Enabling Young People to Shape their Environments Through Participatory Action Research

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Abstract

This research project explored the role of young people in enhancing the implementation of Healthy Streets Approaches in Tauranga, Aotearoa New Zealand. Through a participatory action research methodology, young people were partnered with the primary researcher to design the research project, identifying and analysing aspects of healthy and unhealthy streets. The co-researchers contributed their suggestions during focus group discussions and through participatory action research methods of mapping, drawing, videoing and journaling ideas about their journeys. The co-researchers chose their preferred methods, enabling them to drive and give their voices to the research project.

The findings indicated that young people placed emphasis on cities that made them feel safe, connected them to their community and the environment, encouraged alternatives to driving, and provided easy access to services. These results suggest that urban planners and decision-makers should prioritise and value the voices of young people in city design and planning. The research project also resulted in developing an artefact or product (reflecting the practice-based nature of the postgraduate pathway chosen) that outlines how to ‘Enable Young People’s Voice Through Participatory Action Research to Shape Their Environments.’ The artefact was developed as a guide for organisations wishing to enable young people to participate in shaping their cities. Future research should explore how the connection to culture through cities can impact the health and well-being of young people. It should also consider understanding how cultural connections can be strengthened and integrated when planning, designing, and implementing changes to cities and communities in Aotearoa New Zealand.

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List of abbreviations

C-R – Co-researcher

FDG – Focus Group Discussion

HSA – Healthy Streets Approach

NCD – Non-communicable disease

PAR – Participatory Action Research

YPAR – Youth Participatory Action Research

Attestation of Authorship

I hereby declare that this submission is my own work and that, to the best of my knowledge and belief, it contains no material previously published or written by another person (except where explicitly defined in the acknowledgements), nor material which to a substantial extent has been submitted for the award of any other degree or diploma of a university or other institution of higher learning.

Signed:

Date: 26/09/2024

Chapter 1: Introducing the Research Project and Its Approach

> *Every decision we make about our built environment, however small, is an opportunity to deliver better places for people to live in and thereby improve their health*. (Healthy Streets Ltd, 2023)

This chapter introduces the research project and key concepts, particularly the Healthy Street Approach (HSA) and citizen participation, which are central to this study, in urban Aotearoa New Zealand. It also introduces the methodological and theoretical approach, and researcher positionality. The research project used a Participatory Action Research (PAR) methodology to understand the connection between HSAs and the voices of young people. The chapter concludes by outlining the research contribution and an overview of the exegesis structure.

1.1 Explaining the HSA and How it Affects the Health of the Environment and People

The design of cities can significantly affect people's health and influence climate change's effects on both the environment and people (World Health Organization & United Nations Habitat, 2016). Rapid urbanisation and lack of planning have resulted in sprawling cities with low residential density and limited to no mixed land use, reinforcing car dependence (Pineo, 2022). The development of sprawling cities has created a significant reliance on private cars for accessing everyday life, such as work, education, and other amenities, especially where public transport is less accessible (World Health Organization & United Nations Habitat, 2016). Limited public transport infrastructure and greater reliance on private cars can negatively affect peoples' physical, social, and mental health and well-being (Dannenberg et al., 2012; Thompson & Kent, 2014; World Health Organization [WHO], 2018b)

Many cities have high rates of air pollution. This is due to high car emissions, more industries, and high energy consumption (Pineo, 2022). Air pollution increases the earth's temperature by producing high amounts of carbon dioxide and methane (Pineo, 2022; WHO, 2018a). People exposed to air pollution in early life are more likely to experience adverse health outcomes in adulthood, such as cardiovascular and lung disease (WHO, 2018a). Overexposure to polluted air can also contribute to developing respiratory conditions such as asthma (WHO, 2018a). These impacts of

air pollution on both people and the environment highlight the co-benefits of reducing city emissions and changing how people navigate their cities (WHO, 2021).

Additionally, as cities continue to grow, the rates of greenhouse gases produced by cities through industrial pollution, burning of solid fuels, and reliance on cars continue to increase (Giles-Corti et al., 2016; Pineo, 2022). According to UN-Habitat (2023), cities are responsible for 70% of global greenhouse gas emissions, significantly contributing to global warming and climate change. The impacts of global warming are evident through rising sea levels, more extreme weather events, and increased transmission of infectious diseases (Pineo, 2022).

A HSA is an eco-centric framework that aims to incorporate public health into transport and urban planning (Healthy Streets Ltd, 2023). The approach aims to shift city planning and design from designs focused on cars to designs prioritising people's and the environment's health. Implementing a HSA ensures healthy lives and promotes well-being for all ages through actively fostering safe, accessible streets where people can choose to walk or cycle (United Nations, 2015).

By promoting active transport, creating accessible spaces, encouraging social interaction and physical activity, and reducing pollution, HSAs encourage healthier living environments and improve people's health and well-being (Healthy Streets Ltd, 2023). The framework is based on 10 evidence-based indicators that guide the enhancement and adaptation of existing conditions (see Figure 1). The HSA originates from London, United Kingdom, where it was the framework for London’s 25-year Transport Plan introduced in 2019 (Healthy Streets Ltd, 2024). HSAs encourage healthy lives and promote well-being for all by actively promoting safe, accessible streets where people choose to walk or cycle, which helps to achieve sustainable development goals 3, 11, and 13 (United Nations, 2015). Chapter 2 will discuss the origins, principles, and influences of the HSA in more detail.

Figure 1.

Wheel of the 10 Healthy Streets Approach Indicators (Healthy Streets Ltd., 2003)

1.1.1 Healthy Street Approaches in the Context of Urban Aotearoa New Zealand

In Aotearoa New Zealand, adopting HSAs is becoming increasingly popular. Multiple initiatives across the country have aimed to redesign urban spaces by implementing the HSA, such as Wellington's 'Let's Get Wellington Moving' project (Wellington City Council, 2024), the Auckland City Centre Masterplan (Auckland Council, 2024), and Te Ara Mua – Future Streets (2020) project in Māngere Central, Auckland.

Tauranga City Council (2018b) is proposing to implement the HSA principles into its urban strategy. Tauranga is located in the Bay of Plenty region on the east coast of Aotearoa New Zealand. Tauranga is the fifth largest city in the country and continues to grow (Stats NZ, 2018; Tauranga City Council, 2018a). As a result, Tauranga is facing increasing challenges due to urban sprawl, traffic congestion, and climate change (Tauranga City Council, 2018b). The HSA aims to shift city designs towards more people-centred and sustainable approaches to help mitigate these challenges (Healthy Streets Ltd, 2023; Pineo, 2022). Tauranga City Council (2018b) has recently released its strategic vision for its urban strategy: "Tauranga has a sustainable urban form that

supports healthy living, connected communities and a thriving economy, all within a flourishing natural environment" (Tauranga City Council, 2018b, p. 1). Integrating the principles of the HSA into Tauranga City Council's (2018a) strategy will help to create a city that supports the health and well-being of its communities and the environment.

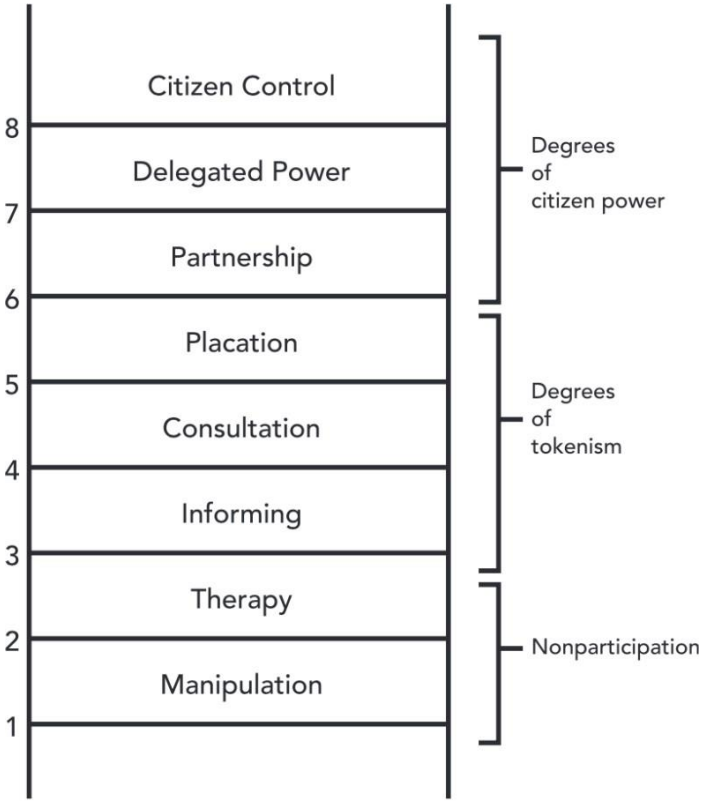
1.2 Exploring How Youth Citizen Participation and Enabling Young People's Voices Can Diversify Decision-Making

This research project aims to further the ideas of those who contribute to developing and implementing healthy street policies and approaches by enabling the voices of young people. The age bracket used to define young people is context-dependent, with some definitions spanning 12-35 years (UN-Habitat, 2024). New Zealand's Ministry of Youth Development (2013) defines young people as 12-24 years old. Young people in the context of this current research project are consistent with the age bracket used in Tauranga's 'Proposed Urban Strategy' of 15-29 years (Tauranga City Council, 2018a). The age bracket from Tauranga City Council's urban strategy is relevant to the research, as the project will take place in Tauranga. Therefore, the findings can be easily applied to Tauranga City Council's context. Tauranga was chosen as the site to conduct this research project as it is where I reside and connect. Through this research project, I hope to enable young people in my community to contribute to positive change while also adding my voice as a young leader in research.

Citizen participation is a process where people make decisions to create positive community outcomes (Arnstein, 2019). Citizen participation is important in health as decision-makers often view health issues in communities differently than those in the community, which can lead to policies or initiatives that do not meet the needs or wants of communities (Carroll-Scott, 2020). There are different levels at which citizen participation can occur, as suggested in Arnstein's Ladder of Citizen Participation (Arnstein, 2019). Sherry Arnstein used the imagery of a ladder to demonstrate how citizen participation can be tokenistic, at the bottom of the ladder, to fully realise, the top of the ladder (see Figure 2). At the highest rung, citizen control aims to redistribute the power between communities and decision-makers by enabling communities to govern decision-making and initiatives that affect their communities (Arnstein, 2019). This research project aims to sit in the partnership rung of this ladder and partner with young people to enable them to contribute to change in their community.

