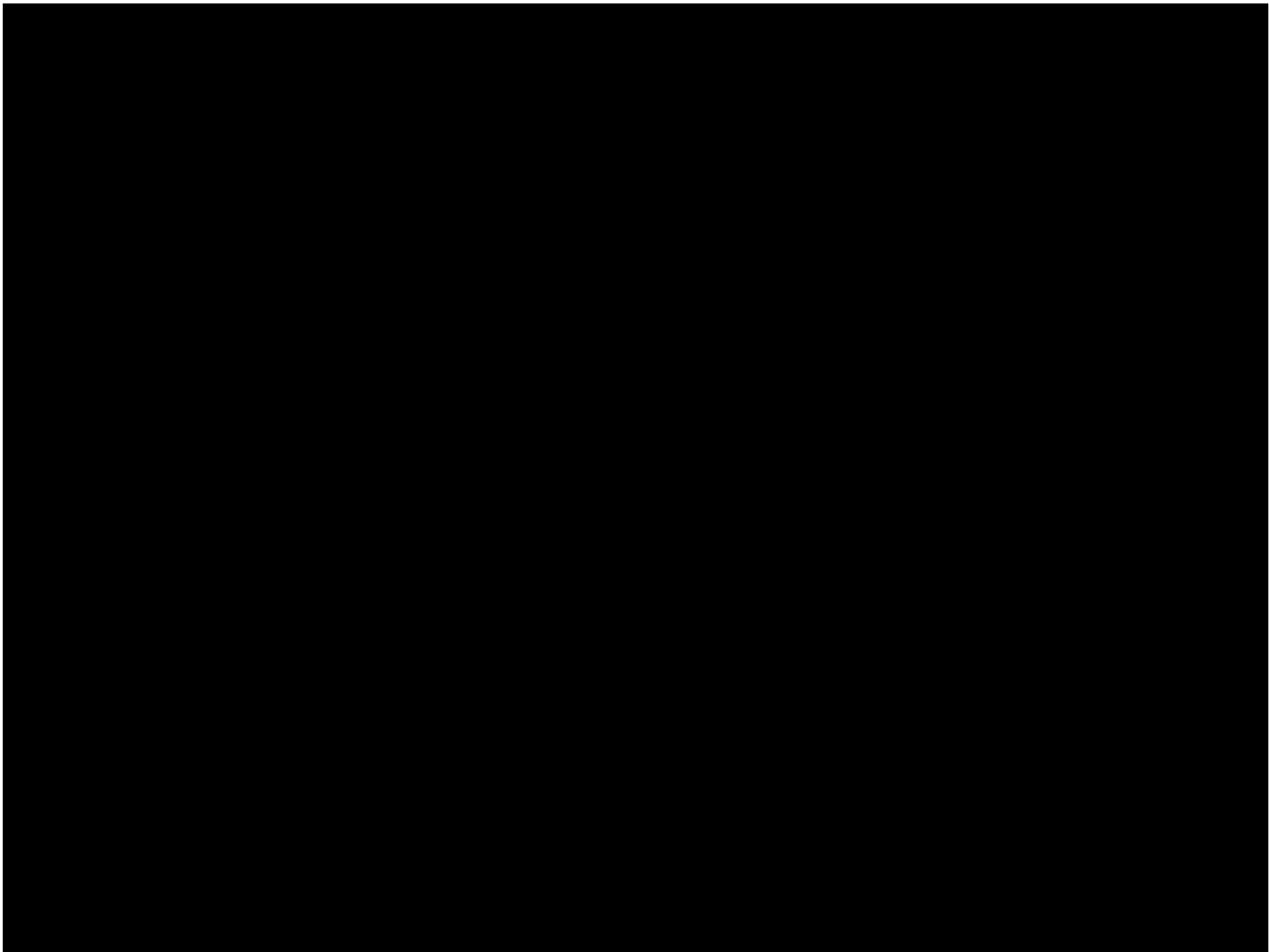
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# Structure



- Case Study Background
- Behaviour Change Models in Transport:
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- Research Objectives
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# The Problem

Wimbledon Town Centre, 8.15am.....



# Traditional Solutions



- increase fares (demand side) – school children travel for free in London
- more buses (supply side) – bus on bus congestion, yearly cost of approx GBP 70K per bus
- more crowd control / policing
- provide incentives to not take the bus?

# The Scheme

## How to take part

Pick up your registration form from the school shop

Get permission from your parent/carer

Return your form and collect your swipe card

The more you walk, the more you earn

Walk 5 days to earn a cinema ticket or 8 days for a Topshop voucher

Touch your card on the swipe points while walking to school each morning

To watch your points grow and for the latest news and offers check out the new website at...

