SCSP Innovation Fund Case Study

Ralston Primary Out of School Care

Summary

Ralston out of school care is busy out of school care in Renfrewshire with 140 children attending the term time and holiday childcare provision. They work closely with families to provide high quality experiences for children and families while tackling inequalities. This project, **Kids Digital Fitness**, aims to address the decline in children's physical activity by leveraging smart fitness technology to engage both children and parents in setting and achieving fitness goals. The initiative will provide fitness trackers to up to 140 children, offer training for parents, and use data insights to plan and implement tailored physical activities. There is no 5g in the school area however the Renfrewshire council have recently installed high speed fibre broadband into the school which we will make use of. Key collaborators include parents, Get Active Coaching, local activity clubs, OneRen and Engage Renfrewshire.

Watch the Ralston Primary Out of School Care case study video.

Introduction

Context and Rationale

Children today are spending less time engaging in physical activities, which negatively impacts their physical and mental well-being. These effects often persist into adulthood, underscoring the need for early intervention. This project addresses this issue by equipping children with tools to track activity and by fostering parental involvement to encourage long-term healthy habits.

Project Objectives

The key objective was to use digital activity monitors to increase the activity levels of children both in the service and at home. This was broken down into 4 key tasks:

- Equip up to 140 children with smart fitness trackers to monitor activity.
- Train parents to support children in using the devices effectively.
- Use activity data to design and deliver new physical activities that meet children's interests.
- Evaluate improvements in physical activity and well-being using fitness data, the Leuven Scale, and SHANARRI indicators.
- Evaluate the use of digital connectivity in real time improvements in children's activity levels.

Background Statistics / Supporting Data

According to the NHS, UK, and Scottish government children (5-18) should particate in 60 minutes of moderate or vigorous activity per day and between 12,000 and 16,000 steps per day. According to The Scottish Health Survey (2022) 69% of children aged 5-15 meeting this guideline when including school-based activities, and 59% when excluding school-based activities. It was also noted that boys are more active than girls and that activity levels drop off as children leave primary school.

Through observation at the service, it was noted that approximately 38% of children do not regularly take part in physical activity in the service while an increase as been seen in sedentary activities like watching television, playing on computers, using devices like phones and tablets.

A parent's survey was carried out at the beginning of the project to ascertain a base line of children activity levels and parents' knowledge. From this survey it was noted that 68% of parents did not know how much activity their child does or should be doing. For those that did know the average daily step were 7000 and the average daily minutes of activity were 45 minutes, below the recommended.

Problem Statement

Children's activity levels are key to their ongoing health and wellbeing both now and in later life. Declining levels of physical activity among children are linked to long-term negative health outcomes. There is a need for community-driven solutions that engage both children and their parents to address this issue.

Glasgow City Region Context

- Aligns with Glasgow City Region's focus on improving care and well-being through innovative and inclusive solutions.
- Engages local organisations and resources to support sustainable community impact.

Project Objectives

The key objectives were to increase children's activity levels and wellbeing. Firstly, to increase children's physical activity levels by 20%. Based on parents' answers to the initial survey, this would equate to 8400 steps per day and 54 minutes of activity per day.

- Enhance mental and emotional well-being as measured by the Leuven Scale (target: increase of at least 1 level).
- Foster knowledge and long-term engagement with fitness activities among children and their parents.
- Develop sustainable activity plans informed by data insights.

Approach

Collaborative Design

The project involves partnerships with several stakeholders. The most important was support from the existing staff in talking to parents, observing children, and recording their findings. Our community of parents was also a vital partner in this project. Without their support no data out with the service could be collected and children would not be encouraged to wear the devices or take part in the activities. Local sports clubs had a big input into the project providing new activities for the children and a place to signpost children and parents who wanted to take the activities further. Get Active coaching provided sports coaches and equipment for the activities and OneRen (Renfrewshire council) provided lets. Finally Engage Renfrewshire supported the project with advice. It should also be noted that the GCR team provided invaluable help and support for this project, especially Sue Waller with her guidance on what for us was a very big project.

Implementation

The project was started by contacting all the parents on the mailing list to ask if they would like to take part in the project. This was followed up by social media posts and conversations at pick up and drop off. From these contacts we had 128 children interested in the project.

The project lead had identified the device needed by comparing durability, ease of use and cost. The key features of the Garmin Jnr were that it does not need charging and the battery lasts 2 years and the app is fun and easy to use for parents and children. 128 units were ordered from several sources.

The Garmin device used Bluetooth connectivity to connect to an app on a phone or tablet. Data could be shared across the group using the app. Real time data was not available due to low connection speed in some areas and the limitations of the app

Training and information sessions for parents were facilitated by the project lead. 3 group sessions were run for parents followed up by one-to-one sessions for parents who could not make it or who were struggling with the technology. Eventually all parents of the 128 children signed up the project attended. Ongoing support was offered to parents throughout the project by email or in person at the service.

