Enabling Independent Travel for Young Scots:

Age-appropriate Active Travel Infrastructure for 11-16 year olds

2022

A report for Sustrans by Dr Jenny Wood and Dr Jamie Hamilton, A Place in Childhood (APiC), with contributions from 31 Young Consultants and 14 of their Parents/carers.

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Author Biographies

Dr Jenny Wood, Co-director A Place in Childhood (APiC)

Jenny has a BSc (Hons) in Urban and Regional Planning and completed her PhD at Heriot-Watt University in 2016, entitled 'Space to Participate: children's rights and the Scottish town planning system'. In 2018, Jenny co-founded A Place in Childhood (APiC), to promote and conceive inclusive child friendly environments.

Dr Jamie Hamilton, Co-director A Place in Childhood (APiC)

Jamie has a BSc (Hons) in Psychology from the Open University and gained his PhD from Heriot-Watt University in 2017, entitled 'relationships between outdoor and classroom task settings and cognition in primary schoolchildren'. As well as being a founding member of A Place in Childhood's (APiC) board and executive team, Jamie is an activist and co-founder of the Community Chartering Network, an organisation pioneering new models for community engagement and rejuvenation, including Community Charters and Life Plans.

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Executive Summary

This research report details the active travel needs of children and young people aged 11 to 16 in Scotland. Through working with 31 Young Consultants and 14 of their parents/carers, in a Virtual Participatory Action Research Methodology, we present rich descriptions and Active Travel Maps of four Scottish communities. These represent urban and rural scale settlements as well as differing levels of socio-economic status. The participating young people were all aged 11 to 16 and split into subgroups of 11-13 and 14-16 for some in-depth discussions, with participants brought together for reflection and determining overall priorities.

The Active Travel Maps identify the barriers and opportunities experienced by children and young people when walking and cycling independently of an adult to important destinations in their localities. They also show the priorities for action in each area that would have the biggest positive impact on their motivation and confidence to active travel. We draw on these findings to present an overall picture of what age-appropriate active travel infrastructure looks like for children and young people in Scotland. The core themes are:

- Providing adequate quantity and quality of places that children and young people really want to go and can access easily (motivating and accessible destinations), including addressing antisocial behaviour and judgement of children and young people in public space;

- Ensuring there are safe, easy, and enjoyable routes to important and motivating destinations, by providing street lighting, cycle paths with as much separation from traffic as possible, bike hire opportunities, and improving the width and quality of pavements. This also includes taking action to reduce the impact of busy and dangerous roads and building an inclusive cycling culture for all children and young people;

- Building on the positive impacts of the COVID-19 pandemic in terms of motivating children and young people to undertake independent active travel journeys;

- Encouraging families to become more familiar with active travel opportunities with their children, and increasing their confidence to permit children and young people's independence through improving quality of routes and number and accessibility of motivating destinations;

- Ensuring adequate internet and mobile technology coverage in public space to increase the motivation and confidence of children and young people and their parents/carers to active travel.

We also explore the difference in terms of urban/rural differentiation, socioeconomic status of area, age of child or young person, and gender.

Largely, there are greater barriers to independent active travel for younger age groups, and for girls. Meanwhile, urban areas have more motivating destinations but greater barriers posed by anti-social behaviour and traffic; rural areas have fewer motivating destinations, but greater access to leisure routes. There are poorer opportunities for cycling and considerably more dangerous traffic and other infrastructure barriers in areas considered to have lower socioeconomic status. However, all areas would benefit from improved infrastructure, especially for cycling and listening to the voices of children and young people helps ensure it meets their needs now and in the future.
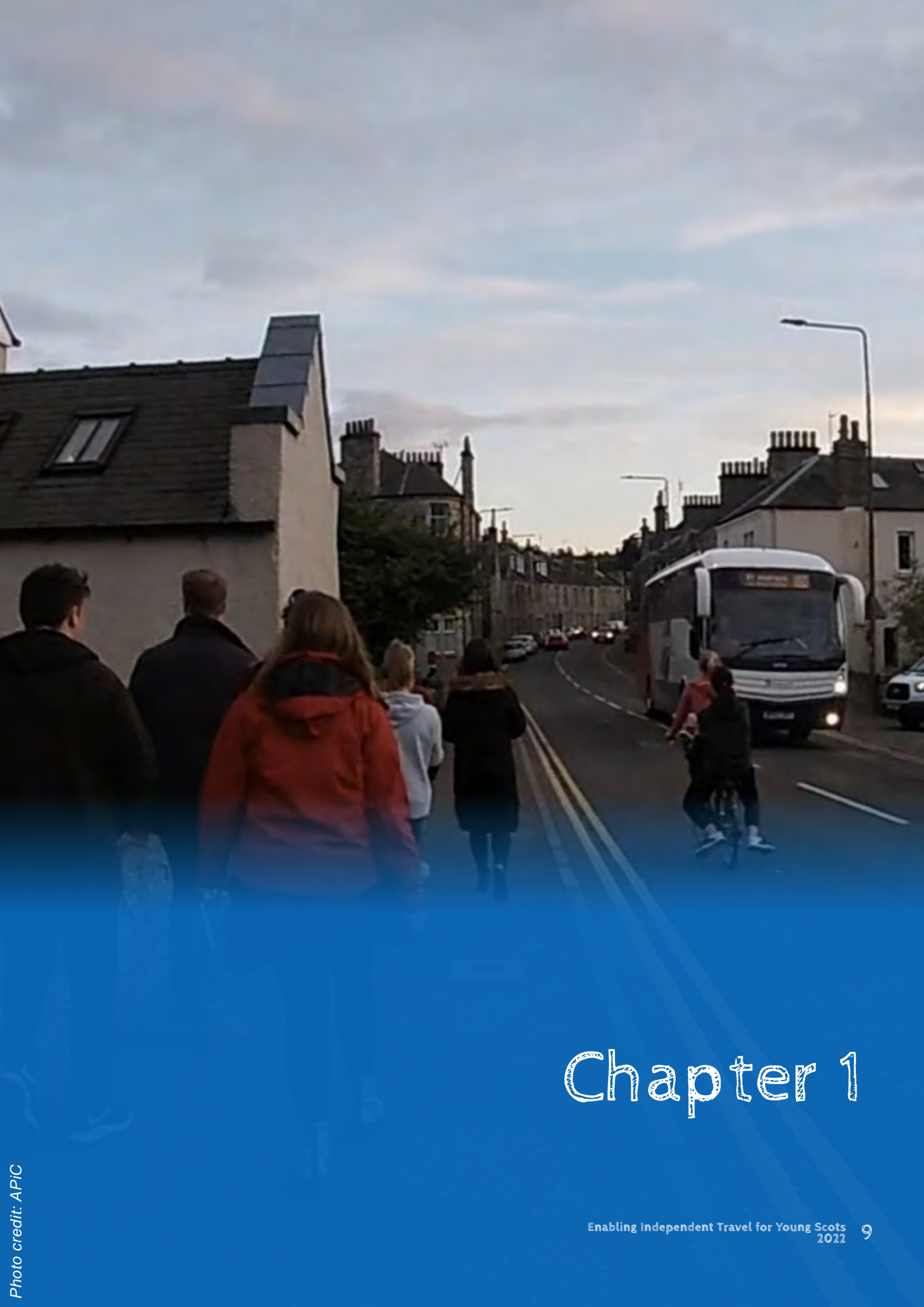
Chapter 1

Introduction

Children and young people's (CYP) 'independent mobility' is an under-researched topic, especially in the UK and Scottish context. Defined across decades of academic literature, the phrase refers to the ability and/or permissions that CYP have to roam public space and reach key destinations without the accompaniment of an adult. Evidence shows that having such freedom affords CYP opportunities to develop spatial understanding, self-confidence, deeper social connections with their peers, and improved health and wellbeing. It also reduces the strain on parents/carers who may otherwise need to accompany CYP, including driving them to specific destinations (Murray and Cortés-Morales 2019). Increasing independent mobility for CYP can therefore have significant beneficial impacts on families, communities, and wider efforts to reduce air pollution and mitigate the impacts of climate change as well.

We know that the freedom CYP have to roam their local area and travel independently has been eroding across the UK for at least the last 50 years. Shaw et al's (2015) striking study found that between 1971 and 2010 the number of children of primary school age allowed to walk to school by themselves in the UK fell from 86 per cent to 25 per cent. Indeed, a significant literature base in the UK and abroad notes the global trend of CYP living their lives increasingly indoors, and structured around specific activities rather than freely chosen play or 'hanging out' (Louv 2010, Holloway and Pimlott-Wilson 2014). Moreover, Shaw et al.'s (2015) international review of children's independent mobility in 16 countries, including England, note that the most successful way to increase journeys is to transform the built environment. Such interventions are more common in the Nordic countries, Germany, the Netherlands, and Belgium than they are in much of the rest of the world, and the UK has limited examples of significant infrastructure developments designed specifically with the needs of CYP in mind. There is also very limited evidence on CYP's independent mobility in Scotland specifically.

Taking the above factors into account, this project sought to understand what age-appropriate active travel infrastructure would look like for the 11-16 year old age group in Scotland. The project takes a Virtual Participatory Action Research approach, across four settings. The research questions to be answered are set out below:

- What do CYP require from travel infrastructure to be healthy, happy, and safe when travelling independently on their everyday journeys?

- What do parents/carers require from travel infrastructure to let their children travel independently?

- If new 'age-appropriate' infrastructure was built, how would that change the travel experience and the local area for both CYP and their parents/carers?

- If age 'inappropriate' infrastructure gets replaced/adapted by 'age-appropriate' infrastructure, how would that change the travel experience and the local area for both CYP and their parents/carers?

We sought to explore the needs and opportunities in Scottish communities that differ in terms of their urban-rural classification and socioeconomic status. We chose this age range as it both covers the transition between primary and secondary school where CYP tend to gain increasing social independence from their families. It also aligns with literature suggesting that the age of 11 is a common time internationally at which parents/carers begin to consider their child as capable of comprehending sufficient road safety, social conventions, and navigation skills to begin taking unaccompanied, everyday journeys (Shaw et al. 2015).

Increasing CYP's independent active travel opportunities also aligns with the needs of Scotland's National Transport Strategy (Transport Scotland 2020). This sets out the Scottish Government's vision for transport for the next 20 years and has four main priorities:

- Reduce inequalities;
- Take climate action;
- Help deliver inclusive economic growth; and
- Improve our health and wellbeing

This necessitates a move to more sustainable modes of travel and away from use of the private vehicle, as well as supporting the most vulnerable people in society to access opportunities. This includes a specific focus on reducing child poverty. Walking and wheeling are therefore at the top of the sustainable travel hierarchy (shown in Figure 1), with cycling directly below it. Indeed, Scottish Government's Just Transition Commission highlight further the need to ensure moving toward 'Net Zero Economy' is an inclusive process and outcomes that incorporates strategies which close inequalities and do not create new ones (Scottish Government and APS Group Scotland 2020).
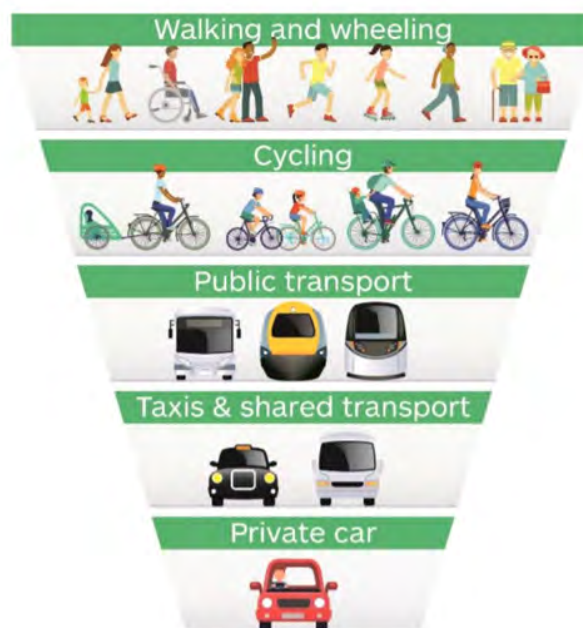
Figure 1 The Sustainable Travel Hierarchy. Diagram Source: Transport Scotland 2020, p.43.

We begin this report by presenting some of the background literature on CYP's independent mobility and active travel, with particular focus on the UK and Scotland wherever evidence is available. We then explain the methodology and methods for this Virtual Participatory Action Research project with 31 Young Consultants and 14 of their parents/carers in diverse communities. Using case study reports from four locations as a basis, we subsequently present and explore the systems-dynamics underpinning CYP's independent travel and point to the key intervention points and solutions. We end by considering which infrastructure and related behaviour change emerged as common across all our case study areas.

What do we already know about CYP's Independent Mobility?

It is well established in the literature on children's geographies that CYP, and particularly young children, have a predominantly experiential view of place. Studies suggest children view places differently depending on their mode of travel, and the route to and from school (as the most frequent everyday journey) gives key insights into the views and perceptions of CYP (Cele 2005). For example, in Wood's (2016) study of a Scottish city, a group of children aged 9-12 drew or wrote about their travel to school. Children who did not use active travel modes had more difficulty drawing the exact route they take on a map, with some drawing very vague or nonsensical journeys. Further research also highlights more broadly that using active travel modes to school increases children's spatial cognition of their local environment (Fang and Lin 2016).

Marzi and Reimers (2018) outline key components of Independent mobility. These are:

- **Mobility license:** the designated rules granted to CYP around where they can go and what they can do

- **Territorial range:** the distance from home that CYP can travel independently

- **Destination:** the specific destinations CYP can visit by themselves, or where they go

- **Time:** the amount of time a child can spend away from home

Linking this with physical place, environmental psychologist Marketta Kyttä (2006) characterises the child-friendliness of an environment on a matrix in terms of the experiences on offer in a neighbourhood, and children's ability to access those experiences without an adult. This is shown in Figure 2 .Based on this, a child- friendly environment is one where CYP have both high levels of independent mobility, and a high number of potential experiences on offer. At the worst end of the matrix, children may live in a 'cell', where they are kept indoors, and there are few opportunities for them to explore even if they were permitted outdoors without an adult. If independent mobility is high, but there is nothing for CYP to do, then they live in a 'wasteland'. On the other end of the scale, many opportunities in the environment but no independence to access them leads to a 'glasshouse' where CYP can see the opportunities but are kept away from them. A truly child-friendly environment would overcome the social, economic, and environmental barriers that limits children's opportunities and access to them.

A wealth of research unfortunately suggests that few children in the UK would likely be living in a child-friendly environment, through the conditions suggested by Kyttä. Motor traffic has
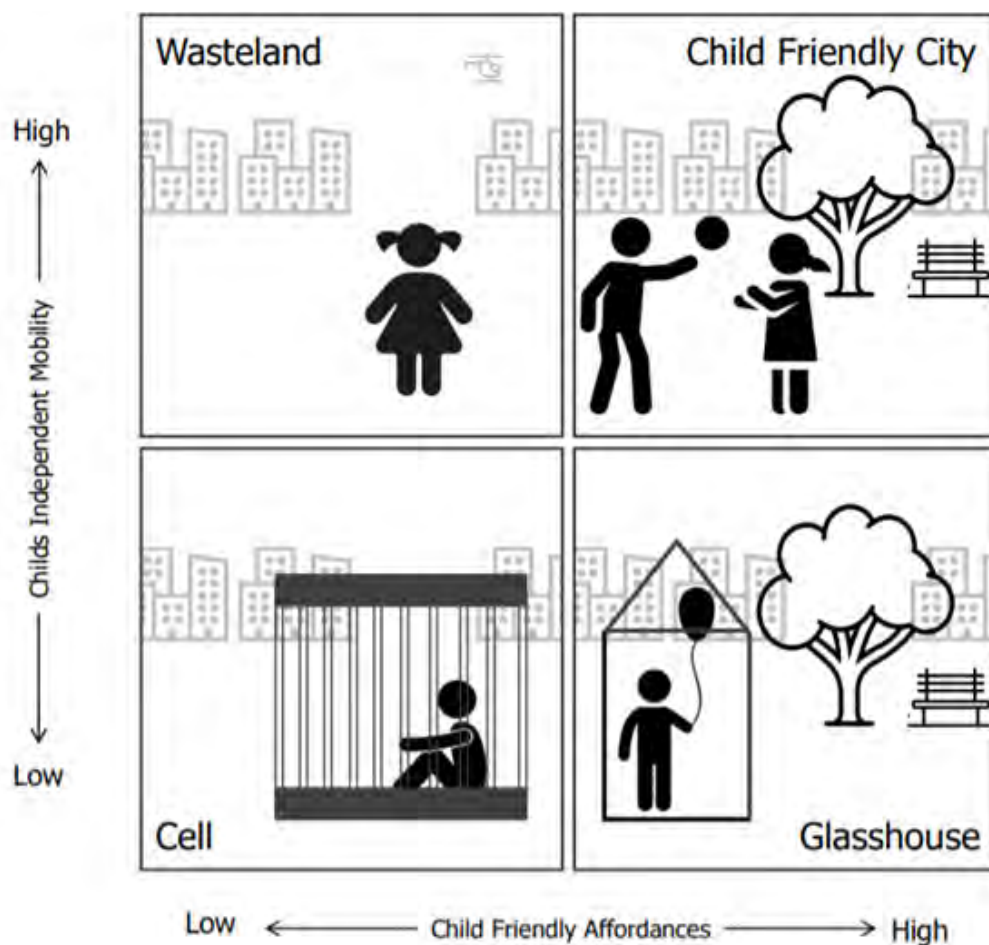
Figure 2 Kyttä's (2006) Child-Friendly Environment Matrix. Redrawn from original, source: A Place in Childhood

significantly impacted the character and planning of our environments in the last century, and CYP's movements have not historically been given prominence in policymaking. Meanwhile, car usage has become a cultural norm through which many organise most of their travel needs. A 2015 poll of children aged 8-15 across the UK found that 37% had not played outside by themselves in the last six months (The Wildlife Trusts 2015), and an Edinburgh study showed a link between the poor quality of local green spaces and the amount of time children spend in front of television or computer screens. It also demonstrated the improvements to their psychological well-being which resulted from greater access to green space (McCracken et al. 2016). Nevertheless, high traffic volumes, limited walkability, and a lack of singular, well-defined community likely limits the extent of children's walking (Glasgow Centre for Population Health 2013).

A recent study commissioned by Sustrans showed that getting a lift from an adult makes up over half of journeys made by under 17-year olds. Meanwhile, a very low proportion are made by bike, and decreasing public funding for public transport has further reduced young people's independence (Chatterjee et al. 2019) (n.b emergency funding for public transport operators was introduced in 2020, after the time of writing). This and the above highlighted research fits with the 2016 Scottish Health study which shows that around one quarter of children aged 5 to 15 do not meet physical activity guidelines over an average week. This is shown in Figure 3. Moreover, the proportion not meeting this standard increases with age (Scottish Government 2017a).

The proportion of children meeting the physical activity guidelines declined with age
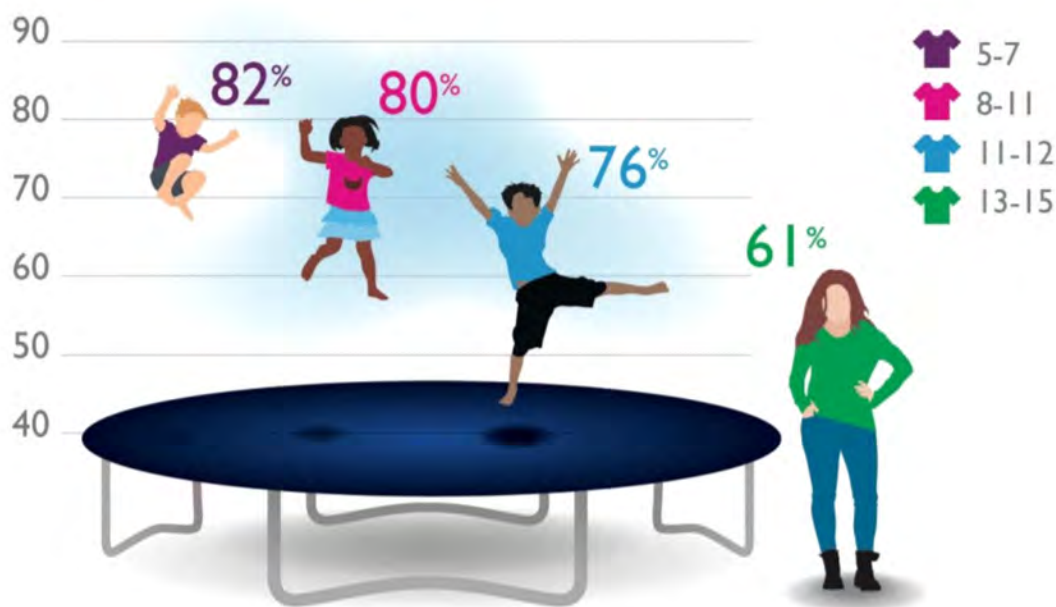
Figure 3 Proportion of children meeting the physical activity guidelines.
Diagram Source: Transport Scotland 2020, p. 40.

The relationship between CYP's independence and the licenses granted them by adults lead Mikkelsen & Christensen (2009) and Nansen et al., (2015) to begin viewing children's mobility, not as independent, but as interdependent. It is therefore a complex assemblage of social, environmental, and economic issues. In this relationship, parents mediate directly, but where they allow their children to go is also determined by the structure of the built environment and how it interacts with various social issues and pressures. Particularly concerning in this negotiation is the likelihood of road accidents. CYP that live near busy roads are at greater risk as both pedestrians and cyclists, and much of the decrease in CYP's independent mobility has been attributed to parents/carer fears around traffic safety (Hillman et al. 1990, Shaw et al. 2015).

The Dominance of Car Travel

The privileging of cars in the built environment has led to increased distances between places CYP seek to access, and a lack of attention to their specific needs in planning and related services can lead to hostile environments (Wood et al. 2019). For instance, the proliferation of 'No Ball Game' signs is an environmental signifier of complaints of nuisance from children playing in public space (Living Streets 2009). Meanwhile, misunderstandings about the natural behaviour of teenagers to gather in groups can also lead adults to automatic assumptions that the presence of young people in public space is a potential threat (Matthews et al. 2000, Bell

et al. 2003, Cele and van der Burgt 2015). At the same time, trends in childhood and parenting mean that CYP's lives are increasingly organised around structured activities in specific locations, rather than the more local and self-organised opportunities of previous generations (Holloway and Pimlott-Wilson 2014). In itself, this has served to also decrease the acceptability of CYP using many public spaces, and tends to exclude CYP growing up in poverty and other disadvantage most (McKendrick 2016, Grant 2019).

A system dependent on car travel is underpinned by a range of factors, which include the lack of alternative transport options, long distances to key destinations (particularly in rural areas); the increased time and inconvenience of walking or cycling (real and perceived) (Lorenc et al. 2008); and the fact that families with children often engage in more car journeys (Zwerts et al. 2010, Mbabazi 2016). Recent evidence suggests that young people aged 12 to 24 are making fewer trips on average than 20 years ago, and cost is cited as a major barrier. Despite this, an increase in walking amongst 17 to 20 year olds in the last 15 years suggests independent travel and transport are still vitally important to young people (Chatterjee et al. 2019). However, The Scottish Household Survey suggests that bike ownership is considerably lower in families with low income as compared to those with higher (Scottish Government 2019). With appropriate interventions, this trend of moving towards walking more journeys could be built upon, and improved cycling infrastructure and availability could enable young people to travel longer distances to access suitable opportunities.