Figure 2.

Arnstein's Ladder of Citizen Participation (Arnstein, 2019)



1.2.1 Young People are Valuable Citizens

Citizen participation in the context of young people involves recognising them as valuable contributors in decision-making processes that impact them (Kontak et al., 2022). Young people's voices are often overlooked in decision-making and policy implementation (Jaffe & Loebach, 2023; Kontak et al., 2022). Engaging young people in decision-making encourages a sense of ownership towards their environment and community (Pyett, 2002).

In the local context of Aotearoa New Zealand, Te Tiriti o Waitangi (Te Tiriti) is the fundamental document that provides a framework for the relationship between the Crown and Māori (Came et al., 2020). Te Tiriti also underpins social and health policy and forms the basis of the relationship with everyone living and working in Aotearoa New Zealand (Came et al., 2020). Embedding the principles of Te Tiriti in citizen participation ensures urban policies and decision-making are inclusive and equitable, and citizen voices, particularly Indigenous peoples and minority groups such as youth, can be enabled to influence decisions affecting them (Raerino et al., 2021). This research project embeds

the principles of Te Tiriti by enabling young people to exercise tino-rangatiratanga/ self-determination throughout the entire research project.

While there are significant benefits to incorporating youth citizen participation, many challenges exist, such as the risk of tokenism. Tokenism is where youth are invited to be involved (e.g. consulted). However, their voices are not valued or considered in the first principles of decision-making. This can create a flow-on effect for future engagement, as their trust in the process may be damaged (Carroll-Scott, 2020). Therefore, it is important that decision-makers understand why they are engaging with young people and what level of influence they have over decision-making.

Young people offer unique perspectives and experiences compared to adults (Kontak et al., 2022). Their participation ensures that policy and decision-making are more holistic, reflective, and inclusive of a broader range of needs and aspirations (Kontak et al., 2022). The voices of young people often represent future generations' diverse needs and aspirations, as they will live with the long-term impacts of present decisions and policy-making (James, 2007; Pyett, 2002). Incorporating a citizens' participation approach to this research project will help to ensure that young people's perspectives are heard and valued in the policy and decision-making processes shaping their cities.

1.3 Exploring How Young People's Voices Can Shape the Implementation of HSAs

Enabling young people to understand how they navigate their cities can enhance the implementation of HSAs. The voices of young people are crucial to HSAs as their experiences and insights can lead to city designs that are more inclusive and accessible and meet the needs of younger populations. My interest in young people's voices shaping HSAs has led to the following research question: How can Youth Participatory Action Research enable young people's voices and agency to improve the implementation of a HSA in Tauranga?

The research objectives are:

1. To explore current knowledge about young people's perceptions of their main journeys in the context of HSAs.
2. To understand how young people perceive their main journey in Tauranga as a means of exploring sustainable and healthy journeys.
3. To support young people in developing strategies (an artefact) for promoting healthy streets through healthier journeys.

1.4 Arriving at the Research Project from my Position

This research project has been shaped by my positionality, including my age and professional and personal interests. My interest in health, understanding human behaviour, and exploring how people work together led me to complete a Bachelor of Health Science double major in Psychology and Health Promotion. My academic journey helped me understand how I could meaningfully impact people's lives.

After graduating from university, I started my career at a public health unit. I held two roles that shaped my interest in interacting with young people and their environment. In my first role as a Healthy Active Learning Advisor, I worked with schools to improve school environments for children. In my second role, as an Advisor in the Health in All Policies team, I worked with non-health agencies in the housing sector to ensure health impacts were considered when making decisions. Both roles focused on improving people's environments. The experience I gained in these positions helped to strengthen my understanding of public health principles and highlight the impact people's environments have on health and well-being. They also highlighted the limited control people often have over their environments. From these experiences, my interest in exploring the environment's role in shaping individual and community health evolved.

Additionally, at 26 years of age, I can relate to young people's struggles to be heard while navigating life. This commonality connects me to the research with a sense of responsibility to ensure that young people's voices are heard, valued, and central to the decisions that affect their future. These principles and experiences have significantly influenced this research project, guiding me to explore how young people can help shape the design of healthy cities.

1.5 Employing PAR Within a Practice-Orientated Approach

This research project uses a practice-orientated approach (a particular postgraduate pathway that Auckland University of Technology offers) which enables the interests of the researcher and practitioner to be reflected in the process and the outcomes. Unlike traditional approaches that focus mainly on the research outcomes, a practice-oriented approach highlights the research process and knowledge gained throughout the process (Ammerman et al., 2014).

The critical theory paradigm guides the project. Critical theory challenges society's power structures by addressing inequities and advocating for social justice (Kivunja & Kuyini,

2017). Alongside the principles of PAR, critical theory emphasises the need to enable communities to create meaningful change (Crotty, 1998).

This exegesis includes reporting on the project and presenting an artefact or product related to the research project. The practice-orientated approach aligns with PAR, the methodology used in this project. PAR moves away from primarily extracting information from participants and looks to collaborate, co-construct knowledge, and develop shared understandings with participants who are co-researchers rather than subjects (Coyne & Carter, 2018). PAR is a collaborative research approach that enables people to participate fully at all stages of the research process, including developing and implementing interventions (Baum et al., 2006). This research project uses a youth PAR (YPAR) approach. YPAR refers to PAR conducted with youth that aims to enable action and create change by identifying the challenges young people face and the opportunities they see (Smith et al., 2024).

A YPAR approach enables young people to become advocates and agents of change in their community, ultimately breaking down the power imbalances often found in policy and decision-making and creating a more equitable and sustainable community (Nind, 2011; Pyett, 2002; Smith et al., 2024). YPAR methods include creative techniques such as photovoice, drawing, music, mapping, and storytelling (Coyne & Carter, 2018). These techniques support creativity and authenticity and enable young people to determine how they want to express their views and opinions (Coyne & Carter, 2018). The data analysis was conducted using PAR analysis, providing unique opportunities for young people to continually drive the outcomes they wanted to see throughout the research process and in their community (Schubotz, 2020). Due to the practice-orientated approach of this research project, an artefact was created. Developing an artefact was an important component of the research project as it captured how organisations can enable young people's voices and ensure they continue to inform future interventions and policies that shape their lives (Groundwater-Smith et al., 2015; Schubotz, 2020).

By combining these two approaches within the critical theory paradigm, the project aims to break down barriers and reduce the mistrust often found in other research settings (Carroll-Scott, 2020). As the approaches complement each other, they help foster a more inclusive and enabling environment, resulting in more relevant and valuable research outcomes for communities.

1.6 The Contribution of the Research Project

This project aims to inform future research as a starting point for developing a strategy through an artefact to enable young people to contribute to policy and decision-making related to their environment. Enabling young people to drive the PAR process and decision-making will help to encourage youth participation and foster a sense of ownership towards their city and community (Pyett, 2002; Rymenants et al., 2023). This research project embeds active youth participation, which can help lead to more inclusive, effective, and sustainable policies and practices that ensure environments better meet the needs of young people (Smith et al., 2024).

1.7 Organisation of the Exegesis

This exegesis consists of five chapters. The current chapter has introduced the research question that the project will address. Chapter 2 provides a critical review of the literature highlighting the evidence that informed this project. Chapter 3 analyses the methodological underpinnings of the research and presents a rationale for its use in this project. Chapter 4 critically comments on the research process and the project outcomes. Chapter 5 offers a reflection on the research project with a discussion on the contributions and limitations of the project, as well as policy and practice implications for creating healthy and sustainable cities. This exegesis is a supporting document to the artefact discussed in Chapter 5.

Chapter 2: Critical Literature Review

2.1 Introducing the Critical Review

This critical review aims to establish a comprehensive understanding of existing knowledge of HSAs and youth participation, identify gaps in the literature, and explore areas for future research. A critical review extends beyond describing the literature by highlighting gaps and areas for future improvements (Carnwell & Daly, 2001). This type of review supports the practical approach of the research project.

In this chapter, I will critically analyse and interpret existing literature, exploring themes related to HSA and young people's agency in shaping healthy street policies and initiatives. Through the critical review, I will also highlight areas for future research, aiming to address the current gaps and identify areas for improvement in urban planning and youth participation.

The review was conducted using a youth citizen participation lens. This lens shapes the interpretation and analysis of the literature to focus on how young people are involved in the process and decision-making (Arnstein, 2019; De Weger et al., 2018). This lens aligned with the research goal of enabling young people to shape their environments.

Citizen participation enables communities to shape their environment and services to improve health and well-being (De Weger et al., 2018). Citizen participation is relevant to Aotearoa New Zealand, as the health sector is focused on creating a community and whānau-led health system driven by community voices and needs (Minister of Health, 2024). Utilising this lens will help to examine how existing policies or practices have incorporated the voices of young people or where improvements can be made. This project was particularly concerned with young people as citizens.

The literature search used the following databases: SCOPUS, MEDLINE, and CINAHL. A combination of the following search terms to identify relevant literature were used; "Participatory Action Research", "urban environment", "physical environment", "built environment", "young people", and "healthy streets". Only research published between 2014 and 2024 is included, as the review aimed to capture the most up-to-date trends and developments. Contact was also made with an expert in population health to discuss the effects the built environment and daily mobility have on health outcomes. They provided vital authors and articles to support the literature review and the research project. James Sallis and Billie Giles-Corti were key authors who were particularly

important to include in this review. In order to develop an in-depth understanding of the HSA, the search was broadened to include “healthy cities” and “healthy neighbourhoods”.

The literature review aims to understand the existing knowledge of HSAs and youth participation, identify gaps in the literature, and explore areas for future research. This will inform the research aim of diversifying who contributes to developing and implementing healthy street policies and initiatives. The review is structured into three main sections exploring;

1. What is a HSA, and how is it implemented in global and Aotearoa New Zealand contexts? This section provides in-depth knowledge of the approach, its principles, and how it has been applied globally and nationally. It also identifies challenges and opportunities for participant engagement in its implementation.
2. How is the health and well-being of young people affected by the health of cities? This section highlights the intersection between city design and the health and well-being of young people. It identifies the current gaps in the literature that the implementation of HSAs led by young people can bridge.
3. Why enabling youth voices and agency to shape urban policy and decision-making is essential for young people’s health and well-being? This section critically examines youth engagement and the benefits of enabling young people to shape urban policy and decisions that affect them.