Staff at Ralston Out of School care also used this time to use their key worker system to record observations on activity levels of the children in their groups. Observations from staff would be important over the project as this would be key non-empirical evidence for improvements

in children's wellbeing.

Data collection from parents was carried out using Microsoft forms with paper copies available for those that wanted them. A survey was given to all parents participating to gather information about their child's activity levels including steps per day and minutes of activities. This was followed up with 6 weekly surveys to track children's steps and minutes of activity form their devices. Staff also collected steps data from children taking part in activities, checking their step count before and after each activity.

A variety of new activities were implemented to help get children more active. These were based on feedback from parents and children's observations from the staff's key worker system and data collected from the device son step counts. New activities included:

- Dance classes
- Gymnastics
- Judo
- Swimming
- Walking
- Drama
- Ceilidh dancing
- Badminton
- Gardening
- Archery
- Interactive activity videos
- Football skills

For all the above activities staff tracked children's steps and carried out observations.

At the end of the project an evaluation survey was sent to all participating parents to gather final feedback and data.

Evaluation Framework

- **Quantitative Measures:**
  - Fitness trackers will monitor physical activity levels, with a target increase of 20% for daily steps and minutes of activity.
  - Weekly steps and minutes of activity would be collected from parents via a feedback form.
  - Steps would be measured for the new activities provided.
  - A national base line would be used along with steps and minutes of activity from the parent's survey.
- **Qualitative Measures:** Mental and emotional well-being will be assessed using the Leuven Scale and SHANARRI framework, aiming for:
  - Healthy and Active are 2 indicators on the SHANARRI indicators. Staff will use recorded observations on their key children to see the impact of the project on these 2 indicators.
  - The Leuven scale tracks children's involvement and wellbeing. Staff will use observations ton their key children to see the impact of the project on these.

Findings

Key Insights

We distributed 128 devices to children, slightly less than target due to increased cost of the units and a less than 100% uptake. It should be noted though that uptake was 91%. Reasons for not taking part were that some parents thought their Primary 1 child were too young and others failed to respond to communication.

The devices were well received with only a 3% fail rate on the devices from new. Replacements were promptly supplied. The training and information sessions were vital to get parents buy in and to help parents support their children in using the devices. Parent feedback said they appreciated the sessions and the ongoing support.

The initial distribution of the devices led to an immediate and large uplift in activity levels compared to base line figures. This was also backed up by feedback from parents. Children average 9140 steps per day and 76 minutes per day, already beating our targets. Parents reported that children wanted to walk to school to increase their steps and were walking around the house.

Initial information obtained from parents showed that few (less than10%) new how many steps or minutes of activity their child should or was doing. Ongoing data collection from parents over the 6 weeks showed a continued uplift in physical activity although the numbers of parents reporting this information dropped over time. For the first week we had 110 responses while by the last week we only had 77 responses. Some had reasons for this with 3 younger children struggling to wear the device, 4 devices lost or broken and one older child not wanting to do it anymore. The remaining 25 are just down to forgetting or apathy.

In the service the staff collected data from the children's devices about their steps during the new activities being delivered along with the number of children participation and observations on their wellbeing. All children involved in the project tried at least one new physical activity. Most (80%) tried at least three.

The most popular activities were drama, dance, gymnastics, and Judo with over 40 children attending each session. On average an hour session of each of these activities equated to approximately 1800 steps.

The activity with the most impact on steps was a simple walk with an hour walk equating to just over 5000 steps! Interactive videos were extremely popular with children who were known to not be interested in traditional sports and games with an hour of interactive video games giving over 1000 steps.

The staff carried out observation of the children taking part in the project using the SHANARRI indicators and the Leuven scale to track wellbeing. All children in the project showed a desire to do more physical activity and enjoyed at least one of the activities. This translated to an increase of between 1 and 2 on the wellbeing scale when doing physical activity.

Although the devices and app worked well, collating data was time consuming and real time date sharing was not possible due to the imitations of the app and the lack of a 5G connectivity.

Stakeholder Feedback

Parents were consulted via conversations during pick up at the service through interviews and through online feedback forms. Some Parents expressed their concerns over their children's activity levels while others had no idea if their children's activity levels were good or not. Most parents were happy to have their children involved in the project especially after having a session with the project lead to have any questions answered. During the project parents fed back that their children's activity level had increased due to having the trackers. There were some issues with children not wanting to wear them all the time and 2 children developed a rash when wearing the device. Parents were incredibly positive about the project although there was a drop off in feedback over the project.

"My girls are asking me if we can walk to school now, since they gave them the trackers!"