CYP's Independence and the School Run

A significant proportion of rush hour congestion in the UK has been linked with the school run. For instance, Transport Scotland (2020) report that according to the 2019 Scottish Household survey, 59% of children aged 4 to 11 and 42% aged 12 to 18 walked to school. This is lowest in rural areas and whilst it has remained relatively stable since 2004, traveling to school by car has risen.

Sustrans's 2019 Hands Up survey revealed a similar picture, with 47.8% of all pupils saying they normally travelled to school in an active way, with 4.1% cycling, 2.7% skating or scooting, and the remainder walking (41%). This is an overall decrease for active travel modes of 0.9% since 2018, but both cycling and skating or scooting have increased modal share. Overall, using active modes of travel to school have decreased since a high in 2014 of 50.4% to its lowest point in 2019. Meanwhile, 25.5% of all pupils reported using private motorised transport (car and taxi) usually to get to school. Sustrans also found that active travel levels decreased in secondary schools (Sustrans 2020).

The decrease in rates of active travel between primary and secondary school can be explained by a range of factors, but is primarily attributable to the tendency for distance to school to increase when a child transitions to secondary school. Indeed, much of this decrease amongst older age groups is due to increased travel by bus, not by private vehicle (Shaw et al. 2015, Scottish Government 2017b). However, an increase in CYP cycling to school would decrease use of both, leading to greater independence and freedom with concurrent health benefits associated with physical exercise and a reduction in pollution. Indeed, active travel in

childhood is helpful for encouraging active travel across the life course (Mbabazi 2016).

The transportation of children to school, particularly those aged 11 and under, can lead to more complicated trip-chaining for parents/carers that may reduce their willingness to engage in active travel modes (Zwerts et al. 2010, Mbabazi 2016). Were CYP granted greater independence, then the burdens on parents/carers to drive them to school and other destinations would decrease, thereby also affording them greater independence, while reducing the complexity and stress of trip-chaining. This is especially true for mothers, who studies consistently show tend to have the most direct influence on their children's travel (Department for Transport 2014, Ghekiere et al. 2015, 2017), and where greater independence for them may increase their own willingness to engage in active travel or public transport.

Policy for Children and Active Travel

Murray and Cortés-Morales (2019) propose that policy on school travel has long legitimated an adult discourse around risk, and focused on improving children's safety, rather than their independent mobility. In addition, traditional childhood cultures of climbing trees and playing in woodlands or near rivers are now frequently regulated explicitly, or through parenting cultures that challenge more 'free range' childhoods (Citylab 2015). Yet, if CYP become more visible in everyday life to adults, it will help increase understanding of their thoughts and needs towards the places they live in future (Wood et al. 2019).

To address the lack of historic attention to CYP and their environmental needs, a paradigm shift is now occurring in Scotland, to focus on risk-benefit analysis, and to take approaches that more centrally consider children's human rights and their health and wellbeing. Rights-based narratives offer a greater focus on CYP-led activity, and the capacity for CYP to be change-makers. There are three human rights encapsulated in the UN Convention on the Rights of the Child (UNCRC) ((UN 1989) of particular relevance to active travel through the built environment:

- **Article 12** – the right to participate in all matters that affect the child.
- **Article 15** – the right of the child to gather and organise their own activities.
- **Article 31** – the right to play, rest, leisure, and access to cultural life.

In addition, Article 12, along with articles 2 and 3 (best interests of the child, and non-discrimination), underlie all decisions that should be made with regard CYP. This provides strong impetus to enhancing forums for CYP to express their views around active travel, and to explore and access the built and natural environment through independent means. Indeed, a recent report from The Mayor of London (2020) defined independent mobility as a right in and of itself that cannot be separated from play and playable space. In Scotland, a rights, wellbeing, and inclusivity based narrative is also combining with a focus on addressing the climate emergency, in line with the National Transport Strategy (Transport Scotland 2020) and full incorporation of the UNCRC into Scots law in 2021.

Chatterjee et al. (2019) found that sustainable travel can contribute to a range of improved pathways for young people, such as: education and training options; participation in out-of-school activities; physical activity and mental wellbeing; independence, autonomy, and self-worth; capabilities and willingness to use transport options; employment opportunities; stress, fatigue, and low self-esteem; and high transport costs and job/housing immobility. Recommendation 7 of their report states:

> *'Government needs to initiate in-depth research and analysis of young people's travel patterns, needs and attitudes, and of the role of transport access and choice in supporting young people to develop and transition to an independent, healthy future' (p. 10)*

It is eminently clear that active travel cuts across a wide range of Scottish Government policy agendas and priorities, alongside the wide range of benefits across social, economic, environmental, and political drivers (Williams 2017).

What Factors Encourage Walking and Cycling Amongst CYP?

Our review of the literature found limited evidence of what works to encourage CYP to cycle in a UK context. Yet, a pivotal systematic review of attitudes to CYP walking and cycling gives vital insights into the behaviour change that may be required to increase levels of cycling (Lorenc et al. 2008). The authors found five key factors that need to be considered:

- A culture of car use, that sees the car as more convenient than any other mode of transport, and a vital part of a normal adult lifestyle. This attitude can already be found in young children and tends to increase in intensity with age.

- Fear and dislike of local environments, including social factors such as safety, traffic, lack of appropriate facilities, and theft and other crime that could take place on the streets. Indeed, both children and adults often express fear around natural environments, particularly where they are poorly managed. Immediate practical concerns around walking and cycling become coupled with perceptions that active travel increases exposure to hostile surroundings.

- Differing perceptions of risk between children and parents. While children may see themselves as responsible transport users, this view is often challenged by adult perceptions. The authors found that children are more likely to favour the health and social benefits of active travel, whilst carers are more likely to focus on keeping them safe.

- Parental responsibility and behaviours, which were recognised by both children and adults. Parents wish to fulfil social expectations of good parenting, which can include high thresholds on perceptions of what keeps children safe. Meanwhile, children perceived car use as putting a limit on their independence.

- Contextual factors, with the view of children and their parents differing depending on age, sex, location (urban, suburban, rural). Interventions need to be tailored according to these factors.

Ultimately, Lorenc et al., (2008) suggest that any initiative to increase active travel need to challenge these issues directly and note that CYP are often more receptive to active travel than their parents. Thus, there are strong reasons to focus intervention on younger age groups, where it is more likely to improve their positive habits and win over the hearts and minds of more adults.

Building in Lorenc et al's (2008) overarching factors, a more recent Dutch study of 4,923 primary-school aged children found that active travel use was directly impacted by travel time; degree of urbanisation; trip purpose; and possession of a family car. Other social and environmental characteristics have an indirect influence, such as safety and social cohesion. Short distances are most likely to be walked, whilst longer distances are more likely to be cycled. Active travel was found more common on weekdays, and public transport more likely at weekends (Kemperman and Timmermans 2014).

Davison et al. (2003) track the attitudes of different age groups of children towards sustainable transport and find that primary school children are particularly interested in making journeys more fun. Increasing walking, cycling, and scooting to school would likely improve the quality of children's spatial experience. This is confirmed by Wood's (2016) work which found that play and socialising were important motivators for children to want to use active travel modes to school. Meanwhile, high concentration of main roads, and lack of cycle infrastructure were significant demotivating factors.

Recent evidence suggests the older a child gets, the more likely they are to favour practicalities such as journey time and flexibility, over environmental or social arguments (such as travelling with peers). This is truer amongst boys, and likely reinforced by the fact that average distances to secondary school are higher than they are in primary school (Scottish Government 2017b). A study by Chatterjee et al., (2019) found that in England, 12-16 years olds expressed a strong preference to drive when they reached the appropriate age, for the freedom and autonomy it would bring. Yet, the high costs of learning to drive and run a car are noted by young people, as well as the fact cars are no longer the status symbols they once were. Instead, young people express increasingly positive attitudes to active travel and public transport. Greater independent travel opportunities also seem generally afforded more to boys than girls (John Barker n.d., O'Brien et al. 2000, Brown et al. 2008, De Meester et al. 2014, Ghekiere et al. 2017).

Looking specifically at infrastructure, a recent systematic review explored whether preferences for cycling provision to be segregated from motor traffic differed by gender and age. The authors note that they found only two studies addressing the preferences of children or their carers (Aldred 2015, Ghekiere et al. 2015), with much of the research on children and cycling emanating from countries where cycling is a greater cultural norm. Nonetheless, the findings of both studies show a stronger preference for motor traffic and cycle paths to be segregated from one another. In Aldred's (2015) UK study, this includes protection at crossings and reduction in rat-running. In Ghekiere et al.'s (2015) Flemish study, this included the need for wide and evenly-surfaced cycle paths.

A further study by Ghekiere et al., (2017) found physical factors that improve children (aged 10-12) and their parents' willingness to cycle in Flanders, Belgium, include:

- perceived diversity in land use mix;
- shorter distances to school;
- good quality walking and cycling infrastructure;
- convenient recreational facilities;
- greater traffic safety;
- access to a mix of land uses;
- higher residential density; and
- less pleasing neighbourhood aesthetics.

Meanwhile, micro-scale factors such as evenness of cycle path; maintenance; presence of speed bumps on the road; traffic speed and traffic density were found to be significant in parents deeming children aged 10-12 to be allowed to cycle. The authors explored a range of options for improving infrastructure, through manipulated photographs, and overall conclude that separation of cycle paths from both traffic and pedestrians is the most optimal outcome. When a cycle path can be separated by a hedge, then many issues around traffic safety are significantly lessoned, and clear demarcation with levels and colours is preferable.

Child-friendly city schemes and interventions also offer natural opportunities to integrate active travel opportunities (Gill 2021). One child friendly city project of note is Rotterdam in the Netherlands. The city authorities incorporated a method entitled 'Building Blocks for a Child Friendly Rotterdam' into their planning approach (Youth, Education & Society department of the City of Rotterdam., 2010). With this, they prioritised the building of child-friendly housing, public space, facilities, and safe traffic routes by setting standards such as:

- widening pavements in residential areas without private gardens.
- prioritising children's ability to walk and cycle to school through urban design.
- ensuring usable natural areas (such as for climbing trees) in public and play space; and
- ensuring at least one school in every district has an additional activity programme for
- children to take part in outside of school hours.

The result of this scheme has been several regeneration projects across the city, and an uptake in independent travel.

More general approaches to make cities more child-friendly globally are presented by Arup in their urban childhood's report (Williams 2017). They espouse the need for child friendly infrastructure, that includes improved connections, and attention to the playability of urban

space, as well as urban design that creates safe and enjoyable local journeys. Attempts to make cities more child-friendly do not have a start and an end point, and instead CYP need to be considered throughout the process and outcomes of any intervention. For instance, participatory research and neighbourhood observations can serve as vital tools in understanding what does and does not work for CYP (Bornat and Shaw 2019). Moreover, the connection between play, leisure and active travel must be centred in planning decisions and practice (Wood et al. 2019). The Mayor of London's office recently proposed increasing the independence of CYP through better planning and design. Their 'Exemplar approach' consists of recognising the interplay between good governance and policy; participation of CYP; effective and child-friendly management; and physical design of everyday spaces that can encourage independent movement (Mayor of London 2020).

Given the limited evidence available in the needs, attitudes, and trends across CYP of differing characteristics, Ghekiere et al, (2017) suggest greater attention is needed to the socioeconomic, geographical, and gender factors that impact upon children's permission to cycle by themselves. In their study, there were notable differences of experience between CYP growing up in different types of areas and growing up in differing socio-economic conditions. For example, wealthier families are more likely to ensure observed and structured leisure activities for their children, which are incidentally more likely to take place outside the local environment (Valentine & McKendrick, 1998; Thomson & Philo, 2004). Increased income is also strongly correlated with increased car use (Scottish Government 2017b). Conversely, children from poorer families are more likely to play in public space near their homes, not own a bike (Scottish Government 2019), and live in potentially dangerous surroundings and lack accessible facilities and services (Castonguay and Jutras 2009, Day and Wager 2010). There is considerably more work required to understand how improvements could be made within the Scottish context. This project will draw out further learnings and assess what does and does not work.

The Impact of the COVID-19 Pandemic

The COVID-19 pandemic of 2020/21/22 led to a rapid change in lives and lifestyles globally. In Scotland, the initial response was a rapid lockdown from March-June 2020, which led to the closure of schools and rapid onset of online, remote learning for all children. A Place in Childhood (Hamilton & Wood, 2020) conducted a remote participatory action research project with young consultants during this time. The project engaged 25 CYP from five diverse Scottish communities, and a range of backgrounds. The results showed the dramatic and detrimental effects of the experience of loss of face-to-face social interaction; difficulties adjusting and responding to online learning; increasing stress on family resources; an overload of screen-time; and limited access to the outdoor play and recreation activities that usually underpin youth stress-coping strategies. An output around the challenges reported by Young Consultants is shown in Figure 4. Scotland subsequently remained under tight restrictions with some variation over time up to the time of writing in March 2021.

Figure 4 Young Consultant's grouped themes on challenges around freedom to go outdoors and socialise during the COVID-19 Pandemic. Source: Hamilton and Wood 2020, p. 19

The impact on CYP's health and well-being has also been documented by several Scotland-specific and UK surveys that asked CYP directly about well-being. The Children's Parliament and Young Scot longitudinal survey show a general decline in the health and well-being of CYP over time, with increases in feeling lonely and pessimistic about the future (Children's Parliament 2020, Scottish Youth Parliament et al. 2020). Meanwhile, a recent survey from the Princes Trust shows that 25% of 16-25 year olds in the UK have felt unable to cope during the COVID-19 pandemic (The Princes Trust 2021). Indeed, whilst some children have spent more time outdoors as a result of the pandemic, many have in fact spent significantly less time, with clear inequalities present between children from the most and least disadvantaged areas (Natural England 2020).

At the time of conducting this research, all CYP in Scotland were attending school full-time, albeit subject to some restrictions on movement, interaction, and wearing of face masks. Restrictions varied to some degree across local authority area, and across time. Indeed, it is vital to note that Scottish Government restrictions and exemptions for CYP have differed to the rest of the UK, with social distancing relaxed for the under 12 age group, with looser restrictions on numbers within gatherings. The results that will be explored in this report are also testament to the impact of the COVID-19 pandemic – both positive and negative – on CYP's independent active travel.

Chapter 2

Photo credit: APiC

Methodology

We employed a Participatory Action Research methodology in this study, allowing us to seek the direct voices of participants; develop shared understandings of priorities and actions; and follow a children's-rights-based approach (Horelli 1997). However, the COVID-19 pandemic and related governmental restrictions meant that our original research design developed for fieldwork in April/May 2020 had to be amended to take place in a remote and virtual setting.

In the original research design, we planned to visit each case study area and work directly with groups of Young Consultants and their parents/carers on participant-led walks and cycles of the local area, live experiential mapping, face-to-face focus groups, and a facilitated action planning session. This would have taken place across two days in each location, likely using the school or community centre as a base. However, due to the necessity to move to an online design, certain elements needed to be adapted for this new environment.

The Virtual Participatory Action Research Approach we took drew from our previous learning in a project around CYP's experiences and participation in the first UK national lockdown in May/June 2020. We did this using a collaborative online environment that consisted of two different tools: first, integrated videoconferencing with breakout groups using platform Zoom; and second, a virtual workspace using collaborative application Mural. This allows for the quick, easy, and anonymous organisation of ideas, information, and photos onto virtual 'whiteboards'. The Mural workspace allowed our groups to work together on various workshop tasks, primarily revolving around the building of a local Active Travel Map. This included noting local routes taken by foot and by bike, observations along the journey, favourite places, important places, places that provoke fear or are to be avoided, and things that are good and things that can be better. Meanwhile, Zoom enabled live conversations and facilitated discussions, which we also recorded for later analysis.

Figure 5 shows a Mural Board with a practice map, made by one facilitator to demonstrate the purpose and process of making a map to participants. This was the starting point for all work, with additional tasks and questions emanating from the initial input of our Young Consultants. Overall, the project consisted of three participatory online workshops, between 1.5 and two hours for both Young Consultants and a subset of their Parents/Carers. However, as explained further within the case study element, in one group it was not possible to recruit the requisite number of Parents/Carers across three workshops and so they were involved in one workshop only, alongside one prior discussion with a facilitator to look at the map produced by the Young Consultants.

Figure 5 A Demonstration Map made by one Facilitator to show how to build an Active Travel Map on Mural

Moving to a virtual design had both advantages and disadvantages. The primary advantage is that it enabled us to conduct research at a time when face to face interaction was not possible. It also opened new opportunities to put our Young Consultants more directly in the driving-seat in our analysis, as they were required to contribute more directly to research outputs than would have been necessary otherwise. The approach was therefore more participatory across the process than it would have been had we conducted more traditional focus groups. It also enabled us to cover a significantly wider range in our Active Travel Maps than would have been possible if we had engaged in live walks and cycles, which would have been restricted by time and distance.

Conversely, as facilitators we were not able to participate in site visits that the Young Consultants were referring to which may impact the results in terms of fine-grained analysis of urban design or street furniture. The desktop-based fieldwork also took more time and resource for all involved. This was partially mitigated by at least one of us being somewhat familiar with each case study area. Indeed, Internet connectivity had to be factored into both recruitment and participation. As a result, some participants dropped in and out of some sessions (though luckily this was largely not an issue), and there may have been participants that could have taken part in the offline design but did not have adequate digital access to take part in this new design.

In relation to digital exclusion, in some sessions we also scribed on behalf of participants due to either their preference or ability to contribute to the Mural boards on their devices (a few participants connected entirely through their phones). Ultimately, however, the approach worked and participants adapted quickly and willingly to taking part in this new way. Further innovations in virtual participatory methodologies and increasing familiarity for all may be able to further address difficulties in future.

Case Study Areas

To begin to understand both the specific and universal aspects of age friendly active travel infrastructure for CYP in different types of places, we sought to recruit participants from four communities that represented both urban and rural locations (defined as above or below a population of 10,000 people in the 2011 census (Office for National Statistics 2011)), and the broad range of socio-economic groups in circumstances across the country (defined as participants, on average, living in neighbourhoods above or below the 5th decile on the Scottish Index Multiple Deprivation (SIMD)). The four case study areas are set out below:

- **Northfield and Mastrick** (urban, below SIMD decile 5) – a community on the north-western edge of Aberdeen.
- **Denny and Bonnybridge** (rural, below SIMD decile 5) – two small towns/villages in the Falkirk local authority area, lying between Falkirk and Cumbernauld
- **Leith** (urban, above SIMD decile 5) – a community just east of Edinburgh city centre
- **Kinlochard, Aberfoyle, and Callander** (rural, above SIMD decile 5) – three small villages and towns in Stirling local authority area, and part of the Loch Lomond and the Trossachs National Park

These case studies provide diverse settings in which to explore the specificities of different areas, as well as the universal insights that may resonate across Scotland and beyond.

Participants

Given the online methodology and difficulty in building new social dynamics in a virtual setting, we sought to find groups of 11-16 year olds that had some experience of working together. In the most part, our Young Consultants in each area therefore attended the same school. We also took care to ensure we recruited an equal distribution of age and gender. Participants did not need to be avid active travellers and we sought to gain a mixture of those that were and were not.

In each overall case study 'team ', we recruited two groups of young people – 4 in each of the age categories 11 to 13 and 14 to 16. To the extent possible, four parents/carers were then also recruited to represent the carer view of young people's independence within these age brackets. Of course, many parents/carers that took part had more than one child that may fall into multiple categories – including younger and older.

Overall, 31 young people took part (1 participant dropped out just before the start of the first workshop), whilst 14 parents/carers also participated. We did not make gender stipulations for parents/carers, and attempted to recruit both mothers and fathers. However, in our final sample, all bar one were mothers. This correlates both with literature that suggests mothers tend to have greater supervision of their children's travel, and also a common difficulty in recruiting significant numbers of fathers to research about CYP.

Ethics and Data Protection

Both parent/carer and Young Consultant consents were gathered prior to confirmation of workshop schedule, and all participants were reminded in the first workshop of the meaning of informed consent, and their right to not answer questions, take part in activities, and leave the workshops should they wish to. They were further reminded that they would not need to give any reason, should they not wish to share, and they would not be named in any outputs. All workshop recordings were stored privately and securely, with only the authors of this report having access.

In our original, experiential, and offline research design, participants were to be offered Sustrans merchandise, a written-up copy of their completed Active Travel Map for further community use, and advice from both Sustrans and A Place in Childhood around how they may take findings further in future. However, due to the higher work burden for participants, necessity of adapting to our online tools, concurrent difficulties associated with COVID-19 related adaptations, and need for participants to have their own equipment to take part in the workshops, each participant was given a £20 voucher for their participation in each. This was in line with A Place in Childhood's Ethics and Data Protection Policy, revised in light of the COVID-19 pandemic and its impact on research process and participant need (A Place in Childhood 2020).

Workshop Structure

Set out below is the Workshop Structure followed in the fieldwork which took place between October and December 2020. We conducted 19 workshops in total – 3 with every Young Consultant, and 3 with every parent/carer in three out of four of our case study area. In Northfield and Mastrick, we conducted one workshop with parents/carers, and a short prior facilitated and recorded conversation that reflected on their views of the Young Consultants' Active Travel Map.

Young Consultants - Workshop 1

Workshop 1 wasas an introduction to the project, and orientation to our online tools and ambition to create a local Active Travel Map. In breakout groups split between 11 to 13-year-olds and 14 to 16-year-olds (to increase participant comfort and limit the possibility of the views of older young people influencing those of the younger), we began discussions around

what the local area was like, and plotted homes, important places, favourite places, places that they do not go or try to avoid, and other pieces of vital information in understanding the local context. Most participants also drew their route to school at this stage (other completed this in workshop 2) and engaged in a discussion of what they experience along the way and what is good and what could be better.

Facilitators then closed the workshop by inviting Young Consultants to engage in one other active travel journey in the following week, and plot that on the map in a similar way including photos and any other observations. Not all Young Consultants engaged in this activity due to time and other external pressures, including some that did not feel safe enough walking or cycling in their local area after school (with daylight hours ceasing around 3:30 PM at the time).

Young Consultants – Workshop 2

Workshop 2 began with a quick overview of the previous workshop, and discussion of building on their active travel map. Participants were then split again into their two age-based breakout groups, and developed their maps further – either adding to it during the discussion, or describing what they had placed on the map in the interim. APiC facilitators were led by a brief with key discussion points, however, to the extent possible the discussion was built upon the Young Consultants observations of their area and key issues, concerns, and ideas.

Once participants were content that they had created a robust map to share, all reconvened into the main Zoom Room and facilitators led a discussion comparing the two maps and seeking consensus and areas of key differentiation between the groups. From here, facilitators explained the next task, beginning with a brief presentation (see Appendix 1) that explored the main findings from the literature review of the varying factors found by researchers to facilitate or impede active travel opportunities for CYP. This was deliberately framed as ideas that may be presumed by policymakers to affect them, but that they were free to propose their own views and ideas based on their Active Travel Maps.

In the same breakout groups as before, participants filled out the grid shown in Figure 6, detailing what specific changes might improve their opportunities for walking and cycling in future. After discussing and making notes either individually or collectively, APiC facilitators reconvened the two groups in the main Zoom room and gave an overview of the ideas emerging from each. They ended by explaining the final workshop – one where Young Consultants and Parents/carers would come together. Before the final workshop, APiC facilitators combined the active travel maps of the two different age groups, to create one Young Persons Active Travel Map.