The literature review is divided into these three sections because all are important parts of the research objectives. Each section builds on the other to help understand the current literature and any gaps or contradictions the research project could fill.

2.2 What is the HSA and How is it Implemented?

HSA aims to transform historic planning processes by ensuring that the health of communities and the environment are at the centre of designing cities (Healthy Streets Ltd, 2023). Pineo (2022) highlighted the Healthy Cities movement as a process of ongoing improvement rather than achieving a final state. It requires a policy and design underpinned by three core principles: equity, inclusion, and sustainability.

Historically, urban planning has neglected the health and well-being of communities when planning and designing cities (WHO & United Nations Habitat, 2016). This neglect has made urbanisation a significant public health issue, exacerbating issues affecting human and environmental health, such as sedentary lifestyles, social

isolation, air pollution, and climate change (World Health Organization & United Nations Habitat, 2016).

This section provides a critical analysis of the HSA, analysing global examples of HSA implementation, local examples in the context of Aotearoa New Zealand, the role of the community in a HSA, and the impact this approach has on the health and well-being of young people.

2.2.1 Healthy Street Approaches in a global context

Variations of the HSA have been implemented globally, notably in cities such as London, England and Haren, Netherlands (Public Health England, 2018; Transport for London, 2018).

2.2.1.1 London, England

London was the first city in the United Kingdom to adopt a HSA, and in 2014, Transport for London won awards for publishing the world's first transport health action plan, which included adopting the HSA (Healthy Streets Ltd, 2024). This approach aims to improve Londoners' physical and mental health by creating people-focused streets where people choose to walk, cycle, and use public transport (Plowden, 2020; Transport for London, 2018). Achieving this goal required an integrated approach across policy domains such as public health, transport, spatial planning, environment and economic development (Plowden, 2020). Through an integrated approach and consistent monitoring and adaption, the approach has been able to maximise the positive health impacts of increased active travel while mitigating the negative health impacts of inadequate road safety and air and noise pollution (Healthy Streets Ltd, 2024; Plowden, 2020).

Although the HSA has had positive impacts in London, implementing the approach requires a critical shift in thinking. The HSA often challenges planning practices to use a cross-government approach and prioritise the use of the streets by the people (Plowden, 2020). This shift in thinking and operating has been described as a political challenge as much as a practical one (Plowden, 2020). Due to the challenges of implementing the HSA, tokenistic engagement may be a risk where organisations engage with populations that are easy to reach as they juggle other challenges, such as political dynamics and interagency relationships (Plowden, 2020). This may result in already marginalised communities being jeopardised as their voices are not being heard. Therefore, they continue to miss out on the benefits of a healthy environment.

2.2.1.2 Haren, Netherlands

Haren, Netherlands, has highlighted the positive outcomes of implementing HSAs by redesigning their main shopping and civic area, which historically carried substantial traffic (Public Health England, 2018). Evaluations of the redesign indicated an increase in local appreciation, a more attractive environment, reduced traffic speed, and improved public transport reliability (Public Health England, 2018). Although there was negative feedback due to the absence of cycle lanes, road traffic collisions decreased (Public Health England, 2018). While users of the area emphasised the preference for dedicated cycling lanes, this was overlooked in the initial implementation and highlights the risk of anticipating community needs and having the community involved at every stage of the process to ensure the implementation is correct the first time. This issue indicates that the initiative may have been situated in the 'consultation' level of Arnstien's Ladder of Citizen Participation. Decision-makers involved people from the community but needed to incorporate their voices meaningfully instead of implementing a design based on their assumptions (Arnstein, 2019). However, the initiative may have transitioned to 'partnership' as the citizens took action and provided feedback, which was actioned by adding dedicated cycling lanes to the location (Arnstein, 2019; Public Health England, 2018).

Although evidence supports the implementation of a HSA, there is still room for improvement, as demonstrated in the initiatives above. The urban redesign in Haren highlights the essential role of citizen participation and community involvement. However, the community's voices were only genuinely incorporated after the initial implementation of the approach (Public Health England, 2018; Transport for London, 2018). This learning significantly contributes to the effectiveness of future initiatives as it highlights the importance of working in the 'delegated control' or 'citizen control' levels of Arnstien's (2019) Ladder of Citizen Participation. Working at this level means initiatives are more likely to meet the needs of the communities as they are driving the decision-making and implementation process.

2.2.1.3 Aotearoa New Zealand

In Aotearoa New Zealand, adopting HSAs is becoming increasingly popular. Urban planners and policymakers are beginning to recognise the need to develop environments that promote public health and well-being for community members and the environment. Councils in Aotearoa New Zealand have started incorporating policies from the HSA into their urban planning policies. Previous and current initiatives such as Wellington City Council's (2024) Let's Get Wellington Moving project, Auckland City's Centre Masterplan (Auckland Council, 2024) and Te Ara Mua – Future Streets (2020) project in Māngere

Central, Auckland aim to redesign urban spaces to prioritise people over cars, reflect cultural identity, reduce pollution, make neighbourhoods safer and more accessible for people to navigate and enhance social connectivity.

As discussed in Chapter 1, section 1.1.1, Tauranga City Council (2018a) is implementing a HSA to help address the city's urban sprawl, traffic congestion, and climate change challenges. Tauranga City Council has incorporated principles which aim to enhance the influence of mana whenua in cultural landscape designs, enabling everyone to connect to and deepen people's 'sense of place' in their cities.

Implementing a HSA framework provides an opportunity to create better, healthier places to live, which can result in improved health outcomes (Healthy Streets Ltd, 2023). Although these initiatives are promising, there is a gap in effectively enabling populations such as young people, Māori, and other minority communities in Aotearoa New Zealand to drive solutions to these challenges. This limited involvement is a barrier to enabling communities to reach the full potential of citizen participation and empowerment – 'citizen control' (Arnstein, 2019; Raerino et al., 2021). The examples in Aotearoa New Zealand incorporate minority populations and include principles to help involve them in decision-making; however, this does not fully enable communities to lead initiatives and research. Future research and initiatives should prioritise participatory approaches to ensure the voices and aspirations of communities are at the centre and drive the process. This will help create a deeper understanding as to why it is essential to have inclusive solutions that prioritise minority populations and their aspirations to drive meaningful and sustainable changes for their communities.

2.3 Affecting the Health and Well-being of Young People Through the Health of Cities

The built environment plays a significant role in shaping the wellbeing of young people. However, the current literature mainly focuses on older people's and children's views and experiences (Moore et al., 2023). This oversight is important, as a well-designed, accessible environment can significantly influence young people's physical, mental, and social health (Benninger et al., 2021; Sallis et al., 2016; Thompson & Kent, 2014). The literature identifies the positive impacts of a well-designed city on a person's health, such as increased physical activity and improved physical health through access to green space, recreational facilities, and pedestrian-friendly infrastructure (Benninger et al., 2021; Sallis et al., 2016; Thompson & Kent, 2014). However, more literature is needed to address young people's unique needs and challenges (Benninger et al., 2021; Jaffe & Loebach, 2023). This section will examine how the

health of cities affects young people. It will address the associations between physical activity and land use, sedentary behavior and transportation options, social connections and mental health, as well as the impact of climate change and air quality on overall well-being.

2.3.1 Influencing Physical Activity Through Land Use

Urban planning decisions involving land use and transport decisions can significantly influence people's physical activity. Promoting active transport is an important strategy for improving the health of urban communities and is a key principle of the HSA (Healthy Streets Ltd, 2023; Sallis et al., 2015). Literature supports the correlation between physical activity promotion programmes in greenspaces, parks, recreational facilities, and sidewalks with improved mental health, social well-being, sustainability and safety (An et al., 2019; Benninger et al., 2021). Benninger et al. (2021) highlighted that sports and recreational facilities promote healthy lifestyles while also providing an opportunity to enhance young people's social well-being through mentorship and building interpersonal skills. Neighbourhood facilities such as walk/bike-ability are also associated with increased physical activity levels and more active commuting (An et al., 2019). However, the literature also highlights some contradictions, as higher-density walkable areas encourage more exercise but can negatively impact residents' health through noise, pollution, and access to less greenery (Carmona, 2019). This highlights the complexity of implementing HSAs, as many competing and contradicting factors exist. This contradiction highlights the need to understand the full spectrum of health and environmental impacts implementing a HSA could have on communities and the environment.

2.3.2 Reducing Sedentary Behaviour Through Active Transport

Sedentary behaviour is a rising health concern in the 21st century. At least one-quarter of the global adult population (18+ years) does not meet the WHO physical activity recommendations of 150 minutes of moderate-intense activity per week, and 81% of adolescents (11-17 years) do not meet the recommended 60 minutes of moderate-vigorous activity per day (WHO, 2018b). Sedentary lifestyles among the urban population are closely associated with increased rates of non-communicable diseases (NCDs) such as heart disease, strokes, diabetes, and cancer (WHO, 2018b). The concern of sedentary behaviour is exacerbated by car dependency, deskbound workplaces and lifestyles (WHO, 2018b). The literature supports the correlation between the use of active transport and the reduction in sedentary lifestyles. By creating cities that prioritise walking, cycling, and public transport, the HSA can encourage healthier physical activity habits, decreasing the likelihood of developing NCDs (Pineo, 2022).

2.3.3 Improving Mental Health Outcomes Through Creating Social Connection

The design of cities can also impact young people's social connections and, therefore, affect mental health outcomes (Thompson & Kent, 2014). Studies have shown that loneliness and social isolation are more commonly found in cities with high car reliance and are more likely to be linked to poor mental health (Giles-Corti et al., 2016; Moore et al., 2023; Thompson & Kent, 2014). Research shows urban designs can help foster positive social interaction, such as promoting active transport and accessible public spaces (Thompson & Kent, 2014). Promoting these urban designs can help to mitigate these adverse outcomes (Thompson & Kent, 2014).

Moore et al. (2023) found that young people aged 16-24 were the loneliest age group in their study. Participants' loneliness was associated with living in communities with low socio-economic status, feeling disconnected from their community, and lack of trust in community members (Moore et al., 2023). A well-designed public space can be implemented through the application of HSA principles as they foster social connection and a sense of belonging, positively impacting the mental well-being of its users (Benninger et al., 2021; Carmona, 2019; Healthy Streets Ltd, 2023; Thompson & Kent, 2014). However, the HSA principles and solutions must be adapted to their specific communities and not replicated as a one-size-fits-all approach, as each community will have different needs and priorities, especially for young people. This highlights the need for strong community engagement to understand how social connection and a sense of belonging are fostered for specific communities and how they see it implemented in their cities.

