

## Gamification

### What is Gamification?

Gamification seeks to gamify physical activity to provide an incentive for individuals, families and friendship groups to reduce their physical inactivity. This concept has grown in popularity in recent years, with many people being familiar with the app-based game, Pokémon Go.

### Gamification in Essex

Currently, the Essex LDP is primarily working with two partners to deliver gamification initiatives, [Beat the Street](#) (BTS) & [Street Tag](#) (ST). Both games look to turn towns and the local areas into a giant game, where people earn points through walking, running and cycling. These points then contribute towards leader boards with individuals able to join and contribute to teams, for example their school. Those high up on the leader boards can then win prizes, such as vouchers to spend, which act as an incentive to participate. The intention of both games is to promote individuals being more physically active in their local area and increase community cohesion.

### Street Tag

Street Tag is a private limited company who have produced a mobile app-based game, where individuals collect virtual tags within the local area using their smart phone. Tags are collected by visiting the area near which they are located, then this along with steps completed are converted into points.

Street Tag's partnership with the Essex LDP started with an investment being made for a game in Basildon in 2020 and this has since been replicated in Colchester, Clacton, Harwich & Dovercourt and Walton-on-the-Naze. With leader boards for the community, schools, workplaces and care homes, we have seen 4,486 people taking part, travelling a total of 1,337,093 miles. Within the Basildon game, of those players who provided a valid postcode at registration (428), 52% live in areas of high deprivation (IMD 1-4).

Further investment in Street Tag has recently been agreed by the Essex LDP and North Essex CCG to recruit a Street Tag Coordinator for Colchester. This person will seek to increase

participation and engagement levels of Street Tag across the 4 existing Colchester leader boards as well as launching a new Secondary School leader board and trialling new technology in care homes.

### **Beat the Street**

Intelligent Health is a private limited company that own the Beat the Street game. In Beat the Street, players collect points by tapping on “beat boxes” which are placed physically around the local area and can simply be tapped with a card. The Essex LDP has funded two Beat the Street games in Tendring; the first in Harwich & Dovercourt and the second in Clacton & Jaywick.

The game in Harwich & Dovercourt engaged 2,817 players, with 35,166 miles travelled over the five-week game phase. As a result of playing, 57% of inactive adults became active and 49% of less active children became active.

The game in Clacton Jaywick saw 3,614 people take part, travelling a collective distance of 38,019 miles over the six-week game phase. Following Beat the Street, 38% of inactive adults had become active and 46% of less active children become more active. The game also led to significant improvements in mental wellbeing; the proportion of adults reporting low and very low feelings of anxiety increased by 11% and the proportion reporting very high feelings of worthwhileness increased by 7%.

Clacton & Jaywick will also see a short game in October which will trial an app-based version of the game.

### **What are our assumptions & beliefs around gamification?**

We are working to test and refine the following assumptions & beliefs around how & why the Essex LDP is using gamification:

- I. In recent years using gamification to promote PA has increased greatly in popularity. If we embrace this popular social movement, then people will want to be part of this, as it embraces what people are currently doing. This will promote people getting out and about in the local community and create opportunities to reduce physical inactivity. As it

will provide incentives (intrinsic & extrinsic) to take part (fun, low cost, rewarding, competition, connections, quality time) and be flexible to individual routines.

- II. The gamification of PA is a relatively novel concept that has emerged and grown over the last few years. This has occurred with little evidence to support its effectiveness in reducing physical inactivity in our target audience, individuals who live in the most deprived communities of Essex. If we can convince people that the gamification of PA is a good idea, then we can implement it more widely across the system. This will increase our ability to capture evidence around who it works for, where it works and why. This will be possible as we will have more support to do so (funding, political will, visibility/positive image).
- III. How individuals perceive their local area and the connection they hold with it, is important for engaging them in PA. If we use gamification to encourage people to go out and explore their local place, then we will create connections with people and places in the local area. As this will create positive experiences with new areas (and change previous negative perceptions) and form healthy habits.

### What have we done to understand gamification?

- ***Project Data***

Data from Street Tag and Beat the Street games provide an opportunity to understand to what extent gamification interventions increase physical activity and wellbeing in our target audiences.

- ***Secondary Research***

A literature search was conducted to review the research around gamification, including how gamification contributes to increasing PA levels, motivation's people have for engaging with gamification interventions and challenges faced by previous gamification initiatives.

- ***Community Engagement***

The recent Beat the Street game in Clacton & Jaywick presented a good opportunity to collect qualitative data around gamification. We had brief conversations with over 50 players in the local area and were able to learn about what motivated them to play and

the impact that the game was having on their lives. We also identified two individuals whose BTS stories we wanted to capture as case studies.

- ***Stakeholder Interviews***

Interviews have been conducted with key stakeholders involved in the planning and delivery of Beat the Street and Street Tag to capture their reflections.

## **What have we learned about hardwiring?**

### **Gamification is a popular concept**

The Essex LDP has spent over £230,000 on gamification interventions with over £100,000 additional funding leveraged from partners including District and Town Councils, CCGs and the Essex County Council Levelling Up fund, demonstrating that partners across the system are keen to join us as we test the gamification of physical activity for different groups and communities across Essex. More work is needed to understand how and why our partners have been persuaded to invest.

## **What have we learned about impact?**

### **Gamification motivates people living in areas of deprivation to engage in physical activity**

The data we are receiving from Street Tag and Beat the Street shows that we are managing to reach LDP target areas (IMD 1-4) and that there is relatively good take up in these places; BTS engaged 6% of the population of Clacton & Jaywick in the recent game.

We are learning that it is not one, but a combination of motivations that explain why people are taking part in our gamification initiatives. These motivations include it being fun, the collective reward from participating in a team, providing a family activity to get children active, healthy competition with prizes, flexibility around individual routines and providing a purpose.

### **Playing increases physical activity and wellbeing... at least in the short term**

Game data from Essex and the literatures clearly shows that playing increases physical activity levels during the game period for those who were previously inactive as well as those who were already active. There is also some evidence that playing Beat the Street in particular leads to long-term behaviour change. Our conversations with Beat the Street players in Clacton & Jaywick suggested that playing may lead to the formation of long-term habits, however follow-up would be needed to confirm this. Research supports not only the physical benefits but also increases in mental wellbeing when playing, with this being more profound for individuals who are less active before they start playing.

### **Gamification can be used to connect people and places**

It has been suggested that playing leads individuals to explore and discover areas locally. Many of the players we spoke to said they had primarily remained close to where they live while playing, however, there were examples of people who discovered new routes and areas locally while playing. We also found that playing causes people and groups to connect more in the local community. This involved people who had not previously been known to each other and has led to new friendships and connections developing, which remain after the initiative has finished.

### **The community would like more ownership of games happening in their local area**

Conversations with players in Clacton & Jaywick identified that some felt there could have been more community involvement in the planning and implementation of games given that they understand the local area and the wants and needs of their community.