1. What things could change to be better about the local area?	2. Are there any things that make that change easy/hard to do?	3. CULTURAL: How the way the world thinks and behaves influences how much I walk and cycle
11-13 Year Olds	11-13 Year Olds	11-13 Year Olds
14-16 Year Olds	14-16 Year Olds	14-16 Year Olds
4. ACCESS: How easily I'm able to walk or bike to and between places important to me	5. HAZARDS: Things which can be a risk to me when I'm walking or cycling	6. ENJOYMENT Other things which help make a great walking and cycling experience
11-13 Year Olds	11-13 Year Olds	11-13 Year Olds
14-16 Year Olds	14-16 Year Olds	14-16 Year Olds

Figure 6 A blank version of the Change Prompt Grid used with Young Consultants in Workshop 2

Parent/Carers – Workshop 1

Workshop 1 was an introduction to the project, and orientation to our online tools and ambition to create a local Active Travel map. Participants then took part in a map-based discussion, similar to that of their children, however the focus was more broadly on their perceptions of the place and the barriers and enablers for them to allow their children to active travel. The purpose was to create a framework for further discussions around improving opportunities. The workshop closed by explaining that in the following workshop we would look at the Active Travel Map produced by their children.

Parent/Carers – Workshop 2

Workshop 2 began with an overview of what had been looked at and discussed in the previous workshop, by engaging again with the Parent/Carers Active Travel Map. We then showed the adults the combined map produced by our Young Consultants and gave them time to explore and understand what had been put on it. We also explained and answered questions on elements of the map that may not be immediately clear.

We then led the parent/carers on a discussion around what they found interesting about what the young people had produced, what they found surprising about it, and what from their perspective was missing. This led to a discussion that enabled us to highlight the differing elements of perceptions between Young Consultants and their parents/carers, as well as understand the factors that influence the decision-making and negotiation process to independence. The workshop ended by explaining the purpose of the final workshop.

Young Consultants and Parent/Carers – Workshop 3

This session brought the entire 'team' together, to explore how insights had built up across the workshop so far, and to share the insights that came from the Parent/Carers workshops to the Young Consultants. Indeed, further map and discussion-based analysis conducted by us in the interim, led to a proposal of the biggest priorities for each group. We also devised that the key components encouraging active travel for young people in these communities was the motivation to active travel, and the confidence to active travel. In explaining this, we determined that for the most part motivation may be around places to go, whilst confidence is mostly about the routes to these places.

In age-related breakout groups, though this time joined by requisite parents/carers, the two groups engaged in a Mural Task shown in Figure 7. Here, participants firstly discussed the extent of their agreement with the five priorities, noted proposed changes with facilitators, and noted and discussed what priorities, and/or actions listed on the Change Grid and Active Travel Maps that they produced would have the highest and lowest payoff in terms of increasing their motivation and confidence to active travel.

Figure 7 A blank version of the Confidence and Motivation arrow prompts used in Workshop 3

Groups were then reconvened into one final Zoom Room, whereby facilitators brought together the discussion by looking at the arrows produced by both groups and commenting on the points of consensus and points of disagreement. Indeed, some groups had used a further map to show specific areas where interventions might be placed for the highest payoff. Through facilitated group discussion with everyone, the collective analysis which is presented in each case study report were drawn together.

Our Young Consultant's Active Travel Maps

The remainder of this report details the findings from each case study area, before showing the resulting system dynamics of CYP's active travel that identifies the key criteria and infrastructure intervention points. The case study reports bring together the themes of the discussions over each workshop, speaking in the collective voice to highlight what was agreed by our Young Consultants and Parents/carers.

The Active Travel Maps themselves show visually the key places that Young Consultants go, their favourite places, the places that they do not go or worry them in some way, things that are good, things that could be better, and some of the active travel routes that they take regularly and/or particularly enjoy. We have used photos and notes to explain further what each of these mean, and also provide greater clarity and description in the explanatory text.

Most of the headings are consistent across case studies, however, there is also some local variation in response to the key points that emerged within each. For instance, 'Cycling Culture' was only a key theme in Denny and Bonnybridge, whilst 'The Actions and Behaviour of Other People' was significantly more important in our two urban case studies. These Active Travel Maps were sent separately as standalone reports to our Young Consultants for their further consultation and clarification before publication in this report.
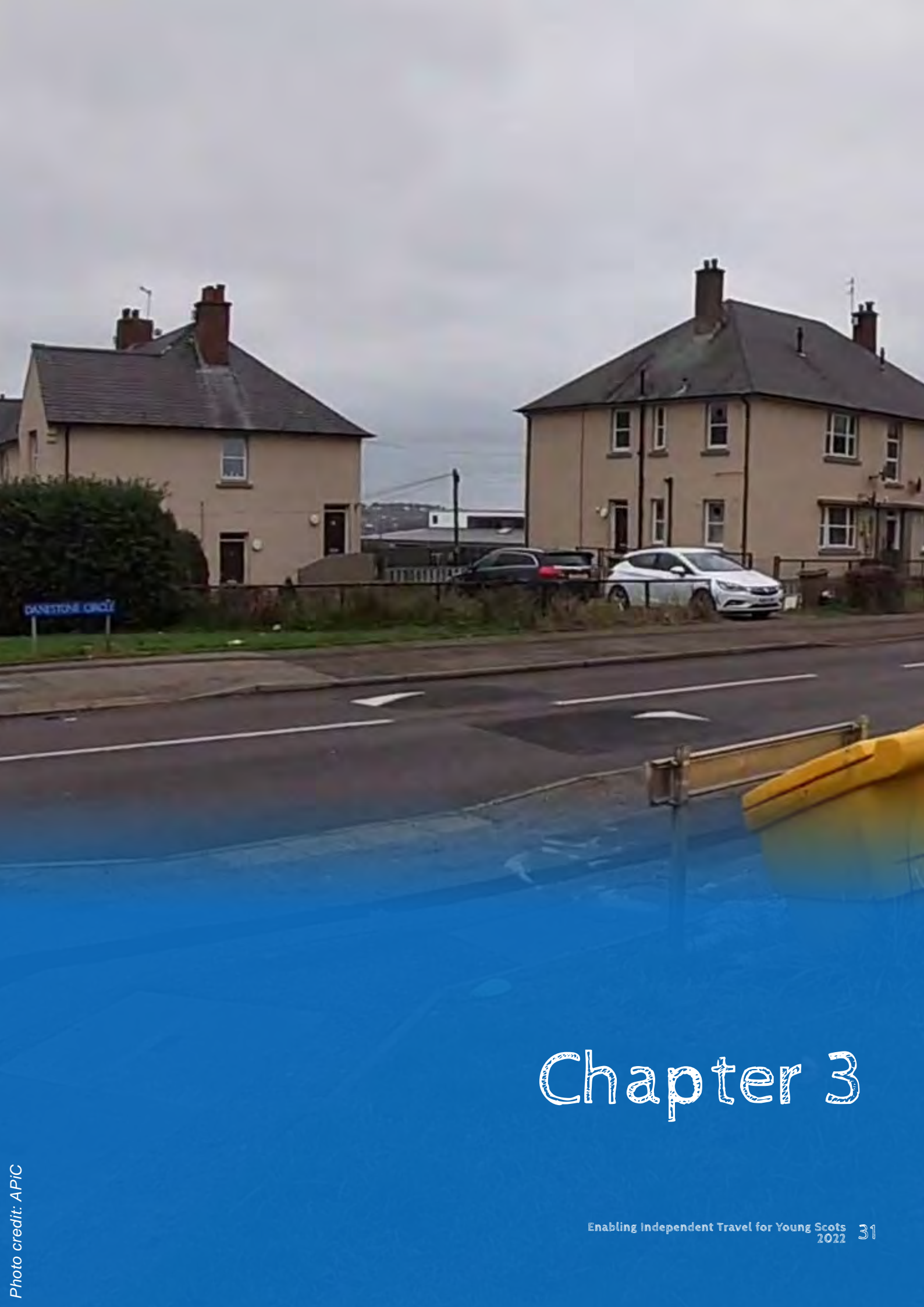
Chapter 3

Northfield and Mastrick, Aberdeen

Background

Northfield and Mastrick are neighbouring communities in North Western Aberdeen, around 3 miles from the city centre. They lie on the edge of the urban boundary of the city area, with greenbelt land surrounding them directly to the North and West. In 2019, the population of Northfield and Mastrick was estimated at 16,764, whilst Aberdeen City was estimated at 228,670 (Statistics Scotland 2019a). In this urban case study, the average SIMD score for participant's neighbourhoods was 2.9.

The areas are separated from neighbouring communities to the South and East, and the City Centre by the A92 and A944 roads. As two of the busiest roads in the city, there is high traffic through-flow for residents to navigate when walking, cycling, or wheeling. The map in Figure 8 shows the area in context of the city and neighbouring communities.
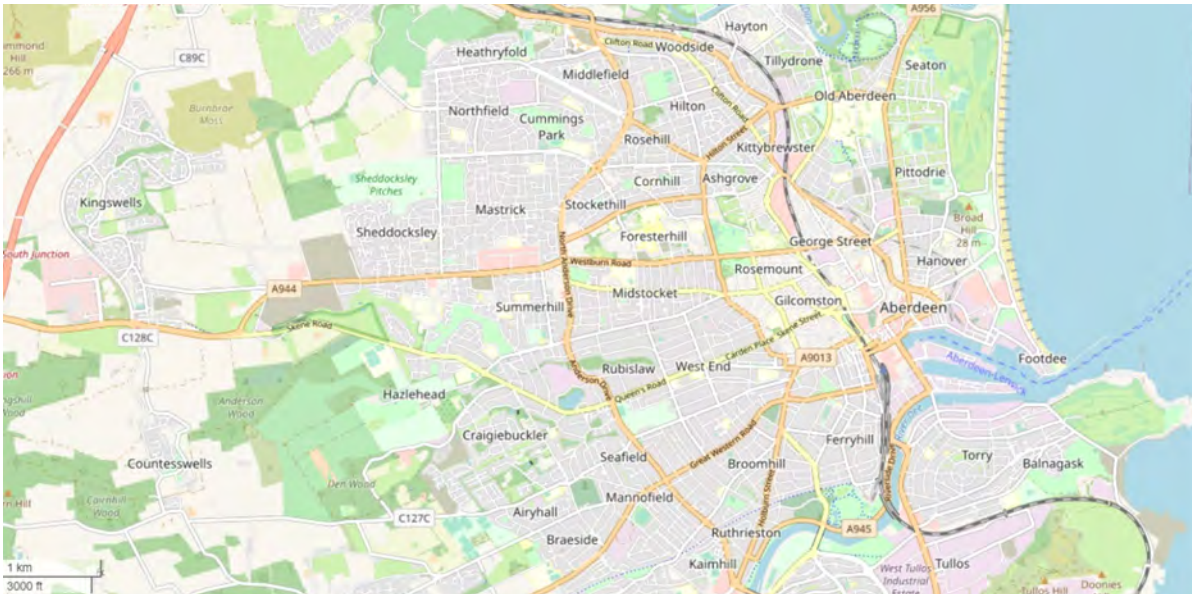
Figure 8 Northfield and Mastrick, to the North West of Aberdeen City. Source: OpenStreetMap

Our Active Travel Map

On the following page you can see the full Active Travel Map that we created as a group. This breaks down our views and observations according to a key, and the remainder of this chapter explores more of what the comments and notes on the map mean according to the key themes that emerged. These are: Motivating and Accessible Destinations; The Actions and Behaviour of Other People; Safe, Easy and Enjoyable Routes; The COVID-19 Pandemic; Our Families; and Time and Weather. We then note the biggest win-wins in terms of improving our active travel motivations and confidence, and top priorities for action

Northfield and Mastrick Young People's Active Travel Map

Key

⭐ Important Places

💚 Favourite Places

❌ Places I don't go

🟩 What is Good

🟪 What could be Better

— Some Active Travel Routes I Take

Upsetting with clubs closing due to Covid. Used to go to many clubs. Dancing has started up again.

Not as many people in playgrounds since Covid

Missing holidays and concerts. A concert that would have been in Hazelhead

Byron Skate park -Go there less due to Covid, because often crowds of young people and feels unsafe. Loads of people use it from little kids to 16 year olds and boys and girls.

Before Covid went swimming a lot but can't now. Still go to the park

Northfield Swimming Pool Closed

Not the worst place to live, not the best place to live - people here are good

Dark and cold during winter from around 4pm.

Golf course and river are quiet and peaceful. Not been there much. Not been in a while for some. Covid.

Snow and cold in winter. Family don't want you to get sick and that happens when you get cold. Still go out sometimes but not as much.

Less rubbish would be good.

Enjoyed the nature of the park and the quiet. The trees on the outside

Really nice walk through Shedocksley connecting Kingswells and Bucksburn

People taking drugs hear the shops, park and school

Monument of Northfield - good for showing you how to get back to Northfield

A Huge open field

cornhill primary school

Byron square, a lot of litter, messy

Too much litter - near the shops. Most have a close bin but don't use it

School back on which is good, but also a bit scary

I can cycle out to the beach during the holidays

Balmedy Beach. Big sand hills so slide down and climb up. Go to the beach and play around.

Swimming and beach in summer. Inside activities more in winter.

Go to the beach about once a month. Throw stones. Nice to see it - looks good. Get ice cream!

Overflowing bins around the shops

Lots of traffic and young children

ROAD section just next to Northfield Academy feels very unsafe. No path on sloping grass verge where buses and cars are driving fast

Northfield Academy is OK - looked at as the worst school in Scotland. It's not that bad. some people underate.

Sometimes there are a lot of bikes in the bike park at Northfield Academy, but it's usually boys after Christmas or birthdays (showing off new bikes) and then gets less after that

Wouldn't walk to the city centre as too far. If had a bike might a bike cycle.

Used to go shopping, restaurants, hair cuts etc.

Used to go to city centre quite a bit, but not been in about 3 months. Now only go when need to, and not for fun.

Digimap
Ordnance Survey

Scale 1:15000

Figure 9 Northfield and Mastrick Active Travel Map. The base map contains public sector information licensed under the Open Government Licence v3.0

Motivating and Accessible Destinations

In Northfield and Mastrick, we have many open spaces such as Cummings Park, with the radio tower on the hill which we consider a local monument. We can use it to navigate the way home from other parts of the city, and the hill is also great to climb and get great views. It is not something that many people outside our communities know about. We also have the Triangle Field, Mr Singh's Park, Byron Park and Skatepark, and Cummings Park Community Centre. We also have the Hub community centre with woods and open space to explore out the back, Sheddocksley Woods and natural space, and a golf course to the West. A favourite destination is the off-road bike trails down the Howest Road, but the most direct route to these is too dangerous because it is a narrow road frequented by lorries.

We also have shops and places to buy food that we like to visit such as the Chipper, an ice cream shop, a Nisa, and a bakery. These are good places for us to meet friends, and then hangout in the local parks, community playgrounds and other open spaces nearby. We appreciate these opportunities and are also pleased that there are some clubs such as martial arts for children, and a leisure centre. However, the leisure centre has been under refurbishment for a long time, and many of these indoor activities have been unavailable to us for the last year.

The Actions and Behaviour of Other People

We are pleased to have a range of local outside destinations where we can hangout. However, we often do not wish to go to these places. We have marked areas where we don't feel safe on the map. This is often because of other (often older young people) people drinking, smoking, and taking drugs in these places. There is also a lot of litter around the shops and in some of the parks, as well as dog poo. We also see and experience the results of vandalism in our local places that can sometimes make us want to stay at home or find indoor places to hangout.

We all talked about our schools as places we walk to and, whilst many of us like our schools, we are not happy about the way other people think about Northfield Academy and our community in general. People from other areas of the city can be judgemental which is unfair because the community is a lot better than people think. This makes us feel very uncomfortable because we feel judged when out and about in the city centre for our uniforms and our accents. Though we are used to it and don't let it bother us too much, if people didn't react this way to us and our community we might be more willing to go to more places.

Safe, Easy, and Enjoyable Routes

Many of us can walk easily to the local places above, including to our schools. However, there are many very unsafe roads in our area which we have marked on our map. We note it is especially dangerous near Northfield Academy, where one of our friends was recently in an accident. Our parents/carers felt there is a strong need to have traffic lights right outside the school to prevent this happening so much, as young people also often run across the road without looking properly. It is also particularly bad near the KFC roundabout in the North of Northfield.

The two A roads in our area are some of the busiest in the city, and many people drive through our community on their way to other places. These roads are very wide, with grass verges on the side. If you are careful, they take a long time to cross and they make it harder for us to easily walk or cycle into the city centre. In fact, we don't have any good cycle routes where we live, and most of us do not have bikes. Bikes are expensive and there is a high likelihood that they will be stolen if we parked them outside, so we are not sure if it's worth buying our own.

There are some nice routes to the west that take us to the river, the golf course, and into the countryside. Some of us know they exist and like to use them, but many of us don't and the lack of lighting also limits our opportunities to go there. To visit places outside Northfield and Mastrick, we would mostly need to get the bus, find a lift in a car, or walk quite a long way.

The COVID-19 pandemic

During the COVID-19 pandemic in 2020, some of us have been motivated to spend more time outdoors generally and found it a therapeutic way to deal with the ongoing stresses of school and family life. It has driven some of us to become more exploratory, particularly during the summer when daylight hours were longer. For instance, one of us got so bored that they decided to cycle all the way to the beach with a friend. This was fun, but also quite difficult as the main roads have too much traffic and no cycle paths. It took a long time to navigate an alternative route through quieter streets but it made us want to get out and about on our bikes more.

For some of us, we have been going out a lot less. The parks and playgrounds have felt too busy for our liking, and both ourselves and families have been worried about catching COVID-19. It also means that we don't visit the city centre as often. On our map we note how many of the indoor and fun activities we have long enjoyed have become unavailable in the last year. This has been very hard on us. This includes not being able to go to motivating destinations in the city centre such as the shopping centres, restaurants, and the beach.

The return to school in August 2020 meant we got to see more of our friends and get back to some normality, which was good. Yet, it has also been stressful being scared that we might get

COVID-19 and give it to our families. Wearing masks in school has also been strange and not something we've enjoyed.

Family

You see lots of CYP out and about in Northfield and Mastrick – including quite young children. Many families will allow their children out to play in the local community, though others are more cautious. Some of us have even been a bit concerned by some of the young children we've seen play out without adults, especially with the busy roads, rubbish, broken glass and dog poo that we see around. Some of us with more cautious parents don't get out and about as much, due to the worries we've listed, and we agree with many of them as well.

The parents/carers in our group talked about how it can be hard for many families in the area to afford activities for themselves and their children. Many also do not have cars, and so many people need to use the bus. The bus prices are OK but could be more affordable to allow young people to get out more by themselves into the city centre. However, many of the young people were afforded a significant degree of freedom to active travel by their parents -such as the epic trip to beach mentioned- whether they chose to use it or not.

Time and Weather

As we live quite far north, we have very short daylight hours in the winter and get lots of rain and cold weather. Some areas of Northfield and Mastrick have OK lighting, but many don't and we've marked these areas on our map. The darkness and the cold can make some of the places we find scary even scarier, and means most of us go out a lot less in the winter. Some of us also worry about the higher possibility of getting ill in the winter, which can keep us inside. More affordable and open inside activities would help a lot during the winter.

Our Priorities for Change

In the final workshop, we all worked together (parents/carers as well as Young Consultants) to plot our ideas for improvements on a continuum of how beneficial they would be for increasing our confidence and motivations to active travel. You see these overleaf in Figure 10.

It was clear from our discussions that we had a consensus on the biggest win-wins in terms of improving our independent active travel possibilities. We list these priorities below:

- Better lighting in general
- Easy and affordable options for bike hire and maintenance
- Well-lit cycle lanes which avoid dangerous roads and sketchy areas
- More and safer crossings of the main roads, particularly on school routes

- Easier access routes to (and through) woods and fields bordering Northfield, and to schools
- Better reputation for the area and not being judged by other people. This could be achieved over time through showing people do care about what the area looks like by cleaning up the litter and encouraging others to respect our community; having more support for people who are struggling with addictions; and increasing opportunities for young people to find good jobs and get involved in the local community.
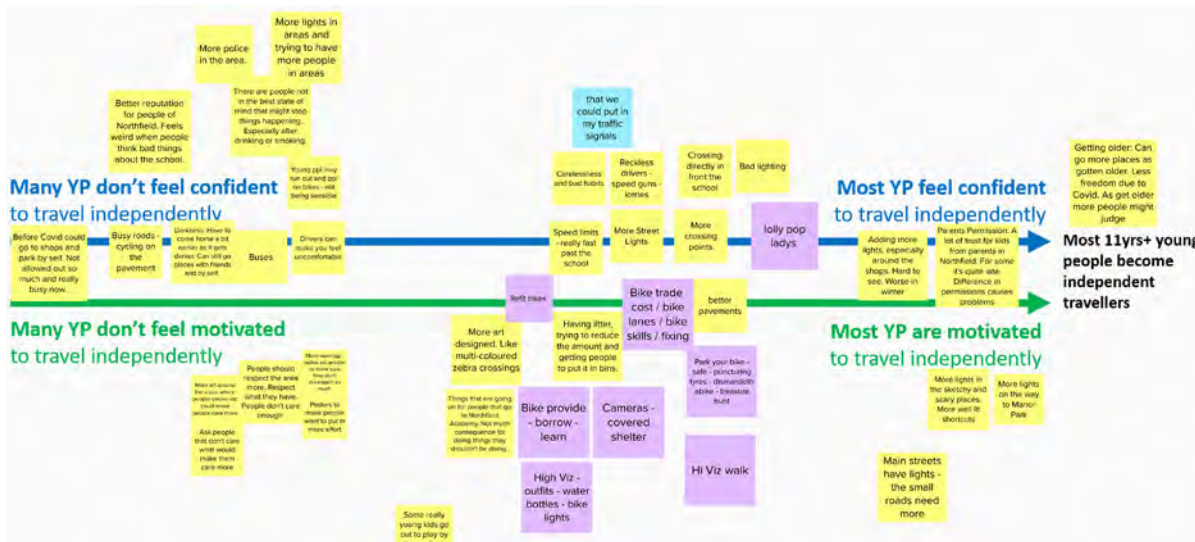
Figure 10 Outputs of Workshop 3 in Northfield and Mastrick whereby Young Consultants and their Parents/carers grouped and sorted their ideas in terms of the biggest pay-offs in improving their independent active travel. Where a post-it note is between the lines, it is perceived to apply to both confidence and motivation. Post-it colour was participant preference.

Aberdeen Transport and Active Travel Policy

Aberdeen City Council has recently closed a consultation on a draft Active Travel Action Plan for 2021-2026 (Aberdeen City Council 2020). Given that this new strategy will be coming into force this year, whilst the previous plan will soon expire, we review here the provisions set out in the new draft plan. It notes that the Aberdeen Local Outcome Improvement Plan has a stretch goal of getting 38% of people walking and 5% of people cycling as their main mode of travel by 2026. Active travel is thus a core component of the Council's overall strategy.