2.3.4 Reducing the Effects of Climate Change

The design of cities can help address the short- and long-term effects of climate change on the environment and people (WHO & United Nations Habitat, 2016). As people continue to move into cities, industrial pollution, burning of solid fuels, and reliance on cars increase, contributing to the high rates of greenhouse gases produced by cities (Giles-Corti et al., 2016; Pineo, 2022). Cities are responsible for 70% of global greenhouse gas emissions, significantly contributing to global warming and natural climate patterns such as rising sea levels, extreme weather events, and increased infectious disease transmission (Pineo, 2022; UN-Habitat, 2023). Climate change exacerbates young people's environmental risks, such as contamination of air, food, water, and soil (WHO, 2021).

Implementing HSA principles can help mitigate climate change as the principles redesign existing urban environments to encourage green and blue space and support active and

public transport (Healthy Streets Ltd, 2023). The HSA principles demonstrate a commitment to the environment's health and public health outcomes (Healthy Streets Ltd, 2023). Implementing HSAs will change how people navigate their cities, helping to reduce emissions and combat climate change. However, a gap in the current literature is the long-term impacts of implementing HSAs. Future research should consider understanding the long-term impacts of implementing a HSA on climate change, the environment's health, and the people occupying the area. Long-term evaluations can help assess the approach's success while informing strategies that align with changing community priorities and dynamics and providing environmental considerations (Public Health England, 2018; Sallis et al., 2016).

Addressing the significant oversight of neglecting young people's unique needs and aspirations in urban design and planning is essential. Existing literature highlights the built environment's considerable impact on people's physical, mental, and social health. It predominately focuses on other demographic groups and does not specifically consider the experiences of young people (Moore et al., 2023). The HSA provides a framework to address the environmental gaps. However, an inclusive approach is needed to implement these principles to ensure they benefit young people. This approach needs to enable young people to operate in citizen control when contributing to the development of their cities (Arnstein, 2019). Enabling young people to voice perspectives and experiences will help to create cities that positively impact the health and well-being of young people and are sustainable and responsive to the needs of future generations (Benninger et al., 2021; Jaffe & Loebach, 2023).

2.4 Enabling Youth Voices and Agency to Shape Policy and Decision-Making

Citizen voices and participation have existed for many decades. However, youth participation is a relatively new and evolving concept (Ozer et al., 2022). Moving from involving communities to providing spaces for citizen voices to enable community empowerment has been an important shift in citizenship theories. This involved enabling communities to sustain positive changes and achieve their desired outcomes even after the researchers have left (Rymenants et al., 2023). This section explores how power dynamics influence young people's engagement in policy and decision-making and how involving young people creates a sense of ownership and sustainable policy for future generations.

2.4.1 Understanding How Power Dynamics Shape Young People's Engagement

The concept of youth voice aims to elevate the wants and needs of young people when informing policy and decision-makers (Carroll-Scott, 2020). By incorporating the voices of young people from the outset, initiatives and decision-making processes are more likely to engage young people and ensure that they are relevant and beneficial to them (Carroll-Scott, 2020). Kontak et al. (2022) found that youth valued engaging in their school decisions because their perspectives differ from teachers and school staff, and the changes directly impacted them. However, they also saw barriers to engaging in school decision-making processes due to fears of speaking up, having potentially differing perspectives from their adults, or not being listened to or valued (Kontak et al., 2022). Literature shows that young people often do not actively participate in policy or decision-making due to power imbalances and a lack of respect for their perspectives (Jaffe & Loebach, 2023; Kontak et al., 2022). These barriers highlight how adult-youth power imbalances can impact research.

Conversely, literature shows that when young people's voices are encouraged and heard, they feel empowered and more inclined to continue engaging actively (Greer et al., 2021; Kontak et al., 2022). These studies used a PAR approach, enabling young people to share their opinions (Greer et al., 2021; Kontak et al., 2022). It is also important to acknowledge that both studies were conducted in schools where it may be easier to engage with young people as there is likely to be school buy-in and influence from peers and teachers to take part (Greer et al., 2021; Kontak et al., 2022). However, it is important to note that young people, like adults, have a varied degree of engagement depending on their circumstances, whether that be their socioeconomic position, education level, or accessibility (Smith et al., 2024; Van Eijk et al., 2023). Future research with young people should consider the different barriers they face participating in research and employ methodologies, such as YPAR, that can help minimise the impact of barriers (Kontak et al., 2022).

2.4.2 Enabling a Sense of Ownership for Young People

Engaging young people in decision-making enables them to shape their community's future. This involvement fosters a sense of ownership and long-term investment in their environment and community. However, young people's voices are often excluded from urban development, resulting in streets and cities that fail to meet their needs (Coyne & Carter, 2018). Greer et al. (2021) found that actively engaging young people resulted in policy and environmental changes supporting safer routes to school. These changes occurred because young people had the power and voice to address problems they identified. Allowing young people to identify challenges and drive solutions also helps to

maintain their engagement and investment to positively change their community (Greer et al., 2021).

However, a challenge when practically implementing a shift toward participatory approaches is ensuring that policy and decision-makers genuinely incorporate the voices of young people, as there is potential for tokenism to occur (Arnstein, 2019). The benefits of community-engaged approaches are evident and well-documented, although initiatives or research where young people govern is a relatively new and evolving concept (Arnstein, 2019; De Weger et al., 2018; Ozer et al., 2022). This research project aims to support the growing pool of research highlighting that young people can govern projects and initiatives that create positive outcomes and benefit communities.

2.4.3 Creating Sustainable Policies for Future Generations

The inclusion of young people in policy and decision-making is imperative. A growing body of literature demonstrates the importance of early intervention to address the conditions contributing to poor health outcomes in adulthood (King et al., 2021). Involving young people in policy and decision-making through inclusive design and planning processes is essential for creating healthy cities (Pineo, 2022). Young people are valuable community partners due to their fundamentally different perspectives from adults (Greer et al., 2021; Kontak et al., 2022). However, traditional policymaking still frequently overlooks young people's perspectives and experiences (Carroll-Scott, 2020; Jaffe & Loebach, 2023; Kontak et al., 2022).

As highlighted in section 2.3, integrating youth voices is essential to create more holistic, sustainable, and inclusive decision-making processes considering the environment and the community's needs (King et al., 2021; Ozer et al., 2022; Smith et al., 2024). Addressing this gap of including young people in policy and decision-making processes requires a fundamental shift towards participatory approaches that prioritise the needs and aspirations of young people from the beginning. This will ensure that future research and policy decisions reflect and respond to the young people they aim to serve, increasing trust, engagement, and sustainable change.

2.5 Conclusion

Prioritising public health in urban design through adopting HSAs highlights the potential for transformative change. The HSA framework emphasises the critical role of community involvement, continuous monitoring, and adaptability (Pineo, 2022). However, a gap in the literature is undervaluing or ignoring young people's contributions to policy and decision-making. Young people offer different perspectives and innovative

solutions to contemporary challenges (Altares et al., 2022; Greer et al., 2021). Incorporating young people's voices ensures that policies are relevant to them and are more likely to address the needs of future generations (King et al., 2021; Smith et al., 2024). However, perceived power imbalances, fear of not being heard, and unmet needs remain significant barriers to young people's participation in research (Carroll-Scott, 2020; Jaffe & Loebach, 2023; Kontak et al., 2022).

This research project aims to help address these challenges by creating a supportive environment that enables and mobilises young people to lead the process of designing and implementing HSAs. Young people leading the implementation of a HSA help remove the barriers to youth participation and decision-making. This helps shift from tokenism to genuine youth control, where young people contribute to their full potential, resulting in inclusive, healthy, and sustainable urban design.

Chapter 3: Research Design

My positionality as both a practitioner and researcher, including as a young person committed to equity and social justice, with a particular interest in the health and well-being of young people, significantly influenced the research project. It shaped the research question and objectives, guided how the research was designed, and informed how I positioned myself as a lead researcher throughout the process. It also shaped the development of the artefact, which reflects an inclusive, participatory approach to ensure young people are enabled to contribute and that their voices are central to research and initiatives that affect them and their lives.

This chapter presents the research design. I explain how my practitioner and researcher positionalities shaped the research question, objectives, and design. I then discuss the methodological path, including adopting a critical theory paradigm. This paradigm aligns with my positionality and the research objectives as it supports my commitment to equity and social justice, guiding my choice of YPAR as the methodology. YPAR recognises young people as co-creators of knowledge, aligning with the critical theory concepts of emancipation and equity. The chapter details the data handling process through the following stages: preparation, data collection, and analysis and concludes with a brief overview of the artefact's development.

3.1 Arriving at the Research Design From My Position

The research design of this research project has been built on and been shaped by my positionality, as outlined in Chapter 1 (section 1.4). My mahi currently focuses on enhancing mental health services for young people. To achieve this goal, I must prioritise listening to their voices to ensure their services meet their needs. This aspect of my mahi is particularly relevant to the research design, as both projects aim to mobilise young peoples' power by providing them with spaces to actively participate in designing and implementing services and initiatives that benefit them. Through the use of YPAR, the research project aims to enable young people's voices, empowering them to shape their environments.

3.2 Aiming to Diversify Who Contributes to Shaping Young People's Environments

The research project aims to provide more opportunities for young people to shape and implement environmental policies. The main research question is: 'How can YPAR

enable young people's voices and agency to improve the implementation of a HSA in Tauranga?'

The research objectives are:

1. To explore current knowledge about young people's perceptions of their main journeys in the context of HSAs.
2. To understand how young people perceive their main journey in Tauranga as a means of exploring sustainable and healthy journeys.
3. To support young people in developing strategies or tools (including creating an artefact) for promoting healthy streets through healthier journeys.

3.3 Addressing the Power Imbalance Between Young People and Decision-Makers Through the Critical Theory Paradigm

This research project is guided by critical theory. Critical theory aims to achieve equity within communities and promote social justice (Crotty, 1998). Critical theory was chosen to guide the research project as it aligns with my equity value and helps identify and address the power imbalances between young people and decision-makers (Kivunja & Kuyini, 2017). Using this paradigm provides a lens to understand, critique, and challenge various factors that can marginalise young people (Crotty, 1998). Through the use of critical theory, the research project aims to shift beyond documenting the experience of young people and towards enabling young people to lead the process and actively contribute to shaping the decision-making process that affects them.