[www.step2get.co.uk](http://www.step2get.co.uk)



## Ricards Lodge Route Map

The map shows a network of roads in the Ricards Lodge area. Callouts include:

- Lake Road**: A blue box with an image of a tree-lined street.
- Wimbledon Hill Road**: A blue box with an image of a street scene.
- The school canteen**: A blue box with an image of a swipe card reader.

Blue arrows on the map point from these callouts to specific locations on the map, including a 'School' icon and a 'Wimbledon' icon.

# The Technology

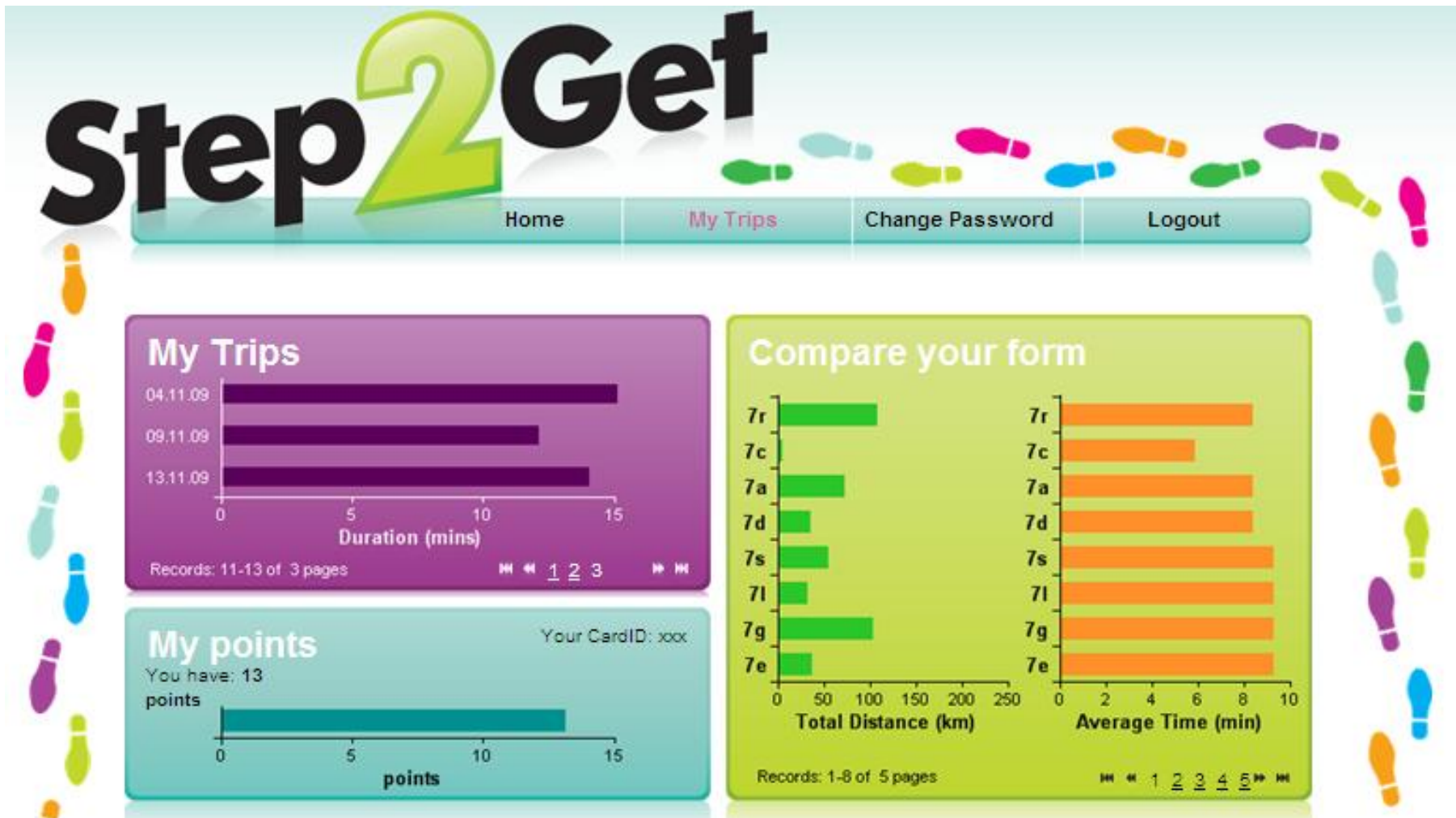


- Intelligent Health - creates digital networks of physical activity opportunities The 'swipe points' comprise of a weatherproof plastic case which encloses a battery powered RFID Reader
- "Off the shelf" mobile phones with integrated card reader
- 400 cards were distributed to students at Ricards Lodge School



# The Website

Step2Get





# Operational Results



## Behaviour:

40% of Bus Drivers and 15% of Passengers surveyed experienced significant improvement in antisocial behaviour problems during the project.