Over the course of the previous action plan, walking to school has increased as a mode of travel for local children. Indeed, planned improvements to the A92/A96 Haudagain Junction (the roundabout near KFC, noted by our young consultants to be particularly dangerous) have commenced, with the aims of 'reducing traffic congestion and improving journey time reliability' (Transport Scotland 2021). The plan notes these will be completed in 2021 and, alongside broader improvements to the A96 between Aberdeen and Inverness, will encompass active travel improvements. It notes that respondents to a consultation prior to the plan noted Aberdeen as only moderately pedestrian friendly and not cycle friendly. It is not clear whether CYP were involved in completing these surveys.

Overall, the plan focuses on improvements to the city centre pedestrian and cycling experience. It notes projects to better connect some communities and improve transport

linkages for many travel corridors, alongside behaviour change projects. However, there are no specific improvements marked for Northfield and Mastrick.

Aberdeen City Council also has a Sustainable Urban Mobility Plan (Hekelaar 2019), which looks in detail at improving modal shift to walking and cycling as well across the next 20 years. This has several principles to its vision about improving sustainable transport, including to:

> *'Ensure that the city centre is accessible to, and safe for, all, especially the most vulnerable members of society'…*

> *'Develop a network of safe and attractive cycle routes across the city centre, through the provision of low speed, low flow streets and segregated infrastructure, so that an unaccompanied 12-year-old child can safely cycle through' (p.8)*

This vision is in line with that proposed by our Young Consultants, with their active travel map being a useful resource for the City Council to look at more specific local provisions. These could be progressed through the broader principles of the above strategies and approaches, as well as link to any planning and regeneration projects proposed in a new Aberdeen Local Development Plan which is in development.

As Aberdeen City Council has signed up to become a child- friendly city and community through UNICEF, including having a focus on 'Place' (Unicef 2017), the views of our Young Consultants show pathways to creating a more child-friendly Northfield and Matrick, which could also build on the views of the wider community.

Chapter 4

Denny and Bonnybridge

Background

Denny and Bonnybridge are neighbouring small towns in in the Falkirk Council area. They border one another to the North and South, separated by a motorway – the M876, which connects the M80 and M9. They lie approximately 6 miles west of Falkirk and 6 miles north east of Cumbernauld. 2016 population estimates show that the board area (including Denny, Bonnybridge, Banknock and Dunipace) have a population of 25,660. Within this, Denny is estimated to have around 8,300 inhabitants, and Bonnybridge 5,200 (National Records of Scotland Web Team 2016). In this rural case study, the average SIMD score for participant's neighbourhoods was 4.6.

The two towns are bordered by extensive countryside and smaller settlements, including significant tourist sites such as The Falkirk Wheel, The Antonine Wall, and The Carron Valley. Meanwhile, Denny is bordered directly to the west by a motorway – the M80. The two towns also have A roads running through them. In Denny this is the A872 and A883, and in Bonnybridge this is and A803. Due to proximity to major road networks, there is high traffic through-flow for residents to navigate when walking, cycling, or wheeling, which includes the journey to school for many CYP. The map in Figure 11 shows the area in context of the neighbouring communities.
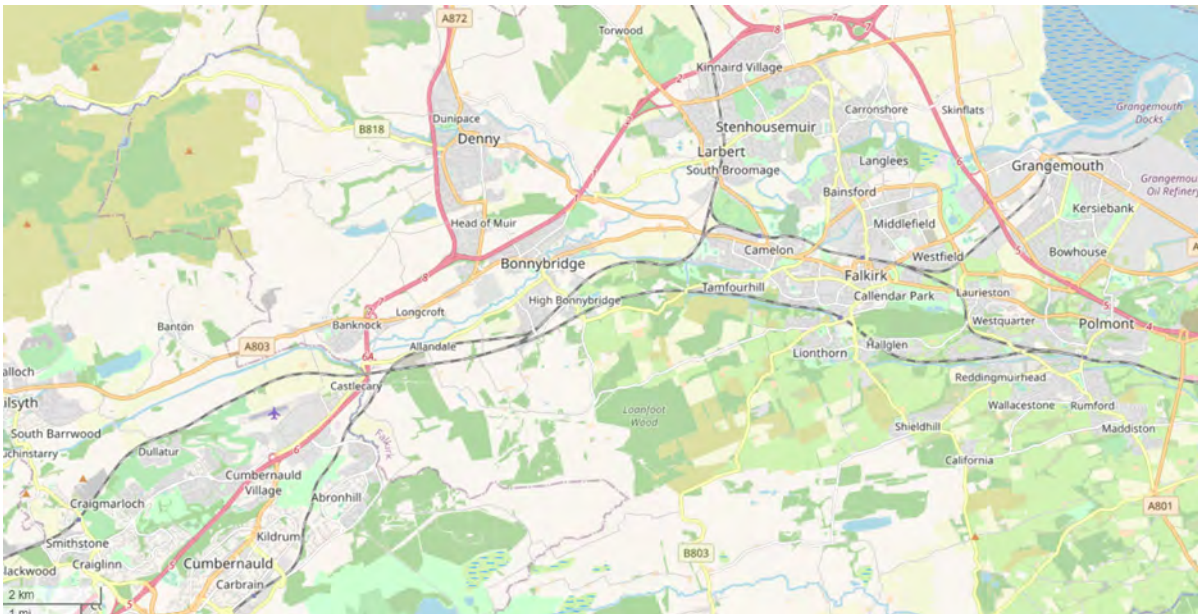
Figure 11 Denny and Bonnybridge in context. Source: OpenStreetMap

Our Active Travel Map

On the following page you can see the full Active Travel Map that we created as a group. This breaks down our views and observations according to a key, and the remainder of this chapter explores more of what the comments and notes on the map mean according to the key themes that emerged. This also includes some additional notes from our parents/carers. These key themes are: Motivating and Accessible Destinations; Safe, Easy and Enjoyable Routes; The COVID-19 Pandemic; Our Families; Cycling Culture; and Time and Weather. We then note the biggest win-wins in terms of improving our active travel motivations and confidence, and top priorities for action.

Denny and Bonnybridge Active Travel Map

Key

⭐ Important Places

💚 Favourite Places

❌ Places I don't go

🟩 What is Good

🟪 What could be Better

🟣 Parent/Carer Views

— Some Active Travel Routes I Take

Some new farm tracks to explore during lockdown

denovan road area / river, nice walking and views

Denny High School

Both a positive and a concern - later at night or alone would not feel comfortable my child using. Youth drinking at night

BMX Track - used to be sketchy and hang out teen drinkers, but they've improved it, cut away the trees, and now lots of young cyclists use it and socialise there

Carron Valley - Nice to walk and cycle - works harmoniously as the routes are separate, on each side of the River

Dangerous Road - High Hedges, no verge. Narrow, Speeding Cars and Lorries

It was nice during lockdown because there were few cars on the streets, so we felt safer and did a lot of exploring

speeding cars, reckless drivers, no indicators

Chacefield Woods. Peace and Quiet. Different Routes.

Great and safe for cyclists, but also popular for people to go there and drink. Feels unsafe

Little Denny "Sketchy Area"

Would be nice to cycle around but the track is too muddy

Nice walk reservoir

Nice Cycle Route

New Falkirk Wheel path could provide route to school for Bonnybridge with a linking cyclelane

No easy cycle route to school currently, busy roads no pavements

Teen drinkers / walking the street

VP need more indoor places to do or dance or go. COVID has made it difficult to go and drink "where they can't be seen"

Safe to go to shops + busy area

Tow path

Fine to go on Tow Path or to Wall, but not alone and preferable if an adult is there in case something happens

Rough Castle and Antonine Wall

Nice view of fields

Interesting Circuit - riding on pavement

Interesting Routes in Nature

bonnybridge is infested with aliens

BONNYBRIDGE BUZZED BY UFOs

TESCO express

NATURE RESERVE

Falkirk Wheel

Scale 1:20000

0 200 400 600 800 1000 1200 1400 1600 1800 2000 m

Projection: British National Grid

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Digimap

Ordnance Survey

Figure 12 Denny and Bonnybridge Active Travel Map. The base map contains public sector information licensed under the Open Government Licence v3.0

Motivating and Accessible Destinations

Denny and Bonnybridge have a range of places that we can go to hang out and take part in activities, particularly parks, and natural routes in and around the area. However, each town has a slightly different character that means there are more places such as ca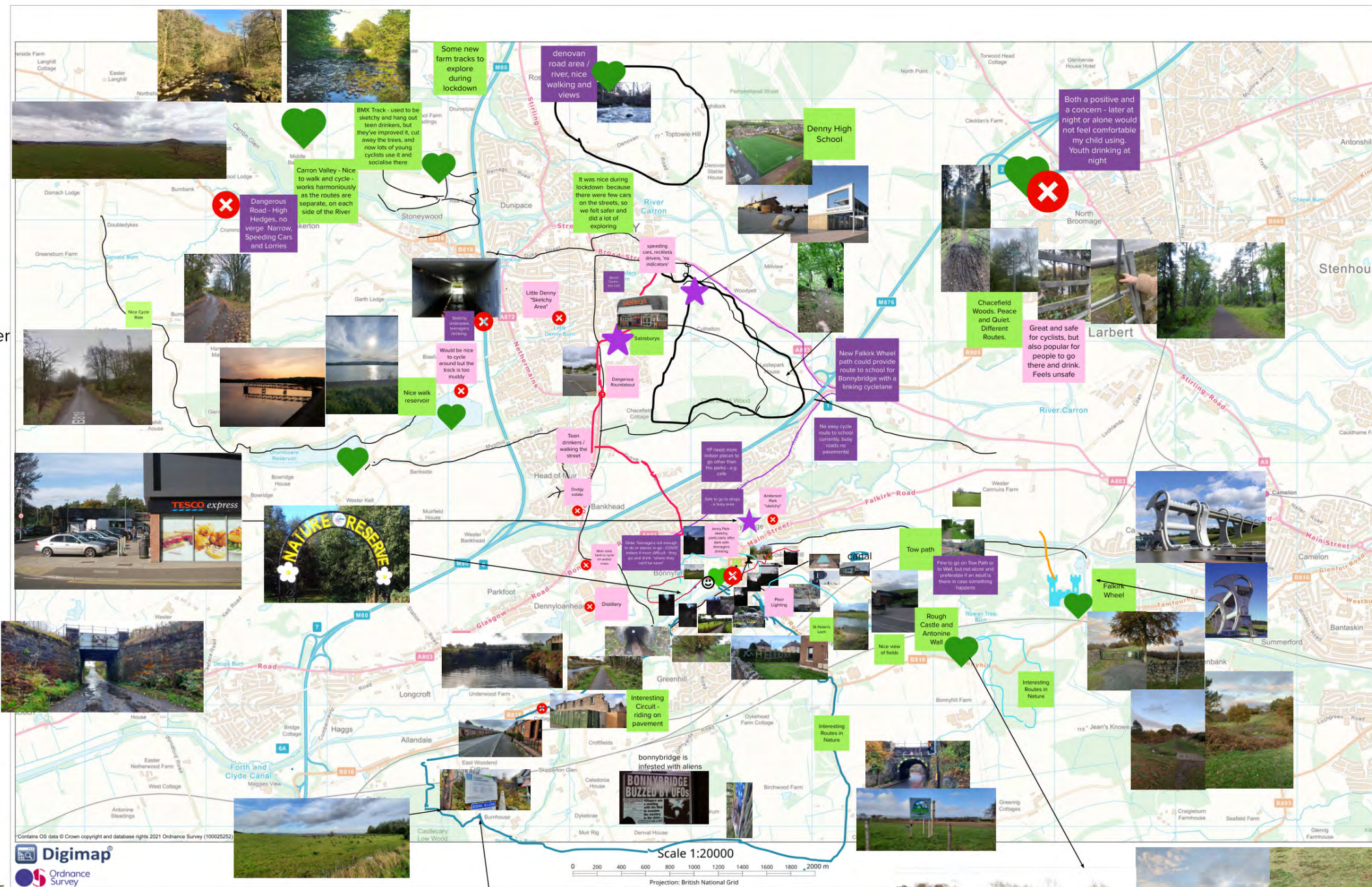fes and shops in Denny than there are in Bonnybridge. On our map we note where the important shops such as Sainsbury's and Tesco are in our two towns (good for buying affordable food), the key parks we like to visit, and the destinations outside of our two towns that we visit walking and cycling.

In Denny, the regenerated town centre is important to us, and has made improvements on what it looked like before. However, there aren't many places in the town itself that we considered particularly motivating destinations. We have marked many beautiful and calm places just outside, such as the Carron Valley, Drumbowie Reservoir, Chasefield woods (which is a particular favourite of many of us, including those of us from Bonnybridge). One positive change in recent year, is a BMX track just north of Stoneywood which used to be a hangout for sketchy people but has since been tidied up by the Council and has become a popular and buzzing destination for young people (mainly boys) to cycle and meet others.

In Bonnybridge, we note that Jenny's Park and the local nature reserve are great places to go. There are also good sites to see such as neighbours that have done interesting things to their hedges, and great views to be had on the outskirts of the town. However, many of our favourite destinations are outside of the town, such as important and awe-inspiring historical sites such as Rough Castle Fort and the Antonine Wall, as well as the Falkirk wheel, an interesting circuit route that takes in a burnt-down café which we find intriguing, and wild donkeys to the south. In fact, our area is notorious for UFO sightings, which is something we're quite proud of.

Overall, we like to get out and about and enjoy the local natural surroundings that we can access easily. Most of the things that do not motivate us are in our towns themselves, or about how we travel between them. For instance, on our map we've marked quite a few places that we don't go to or worry us in some way. In particular, in Bonnybridge Anderson Park can be quite sketchy because of older/other young people hanging out drinking, and we find the same in Jenny's Park after dark. In Denny, the same thing happens in Chasefield woods.

Another thing that upset some of us about where we live, is the distillery at Dennyloanhead in Bonnybridge. This lets out a lot of pollution which covers our homes and our natural spaces (including the local nature reserve) and increases traffic in our town. Our community has had an ongoing problem with the effects that this causes.

Safe, Easy, and Enjoyable Routes

The number of beautiful cycle trails and great walking paths in our local countryside mean there are many safe, easy, and enjoyable routes for us. However, there are a lot of barriers to our enjoyment and where we can go. The biggest one is the motorways and A roads, that lack segregated and safe cycle paths and are not pleasant walking environments. There are also many roads and streets which have a bad local reputation or where we would not see many people in the later hours of the day, which can make some of us feel uneasy. These can feel like a barrier to us accessing friends, partners and greenspace, particularly after dark. In fact, the lack of lighting in much of the two towns and the places we might like to go makes it a lot more difficult for us to get out and about, particularly those of us in the younger age groups.

On our map, we also mark some places in Denny that worry us and our parents/carers. We would want to avoid using these if we could such as the underpass on the M80. There is also a new and particularly dangerous roundabout connecting Nethermains Road to Denny Road on the route to school. This was built recently to service a new build Estate on a section of downhill road connecting Denny to Falkirk, where drivers are used to speeding, and there is no safe crossing.

Those of us that live in Bonnybridge must get to Denny High School by crossing over a motorway and walking up an A road if we are to active travel. Our parents/carers also pointed out that Drove Lane is used by a lot of CYP to get to and from school, but it only has a pavement on one side and is very narrow. There have been lots of incidences of CYP being hit by wing mirrors, and despite campaigning to Falkirk Council very little has been done to improve its suitability for active travel. In general, there are not enough crossing points at appropriate places to make active travel to and from school as safe as it could be. Whilst most of us do prefer to walk to school where we can, some of us are driven because of the lack of safety on the route, and very few people at our school cycle to school because there are no easy and safe routes.

Cycling Culture

We felt that there were more opportunities to improve the image of cycling in the area, particularly amongst girls. We talked about how many do not see it as a safe or cool activity to do – partly because of the poor infrastructure in our towns. There are not as many girls as boys that cycle, and it is seen by some as a childish thing to do. This is not helped by not being able to cycle on the pavements when you get older, even if the cycling infrastructure is poor.

There is an opportunity to have bike hire, training, and maintenance classes and hubs in the area to help us become more confident as an age group at cycling. If we could have ambassadors at the school who volunteer to take others out on rides and give confidence to other young people, we may be able to improve the opportunities more.

The COVID-19 pandemic

During the COVID-19 pandemic in 2020, we have been motivated to spend more time outdoors generally and found it a therapeutic way to deal with the ongoing stresses of school and family life. It has driven some of us to become more exploratory, particularly during the summer when daylight hours were longer. It was also good to have a chance to explore without so much traffic on the roads, which meant that some of the dangerous roads we have talked about and marked on our map were easier for us to navigate.

On the other hand, some of us have really missed indoor activities that we used to do together. Particularly for those of us in the younger age group, indoor activities give us a place to go where our parents/carers feel more comfortable letting us be – especially later. There have also been more teenagers out and about with nothing to do and hanging out and drinking. Some of the parks were closed in the first lockdown and this made problems worse.

Family

Active lifestyles are common for people that live in the area. Many of our parents/carers also enjoy exploring nature and getting out and about, and many of our experiences are based on shared adventures which we are allowed to do more with our friends and by ourselves as we get older - because they are familiar. However, there are quite a few places where our parents/carers would not allow us to go by ourselves – particularly for the 11 to 13 age group. These are marked on our map as places that we do not feel safe, especially after dark. As many of the motivating destinations in our local area are natural spaces, they are not good places to go to at night. Our parents also worry about the dodgy roads and estates. One of us has to cross one such estate to visit greenspace, the shops, or boyfriend, and is required to call her Mum upon entering and leaving the area for collective peace-of-mind. Parent/carers also felt they applied different rules for girls than for boys, due to their concerns around the tendency for older local boys to hang around in larger groups, while the girls met in pairs or smaller groups.

Our parents/carers talked quite a lot about how their experiences of growing up impacted the amount of freedom that they allowed us to have. For some, they were well aware of the dangers that young people can face when they have limited adult supervision. For others, having had freedom as a young person, they felt that it was important to uphold this for us and our peers. Respectively, these positions seemed to relate to the degree to which the parent/carer was still an active traveller and had a grounded awareness of the local risks. However, the lack of indoor places for us to gather made some of our parents more wary about letting us out and about. We also talked about how having more supervised and/or young person trips and activities in the area would increase both our and our parent/carer's confidence in exploring new places. One example, was the tow path, which parents/carers considered a great route but also worried about CYP walking or cycling on their own, in case they fell into the canal and there was no one to help. Not all families and all young people in the area are as exploratory as we are, but we think that some of this is due to under confidence.

Something else that our parents/carers noted was that some improvements proposed for the local area such as an extension to the canal towpath, could be used as an opportunity to bring new pedestrian and cycling off-road routes into Bonnybridge. They also felt that Denny High School might be an appropriate hub to facilitate cycle hire, cycle training, and youth-led walking and cycling opportunities – something that many of us agreed was a good idea.

Time and Weather

Most of us live fairly close to school and can see our friends in Denny and Bonnybridge after school. However, short daylight hours in the winter and poor lighting in the area overall limits a lot of the opportunities we have to gather and enjoy our own activities. As we are also surrounded by quite a lot of countryside, there are times when the area is very muddy and makes it difficult for us to get out and about. This has been worse during the COVID-19 pandemic because of the lack of indoor places to hang out, including not being able to go to each other's houses. Having opportunities that are still available to us when there is limited daylight and poor weather would improve local active travel possibilities.

Our Priorities for Change

In the final workshop, we all worked together (parents/carers as well as Young Consultants) to plot our ideas for improvements on a continuum of how beneficial they would be for increasing our confidence and motivations to active travel. You see these below in Figure 13.
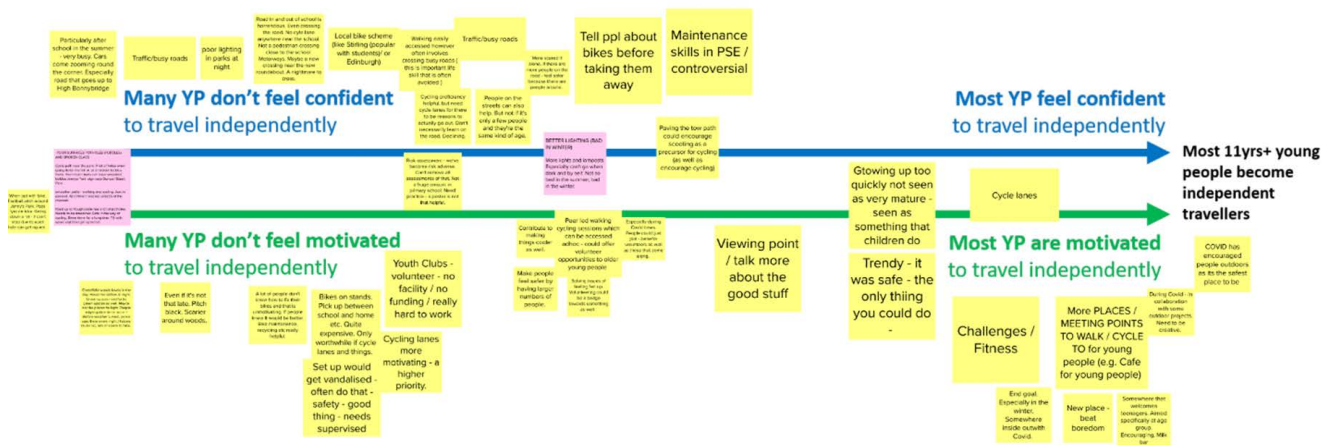

Figure 13 Outputs of Workshop 3 whereby Young Consultants and their Parents/carers grouped and sorted their ideas in terms of the biggest payoffs in improving their independent active travel. Where a post-it note is between the lines, it is perceived to apply to both confidence and motivation. Colour of post-it notes was participant preference.

It was clear from our discussions that we had a consensus on the biggest win-wins in terms of improving our independent active travel possibilities. We list these priorities below:

- More cycle lanes/footpaths which avoid dangerous roads and dodgy areas, and/or offer quick/ safe/circular routes to and from the countryside and school.

- More safe/fun/free places to go / hangout for young people, indoors and outdoors, giving reasons to active travel (or not to hang out in woods / parks in the evenings). These are even more appealing now due to the COVID-19 pandemic.

- Safer, cleaner, and better-lit parks and routes, encouraging more young people (and adults) to use them, and deterring use by 'sketchy' people

- Parents: cheaper access to bikes, kit, and skills. Maybe a cycle-to-school scheme linking to and building on the new Falkirk Wheel cycle lane.

- Making cycling seem cooler / safer, particularly to girls. This could be facilitated by cycling 'social' outings organised by young people, for young people. Denny High School could be a hub for this.

Falkirk Transport and Active Travel Policy

Falkirk Council published a Local Transport Strategy in 2014, which is 'A strategy of promoting walking, cycling, motorcycling and public transport with some car restraint' (Falkirk Council 2014, p. 4). It has five key objectives, which include improving walking, cycling, and wheeling opportunities, to promote sustainable economic growth and inclusion. This includes promoting sustainable transport options to disadvantaged, remote and socially deprived areas. It notes that this will have benefits for both health and the environment, including improving safety and reducing accidents on the road. To help bring this about, it details some infrastructure projects that have taken place or begun in the area. Indeed:

> *'The main objective will be to promote and enhance facilities for cycling and walking and to make journeys by public transport a realistic alternative to the car for a larger section of the population in spite of reduced available funding streams.'*
> *p.8*

It also notes some behaviour change actions associated with training, awareness, information, and school travel plans and education:

> *'The Council will work with schools and other partners to educate children about the benefits of walking and cycling and encourage them to walk and cycle to and from school wherever possible' p. 13*

In terms of local infrastructure, it talks about some recent traffic improvements in Denny, as part of the regeneration plan taking place at the time of writing (2014). However, it does not propose any significant active travel infrastructure improvements for either town. Unlike many other local authority areas in Scotland, there does not appear to be a publicly-accessible local active travel plan or strategy.