3.4 Utilising PAR as a Methodology

Aligning with critical theory, the methodology used in this research project is PAR. PAR was chosen as it aims to help address power imbalances that are often found in traditional research and decision-making processes (Kivunja & Kuyini, 2017). In contrast to non-PAR approaches, PAR emphasises collaboration, with community members actively engaging at all stages of the research process, from design to implementation (Baum et al., 2006). This methodology challenges existing power structures by aiming to redistribute power between primary researchers and community members, ensuring the voices of marginalised groups, such as young people, are valued and prioritised (Baum et al., 2006). PAR is an iterative process that involves continuous action and reflection cycles (Baum et al., 2006). These cyclical processes can be conducted through participatory data collection methods such as focus group discussions (FGDs) and participatory action analysis (Baum et al., 2006; Kindon et al., 2008). Participatory action analysis aims to ensure the research process is committed to collective knowledge

production and collaboration as it is determined and actioned with the participants involved (Baum et al., 2006; Kindon et al., 2008).

Additionally, more specific types of PAR methodology can be adapted to the situation, such as YPAR, which aims to centre young people as the research drivers (Ozer et al., 2022). YPAR acknowledges young people as experts in their own experiences and environments (Ozer et al., 2022; Pyett, 2002). The primary researcher aims to create a space where young people can partner in the research helps to ensure the outcomes are relevant and beneficial (Ozer et al., 2022; Pyett, 2002).

3.4.1 PAR Methodologies for Distributing Power

Power dynamics are an important concept in all PAR methodologies, particularly in research with young people, due to the pre-existing societal dynamics between young people and adults (Groundwater-Smith et al., 2015; Rymenants et al., 2023; Stoecker, 2022). PAR aims to share the power between the primary researcher and the co-researchers, valuing the different strengths and acknowledging each party's limitations to the research process (Baum et al., 2006; Cohen et al., 2018; Smith et al., 2024). By positioning young people as co-researchers, this research project ensured they are enabled to use their voices to influence the policies and decisions that affect their environments (Coyne & Carter, 2018; Ozer et al., 2022).

However, removing power dynamics takes work, and many barriers exist. Barriers to redistributing power are often relational and can be related to mistrust (Carroll-Scott, 2020; Kim, 2016). Studies have found that adults often have negative perceptions and do not trust young people's abilities to lead research (Kim, 2016). Another barrier to reducing the power imbalance is the time required to build strong relationships where respect and trust can be fostered (Carroll-Scott, 2020; Kim, 2016). Completely removing the power barrier does not often occur when working with young people (Hart, 2008). However, young people should be able to participate confidently and be leaders if they choose to do so (Hart, 2008).

3.4.2 Action and Reflection as Critical Stages of PAR

As mentioned above, PAR involves continuous action and reflection cycles (Baum et al., 2006; Kindon et al., 2008). The action element of PAR is essential to implementing the methodology as it shifts research from understanding an issue to working collaboratively with the co-researchers to address the issue (Baum et al., 2006; Kindon et al., 2008). It aims to create a space where co-researchers are enabled to have ownership in creating social change (Baum et al., 2006; Kindon et al., 2008).

Shared reflection is another crucial component of PAR design. Shared reflection is a collaborative process where the researcher and co-researchers come together to reflect on their experiences and learnings. As mentioned above, shared reflection is an iterative cycle paired with the action element to continuously improve the research process involved (Baum et al., 2006; Kindon et al., 2008). Where reflection identifies learnings and areas of improvement, action aims to implement those changes (Baum et al., 2006; Roura, 2021). Reflecting also aims to help reduce the power imbalance and enable genuine shared decision-making (Baum et al., 2006; Kindon et al., 2008). This helps ensure that the research consistently meets the needs of the co-researchers (Baum et al., 2006; Kindon et al., 2008). The ongoing process of reflection and action can contribute to the research project's responsiveness to the co-researchers. This helps to position the research where it is relevant to the co-researcher's needs and aspirations while enabling them to actively contribute to their community.

3.4.3 Action-Oriented FGDs for Effective Data Collection in PAR

Action-oriented FGDs—as opposed to more traditional FGDs—are common in participatory approaches as they aim to be flexible, and participants can easily lead in the discussions and outcomes (Schubotz, 2020). To ensure people authentically express their thoughts and experiences, they must feel comfortable in the environment and with the other group members (Schubotz, 2020). Ensuring participants feel comfortable often involves investing time in building relationships and trust, which requires a particular partnership approach to FGDs, which PAR aims to provide. Without a feeling of comfort, social conformity and desirability may be heightened (Carroll-Scott, 2020; Kemmis et al., 2013; Schubotz, 2020). The issue of social conformity and desirability will always be present; however, the impact can be minimised by investment in relationships and trust (Schubotz, 2020). Conducting authentic action-orientated FGDs for PAR requires significant time and preparation (Coyne & Carter, 2018; Schubotz, 2020). This helps to ensure that the FGD facilitates a space for trust and respect, allowing for effective co-design and collective analysis (Carroll-Scott, 2020; Schubotz, 2020). As the primary researcher, I shared commonalities with the co-researchers and met the inclusion criteria. This helped to make my connection to the group more seamless and helped reduce the power imbalances, which assisted my role as a facilitator in creating a safe and enabling space for the co-researchers.

Managing the group dynamic is one of the biggest challenges when using FGDs in PAR (Schubotz, 2020). This sets the FGDs used in PAR apart from FGDs used in more traditional research, where the facilitator's role tends to focus on facilitating discussion

around the topic (Gill et al., 2008). In a PAR FGD, the facilitator manages the group dynamic by encouraging everyone involved to participate in ways they feel comfortable and ensuring contributions are respectful while remaining within the allocated timeframe (Coyne & Carter, 2018; Schubotz, 2020). Managing the group dynamic requires skill and adequate preparation, reinforcing that FGDs, when genuinely participant-led, are not always a quick and easy option.

Through the PAR methodology, this research project aimed to enable the co-researchers to lead the research process, ensuring they were heard and valued. The different aspects of PAR ensured that this research project was responsive and relevant to the co-researcher's needs and aspirations while enabling them to actively determine and action outcomes in their community.

3.5 Preparing to Gather the Data

This section outlines the ethics approval gained to carry out the research project, how the co-researchers were recruited, and who the co-researchers were.

3.5.1 Research Ethics

Ethics approval was received from the Auckland University of Technology Ethics Committee (AUTEC) on 17 October 2023 (reference number #23/214, see Appendix A).

3.5.1.1 Young People in Tauranga

The inclusion criteria for the research project were individuals aged 18 to 39 years who reside in Tauranga, Aotearoa New Zealand. The exclusion criteria were individuals outside the age range or not permanent Tauranga residents. The final group recruited comprised of six co-researchers aged 22-27 years, fitting within the age range used to define 'young people' in the Tauranga City Council's (2018a) 'Proposed Urban Strategy' of 15-29 years. The research project inclusion criteria of 18-39 years of age was not lowered to align to the age range used by Tauranga City Council because to ensure the process for consent, autonomy and participation in the research project was the same for all of the participants. The group was predominantly female, with five females and one male. All co-researchers had lived in Tauranga for over six months. Their diverse educational and career backgrounds contributed to a wide range of perspectives.

3.5.1.2 Recruiting Co-researchers Through Social Media

A brief study description was advertised on the Pāpāmoa Beach Sports Club's Instagram and Facebook pages (see Appendix B). Pāpāmoa Beach Sports Club was selected as the club to advertise through as they have a wide range of young people from the Tauranga community connected to their club. They have a mix of male and female sports

teams, with five netball teams, three touch teams, and one hockey team. Their Instagram and Facebook pages were chosen as the places to advertise, as those are the platforms through which they engage with their community members. Interested individuals were invited to contact me directly to express their interest. I then reached out to the seven individuals who had contacted me to confirm their involvement. Once confirmed, they were added to a Facebook page where I shared more information about the research project and coordinated the introductory/group session setup.

3.6 Collecting and Analysing the Data

This section will follow the chronological order of data collection and analysis throughout the research project (see Figure 3). It will demonstrate how PAR was utilised through the data-gathering and analysis processes.

Figure 3.

Outline of the Data Collection, Analysis, and Artefact Development Process

3.6.1 Preparation

The first FGD was intended to introduce the research project. I drafted and redrafted a plan multiple times to ensure the session was structured yet flexible. After finalising the draft, I discussed it with my supervisors for feedback. They highlighted potential timing issues, prompting me to adjust the session activities. The first session required sufficient time to explain the information sheet and consent form, share different data collection methods with examples, and brainstorm ideas about healthy and non-healthy streets and cities.

Before the first focus group session, I created a Facebook page to facilitate clear communication among all co-researchers. On this page, I set up a poll to determine a convenient date and time for the session. The poll allowed the co-researchers to suggest their preferred day and time. Five out of seven co-researchers voted for the same day, with one indicating they were flexible. The seventh co-researcher decided to withdraw from the project due to other commitments. For the chosen day, five of the six co-researchers indicated they were available at any time, and the sixth co-researcher voted

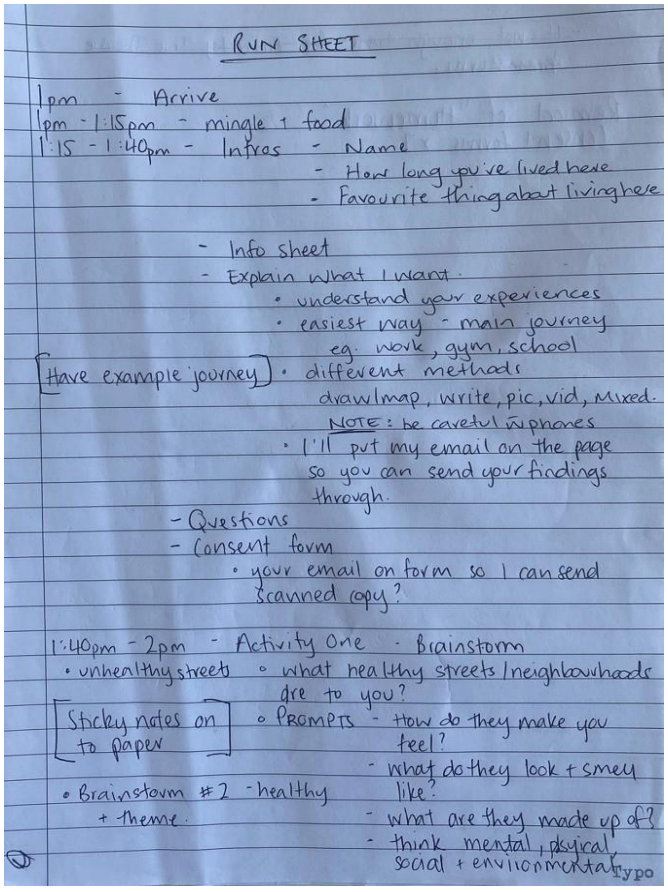
for 1 pm. 1 pm was the time the first focus group session was held. The same process was repeated to schedule the second session, which took place three weeks after the first.

