

# Measuring passenger experience - emotional tracking 'in the moment'

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## Introduction

Passengers often tell us that performance is what really matters, and we know that a good service is the cornerstone to building and maintaining trust. We are also very aware that poor information is a key driver of dissatisfaction.

That's why we needed to develop a way to amplify the passengers' voice – taking 'in the moment' emotional reactions and presenting them in the form of data. This translates experiences and anecdotes into evidence that can be used to drive real change on the ground.

Our recent work on punctuality emphasises that passengers want a rail service they can depend on to the very minute. Using the new tracking measure, we can demonstrate the very real shift in emotions within minutes of a delay occurring. This highlights that the key problem is volatile performance – when train services work well, passengers are satisfied but they are quickly annoyed by delays.

As delays increase, annoyance can turn to frustration and anger. Key to resolving this, alongside continued efforts to improve performance, is timely, accurate information. Where this is missing, the results are accordingly poor.

What we have found, in developing this tool, is a way of taking passengers' instinctive reactions and presenting them as management information that can be acted on. We have been and will continue to use it at a high level, to demonstrate to decision makers from ministers to managing directors, what the priorities are for action.

To find out more about this project, or to discuss working together with Transport Focus, please contact our Head of Insight, Ian Wright, on 0300 123 0832 or [Ian.Wright@transportfocus.org.uk](mailto:Ian.Wright@transportfocus.org.uk).



# Emotional tracking

Development of a new methodology

# Background

- The National Rail Passenger Survey (NRPS) provides a comprehensive measure of mainly transactional performance. However satisfaction as a measure largely ignores the emotional dimension and how passengers *feel* about their rail experience.
- Previous Transport Focus research has shown that non-rational, emotional considerations are critical to trust<sup>1</sup>. This provides a strong case for measuring passengers' emotions on their rail journeys.
- Alongside this, there was an interest in testing a more continuous approach to data collection using a modern, passenger-friendly methodology. We felt this project could provide a suitable method to pilot data collection via a mobile app.

1: <http://www.transportfocus.org.uk/research/publications/passengers-relationship-with-the-rail-industry>

# What have we learned so far?

- From initial pilot activities, we found that there is a broad spread of emotions from the same individuals travelling on the same journey, over a period of time. This shows that despite passengers doing something which is very everyday and could be described as mundane, emotional reactions can vary a lot depending on external factors.
- There appears to be a strong relationship between getting a seat and passengers being 'happy' or 'relaxed'.
- Our commuters are quick to move from being 'happy' or 'relaxed' to being 'indifferent' when they are delayed by even less than five minutes. This backs up our previous work on the passengers' perspective of punctuality<sup>2</sup>.
- The 'indifferent' emotion can cover both positive and negative emotions – such as 'just another day of commuting', through to more of a 'this is the third time this week I've been delayed'.
- We will publish the full results of these first activities once complete.

2: <http://www.transportfocus.org.uk/research/publications/train-punctuality-the-passenger-perspective>

# Development: theoretical foundation

- We started by consulting relevant literature and theories on emotions. Theorists like Paul Ekman pioneered the study of emotions and their relationship to facial expressions.
- The Geneva emotions wheel is an instrument produced to understand emotions elicited by events or objects<sup>2</sup>. It gave us a set of emotions to start from to consider the spread and type of reactions felt by passengers when they travel on public transport.
- We also looked at how other sectors such as consumer goods and retail are already measuring emotions in reaction to how consumers feel about goods and services.

2: <http://www.affective-sciences.org/gew>

# Development: qualitative research

- We then carried out two focus groups with commuters, discussing what emotions their journeys evoked.
- Throughout the two sessions we had a visual artist in the room capturing emotions and sketching out how they might look. These were tested with our participants as the groups continued to check whether each visual representation was an accurate depiction of that particular emotion.

*“A seat makes you feel amazing!”*



# Development: omnibus validation

- From the qualitative research we produced a set of ten emotions and ten corresponding images to test via an omnibus survey.
- Survey respondents were asked a short number of questions including whether they experienced these particular emotions when travelling by rail. And also if they could easily interpret the emotions represented in our images without any labels.
- From the results of the omnibus survey a final set of eight images emerged to be taken forward for the pilot study.



Angry



Lower occurrence  
High spontaneous association  
High prompted association



Frustrated



High occurrence  
High spontaneous association  
High prompted association



# Our eight emotions



Happy



Worried



Relaxed



Stressed



Indifferent



Frustrated



Bored



Angry

# Development: questionnaire design and technology

- We then designed a short questionnaire (about one minute long), asking which emotion best represented how the passenger felt about their journey, and how intensely they felt that emotion.
- Participants were also asked about a short set of environmental factors associated with their journey such as did they get a seat and was their train was on time or not.
- It was decided to deliver the survey via a mobile application which participants would download and then receive notifications twice a day (morning and afternoon) in the form of a diary to complete if they travelled by train.
- We targeted regular rail passengers travelling at least three times a week to join our group of participants.



# What's next?

- We want to look at these emotions directly alongside the rational measure of satisfaction to see how the different points on the satisfaction scale work with our set of emotions. The pilot NRPS survey will help by providing a side-by-side comparison.
- Further pilots across different modes are also currently being considered.

### Contact Transport Focus

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