In line with our Young Consultants asks, an extension to the active travel network to both Denny and Bonnybridge from the Falkirk wheel, was announced in October 2020, funded as part of Sustrans's Places for Everyone Scheme (Falkirk Council 2020). This would also connect

them to Falkirk's active travel network. The additional views noted here support the aims of the local transport strategy but build upon them and update them with specific areas for action within these two communities. Further revisions of this strategy, and creation of any bespoke active travel action plan could incorporate and build upon this first-hand knowledge of the area.
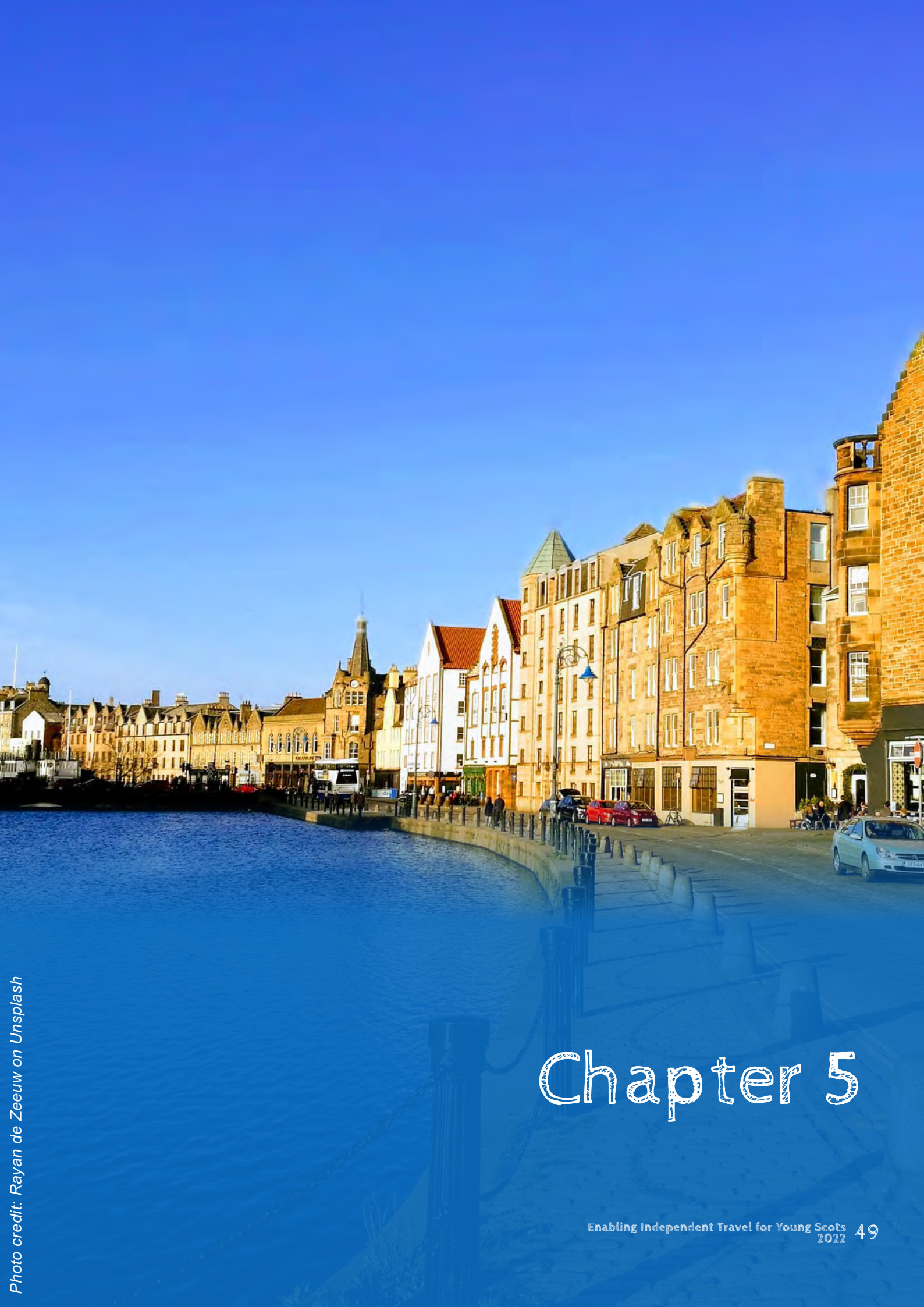
Chapter 5

Leith, Edinburgh

Background

Leith is an urban community to the north-east of Edinburgh city centre, and has its own lively town centre, shopping centres, and leisure facilities. It extends from the north-eastern edge of the city centre, out to Ocean Terminal, which is adjacent to the Firth of Forth. In 2019, the population of Leith was estimated at 24,207, whilst Edinburgh city was estimated at 524,930 (Statistics Scotland 2019b). In this urban case study, the average SIMD score for participant's neighbourhoods was 5.4.

The area is a historic port town, but has undergone significant development across the last few decades. It is mixed in terms of socio-economic status and housing type, and has a younger population than Edinburgh as a whole (Statistics Scotland 2019b). Both Leith walk (A990) and Easter Road have high traffic throughputs, as they connect key parts of the city. Planned extensions to Edinburgh's tram line, also mean that at the time of fieldwork and writing, there was significant disruption to Leith walk. The map in Figure 14 shows the area in context of the city and neighbouring communities.
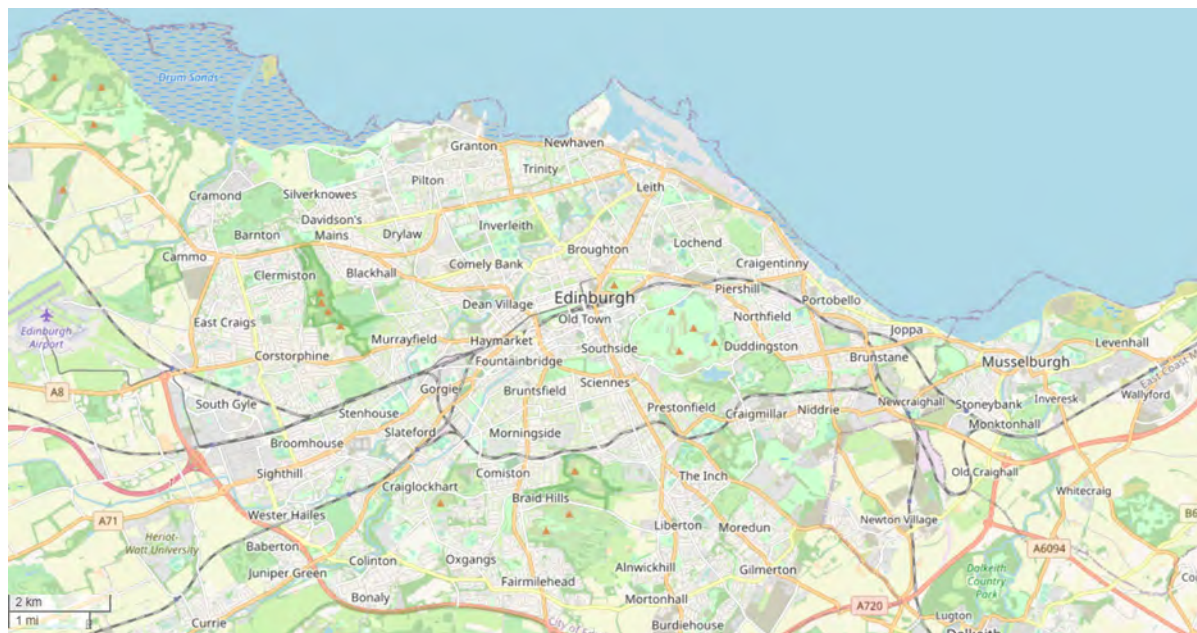
Figure 14 Leith, to the north-east of Edinburgh city centre. Source: OpenStreetMap

Our Active Travel Map

On the following two pages you can see the full Active Travel Maps that we created as a group. One shows Leith only, and the other shows all of Edinburgh so that we could mark on the places closer to where some of us live, and the wider destinations that we go to in the city. This breaks down our views and observations according to a key, and the remainder of this chapter explores more of what the comments and notes on the map mean according to the key themes that emerged. These are: Motivating and Accessible Destinations; The Actions and Behaviour of other People; Safe, Easy and Enjoyable Routes; The COVID-19 Pandemic; Our Families; and Time and Weather. We then note the biggest win-wins in terms of improving our active travel motivations and confidence, and top priorities for action.

Leith Active Travel Map

Key

⭐ Important Places

💚 Favourite Places

❌ Places I don't go

🟩 What is Good

🟪 What could be Better

🟪 Parent/Carer Views

—— Some Active Travel Routes I Take

Lighthouse at Platinum point. Too small to mark on. Good to hang out near.

Newhaven public health club

No buses to the health club and also not easy to access safely by bike

I'm not so bothered about the journey to the destination as the destination itself being a safe place to hang out - like the Ocean Terminal

Lots to do, not as much now. Cinema closed but was good. Benches at the top to skit with friends. Both after school and at weekends.

Ocean Terminal

Lots of good shops at Ocean Terminal but HMV closing particularly earlier due to COVID-19.

Sometimes gangs cycling there (on stolen Just Eat bikes). Very little security at the moment.

The shore

Go to Victoria Park. Good and pretty big. Feels pretty safe. Playpark and quite a lot of people. Quite a lot during lockdown.

Tyranny of the Car - always worried about traffic and absence of cycle lanes, particularly after dark and in the absence of cycling proficiency know-how

Great Junction Street traffic very dangerous, and feel unsafe to cycle (needs cycle lane), and yet alternative routes are cobbled and dangerous

Don't like the young people going there after dark, there have been 'incidents' and it is poorly lit

Newkirkgate - Always sketchy - people hanging around, drinking drugs, shoplifting. Feels unsafe

LEITH LINKS - good to hang out with friends (on the hills, like the dogs).

Water of Leith path - takes off to lots of different cycle routes

PILRIG PARK: Lots of primary school kids and people walking dogs. Playpark isn't very big. The rest is quite big. Safe and not too much rubbish

Tesco superstore

can feel unsafe after dark, with groups of teenagers drinking, and is not well lit

So many intersections- takes ages to cross road. So many different lights.

Just Eat Bike stop close to school

Leith Academy and recreation ground

Dalmeny Street Park can hang out in and friends back garden. But sketchy after dark, and wouldn't want to be there then.

Speakers

Easter Road - very busy and unsafe to cycle cause of cars and buses

after dark, teenagers drinking, smoking and shouting, and poorly lit, doesn't feel safe

Lochend park, a nice place to hang out sometimes, particularly during lockdown

after pubs close, drunk people on the streets, e.g. husband and wife physically fighting on the street here every day. feels safe

Enjoy seeing games at the stadium

Princes Street: Go to city centre when want more options.

St Andrew Square (for Waverley)

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Scale 1:11640

0 100 200 300 400 500 600 700 800 900 1000 m

Projection: British National Grid

Digimap

Ordnance Survey

Figure 15 Leith Active Travel Map The base map contains public sector information licensed under the Open Government Licence v3.0

Edinburgh Active Travel Map

Figure 16 Edinburgh Active Travel Map. The base map contains public sector information licensed under the Open Government Licence v3.0

Key

★ Important Places

♥ Favourite Places

❌ Places I don't go

🟩 What is Good

🟪 What could be Better

🟪 Parent/Carer Views

— Some Active Travel Routes I Take

Motivating and Accessible Destinations

We mostly feel happy to live in Leith, and have a wide range of shops and parks to visit. We are particularly keen on Leith links which is a large, open green space where we can meet and hang out with friends, run around, walk to connect us to school and other places, and use to get to further afield places such as Craigentinny golf course and Portobello off-road. For many of us, this is on our route to school which is a real bonus, and some of us particularly appreciate being able to see lots of people walking their dogs around as we enjoy interacting with animals in our local community. In particular, there are a couple of hills on Leith Links that are good meeting spots for finding friends.

There are other parks to go to in the area, such as Pilrig Park, Lochend Park, West Pilton Park, Victoria Park. Pilrig Park is good for small children, and you see lots of them using the playpark. Whilst this isn't very big, the rest of the park is much larger and it feels quite safe to hang out in. Lochend and West Pilton Parks are nice environments, and the only accessible greenspace for some of us during lockdowns. However, there aren't many things to do (particularly for girls) or places to sit for young people, and there are troublemakers there a lot of the time. Meanwhile, Victoria Park feels particularly safe, is quite big, and is well used. We also noted that Dalmeny Street Park can be good if hanging out with friends that live close by. However, this one can be especially sketchy after dark and we wouldn't want to hang out there then. This is something we note for many of the parks listed above, which can be quite different places after dark, and this is also true for Pilton Park which is the closest green space for one of us. We get worried by the (often older) young people that can hang out there and make us feel unsafe, particularly as you see them smoking, drinking and you see them and other people taking drugs in these places.

Beyond the parks, there are some good other outdoor spaces to go to such as platinum point which can be beautiful and calm, and has a lighthouse. At Portobello, there are popular well-lit sports fields where older boys like to hang out, and the beach, and the cycle route which gives access to other seaside destinations further afield for the more adventurous. We also note the local food shops as important, such as the Tesco superstore because it is affordable to us. As we are not far from the city centre, there is also Princes Street for lots of shops and services, and other beautiful sites such as Arthur's seat to the south, where there is a good (SKELF) park for bikes and scooters. This is a place that we particularly might go with our families in the summer.

There are also several indoor spaces that are important to us. The main one is Ocean Terminal shopping centre, which has lots of good shops for us to use, a food court, and lots of benches in and around it that we can hang out on without needing to spend any or much money. This is a place where you will find lots of people our age. Other places like The Shore are beautiful and have some café's that we can use sometimes, as does Leith walk and Easter Road. Meanwhile, we live near Easter Road football stadium which is good for seeing games when they are on. Of course, many of these opportunities have not been as available to us in the last year during the pandemic.

The Actions and Behaviour of Other People

We are pleased to have a range of local outside destinations where we can hangout. However, as we note above about the parks, there are many areas where we don't feel safe in our community. Sometimes this is because of other young people hanging out, but a lot of the time this is also about the way the adults act in our area. New Kirkgate can be a particular problem, with people that aren't in a good frame of mind hanging around there.

Leith also has lots of pubs and entertainment venues, which means that it can be lively throughout the day. Even on our way to and from school or during the daytime at the weekends we encounter people that make us feel uneasy because they are drunk or otherwise intoxicated. There is a man that shouts at people – including us - on Leith walk that we see regularly. Also on the map near Lochend Park is an area where one of us frequently sees a husband and wife arguing loudly and publicly, sometimes attacking one another.

In general, young people are not very well respected in Leith and the rest of the city and it makes some of us feel very self-conscious. Some of us have also experienced racism when walking around Leith and the rest of Edinburgh, which makes us feel very uncomfortable and less likely to want to get out and about. This can mean that some places other young people use without issue, become places of heightened fear and avoidance for us.

Safe, Easy, and Enjoyable Routes

Many of us can walk easily to the local places above, including to our schools. However, there are many very unsafe roads in our area which we have marked on our map. In fact, the traffic is very bad for most of us on our way to school, and the intersection near Leith Academy can take a very long time to cross. We mark other areas like this on our maps as well.

For moving around Leith and the city centre, including to school, by bike we feel there are lots of options for better off-road and also segregated cycle paths. One of us who lives in Portobello regularly cycles to school, using the Just Eat on street hire bikes. This is really useful because there is one near their home and near the school. However, they can be both expensive for young people to use, and are also very frequently vandalised. We show this on the map, including with a picture that shows something we see very frequently, where all or most of the bikes have been cut away from the stands which are made from concrete. Some of us have tried to call the customer helpline, but it is very expensive to call. We would be keen to cycle more to school and other places, and think that the on street cycle hire scheme is really beneficial and could be made better. Something we noted is that we would cycle more if it was quicker than taking the bus, as well as making us feel safe.

As above, the behaviour of other people also makes some routes feel less safe for us to walk and cycle. This includes the behaviour of drivers on our very busy roads. We note it is especially dangerous on Great Junction Street because the traffic is dangerous, and there is no safe cycle lane. Indeed, alternative routes are cobbled which is very difficult to cycle on.

Easter Road is also very busy and narrow, especially with traffic diverted there from Leith Walk, so we would not tend to cycle down it.

In terms of leisure routes, we are lucky to live near the Water of Leith, which has an excellent walk way and the Ferry Road off Road cycle and walking route. These provide good opportunities to explore and connect us with many other parts of the city. Having opportunities to connect us more safely with these areas would improve our opportunities further.

The COVID-19 Pandemic

During the COVID-19 pandemic in 2020, some of us have been motivated to spend more time outdoors generally and found it a therapeutic way to deal with the ongoing stresses of school and family life. It has driven some of us to become more exploratory, particularly during the summer when daylight hours were longer. For instance, several of the boys in our group have spent more time cycling down to Portobello, and in general many of us reported discovering new routes and opportunities to get out and about. Further afield cycle paths such as the Waterside route to Cramond meant that we travelled much further by ourselves than previously. However, some of us have been going out a bit less because of fear of other people in the area and getting COVID-19.

The other main change for us is that most or all the indoor places have closed in the area, and parks have been some of the only places we can go to. Ocean Terminal has been open some of the time, but many of the shops we would usually go to have had shorter opening times or been closed entirely. For those of us in the 11 to 13 age group, this has had even more of an impact on where we can go and when. Some of us have been on more family trips outside during summer, which we have enjoyed, but generally the things for us to do have decreased.

The return to school in August 2020 meant we got to see more of our friends and get back to some normality, which was good. Yet, it has also been stressful being scared that we might get COVID-19 and give it to our families. Wearing masks in school has also been strange and not something we've enjoyed.

Family

Our families differ quite a lot in how much they are willing and able to let us out and about by ourselves. Some of us have parents/carers that would let us go further afield than we want to, but personally we do not wish to. Others of us have stricter parents that do not feel there are enough safe destinations for the young people of our age to allow us to stay out for as long as we would like to right now. Our parents/carers were aware of the dangers in the area, and many of these are marked on our map. These are largely the same as those we have marked ourselves.

Our parents/carers, particularly for those of us in the 11 to 13 age group, felt that more indoor and safe destinations would make them feel more comfortable about letting us out and about more, particularly later in the day. For instance, there are very few youth-friendly café's or community centres, and places that do not cost too much money to hang out in. Our parents/carers suggested youth centres might be the answer, but some of us would rather visit places such as Ocean Terminal than places designed to be for us, by adults. However, we also noted that there were no examples of youth centres we could draw on, and so there could be an opportunity to find out more and devise these so that they do meet our needs well.

Some parents/carers that had grown up in city areas as children, where they had had more freedom, could understand from experience some of the dangers that might be present. They were also very clear that familiarity with the area and the places that young people might go to, make them feel more comfortable about letting that happen. Unfortunately, social media and news reporting increases fears of families in the area, and there is also social pressure to protect CYP that have been getting tighter over time. For example, those who had lived in the area their whole lives noted the impact on young people's independence of perceived "stranger danger" following the abduction of a young girl from Portobello beach in the 80s. They also remembered playing in the streets as children, which the comparative massive increase in traffic since had now rendered unthinkable for their own. The fears of some of our parents/carers were reinforced by direct experience, such as encountering antisocial behavior by adults in some areas of Leith Links on a daily basis. Upon seeing our Active Travel Maps, some were also worried these fears had influenced us, for example, they were surprised we felt unsafe in areas where there were drunk homeless people, when they perceived their behaviour to be harmless. Conversely, one concerned mother noted there had been nothing she could do to prevent her teenage daughter from hanging out and partying with friends on the Links if she wanted to.

Time and Weather

As we noted above, there are many places in the area that are off limits after dark. This is because they feel particularly sketchy, and in the winter months it gets dark early. More lighting in the area could help and having more people that seem trustworthy to keep an eye on places when it gets quiet would also help us feel safer at these times. In general, Leith is a lively place for adults in the evening and night hours which presents more dangers to us both at night and early in the morning when many of us go to school.

Our Priorities for Change

In the final workshop, we all worked together (parents/carers as well as Young Consultants) to plot our ideas for improvements on a continuum of how beneficial they would be for increasing our confidence and motivations to active travel. You see these below in Figure 17. It was clear from our discussions that we had a consensus on the biggest win-wins in terms of improving our independent active travel possibilities. We list these priorities below:

- More safe / fun places to go / hangout for young people and reasons to go there, which we've detailed in Figure 13. Other places could also be a skatepark on the leftover green space near North Leith Sands, and empty wasteland in Seafield for playing/hanging out on bikes

- More cycle lanes which avoid dangerous roads and sketchy areas, which involve nature, link up existing routes, and / or offer a quicker route to get to school or other places than by walking, bus, or the car

- Safer, cleaner, better-lit parks and routes encouraging more young people, and fewer 'sketchy' ones

- Easier, cheaper access to bikes, kit, and skills. Improvements to the Just Eat bike scheme to encourage use by young people (locks, 'tailored' pricing / booking, less vandalism). These could also be placed inside the school gates at Leith Academy so that we can use them, and they are less likely to be vandalised.

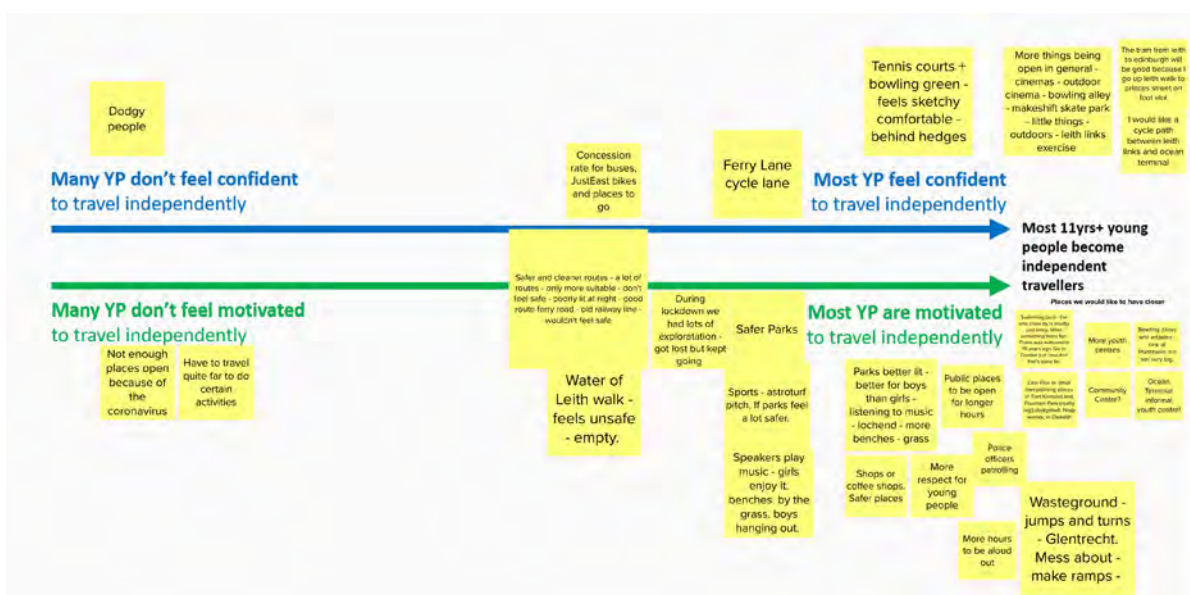- More respect towards (and between) young people

Figure 17 Outputs of Workshop 3 in Leith whereby Young Consultants and their Parents/carers grouped and sorted their ideas in terms of the biggest pay-offs in improving their independent active travel. Where a post-it note is between the lines, it is perceived to apply to both confidence and motivation.