Once the date for the first session was decided, I contacted a local café, 'But First Desserts,' which a co-researcher suggested, and others had indicated verbal interest in. The café was centrally located for most co-researchers and had a space suitable for larger groups. This venue worked well as we could use larger paper to brainstorm and guide our conversations, have interactive discussions, and snack on food. We used the same space for the second session.

I created a detailed plan for the first session, which was 1.5 hours long. This plan included an introduction to the research project guided by the information sheet and preparations for the second session (see Figure 4). Preparation for the second session included explaining examples of various methods co-researchers could use to collect their data and completing brainstorms about healthy and unhealthy streets. The plan was designed to be flexible, ensuring the research process followed PAR principles by allowing the co-researchers to guide the session.

Figure 4.

Run Sheet Example from Session One



3.6.2 Session One: Introduction/Brainstorm Session

This section is broken into three parts: preparation, part one – introductions, and part two – brainstorming to clearly outline the different stages of the first FGD. FGDs were identified as a method to create a space where the co-researchers could lead the discussions and analysis of their reflections on their journeys.

3.6.2. 1 Session One: Part One - Introductions

We began part one with a whakawhanaungatanga (relationship-building) exercise, during which we introduced ourselves and shared what we enjoyed most about living in Tauranga. This activity helped the group bond, as many mentioned the lifestyle and the beach, creating common ground for building our relationships and fostering mutual trust and respect.

I implemented several measures to ensure the co-researchers did not feel vulnerable during data collection and analysis. The first measure I took was to provide a formal explanation about maintaining confidentiality and outline expectations for safeguarding themselves and each other. For example, issues discussed in the focus groups were not to be shared with anyone outside the research team.

The second measure was to create a safe space for the co-researchers to ask questions and express concerns. Thirdly, I informed the co-researchers that they could provide feedback or raise concerns if they felt uncomfortable or mistreated during the research process. The information sheet included the contact details of my primary supervisor, and AUTEC was highlighted to the co-researchers.

Additionally, the co-researchers were given an information sheet (Appendix C) and a consent form (Appendix D), which we reviewed together. Co-researchers were provided with the option to complete/sign and return the consent form at the end of the session or think about it further and return it at the next FGD. This also helped to ensure that only those genuinely interested in participating were involved. All consent forms were collected before data analysis began, as the co-researchers collected data individually. I also obtained consent to audio record the second session and for any written material generated during the brainstorming to use the data for future publication or presentations. The co-researchers were reminded that they could withdraw from the research.

Part one of the first session concluded by defining the concept of PAR and clarifying their role in the research project, which was also discussed in the information sheet and consent form. Helping the co-researchers understand the type of research they were going to be involved in and their role in the process was important as it provided another opportunity for them to ask questions or gain clarity about the process or their role without all the other information in front of them. Examples of a regular journey could be their journey to work, dropping their children to school, or going to the gym.

The discussion then moved into introducing the co-researchers to various PAR methods they could use to capture their journey, such as transect walks, mapping, photovoice, videos, and journaling (Nind, 2011; Omer, 2017; Wang & Burris, 1997). By providing these options, the co-researchers could control their data collection process and choose how they wanted to express their views and opinions (Coyne & Carter, 2018; Nind, 2011). I explained that the data would be collected during the co-researcher's time and presented an example of mapping I had drawn before the session (see Figure 5). This provided an example of the creative methods they could use to collect their data. There were lots of questions around data collection as the co-researchers had not been involved in PAR before and were not expecting to be able to choose how or what to collect. Again, this situation highlights the importance of creating a safe space and having sufficient time for co-researchers to ask questions and gain clarity to ensure they are confident in their role in the research project. After the discussion, we stopped for kai (food) before moving into part two. This allowed time for open discussion and further strengthened the group bond, fostering a sense of belonging and connectedness (Groundwater-Smith et al., 2015).

3.6.1.2 Session One: Part Two - Brainstorming

We then moved into the second part of the session – brainstorming; two brainstorms were completed. The first focused on unhealthy streets. This brainstorm had prompts for the co-researchers on the paper, such as mental impacts, environmental impacts, what it makes me feel, and what I can smell (see Figure 6). The co-researchers wrote their ideas on colourful Post-its and placed them on the paper under the prompt they felt was most relevant. For the healthy streets brainstorm, there were no prompts provided for this brainstorm. Feedback from the co-researchers was that it was more challenging to organise their thoughts or cover all the categories. The unhealthy streets brainstorm was not themed. Due to time restrictions we decided to theme this brainstorm at the next session.

Figure 5.

My Mapping Example

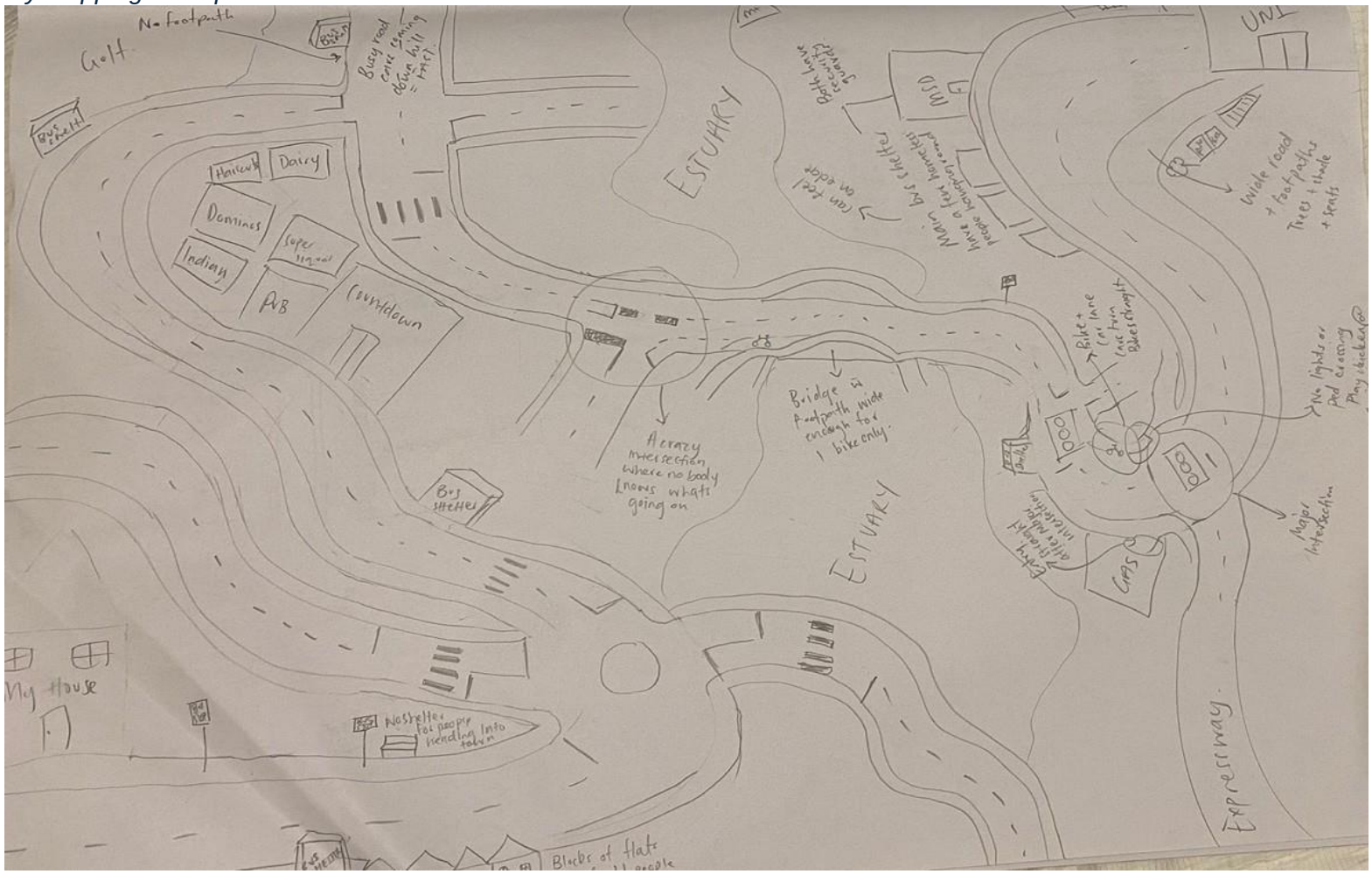


Figure 6.

'Unhealthy' Street Co-researcher Brainstorm

Before the session ended, we reflected on the process that led us to this point and discussed actions to improve the process. The co-researchers noted that when facilitating the setting up of the date and time for the next session, it was easier for them to choose the date for the session while I set the time for the day. We also reflected on the session and the brainstorming activity. Many co-researchers mentioned that they had never considered the environment they moved through in such a detailed way. They found the brainstorming activity interactive and appreciated writing their thoughts on Post-it notes. It allowed everyone to contribute comfortably, rather than feeling pressured to speak in turn around the group. This reflection and action cycle is a key aspect of PAR methodology and helps to ensure the research project continues to enable young people to actively drive the research and shape its outcomes (Baum et al., 2006; Kindon et al., 2008). The co-researchers left the session with two tasks: choose a method they would feel most comfortable using and use that method to capture their main journey around Tauranga.

3.6.3 Individually Collecting Data

The co-researchers were able to choose their data collection methods. This choice was facilitated by introducing the PAR methods in the first session. The co-researchers selected various methods that best suited their preference; three mapped their journeys, one chose to draw, one journaled, and one videoed their journey. Each journey was displayed differently, with some co-researchers presenting it electronically while others hand-drew their maps. This highlights each co-researcher's creativity and agency to express their views and opinions on their journeys.