Less children attending late.

## Bus Capacity:

18% shift from bus to walking with reduction of dwell time at bus stop of 42 secs.

## On-Street Crowding:

Reduction in overcrowding in town centre with 48% reduction in community police time creating an average monthly saving of € 1,000

## Cost vs Benefit:

Internal Transport for London evaluation was positive - for every £1 invested Transport for London saved £24.

# The Question



Did the students continue walking after the rewards stopped?

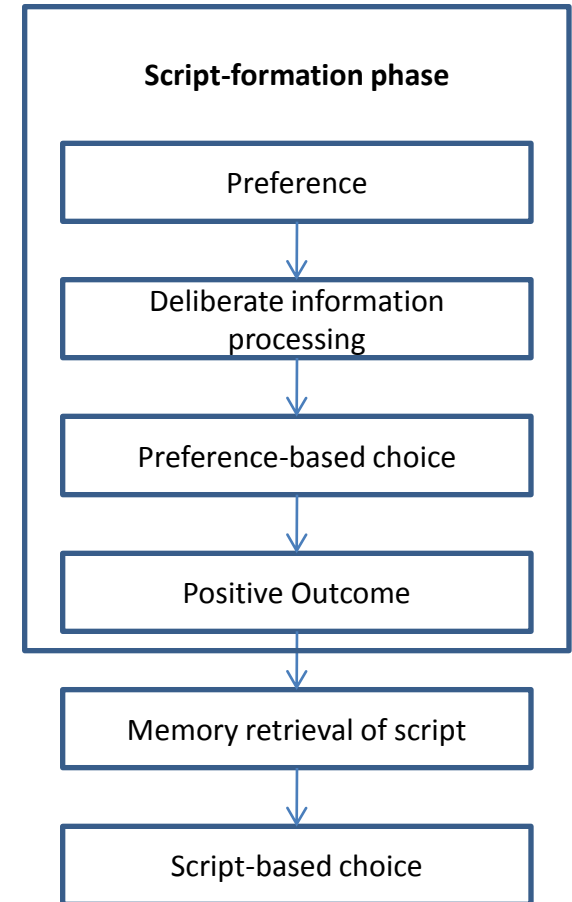
# Habitual Travel Patterns

*Habit: the repeated performance of behaviour sequences, without deliberation.*

How does a person arrive at the habitual sequences that affect combinations of trip purpose, mode, time of travel and other more complex combinations?

It may be assumed that the **cost of searching** for and **constructing new alternatives** is generally too high and the expected gains associated with new alternatives too uncertain. In this situation travellers **reuse past solutions to make their behaviour easier and less risky**

A choice that is **non-deliberate** may in fact be difficult to influence with **rational arguments** (e.g. increased costs or longer journey times), since the person making the choice tends to discount relevant information.



# Research Objectives



- a) the **percentage modal share** of Step2Get users on their way to school during and after the intervention
- b) **frequency of walking** to school of Step2Get users during, immediately after the behaviour change intervention and in the future
- c) the amount of **walking for other** activities or destinations than school
- d) the **attitudes** of Step2Get users towards walking

Results:

- e) the **habitual travel pattern** of Step2Get users



# Methodology

- Questionnaire included Transport for London evaluation
- Intervention was stopped on 14th June and questionnaires were distributed 28th June 2010 – two weeks after intervention stopped
- 1200 questionnaires distributed, rewards were given to children
- Step2Get users: N = 79 out of 232 = 31.5% response rate
- Non-participants: N = 197 out of 968 = 20.4% response rate
- Only students that qualified for Step2Get considered part of the control group: N = 121