## Edinburgh Transport and Active Travel Policy

The City of Edinburgh Council has recently drafted a City Mobility Plan for 2021-2030 that is currently undergoing committee approval (City of Edinburgh Council 2021). Drawing on a wide consultation across the last 2 years, the plan has three objectives categorised under 'People, Movement and Place'. Within this, behaviour change to support greater use of sustainable travel modes; ensuring inclusive and affordable transport options; increasing the proportion of trips made by active travel; improving the safety for all people travelling in the city; and reducing vehicular dominance on city streets are all key objectives. This includes noting CYP as some of the most vulnerable groups to road accidents. Measures to address this include School Active Travel Plans and education on road safety, as well as effective street maintenance and enacting 20mph speed limits across the city.

The plan places walking and wheeling at the top of the transport hierarchy, followed by cycling. It is built around the 20-minute neighbourhood principles announced in Scotland's programme for government in autumn 2020. This means that existing transport infrastructure should be supported and expanded sustainably when needed, whilst services should be within a 20-minute roundtrip walking, wheeling, or cycling. This has been brought into greater focus as local centres have become more important during the COVID-19 pandemic.

Provisions for improving active travel include minimising conflict between modes. It notes a citywide transport survey which identified that the most useful actions to encourage walking are improved conditions of pavements, separate paths, and more directs paths and street lighting. For cycling, the most effective measure is to provide more and better cycle lanes and paths. It also notes that the Council's Active Travel Action plan (City of Edinburgh Council, Sustrans and NHS Lothian 2016) sets out a package of measures to support progress, which have started to be implemented. For cycling, there is a focus on delivering a 'QuietRoutes' network which are traffic-free paths, quiet roads, or cycle paths separated from traffic. This has included an improved 'QuietRoute' between Portobello and Leith, used by our Young Consultants. This also proposed the introduction of the City's current on street bike hire scheme. An update of this plan will be released following approval of the City Mobility Plan this year. Moving forward the City Council would also like to review their design and engagement processes to make sure schemes are delivered faster and as inclusively as possible.

Another important part of transport strategy in the city, is the extension of the tram network through Leith, to Newhaven. This is part of wider sustainable transport improvements that also link with recent and ongoing regeneration activities in the area. An ambitious city centre transformation plan will also increase walking, wheeling, and cycling opportunities across the wider city. Overall, the strategy for sustainable transport in Edinburgh is a more radical vision than usually proposed in such plans (City of Edinburgh Council 2021).

These ideas, principles and visions align well with the views of our Young Consultants and their parents/carers. Their active travel maps are a useful resource for the City Council to look at more specific local provisions for young people in Leith and beyond. These could also link to any planning and regeneration projects proposed in the local development plan.
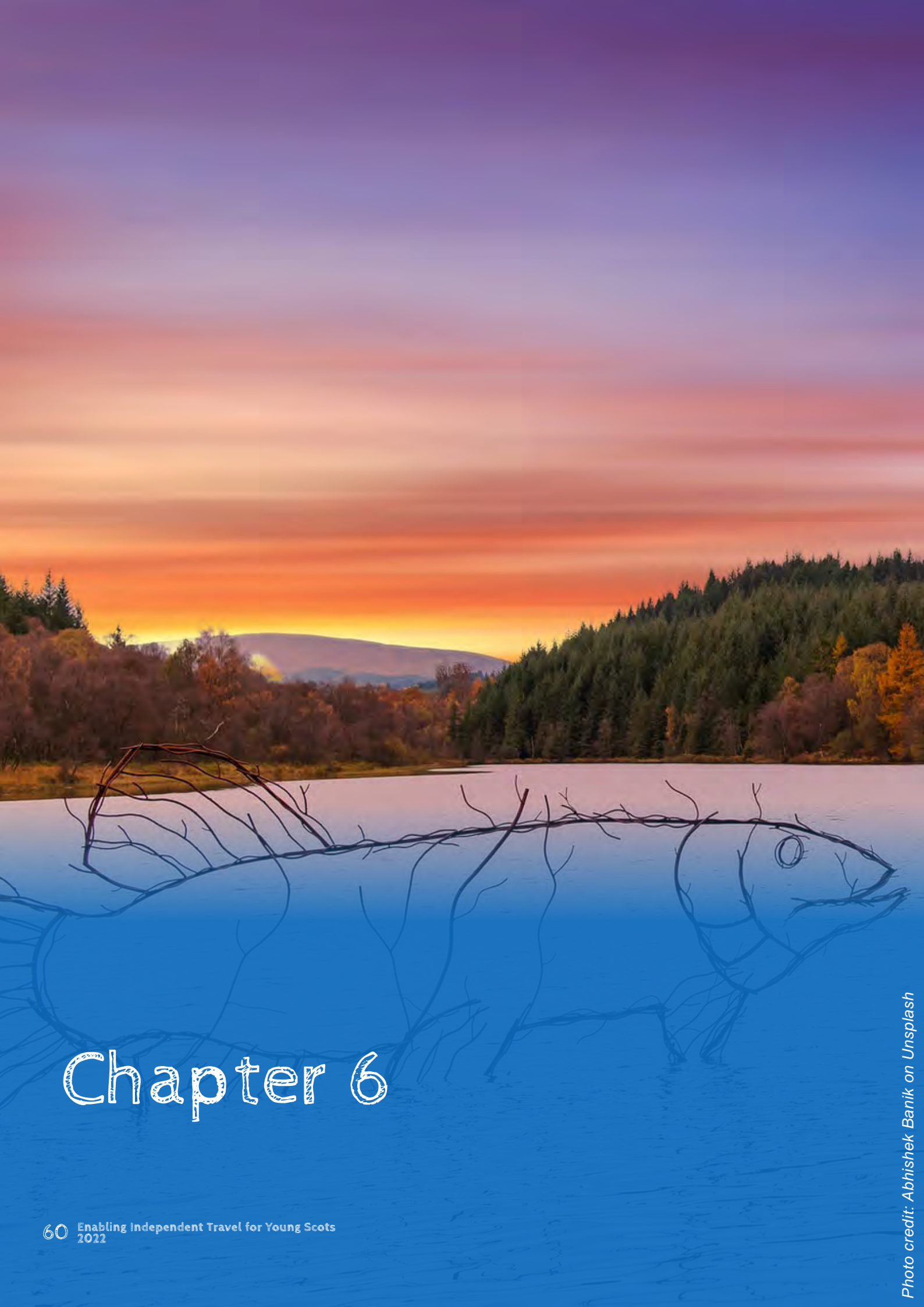
Chapter 6

Kinlochard, Aberfoyle, and Callander

Background

The three communities we report on here are in a relatively remote glen (Strathard) surrounded by a wilderness of hills and the largest commercial forest in the UK. Kinlochard is a small village with a population of around 100. It lies to the western end of Loch Ard. On the other side and just east of Loch Ard, approximately 5 miles away, lies the village of Aberfoyle with a population of around 1000. Approximately 11 miles north-east of here lies Callander – a small town with population of around 3000. In this rural case study, the average SIMD score for participant's neighbourhoods was 7.

These rural communities are all located within the Loch Lomond and Trossachs National Park and Stirling Council areas, boasting spectacular landscape, and attracting significant tourism. Figure 18 shows a map of the wider region, including other local settlements and larger population centres such as Stirling to the east.
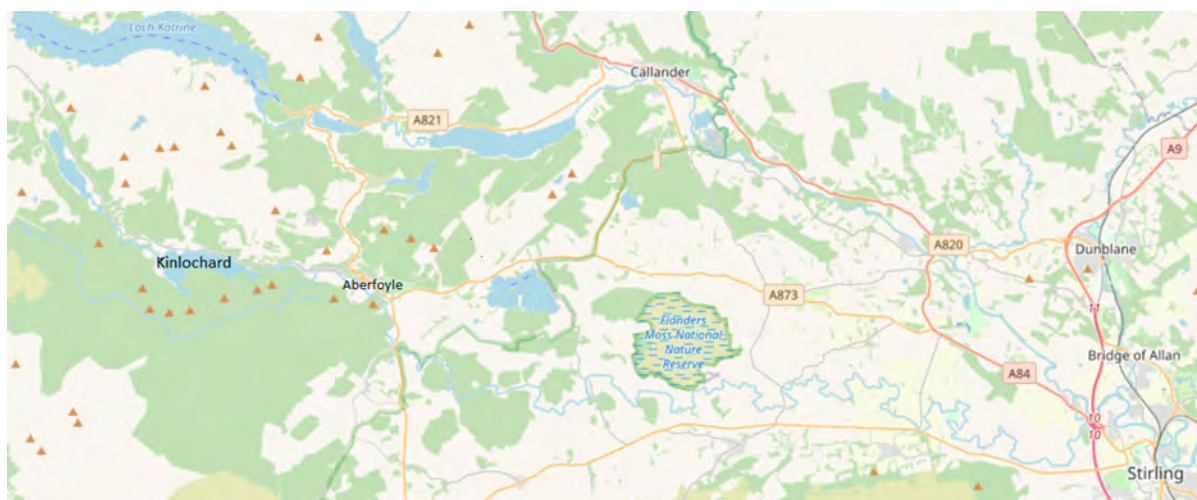

Figure 18 Kinlochard, Aberfoyle and Callander in context. Source: OpenStreetMap

Our Active Travel Map

On the following two pages you can see the full Active Travel Maps that we created as a group. One shows Callander and the wider region and the other shows Kinlochard and Aberfoyle. This breaks down our views and observations according to a key, and the remainder of this chapter explores more of what the comments and notes on the map mean according to the key themes that emerged. These are: Motivating and Accessible Destinations; Safe, Easy and Enjoyable Routes; The COVID-19 Pandemic; Our Families; and Time and Weather. We then note the biggest win-wins in terms of improving our active travel motivations and confidence, and top priorities for action.

Callander Active Travel Map - Young People

Key

⭐ Important Places

💚 Favourite Places

❌ Places I don't go

🟩 What is Good

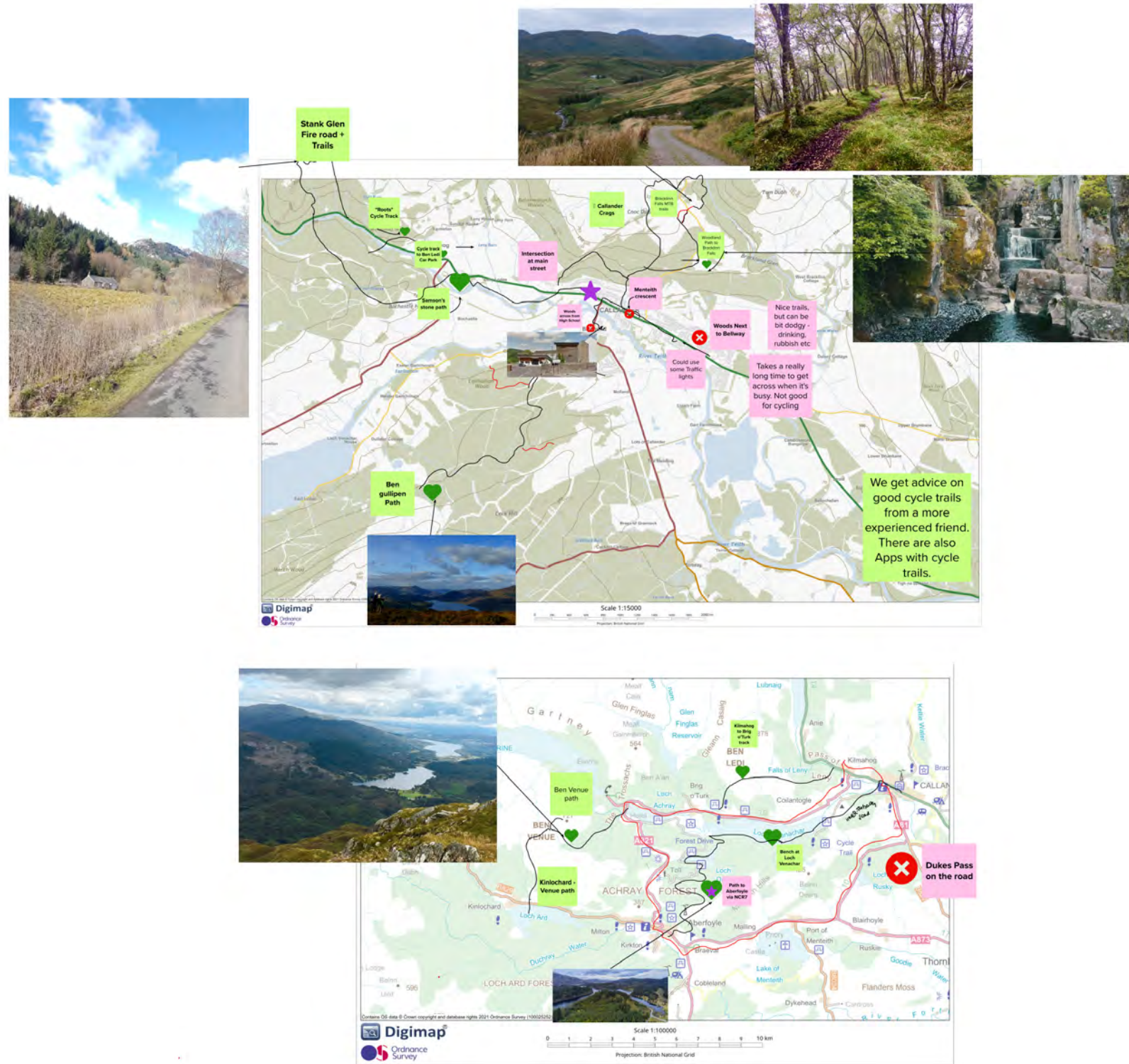🟪 What could be Better

— Some Active Travel Routes I Take

Figure 19 Callander Active Travel Map. The base map contains public sector information licensed under the Open Government Licence v3.0

Kinlochard and Aberfoyle Active Travel Map

Key

★ Important Places

💚 Favourite Places

❌ Places I don't go

🟩 What is Good

🟪 What could be Better

🟪 Parent/Carer Views

— Some Active Travel Routes I Take

Figure 20 Kinlochard and Aberfoyle Active Travel Map. The base map contains public sector information licensed under the Open Government Licence v3.0

Motivating and Accessible Destinations

As rural communities, we take great pride and pleasure in the natural environment around us. We consider many of the motivating destinations in our area to be the amazing viewpoints, trails, and quiet and peaceful places for us to go with our friends and family.

Loch Ard is particularly beautiful, and for many of us it is part of our everyday life. There are multiple cycle routes around the south side of the loch, which we have many names for. These include the snake loop, the Cranach loop, and The bell tower loop. We have marked many of these on our map, including the sites that we go to see. Whilst some of these take us to key places such as Aberfoyle, the views, and sights along the way such as spectacular fountains make them very motivating. There are further trails in and around Aberfoyle and Callander which also have the same benefits of being beautiful, and tranquil. For instance, we enjoy Stank Glen Fire Road trails and "Routes" cycle track.

Beyond things to do in our local nature, Kinlochard is very small and so we only have the sailing club, the park, and the Wee Blether Tea Room. These all constitute some of our favourite places, but the local park only has baby swings, which are unsuitable for young people of our age. We would like to petition Stirling Council to update this so that it meets the needs of a wider group of CYP in the community. As not all of us are into long walks and cycling, the local activities could be improved to motivate us to get outside more.

In Aberfoyle, there are more places to go and things to do. This includes an adventure Activity centre, various tourist spots, a Co-op food store, and a thriving local high street. This is where residents of Kinlochard come to shop and access many services as well. Callander is a bigger place and therefore has more places to go – many of these are casual places to hang out, and the local high street which has more shops and café's than the other local communities. It's also where most of us go to school, and so it is where we can see friends and hangout too. Those of us who live in Callander note that the journey to and from school could be a motivating destination if there was a route via a bridge at the east end of the village, as this would enable us to bike and walk safely to school and easily access the countryside for lunchbreaks. We also highlighted the wealth of mountain biking routes in and around the town, which offer a range of options and motivations to explore the surrounding landscape. In general, these places feel very safe, but there is a one place we do not like to go in Bellway Woods as here you can experience antisocial behaviour and drinking from other young people.

Safe, Easy, and Enjoyable Routes

As stated above, the number of beautiful cycle trails and great walking paths mean there are many safe, easy, and enjoyable routes for us. Many of us in the community are avid cyclists and have relatively high rates of freedom, supported by our parents/carers. This is also because the local area is very safe, with limited crime. However, distance between our communities is a real barrier to active travel. Whilst many of us would like to be independent, there are no public transport options from Kinlochard to Aberfoyle, and those within Aberfoyle

and Callander are very limited. This means that we either rely on parents/carers to take us where we need/want to go, or we stay in our own communities. This limits the time that we can spend freely with our friends, many of which do not live in the same village or town as us. It also means that there is a real car habit in the area – from both locals and tourists – that cannot be broken unless there are viable alternative modes of transport.

In fact, though there is a Demand Responsive Transport system, it must be booked 24 hours ahead and is therefore not responsive to more short-term planning about how we might want to spend our free time. It can also be intimidating as it is often a car rather than an actual bus, where you may be sharing with several other adults. This can make it uncomfortable, and we are also unable to bring our bikes with us. If we could do this we may travel actively with our friends further afield or in their local community. Making it more like a proper bus service would improve our confidence.

Many of the quickest routes between destinations and visiting one another are very dangerous roads. The key example is the main road (B829) connecting Kinlochard and Aberfoyle, to the north of Loch Ard. As you can see from the photographs and various points we have marked as dangerous on our map, it is very narrow. It also has various corners whereby it is difficult to see what is coming. Drivers do not tend to look out for or be considerate of cyclists at all. Therefore, most of our parents/carers would not cycle this route and would not allow us to do so either. This road is made busier due to the significant tourism in the area, and many people driving along it are unused to navigating country roads. Unfortunately, the alternative forest trail to Aberfoyle – whilst beautiful - is twice the length and not suitable for poor weather conditions or low lighting.

Aberfoyle also has key issues with the road infrastructure, that makes it very unsuitable for cycling. There are two junctions next to each other in the centre of the village that we have marked on our map. There is a sharp corner here, and a tendency for people unfamiliar with the area to stop in dangerous locations to check maps. No parents or carers were content to let their children cycle this route. Indeed, the main road passing through Callander is very busy due to the high levels of tourism. The traffic is comparable with many city streets, and yet it does not have the capacity to handle this and lacks the adequate number of traffic lights. Neither us nor our parents/carers are particularly comfortable with us cycling down it. As we are too old to be allowed to cycle on the pavements, ourselves and our peers that may otherwise be able to cycle to school generally do not. As we have mentioned, a 'short cut' rural active travel route connecting school to the east end of town via a bridge would likely be much used by young people, as the only option currently is a long way by busy and dangerous main roads.

The COVID-19 Pandemic

During the COVID-19 pandemic in 2020, we have been motivated to spend more time outdoors generally, and found it a therapeutic way to deal with the ongoing stresses of school and family life. It has driven some of us to become more exploratory, particularly during the summer when daylight hours were longer. This has included investigating and establishing completely new

mountain biking trails and destinations. However, with the ongoing stresses for everyone in the UK and inability to travel abroad on holidays, we found an unusually high and more antisocial form of tourism hit our communities over the summer.

As you can see from our map, we discovered more places where tourists were camping irresponsibly, leaving litter, reducing our peace, scaring us, being disrespectful to the local nature, and trespassing on private land in our local community. Some of us chose to avoid certain areas or go out less than we would have liked to. We do not feel that our concerns were taken seriously or attended to by the National Park Authority. We would like to see more sustainable management of tourism in the area in future, so that we can continue to enjoy our communities and travel where we wish to.

Family

Active lifestyles are common for people that live in the area. Many of our parents/carers also enjoy exploring nature and getting out and about. For many of us, we are permitted more independent freedoms than is average for young people in Scotland, and some of us reported being able to walk around our local communities with friends from about age 7/8. Many families have chosen to live in this area due to the kinds of opportunities it brings for peace and quiet, appreciation of beauty, and adventure.

One thing we do note is that mobile phone signal is not always available in every part of the local area, which makes us reluctant to go to certain places. Our parents/carers also pointed out that access to the Internet makes everyone more aware of the dangers that could happen – even if very unlikely and happen very infrequently (especially in safe, rural communities such as ours). This leads to anxieties that are hard to shake.

Parents/carers were quite clear that they did not think there was a specific difference in how much freedom local CYP are granted based on gender, and it's much more about personality, trustworthiness and interests. Having siblings that are older is also a bonus for getting more independence to go places with them. However, parents/carers feel uncomfortable allowing us to travel paths and trails that they have not taken themselves. There are not always sign posts or clear information about the Forestry Commission's work in creating or changing trails and paths in the area. This means that the trails can be confusing, they change, and there is no proper lighting.

Time and Weather

As most of us do not live in the same place as our school, we must commute long distances early in the morning and do not return home until fairly late. We rely on school buses that leave at fixed times, and those of us in Kinlochard must change in Aberfoyle to get to Callendar. This means we spend a lot of time travelling and don't have many options to stick around in Callendar or Aberfoyle to hang out with friends - unless our parents/carers can pick us up by car later. It also means that it is dark in the Autumn and winter by the time we get home, and in our rural communities the lighting is very limited. Whilst we do not necessarily want more lighting – our dark skies are a major bonus of living where we do – it does limit our possibilities for independent travel.

The weather can also be a big barrier to some of our activities. There is a lot of local flooding which can leave us stranded in our communities. In fact, on the Kinlochard and Aberfoyle map, we included a photo of people using canoes during a time of major flooding about 10 years ago. Children (including our peers) got stuck in the local primary school and had to be rescued this way. During the winter, we also experience significant snow fall as we live at high elevation. There is also a lot of ice, and this can also make travel exceptionally hard. During these times, we cannot travel actively around many of the routes we mention.

Our Priorities for Change

In the final workshop, we all worked together (parents/carers as well as Young Consultants) to plot our ideas for improvements on a continuum of how beneficial they would be for increasing our confidence and motivations to active travel. You see these below in Figure 17.

It was clear from our discussions that we had a consensus on the biggest win-wins in terms of improving our independent active travel possibilities. We list these priorities below:

- A safe, well lit cycle lane/path that follows a more direct route between Kinlochard and Aberfoyle (avoiding very dangerous, narrow road and better surfaced and quicker than existing forest trail), and another linking McLaren High School to the east end of Callander (again, avoiding dangerous main road, as well as providing quicker route to school).
- More safe / fun / free places to go / hangout for young people, including indoor and community-focused destinations
- A Demand Responsive Transport system that takes the needs of young people into central consideration (more like a standard bus, responsive to more spontaneous demands) and allows the carriage of bikes
- Better signposting on trails, and better communication of current Forestry works and changes to trails – A Dashboard maintained and updated by The National Park Authority

Figure 21 Outputs of Workshop 3 whereby Young Consultants and their Parents/carers grouped and sorted their ideas in terms of the biggest pay-offs in improving their independent active travel. Where a post-it note is between the lines, it is perceived to apply to both confidence and motivation. Post-it note colour was participant preference.