The co-researchers either sent me their journeys before the second FGD or brought them along to the session. This flexibility aligns with the PAR principles as it ensures the research process is dynamic and can adapt to fit the needs of the co-researchers (Baum et al., 2006).

3.6.4 Session Two: Group Data Collection and Participatory Action Analysis

I followed a similar process for the second FGD, drafting and redrafting a plan and seeking supervisor feedback. This session was also 1.5 hours long. However, it was less structured, allowing co-researchers to guide the conversation about their findings. Each co-researcher shared three things they liked about their journey and three things they disliked. These were referred to by the co-researchers as positives and negatives of their journey. They also shared three potential solutions to improve their journey. The co-researchers used sticky notes and mind maps to facilitate their discussion.

3.6.4.1 Categorising Previous Brainstorm to Refocus Co-researchers' Thinking

We began the second session by categorising the ideas from the 'unhealthy brainstorm' completed at the end of the first session. This activity helped the co-researchers refocus on their thoughts about healthy and unhealthy streets and what these concepts meant to them.

3.6.4.2 Sharing Individual Findings and Seeking Collective Solutions

Next, we shared, discussed, and analysed the findings from their journey. Each co-researcher chose three aspects they liked from their journey, wrote them on three separate Post-it notes, and then shared them with the group, providing any necessary rationale. This process was repeated for the aspects of their journey they disliked. After identifying what they liked and disliked about their journey, the co-researchers were asked to think of potential solutions to improve the aspects they had identified that they disliked. These were also written on Posit-it notes. This method facilitated individual ranking and reflection.

3.6.4.3 Collective Thematic Analysis

We then moved on to identifying themes from the positives, negatives, and solutions that were identified. The co-researchers reviewed each other's findings and started identifying reoccurring themes. These themes were written on a large sheet of paper, with the corresponding Post-it notes placed under each theme (see Figure 7).

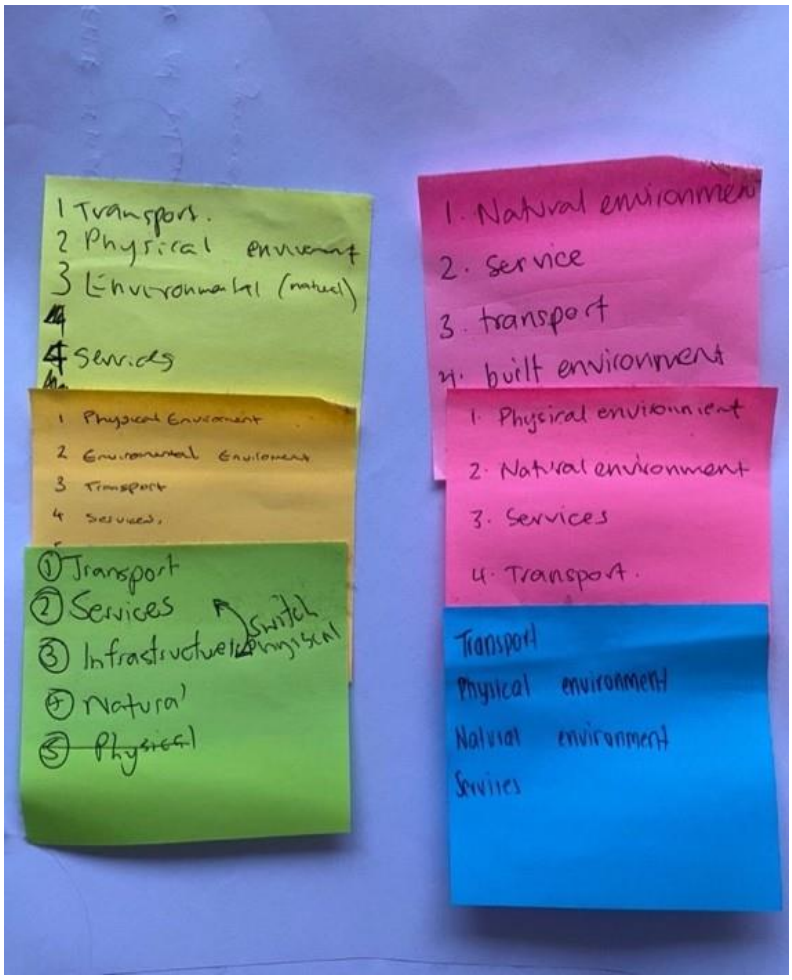
Once all the themes and Post-it note placements were agreed upon, the co-researchers conducted their participatory action analysis by ranking themes (Ager et al., 2010; Schubotz, 2020). We used the themes that had been identified on the mind map, and each co-researcher ranked themes by reflecting on what was most important to them (number one being the most important to consider and five being the least). They wrote their ranking on a Post-it note (see Figure 8). Due to time constraints and a co-researcher needing to leave early, we decided not to discuss the rankings collectively. Instead, I collected the Post-it notes for later analysis.

Figure 7.

Co-researchers Positives, Negatives, and Solutions Themed

Figure 8.

Co-researchers' Ranking Exercise



The co-researchers conducted participatory action analysis throughout the FGDs by theming their ideas from their journeys and ranking their themes (Ager et al., 2010; Schubotz, 2020). This participatory analysis, an essential part of the empirical process, aims to identify and analyse patterns within the data collected by the co-researchers (Nind, 2011). This type of data analysis is integral to the research validity, as it seeks a deep insight into how young people view and relate to their world (Nind, 2011). The analysis followed the individual journeys and utilised brainstorming and collaborative strategy development.

At the end of the session, the co-researchers provided feedback as part of the reflective journey. They generally enjoyed the sessions and appreciated the focus on highlighting the positives and negatives of their journey. While there were awkward moments when opinions differed, the overall experience was positive. All co-researchers expressed interest in seeing the final product, and I committed to sharing the artefact and any additional documentation with them.

Additionally, I offered to provide more private and detailed feedback through Facebook by posting specific questions on our group page, which they could answer in the comments, via messenger, or email. However, no co-researchers took up this opportunity.

3.6.5 Conducting Reflexive Thematic Analysis

This project included two stages of data analysis. The first stage, participatory action analysis, was completed collectively during the second session, as mentioned in section 3.5.3. In the second stage, Braun and Clarke's (2022) reflexive thematic analysis was adapted to complement the PAR process (see Figure 9). Due to the participatory action analysis, the co-researchers had already collectively generated codes and identified and defined the themes from the data findings; therefore, those phases, which usually sit as phases two, three, and five, were the beginning of my reflexive thematic analysis process. In Braun and Clarke's model, familiarisation with the data is the first phase, and reviewing the themes is the fourth phase. In my adaption, familiarisation and reviewing themes are phases four and five. Again, this was because the co-researchers had created and defined the themes using the participatory analysis approach before, I conducted the reflexive thematic analysis process.

I chose to do two stages of different types of analysis to ensure the development of the artefact enabled the voices of the co-researchers and was reflective of their findings. The first stage was participatory action analysis, which was conducted during the fieldwork. This ensured that the participants controlled and drove the analysis and its outcomes. The second stage, reflexive thematic analysis, enabled me, as a postgraduate student and new researcher, to develop my data analysis skills and the artefact based on their analysis. Reflexive thematic analysis ensured I understood what the co-researchers produced before I began creating the artefact. Both stages of analysis aimed to enable the voices of the co-researchers.

My involvement in the reflective analysis process began with familiarising myself with the data (phase 4), which included transcribing the voice recording from the second FGD. Initially, I reviewed the voice recording, brainstorms, and visual imagery provided by the co-researchers without taking notes. This allowed me to focus on and immerse myself in the data entirely. A few days later, I reviewed the same data again and took notes to capture my initial thoughts and feelings. To further analyse the themes, I drew mind maps of the separate themes identified by the co-researchers. Mind map 1 captured my initial thoughts on the brainstorming the co-researchers developed in the second session, complemented by their narrative from the recording (see Figure 10).

Figure 9.