The screenshot shows the 'Step2Get Questionnaire' form. At the top, it says 'Step2Get Questionnaire' with a logo of colorful footprints. Below that is the website 'www.step2get.co.uk' and the text 'Transport for London 'Walking to School' pilot scheme'. The form is titled 'About You' and asks 'What form are you in?'. A question asks 'Did you take part in the Step2Get Scheme?' with 'Yes' and 'No' options. The 'Yes' path leads to questions about the Step2Get card number and the location where the user walked from, with a box indicating 'Only answer questions in GREEN on pages 1-5'. The 'No' path leads to a box indicating 'Only answer questions in RED on pages 6-11'. A red banner says 'PLEASE READ THE INSTRUCTIONS CAREFULLY'. Below that, it explains the purpose of the questionnaire and lists three time periods: 'BEFORE Step2Get was introduced (before 20th April 2009)', 'DURING the running of the Step2Get scheme (20th April 2009 – 11th June 2010)', and 'SINCE the Step2Get scheme has ended (After 14th June 2010)'. It also includes a section for returning the questionnaire to a class tutor and a prize draw, with a box for the user's name. At the bottom, there are logos for Metropolitan Police, Merton, Transport for London, and a 'Thank You' message.

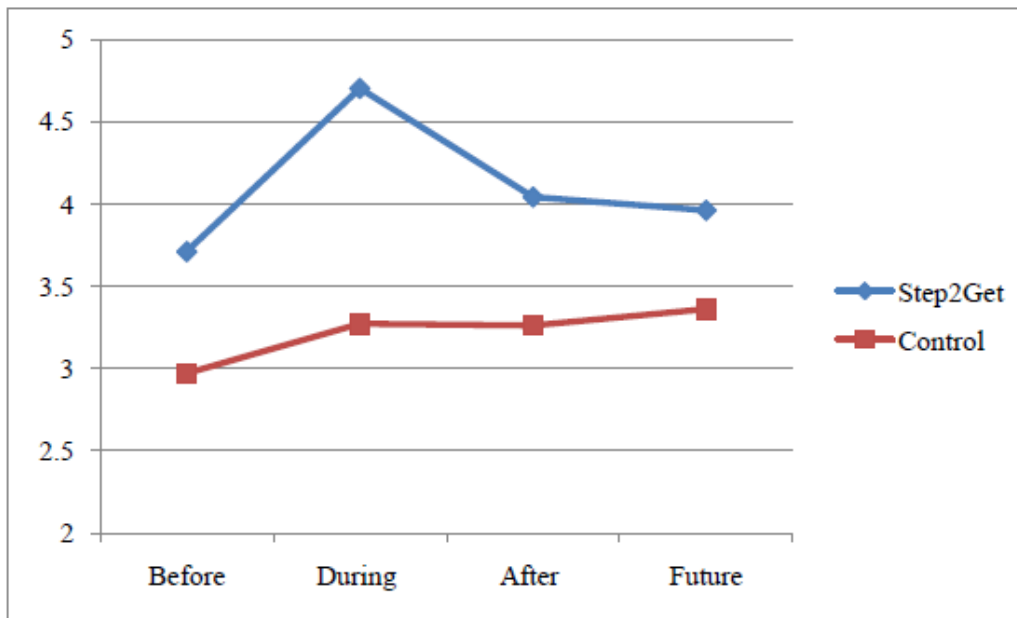
# Research Results



## a) Mode of Travel to School:

- 10.39 pp increase in Step2Get users walking (significant) to school compared to a 3.31pp increase in the control group (not significant).

## b) Average Frequency of Walking Trips to School:



Graph of Average Number of Walking Trips to School for Step2Get Users and the Control Group

# Research Results



## **c) Intentions Towards Walking for Non-School Journeys:**

- 49.37% of Step2Get users state that they will walk to more places compared to 33.88% for the control group

## **d) Attitude about Walking:**

- 75.56% of the Step2Get users that had a negative attitude (before) about walking changed to a positive attitude (after). In the control group 41.67% changed it positively – significant difference between the groups.

# Research Results



## e) Habitual Travel Patterns

- The students who received rewards walked more and had a more positive attitude about walking.
- The results show that students started considering walking for non-school trips.
- The results confirm that issuing temporary rewards for repeating behaviour would lead to a habit of performing this behaviour and weaken the previous habit.



# Conclusion



- Temporary incentives can have **long term effects**
- ITS can be used to **record and rewards** the right behaviour
- ITS can be used for **pedestrians** not only vehicles
- The technology is **ready and affordable**
- TDM – use the “**carrot**” instead of the “**stick**”
- **Gamification** (eg. Piano Stairs) can replace monetary rewards
- Find the **right reward** for the **right segment** that triggers behaviour change (eg. Espresso).

# Questions



- Can you think of possible applications in your home town? (For example, universities or sporting events)
- What “triggers” you to take the stairs or walk a bit further? (For example, cinema tickets, money, fun, virtual rewards)

# Step2Get

## Questions ?

For additional information about the  
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