Stirling Transport and Active Travel Policy

Stirling Council's (2017a) overarching transport policy notes that one of the key themes highlighted in their public consultations was 'Road safety, including how safe streets feel to walk and cycle along, especially for children', 'Ease of access to jobs, services and other opportunities by public transport; and 'opportunities to walk and cycle' (p.20). It notes specific targets for reducing the numbers of children who are killed or seriously injured on the road by 2020, following national targets.

Stirling Council (2016) also has an Active Travel Action Plan. This notes the partnership of Loch Lomond and the Trossachs National Park Authority in improving Active Travel. It also notes some specific improvements, and Appendix B shows the local development plan priorities that relate to the three towns and villages explored with our Young Consultants. This includes a Callander safe cycling project, and improvements to signs across the core path network.

The plan seeks to improve walking and cycling opportunities; improve facilities; and ensure growth occurs in a manner that continues to enable and encourage active travel. A core objective of the plan is 'To increase the percentage of children and students walking and cycling to/from places of education on [sic] Stirling (p.3). It contains targets of reducing the percentage of children being driven to school, whilst increasing the share in walking, and particularly in cycling. School Travel Planning is a key part of these aims, and can improve the health, wellbeing, and general activity levels of this population. Increasing bikeability training and road safety awareness will also help to improve take up and reduce accidents on the road.

Relevant aims to our Young Consultant's views are to have

> *'Safe cycle routes to school, to facilities within the community, and links to the wider routes network to be available to villages throughout the Park'*

> *'Maximise the benefits available from multiple day walking by raising the profile of existing routes, creating new multi day route options (linear and circular) within the Park and wherever possible link to local, national and international path networks'.*

> *'All visitors and residents enjoy a quality, well promoted walking network which provides functional links within settlements but also links into the wider recreational network' (p. 19).*

A Stirling Council Towns and Villages in Rural Areas Transport Plan 2017-2027 (Stirling Council 2017b) also notes that high reliance on cars in the area, and dearth of public transport options. Local industry, commuting, and tourism are noted as major reasons for high traffic volumes, that need to be managed carefully to ensure economic opportunities remain in the region, whilst ensuring local people are not unduly affected. Key delivery themes include reducing the impact of traffic on communities; improving the opportunities to walk and cycle for both function and for healthy leisure; and improving the quality of roads and the street environment. There are a range of proposals in each settlement that include traffic calming measures, better signage, improvements to the public realm and improvements of some specific cycle paths.

Our Young Consultant's views support the aims of these works, plans and strategies. However, there is limited mention of their non-school related active travel needs and aspirations. The evidence above completes a broader view of what these needs are and where the key barriers and opportunities for progress lie

Chapter 7

Photo credit: Markus Spiske on Unsplash

Exploring the Independent Active Travel System for Children and Young People

The Young Consultant's active travel maps and priorities for change's show a wealth and depth of detail about the experience of living in different types of places, and the key age-appropriate infrastructure interventions that could increase the propensity of themselves and their peers to active travel independently of adults more frequently. What emerges from all these insights is that there are differences and contextually important variables in each area. However, there are also overarching themes which we explore in depth in this chapter.

The following analysis and discussion is underpinned by a Causal Loop Diagram (CLD), a thinking tool from the Systems Dynamics Methodology (Morecroft 2010). A CLD offers a way of conceptualising and thinking about a complex situation as a whole, identifying interventions which address causes rather than symptoms, and of meeting the requirements of a theoretical thematic analysis (Saldana 2012). In a CLD, common themes are expressed as variables, and then linked by arrows which represent hypothetical relationships between them. Connecting arrows marked with a plus sign indicate a positive relation, while arrows with a minus sign indicate an opposing relation. Reinforcing loops are marked by Rs with a looping arrow surrounding them. These show virtuous or vicious cycles that are reinforcing between variables.

We constructed a full CLD as part of our analysis of all Active Travel Maps and insights from the literature review. This allows us to explore the key factors and dynamics that promote and/or impede independent active travel for 11 to 16-year-olds in Scotland. Some elements of the CYP active travel system relate directly to infrastructure, whilst some are influencing cultural factors. However, we focus here on the infrastructural elements of the broader system that enable healthy, happy and safe independent travel on everyday journeys. We thus only note how broader cultural factors influence these or may be influenced by them if adapted in a local place, and present sections of the CLD for analysis in the following sections. The full CLD, showing all connections, is available for further exploration by clicking here.

The 'Independent Travel Engine'

The key themes in this analysis were drawn out from the common themes across our four case studies. These are 'Family ', 'Motivating and Accessible Destinations', 'Safe, Easy, and Enjoyable Routes' and 'COVID-19 as an Independent Travel Driver'. Other key influencing factors noted in the Active Travel Map reports fit within these themes and are articulated as sub-factors. For instance, 'The Actions and Behaviours of Others' is part of 'Motivating and Accessible Destinations', and 'Cycling Culture' falls under 'Safe, Easy, and Enjoyable Routes'. Meanwhile, 'Time and Weather' is an underlying factor of the meta-system, with limits on the extent to which active travel infrastructure can mitigate the resulting barriers.

In the centre of the system is the core 'Independent Travel Engine'. This is composed of the level of independent travel confidence, and the level of Independent Travel motivation for CYP. When there is motivation to travel, CYP are more likely to do so. However, making the choice to travel independently using an active mode depends more specifically on confidence to do so. As motivation and confidence increase, the number of independent journeys they take also increases. This is a virtuous circle that perpetuates itself and is likely to lead to a young person more likely to become an adult that active travels regularly. Factors under the key themes influence this core engine in a range of simple and complex ways. Some of these promote and some impede independent active travel.

We now turn to discuss these themes in more detail on how they impact the Independent Travel Engine with specific focus on the infrastructural interventions that could make the biggest positive impacts. We explore these key themes in the sections below, alongside a zoom-in of the relevant section of the CLD

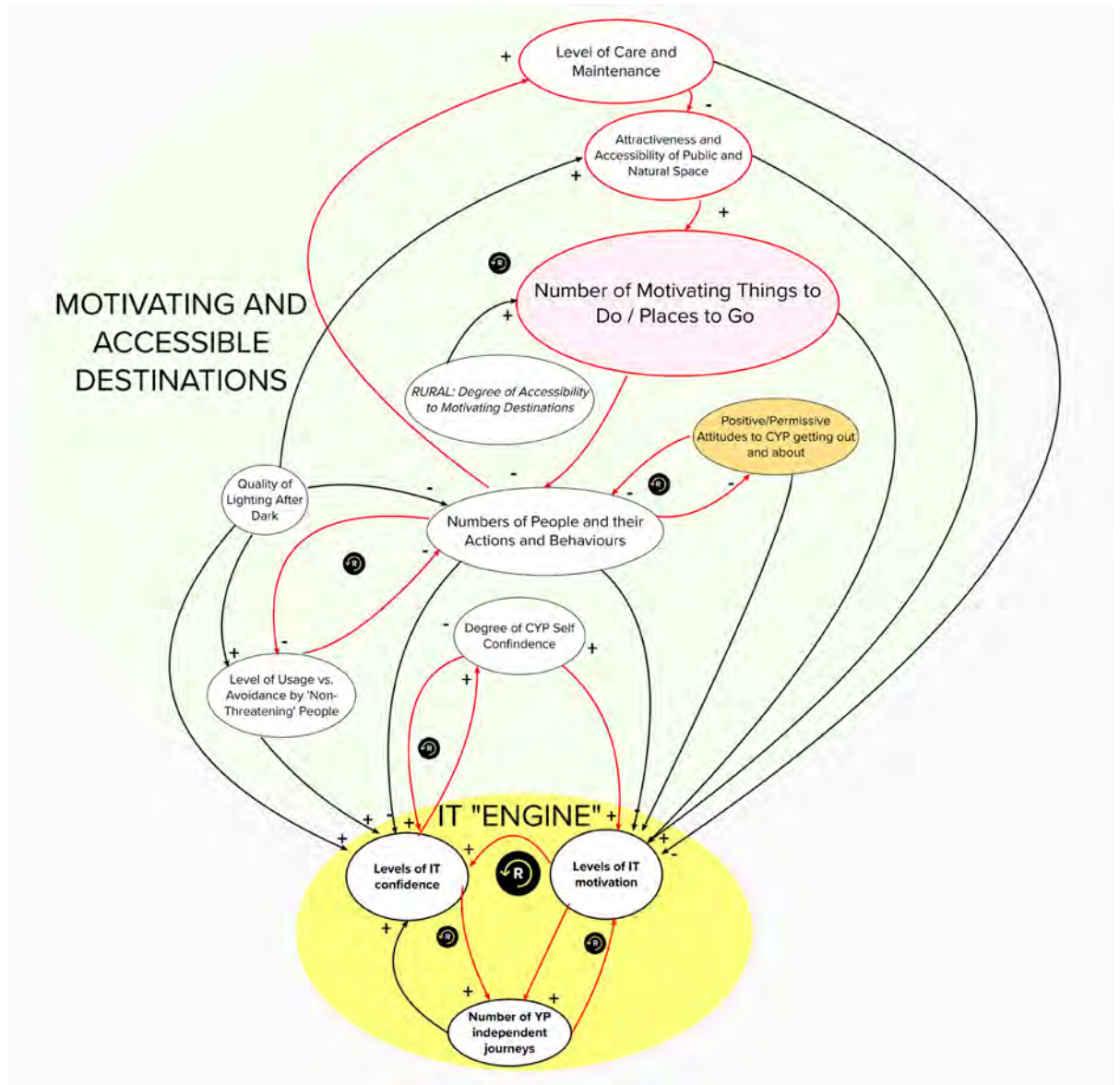## Motivating and Accessible Destinations

Figure 22 A sub-section of the CLD showing 'Motivating and Accessible Destinations' and how this links to the 'IT Engine'.

As became clear from the Young Consultant's active travel maps, not every area or community has many places that CYP are motivated to go to independently of adults. For many, parks were a key destination for people of their age group, alongside (often more limited) networks of shops, shopping centres, café's, and extracurricular activities. Their views confirm significant evidence that CYP's needs from the built environment and public space are generally not taken into central consideration by public bodies (Wood et al. 2019, Gill 2021).

The diagram shows that number of motivating destinations is important, but also influencing them is their accessibility, which can be particularly limited in rural areas such as in Kinlochard, Aberfoyle, and Callander. As noted in our Leith, Denny and Bonnybridge, and Northfield and Mastrick Active Travel Maps, motivating indoor spaces are especially important for the 11 to 13 age group:

"I'm kind of the same as [name of peer], I spend a lot of time at Ocean Terminal and I kind of think of it is my youth centre," Boy, 11-13 years; Urban, Least Deprived.

Walking and cycling networks need to connect these places clearly and safely. When there are places that are both motivating and accessible, it increases a propensity to get out and about. However, and particularly considering that many of these destinations are presently parks, safety and maintenance are core considerations for how motivating these places can be.

The Actions and Behaviours of Other People

The number of people in a public space can make them feel either safe or unsafe. This depends, in part, on the activities of the people in that space. For instance, high levels of substance misuse, partying, shouting and vandalism will make many young people perceive the area as sketchy and make them less likely to want to visit:

"I'm allowed to go to Jenny's Park whenever. It just depends. I'm not allowed out past half six because that's the time like all the teenagers come out to drink and stuff," Boy, 11-13 years; Rural, Most Deprived.

A reinforcing vicious cycle of poor attitudes towards young people using such spaces in general will also decrease the likelihood that the majority will use it. Attractiveness of the public space and surroundings is also a factor, while broken glass, litter, and dog fouling are major detractors. Yet, a key and simple infrastructure intervention is quality lighting, as well-lit public spaces and routes feel less threatening after dark and allow for greater usage by young people later in the day and especially in the winter months:

"They should put more (lights) in like the sketchy places like scary places and shortcuts that people usually don't want to go to because they're scary and it might like make people want to go to those places more often," Boy, 11-13 years; Urban, Most Deprived.

Some Young Consultants, especially girls, suggested that as they get older they have lower motivation and confidence to be seen in public space which includes walking, and especially cycling. This can also link to discrimination around appearance. For instance, one Young Consultant noted:

"Obviously, when I get older, I'm allowed to go farther…but I also feel every time I get older, I feel less confident to go outside because like some people are mean and they can judge you by how you look or something, you know what I mean?" Girl, 11-13 years; Urban, Most Deprived.

This can also include the racism reported in our Leith Active Travel Map, as described here by one Young Consultant who had had a particularly perturbing experience:

"So, like a group of teenagers were in the park. I think they were drunk or something. And they actually fired a firework near me, like they meant to do it on me. It was really scary. I had my little sister with me too," Girl, 14-16 years; Urban, Least Deprived.

A compounding factor is our culture of 24/7 access to the internet and the impacts social media can have on a child or young person's perceived acceptability of appearance, personality, interests and/or 'coolness'. If there were public spaces designed with and for the needs of young people, then demotivating factors could be limited and generally more inclusive spaces created. For instance, a combination of generous social space and activity-focused spaces that meet differing interests and needs works well (Gill 2021). This could include creating spaces specifically with subsections of the CYP community in mind, such as teenage girls.

In the Denny and Bonnybridge workshops, there was one standout instance of an unsafe and unmotivating destination for young people -an abandoned BMX track- being turned around through care, attention and investment by the local authority. The following Young Consultant summed up the transformation:

"When I was like P7, we used to go there like quite a lot of time when it was like a proper thing but then I think like they kind of fell away from it, so you couldn't really get into it and it became a place where like people older like 16 or 17 would go and like drank so they wouldn't get caught because it was quite abandoned…Now like it's just been done up. I think there were quite a lot of people in the area wanted it back so I think like the council went out and have cleared all the trees and tracks and have put like proper ramps in because before it was just dirt ramps and stuff… It's usually quite busy…There's usually like at least one person there, so like when you go there's usually someone there you're talking to …I've never talked to them in school, but I just like become pals with them there" Boy, 14-16 years; Rural, Most Deprived.
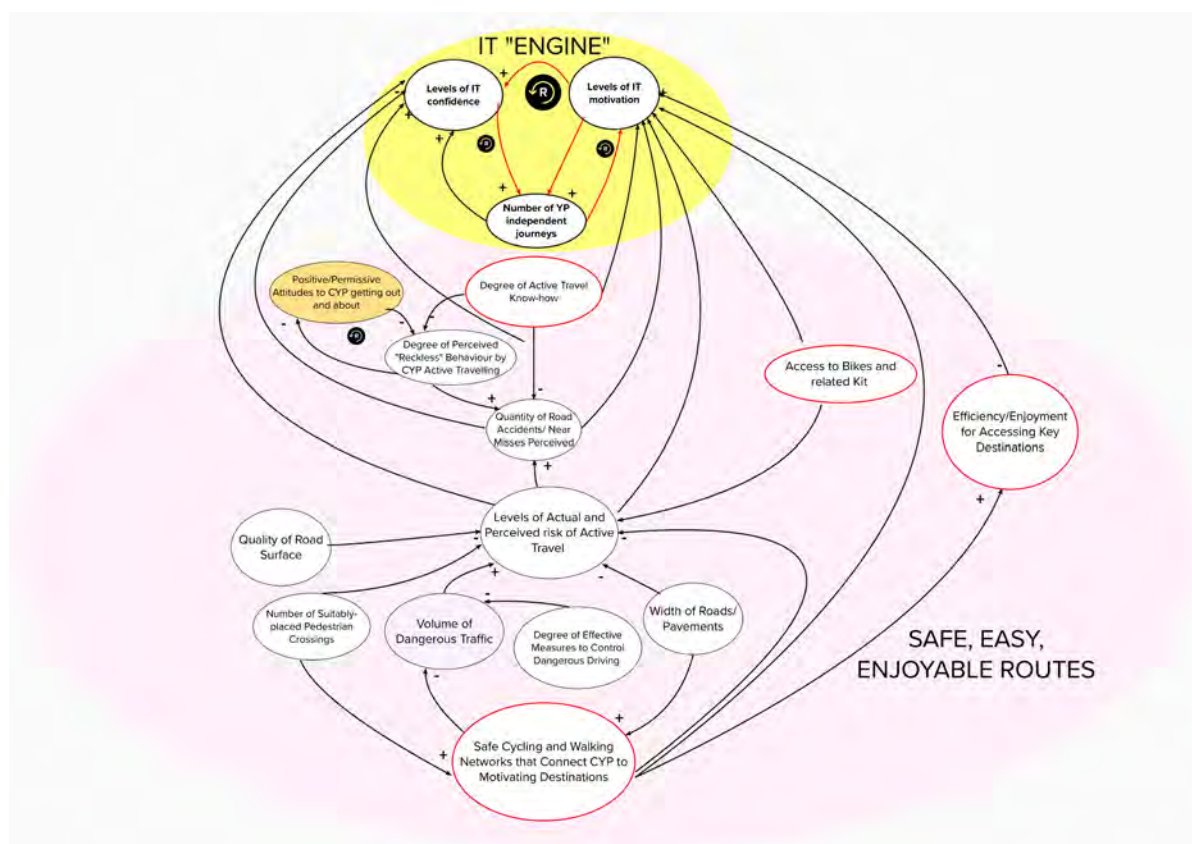
Safe, Easy, and Enjoyable Routes

Figure 23 A sub-section of the CLD, showing Safe, Easy and Enjoyable Routes' and how this links to the 'IT Engine'

Internet technology and especially social media can decrease a young person's motivation to meet with their friends in person. Not only can they find several individual and shared past times that do not necessitate leaving the home, but they are also exposed to a far greater degree of influence by the mainstream and alternative media that may increase their perceived level of risk of venturing out:

> *"when we were younger, we would have went and met up with friends and walked places, our kids, I think are sitting in their bedrooms talking to each other through the phones actually, rather than physically being together. It's giving them a lot of freedom in some sense, but it's taking away a lot of their freedom in others," Parent/carer, Woman; Urban, Most Deprived.*

For instance, both Young Consultants and their parents/carers in our workshops talked about how singular incidences of a local person (especially a young person) being victim or witness to a crime or accident would share through social media within a matter of hours. Regardless of how common such occurrences are in the community, having constant knowledge of when they do happen can lead to heightened fear and a more risk averse culture:

> *"young people died when we were young and everybody knew about it but what happens now is that that young boy that was killed on his bike in Falkirk… it's not*

> *just the town that knows about it, it's the entire social network... when we were young your friends were the people in the street or at your school, but I know that my all my kids have got pals from different schools and through dancing or football or other things, so they're not just hearing about the bad things that happen locally"*
> *Parent/Carer; Woman; Rural, Most Deprived*

This is a sticky issue, but one that can be partially mitigated by improved active travel infrastructure.

Improving access to Safe, Easy and Enjoyable Routes is underpinned by a mixture of hard and soft infrastructure needs. This is impacted by:

- Whether walking and cycling networks connect easily and directly to places that are meaningful and motivating for CYP;
- The quality of road and pavement surfaces, with a preference for well-maintained infrastructure where cycling and walking networks are safe from excessive traffic and parking or interfering with others. In fact, providing cycle paths that are as segregated from busy roads as far as possible is a strong preference;
- How well-signposted routes are; and
- The number and location of safe crossing points.

Below we explore some sub-themes that decrease CYP confidence to active travel and consider how they might be mitigated by improved infrastructure.

Busy and Dangerous Roads

The width of roads and pavements is important for active travel confidence. As highlighted in Denny and Bonnybridge, where there is a key road leading to school for many that leads to CYP getting too often hit by car mirrors. Dangerous driving and high traffic volumes was a problem for all the places we studied, with Denny and Bonnybridge particularly suffering from having motorways segregating their access from one another. Meanwhile, Northfield and Mastrick's CYP frequently must navigate some of the busiest roads in the city, and the young people of Kinlochard are disconnected from other communities by a particularly hazardous rural roads that many adults are unwilling to cycle down:

> *"I was very aware of the way that some of the cars were driving on that road, just because I was kind of tuned into thinking about cycling and whether I would ever feel comfortable cycling it. And I was just yeah, definitely not. We actually overtook a cyclist on the school bus the other day, like right on a corner on that road…I was thinking about it and how scary that would be for the cyclist and the amount that must happen. All the time on that road, you meet cars coming round corners on the wrong side of the road very fast, people can't see around corners and at the same time people get impatient, and just overtake anywhere," Girl, 14-16 years; Rural, Least Deprived.*

Several of our Young Consultants were able to relay incidents where they or their friends had accidents or very near misses while walking or cycling:

"Last year before COVID a bunch of people were coming back from lunch and actually [name of peer] got run over on that road because there was a car speeding and he walked onto the road when he thought the man was going to stop but he never…there was two ambulances and he broke both of his legs, and he was off [school] for so long" Girl, 14-16 years; Urban, Most Deprived.

When such dangers are especially present on the route to school and motivating destinations, then other modes of travel become significantly more appealing than walking and cycling. Traffic lights in the right places can significantly improve safety and opportunity, as well as re-routing high traffic roads away from residential areas and/or instigating traffic calming measures. This could include pedestrianising more areas near schools and key locations and offering more off-road routes.

Cycling Culture

Another key node for encouraging active travel confidence is the degree of know-how, access to kits and support, and degree of acceptability for CYP to cycle. On top of this is the perceived 'coolness' amongst groups of CYP themselves, particularly for the older group. This seemed less of an issue for boys, and there were examples from both urban and rural areas where cycling seemed an important and popular activity for them:

"I'll always cycle to school, if I'm not too tired. There's a cycleway that goes down the beach. I use that. And then I just cycle along the Links to get to school once I'm off the cycle way. Takes about 20 minutes on a bike and about 15 minutes on a bus. It's not that far," Boy, 14-16 years; Urban, Least Deprived.

"We've a friend.... He's like, gotten both of us into mountain biking, taking us on a few local routes we didn't know existed. Really good! Shame it's so dark now as we were getting out a lot. His dad is a veteran mountain biker, and he basically knows everywhere to go. There are also quite a lot of apps where you can see the tracks," Boy, 14-16 years; Rural, Least Deprived.

Few girls taking part in this research exhibited the level of confidence in cycling as the boys above. In fact, in Denny and Bonnybridge where there was considerable discussion that cycling is not perceived as something that girls do:

"I feel especially for girls it's no cool to have a bike but I think that just a cultural thing and it is because the parents don't want them to because it's no safe, and then you don't buy a bike because it's no going to get used as much," Parent/carer, Woman; Rural, Most Deprived.

In our workshops, many Young Consultants highlighted that age is important to determining access to safe cycling infrastructure. Young children are allowed to cycle on pavements without breaking the law or causing significant disturbance to others. However, this is not legal when CYP become teenagers and so in the absence of off-road or safe routes segregated from traffic, the desirability of cycling significantly decreases:

"I've two girls and I know they loved their bikes and they were always out on them until they got to about P7, going to High School. Maybe it's because they can't cycle on the pavements when they're older, and you don't want them on the roads.

As a young child you don't mind them cycling on the pavements, but when they're older it annoys people and it's a bit embarrassing," Parent/carer, Woman; Rural, Most Deprived.

As discussed in most areas, on street and other bike hire schemes could be implemented or improved to encouraging more active travel amongst young people. This counters both issues of bikes being unaffordable and/or likely to be stolen, as well as offering potential for more casual use of bikes when a child or young person wishes to. In Leith, where a scheme is already in place, one boy spoke about how convenience drove him to become a regular user for the school route.