"I thought my children would be too young to use the trackers but hey are really engaged with them and enjoying it."

"We have been out walking more a s family now that the boys have the trackers."

Local clubs and get active coaching were consulted and expressed their support in delivering activities as it would help their own clubs to attract new young members. Get Active coaching delivered a variety of sports-based activities, and we worked with a local drama group, judo club and dance class to offer new activities.

The most important stakeholder in this project were the children. Through observations and chats with the children the staff have noted a significant increase in their wellbeing especially when looking at Active in the SHANARRI framework. Children were constantly checking their steps on the device and telling staff how they were doing to their targets and how they were doing compared to their friends. Children were asking to go out for a walk or go to the gym to run around to get their steps up.

"I am running around at home now!"

"Look I have 8,047 steps so far today!"

"I like using the app, when I do more steps more activities on the device become unlocked."

Staff were keen to use the devices in a real time league system for the children but without a 5G connection or the technically skills we could not. Staff did however notice a big uplift in activity levels and wellbeing over the project.

Key Considerations

Facilitators

Without buy in and support from parents this project would not have been possible. The time spent with parents at the start of the project helped drive the high uptake. Engagement did drop off over time and more meeting or updates over the project could have helped with retaining higher levels of engagement.

Local clubs and organisation were critical in delivery of the new activities in the project as the skills were not present within the service. These organisations also gave a route to children who wanted to continue with a particular activity.

Barriers

Initial variability in digital literacy among parents required some additional support but the initial sessions helped with this. Parental uptake was particularly good, but engagement did drop over the project.

Although most children enjoyed wearing the devices and taking part some children did not want to wear them or they irritated them, although this was a small number it is worth noting.

Despite reaching out to Garmin the manufacturer of the device they were not interested in supporting the project, even in a non-financial way.

There was no way to get real time data from the devices, Staff would need to check every child's app or device to get the steps. If the devices were able to connect real time to a hub, then data could be collected and displayed in real time for the children to see how they were doing. A stable 5G network across the school or even area along with a dedicated app for us would have enhanced the project consider ability.

Sometimes children did not want to try new activities, this is often down to low confidence or just being unsure about trying new things. Staff worked with children to make sure they at least tried some new activities, and most found they really enjoyed them, this was especially true about some of the more unusual activities like the Judo.

Learnings

Children having the trackers has an immediate effect on their activity levels, this is shown by an immediate uplift in steps and by the number of children participating in the activities. This was confirmed by staff observations of their activity levels.

Working with local clubs and organisations help fill in skill gaps and makes the activities exciting for the children, increasing participation.

Early and ongoing engagement with parents boosts project success. The Early engagement with parents delivered an extremely high uptake level but more face-to-face engagement form the project lead would have led to less drop off throughout the project.

Wider Impact

There is a broad range of potential benefits to the community that were out with the scope of this project, but we do have some anecdotal evidence for. There was an increased awareness of physical activity among parents and staff and relationship were built with parents that the service had not had relationships with. The wider health impact of an increase in children activity levels was not looked at but we would hope this was affected positively.

Conclusion

The **Kids Digital Fitness** project exemplifies how technology can address declining physical activity levels in children while fostering community engagement. By combining fitness trackers, parental involvement, and tailored activities, the initiative aligns with broader strategic goals of improving care and well-being.

Next Steps

- Seek funding to get new devices for new children each year.
- Continue to engage with parents around their children's wellbeing.
- Continue to work with local groups to offer more new activities for the children.
- Continue using data insights to refine activities and improve outcomes.
- Share our approach with other childcare services.
- We are actively looking at our connectivity and how we can not only improve out but make more use of it for projects.
- The skills we have gained form this project has helped us build capacity in the organisation so much that we are looking at more funding to employ more staff to develop the projecvt work we are doing.

Sustainability Plan

The project's success will enable ongoing use of fitness trackers at the service, supported by partnerships with Get Active Coaching, Local activity clubs. The service is already using the data to allocate existing budgets more effectively and new activities trialled and found to be popular will be incorporated in the regular activity schedule funded from our existing sources.

A small amount of funding each year would be required to purchase devices for new children and to replace broken devices (£1,200) this could be leveraged form local funding sources.

Future plans include rolling out the initiative to other organisations, schools, and clubs in the area, leveraging the insights and networks developed during the project.

We are also seeking funding from several sources for a variety of projects and are looking at employing a project worker to run these new projects.

Acknowledgements

We extend our gratitude to Get Active Coaching, OneRen, Engage Renfrewshire, various local activity clubs, the GCR team and DSIT, and the dedicated parents who have made this initiative possible.

Find out more about the project on the Glasgow City Region website.

Disclaimer

The findings presented in this case study reflect the independence of the project and the collaborative efforts of all stakeholders. No conflicts of interest have been identified.