"When we moved to Portobello, I noticed the [Just Eat] bike stand was just there on the beachfront. Then I saw the one near the school and thought I should probably just use that…I've got a bus card so I can get free buses wherever, but most of the time I get a [Just Eat] bike anyway just because it'd be a lot faster than having to wait on a bus. It's also more enjoyable and exciting just to bike," Boy, 14-16 years; Urban, Least Deprived.

However, he also noted the scheme could benefit from a number of improvements which would make it more appealing to CYP. This included engineering stands to be as vandal-proof as possible, with a locking mechanism for short stop-offs, and concessions that take into consideration the low incomes of CYP, and often of their families:

"I stopped at McDonalds and a bunch of teenagers, maybe about my age, got my Just Eat bike and said 'oh can I have a shot?'. I didn't really get a chance to say before they just jumped on and ran away with it for an hour, and then dumped it so I got charged £20 for that," Boy, 14-16 years; Urban, Least Deprived.

COVID-19 as an Independent Travel Driver

Figure 24 A sub-section of the CLD, showing 'COVID-19 As an IT Driver'.

The COVID-19 pandemic has led to unprecedented disruption to the way of life for CYP and their families. For the first time, across the last year many CYP have not had the structure of school or the regularity of seeing friends and family. As noted in all Active Travel Maps, this has had a significant impact on motivating destinations as most indoor spaces have had to close, leaving mostly just parks and other outdoor places in which to gather. Moreover, gathering itself has been heavily restricted.

Many found meeting up with friends outside, and especially in parks and other natural spaces to be essential in managing the impacts on their lives. However, for a significant number of our Young Consultants, especially in the densely populated areas of Northfield and Mastrick, the increased strain on local public spaces to meet the capacity of people out socialising,

alongside the fear of catching COVID-19, has led them to spend less time outside than they used to. This has been exacerbated into the winter with limited hours of sunlight and poor lighting, alongside real and/or perceived increases in the worrying behaviour of other people out and about in public spaces. In Kinlochard, Aberfoyle, and Callander, the impact of increased, and less respectful, tourism in their communities over the Summer of 2020 also significantly decreased their will to get out and about. The impact was more significant on the CYP then on their parents/carers:

"The tourists were bad this year, because people had nothing really else to do. They couldn't go to work. So all they could think of was to go somewhere like here…and potentially infect other people," Boy, 11-13 years; Rural, Least Deprived.

Interestingly, an overload of screen time and boredom was a key motivator for some CYP to spend more time independently active travelling in their own communities:

"As I started to get out, it was like so much better than just being like trapped in my back garden or in my house…the roads were free of traffic and I think lockdown really taught me a lot of stuff. Stuff I didn't even know was there and places I could have been going to all the time that I didn't even know about," Boy, 14-16 years; Rural, Most Deprived.

As noted to some degree in all Active Travel Maps, a significant minority of CYP became especially more adventurous. Stories of discovering entirely new places and traversing much greater distances on their bikes in small groups gave some of our Young Consultants a much greater understanding of the benefits, opportunities and infrastructure barriers to cycling in their communities. In Northfield this highlighted to one Young Consultant just how poor the infrastructure is for efficient and safe cycling from their community to Aberdeen beachfront:

"My friend was moaning about how she's being staying inside…so I just said do you want to go down the beach, and she was like yeah why not, so we just decided to go. We set off from the school about like 10 o'clock in the morning and got home before it got dark…We had to cycle on pavements most of the way, but they were quite empty, until near Union Street, which is like the city centre, where there's heaps of cyclist's lanes you can just go into and then you just carry on your journey down to the beach. Sometimes you have to be a little more careful but it's still more fun," Girl, 14-16 years; Urban, Most Deprived.

In Leith, Young Consultants made similar observations about the cycling routes around Edinburgh waterfront which they discovered to be of good quality. However, they noted a lack of safe routes from their homes to key pathways such as The Water of Leith that would help connect them safely with more of the city by bike. This was summed up well by one parent/carer:

"There's a lot of places on the side of Leith where I live that are just cycle lanes. On the other side at the Water of Leith there are places that are just cycle lanes. So the problem they [CYP] have is that bit between where you have to go on either Great Junction Street, which is very dangerous, or cobbled roads. On either side, you can kind of avoid roads altogether in a lot of places because you don't need to come into contact with cars at all because the rest of Leith and Edinburgh is quite well suited for bike lanes or bike routes and without any cars," Parent/carer, Woman; Urban, Least Deprived.

In general, seeing more CYP out walking and cycling also increases the will of others to join them. Our Young Consultants told us that the decreased traffic on the roads and number of people out walking and cycling increased their propensity to follow suit. However, this had decreased over time as traffic volumes started to return to normal. Low Traffic Neighbourhoods and introduction of more quiet routes could help here. Indeed, traffic calming measures that might emulate some of the more favourable conditions of lockdown would particularly benefit the confidence of CYP to cycle. None of our Young Consultants reported direct experience of temporary walking or cycling infrastructure projects delivered during the pandemic (though the Young Consultants from Northfield and Mastrick venturing to the beach may have encountered some without realising). However, they supported permanent improvements to routes that connect them to important and motivating destinations so that they could active travel independently more easily:

> *"During lockdown…I saw a lot of third and fourth year girls out, they must have borrowed bikes or got bikes from somewhere, because I've never seen kids out on bikes but it was a lot safer, less traffic on the roads and whatnot…[name of 14-16 year old daughter] borrowed her wee sister's bike because it was a way of meeting up with friends that was safe," Parent/carer, Woman; Rural, Most Deprived.*
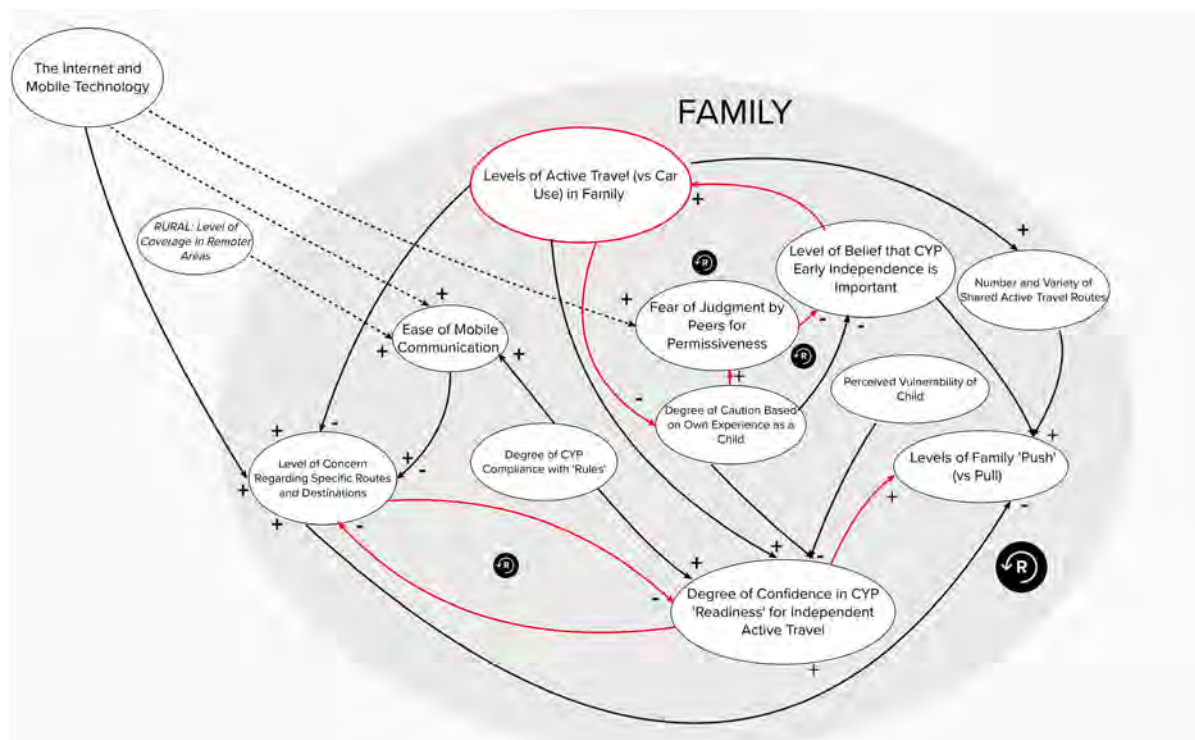
Family

Figure 25 A sub-section of the CLD, showing 'Family'.

Family dynamics are incredibly important in determining how and whether CYP feel confident to active travel. This is where the license to roam is negotiated and conditions are set. In the CLD, this is noted as the push versus pull factors of the family's confidence and motivations in a child or young person's independent active travel.

Two examples are provided below for illustration and comparison from Denny and Bonnybridge. In the first, a 14-16 year old girl talks about how her parents actively encourage her to overcome anxiety through active travel as a family. The second is a quote from the mother of another 14-16 year old girl in the same group, who speaks about how her "fears" may have curbed her daughter striving for independence.

> *"I'm a really anxious person. When it comes to a certain time of year, or if it's dark, or I've been somewhere and I've heard loud noises or I've seen teenagers drinking I'd get quite wary about that area and try to avoid it. So if it comes to that stage, my mum and dad always try and take me out on a family walk or cycle with them…I'm actually quite fortunate…just so I can get a bit more used to it. Especially after lockdown, I was really anxious about going out and I still am so they encourage me to go out with them as a family, making it clear its safe," Girl, 14-16 years; Rural, Most Deprived.*

> *"Aye, I think I held her back a bit through my own fears - what if she got hit by a car, or what if this or what if that?" Parent/Carer, Woman; Rural, Most Deprived.*

Fundamentally, if there is a culture of active travel within the family, then CYP are more likely to be permitted to do so themselves without an adult. This is especially related to shared active travel trips where the family can feel confident in the readiness of their child and peers to be independent and competent to adequately assess risk. Conversely, if parents/carers routinely drive themselves and their children to destinations or use public transport instead, then they are likely to feel less confident in allowing their child to do so, and/or more willing to offer lifts to motivating destinations:

> *"We live near the school and even in sunny weather, I see the amount of young people that get dropped off that live nearby and could easily walk," Parent/carer, Woman; Rural, Most Deprived.*

Parent/carer workshops highlighted familiarity as the key element that gives them confidence when negotiating whether a child is permitted to take active travel journeys without an adult. For instance, in Kinlochard, Aberfoyle, and Callendar, where walking and cycling are prevalent leisure activities, families were generally happy to let their children out and about in many of the local rural areas, but were particularly concerned by how trails can change without clear warning, or full notification. Poor signposting also means that parents/carers talked about how if they themselves had gotten lost on a trail, they would not seek to allow their child and peers to take that alone:

> *"The forest tracks are doable but they're quite isolated and it's quite easy to get lost. My friend cycled up in the holiday and they got lost, but they were fine in the end," Girl, 11-13 years; Rural, Least Deprived.*

A lack of safe infrastructure for adults to cycle, let alone CYP, was a demotivating factor for parents/carers in all case studies for allowing CYP freedom to walk or cycle to many locations independently

Beyond general family culture, there is also a wider push and pull around what is and is not acceptable for a child or young person to be taking part in, and what is a socially acceptable parenting style. This can be intensified by access to traditional and social media where the actions of parents/carers can be widely scrutinised. For instance, some CYP are perceived as more vulnerable than others. This may be due to age and gender, though the dynamics are complicated and based on both the child or young person themselves, and how others may perceive them:

> *"My parents always trusted me more for some reason. I don't know why. They trust me way more than my older brother,"* Girl, 14-16 years; Urban, Most Deprived.

For instance, it may be that boys are less likely to be hassled in public space, yet girls might be perceived to hang out in smaller groups and be less intimidating to others. Meanwhile, age usually means more freedom and trust, but it may also be perceived to increase the vulnerability of girls in public space. Character and personality thus arose most prominently from our workshops as the key individual consideration for independent active travel. If there have been instances where trust has broken down in previous scenarios, a parent/carer is less likely to allow that child to take part in independent travel journeys until that trust has been mended. For instance, this could be staying out later than originally agreed and/or not answering the phone when a parent/carer called:

> *"I have three children and it depends on the child…The eldest and the youngest wanted to do what they're told and understood the importance of what I was saying, the middle one didn't…so watch out because some will be back before five o'clock if you ask them, but some of them will not…For her, it was the sense of change, freedom and growing up associated with High School where things got difficult. The parental word was no longer good enough and everything became a negotiation…it was a learning curve,"* Parent/carer, Woman; Urban, Least Deprived.

The presence of older and responsible siblings was also a core enabling factor for many parents/carers in our study, with a view that travelling with a sibling provided greater level of protection:

> *"I have three sisters. We all kind of hung out together quite a lot…My older sister would always have a phone on her. When I was about five or six, I'd have to be back before it got dark but my other sisters could stay out a bit longer because they were a wee bit older. So my sisters were protective, but not overly protective, and kind of let us go free."* Girl, 14-16 years; Rural, Most Deprived.

Having older children also meant that a parent/carer was more likely to have made decisions around what is and is not an appropriate age to engage in certain activities. 11/12 was a key age when CYP started to be granted more freedoms for independent travel, as it coincides with the final year of primary school and transition to secondary school, in which CYP are expected to take on more individual responsibilities.

Overall, parents/carers agreed that if there were improvements to safety on existing road and path networks, as well as more segregated but well-surveilled routes for cyclists they would be more inclined to grant independent travel freedoms to their child/ren:

"Because obviously, they don't have the well-lit cycle lanes, there's so many barriers for the children. You know, if we're actually trying to make it more safe and child-friendly, and improve the area as a whole in regards to them walking and cycling independently to school, this is what we need to put in place," Parent/carer, Woman; Urban, Most Deprived.

"Cycle lanes are the top priority. If you put cycling lanes in and the infrastructure to hire a bike I think you'd see a big difference. I recently went and bought a bike and I thought right I'm going to cycle and I went out on the road once, and I thought right that's it and I got rid of the bike. It was far too…I just couldnae! Whereas, if there were cycle lanes, that would have seen me out on the bike, not just the kids, and if you as an adult are out you'll take the kids out on their bikes with you. It's one of these virtuous circles." Parent/carer, Woman; Rural, Most Deprived.

Thus, where CYP are motivated and confident to active travel and there is quality infrastructure, parents/carers are unlikely to stop them but may negotiate specific boundaries and expectations to meet.

The perceived infrastructure needs between CYP and parents/carers were not significantly different, except in the following regards:

- More indoor, safe and affordable spaces for CYP improve the confidence of parents/carers to allow 11-13 year olds to be out without an adult for longer, and later in the day:

  "Of course outdoor activities are very important, but there should be also some sort of indoor activities. There are not enough spaces where maybe young people can go for little money, for a burger, or there is also some machines like Pac Man, when you would be interacting there. It doesn't have to be very big, but it's just something where they can still socialise indoors and have a little bit of something, you know. I think that that's where I sometimes I feel for them during the winter, including mine, because there is nothing much to do." Parent/carer, Woman; Urban, Least Deprived.

- Safe crossings at key places and road safety training were considered more important than they were to CYP. There was a general perception that CYP are more likely to take the risk to cross at unsafe points if they are motivated to get to a destination, which worries parents/carers:

  "The amount of children I see actually just running across the road when there's cars coming, thinking it's funny to stop cars…. It's so dangerous" Parent/Carer, Woman; Urban, Most Deprived.

Internet and Mobile Technology

Underpinning and in the background of all factors influencing independent active travel for CYP is the impact of the Internet and mobile technology. On one hand, these increase sharing of information around routes and destinations that could be taken and ability of CYP to organise their own activities. The ability to access 4G, or even better, free Wi-Fi in public space can be motivating for CYP to use it (Gill 2021). It can also assist with on-the-fly planning of where to go, navigation, and organising when and where to meet, even at short notice. Indeed, it can allow CYP and parents/carers to keep in contact in ways that may both increase a young person's feeling of safety for being out and about without an adults, and a parent/carer's

propensity to let them do so. This could include reducing potentiality for breakdowns of trust to occur, by allowing a young person to notify a parent/carer if they are going to return home later than agreed, or even to seek assistance if they do need unexpected support in returning home. Moreover, in rural areas a lack of Internet or mobile signal may decrease the number of destinations that are perceived safe enough for a young person to go to and increase the level of perceived risk regardless of other factors:

> *"They have a mobile, but they need to know there are big bits of the forest where they can't get a signal," Parent/carer, Woman; Rural, Least Deprived.*

Age-appropriate Active Travel Infrastructure

Having examined the systemic drives and challenges to CYP's independent active travel, we return in the next section to our original research questions. We explore below what CYP require from travel infrastructure to be healthy, happy and safe when travelling independently on their everyday journeys. We also note the additional needs/requirements from parents/carers in allowing their child/ren to travel independently, as well as the results of building new age-appropriate infrastructure or replacing/adapting age-inappropriate infrastructure to suit the needs of CYP and their parents/carers.

Chapter 8

Priority Interventions for Promoting Independent Active Travel for Children and Young People

This report has examined the factors that do and do not promote independent active travel for young Scots aged 11 to 16. By charting the literature that has been produced to date, it found that the main underlying factors previous research has shown to underpin these issues are: culture; access; hazards; and level of enjoyment (Lorenc et al. 2008). Indeed, the levels of independent mobility for CYP in the UK fall behind many of our European counterparts (Shaw et al. 2015) and limited attention has historically been paid to their environmental needs (Wood et al. 2019). However, there was limited previous research that looked specifically at the factors in the UK context, and especially Scotland.

Taking into account that age 11 is widely considered to be a key age for increasing child independence (Shaw et al. 2015), we worked with CYP between the ages of 11 and 16 through a Virtual Participatory Action Research methodology, asking 31 Young Consultants in four diverse communities, and a subset of their parents/carers about their local area. Across the course of three workshops for Young Consultants and their parents/carers, we built Active Travel Maps and analysed key barriers and opportunities for change that would be the greatest win-wins to get as many 11 to 16-year-olds out walking and cycling as possible.

Differences and Commonalities Across Location, Socioeconomic Status and Age

The results of each set of workshops shows both common and different themes within these communities. In rural areas, access to motivating destinations can be particularly difficult, but there is more likely to be a focus on active lifestyles and interacting regularly with the surrounding countryside. In urban areas, there are more likely to be specific places to go for CYP, however there are more likely to be bigger social problems and perceived and/or real low levels of safety and acceptability of CYP getting out and about that stand as key barriers. Moreover, even though there are often more motivating destinations, these remain limited in the view of CYP. The level of familiarity with cycling and access to bikes and bike skills was also lower for our participants living in urban areas.

Looking at areas with different socioeconomic status also showed that there remain common themes around what is and is not motivating and what does and does not increase confidence across all. However, in our more socioeconomically deprived case studies, there was significantly more traffic, with A roads and motorways separating communities and causing significant stress and difficulty in terms of crossing and accessing key destinations. This

included routes to school in both Northfield and Mastrick and Denny and Bonnybridge, where accidents and near misses for CYP were reported as key concerns for both parents/carers and our Young Consultants.

Age also has a clear impact in terms of how safe CYP and their parents/carers perceive destinations and routes to be. Older CYP are generally granted more independence by parents/carers, though this is also reliant on a wide range of environmental and individual factors, explored in chapter seven. The transition to secondary school and the last year of primary school are times when parents/carers begin to consider greater independent freedoms for their child/ren. Having older siblings to travel with can also increase the likelihood that parents/carers let slightly younger CYP take journeys without an adult. To get 11–13-year-olds out and about independently more, an increase in motivating, accessible and affordable indoor destinations arose as especially important. However, significant cuts to youth services in recent years have led to few options. Beyond this, needs are broadly similar across the age groups.

In all communities, there were some common themes emerging from their analysis that they feel would lead to higher levels of CYP walking and cycling where they live. This includes the needs of both CYP and their parents/carers, and all participants in this study were clear that building age-appropriate infrastructure or replacing/adapting age-inappropriate infrastructure to suit their needs would go a significant way to increasing the active travel take-up of 11-16 years olds. Whilst these are inextricably linked, we have split these between cultural and infrastructure factors.

Core cultural factors:

- Having parents/carers that are familiar with walking and cycling in the area enables more CYP to do the same.
- Tackling antisocial behaviour in communities is important for increasing CYP's confidence to active travel, and relates both to the behaviours of other CYP and adults. This is especially true in urban areas but can still be significant in rural locations. This can be extended to finding ways to increase the respect given by adults to CYP when they are in public space.
- Tackling traffic and poor driver behaviour that limits the confidence of CYP and their parents/carers to walk and cycle.
- Improving the availability of skills and knowledge about active travel amongst CYP.

Core Infrastructure needs are:

- Ensuring routes connect areas that are motivating and accessible for CYP to visit.
- Improving and increasing lighting of urban areas and key locations for meeting and hanging out everywhere. This is vital for CYP to feel safe, have opportunities in the winter and after school, and to allow parents/carers to feel more confident with their child/ren being outdoors.

- Safe road crossing points that align with the places CYP need and want to go and that do not involve unnecessary detours or barriers.

- Improving the maintenance of areas such as parks, pavements, and roads. These should be free of hazards and signs of lack of care, including fixing potholes.

- Building/improving cycle paths that are safe, and with a strong preference for being separated explicitly from traffic.

- Encouraging access to bikes and bike hire schemes, including ensuring they are genuinely accessible to CYP for their everyday journeys, and making them affordable to CYP and families on low incomes.

- Ensuring routes are well and appropriately signposted so that CYP can navigate effectively, and parents/carers feel confident that their child/ren will not get lost.

- Improving internet and mobile phone coverage so that CYP can consistently connect with one another and their parents/carers, as well as access maps and location information.

Underpinning all these needs is an increase in motivating and accessible destinations for CYP. This could be better access to parks and nature, as well as motivating indoor destinations There are few affordable opportunities for CYP to hang out in supportive indoor spaces, and there can be a lack of positive opportunities to engage with the wider community. These in turn could help tackle the antisocial behaviour that puts CYP and adults off from using certain spaces in their communities. This could also be improved by more private destinations that cater to the needs of CYP, however, they would need to be specifically amenable and affordable.

Driving a Culture of Active Travel for 11-16 Year Olds

While some of our Young Consultants views and resulting priorities across areas are promoted within local and national transport policy, these often do not draw specifically from the views of CYP. Although a focus on school travel plans and active travel to school is undoubtedly a positive step towards increasing CYP independence and decreasing traffic, congestion, and pollution, it does not attend to the broader needs of CYP and their leisure activities. However, the views presented here are in line with the priorities and vision of the National Transport Strategy, with each Active Travel Map also providing key details of local priorities.

If our Young Consultant's ideas can be taken forward and the views of CYP are collected in developing further actions across Scotland then there is a significant hope for increasing the independent active travel opportunities for young Scots aged 11+, and creating more inclusive places that meet their needs. Moreover, these align with the incorporation of the UN Convention on the Rights of the Child into Scots law and increasing provisions within the Scottish planning system to bring CYP needs and views more directly into decision-making (Wood et al. 2019).

In conclusion, CYP need accessible and enjoyable infrastructure to increase their propensity to active travel without an adult. This can help influence a culture whereby CYP are likely to travel extensively by themselves, as well as provide further opportunities for other members of the community to do so. When more people are active travelling in a community, including CYP,

this is a virtuous circle of positive reinforcement. This can be facilitated best by thinking about both what motivates CYP to get out and about, and what increases their confidence to do so.

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