My Adaption of Braun and Clarke's (2022) Reflexive Thematic Analysis for PAR

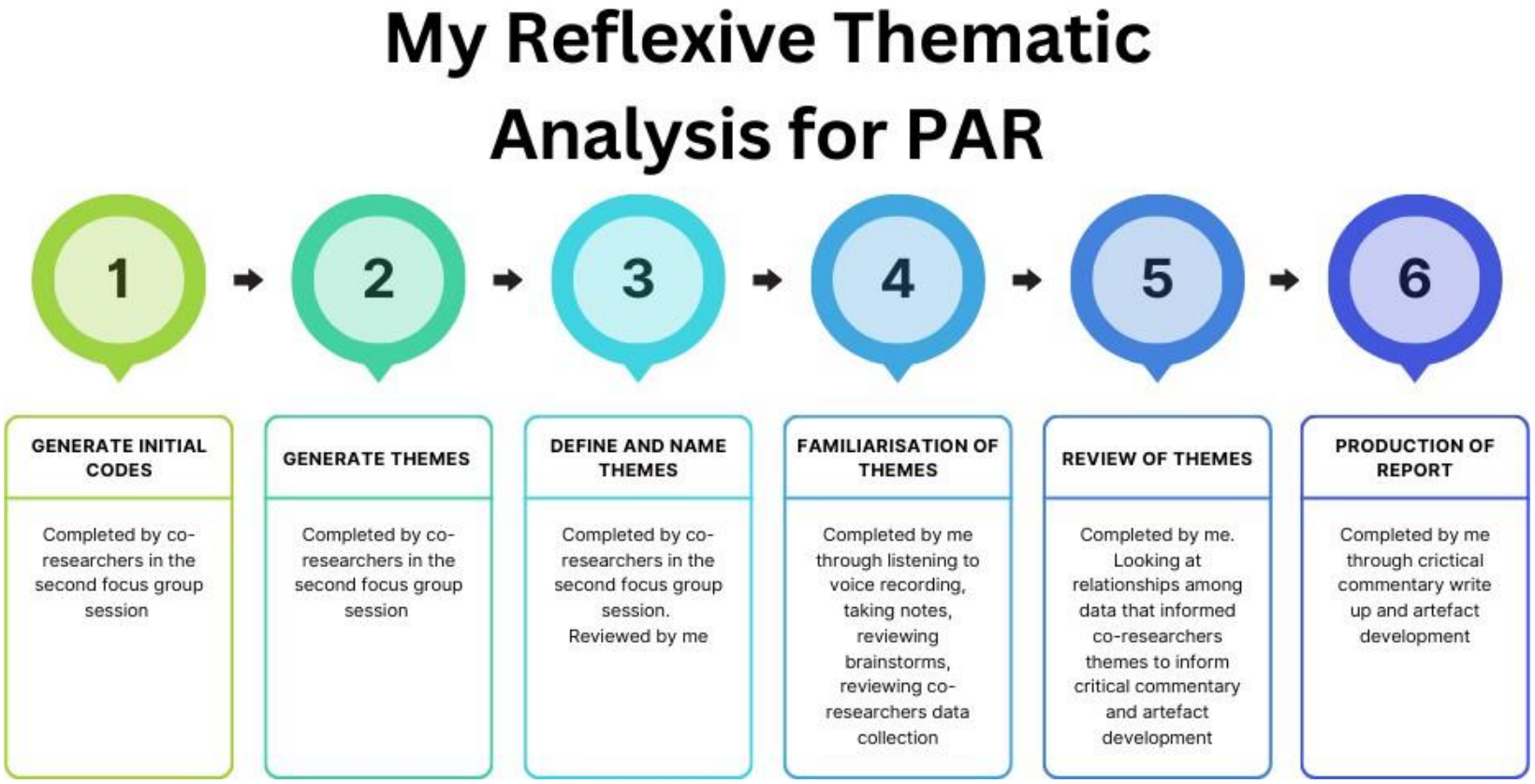
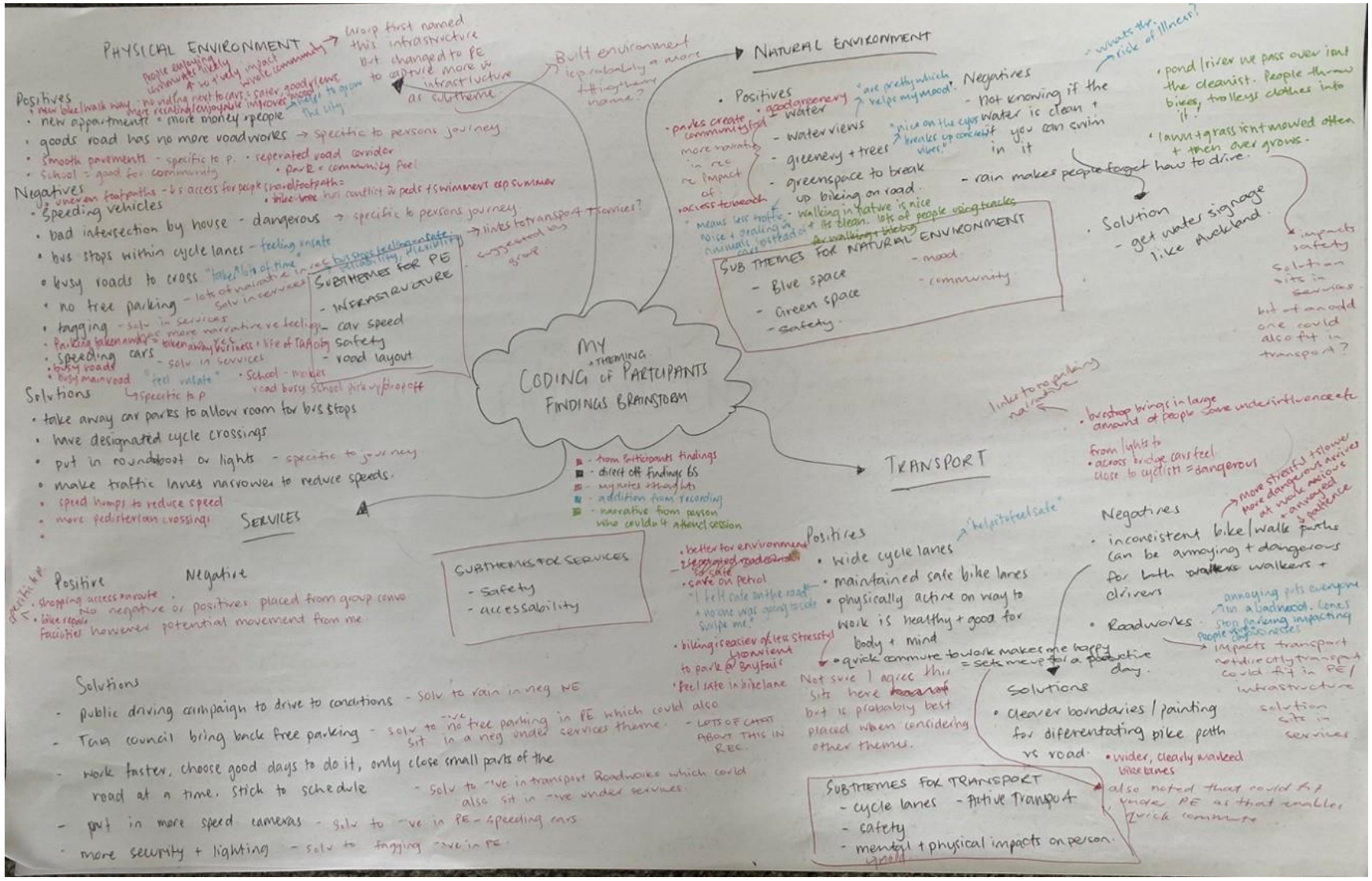


Figure 10.

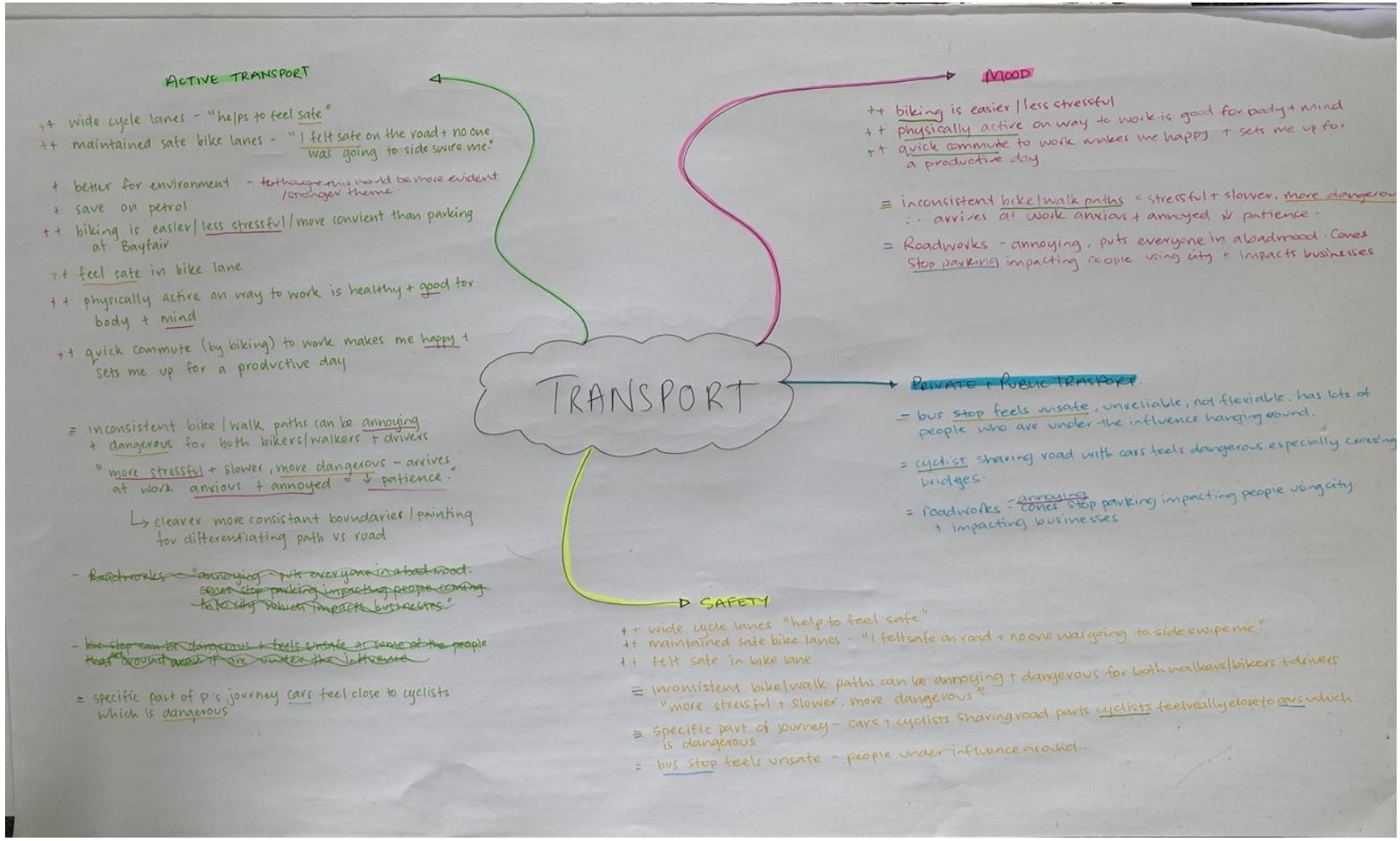
Mind Map of My Initial Thoughts on the Co-researcher Themes



The themes identified in the co-researchers' brainstorming were split into individual themes. I created individual mind maps to flesh out each theme and expand on them with narratives from the recording (e.g., see Figure 11, the mind map for the transport theme).

Figure 11.

Transport Mind Map with Transcript Narrative



Throughout this process, I made general notes and observations in a notebook. This helped me reflect on how my thought process changed or what stood out on different days. The final step involves producing a report. This will be the critical commentary and the artefact that supports this exegesis.

3.6.6 Developing the Artefact

Due to the practice nature of this research project, an artefact (an Auckland University of Technology requirement of the pathway chosen) to support the research process and findings was also developed alongside the report/critical commentary (Braun & Clarke, 2022). In an ideal world, the co-researchers would have led this process and proposed a strategy or an artefact that prioritises their voice. However, in developing this draft artefact, the co-researchers suggested how the artefact was shaped. I recommend that young people and youth voices further develop this draft artefact. Enabling the co-researchers to lead the development of a strategy/artefact ensures that the outcome is meaningful to them. Developing a strategy/artefact would allow a deeper insight into how young people view, relate, and contribute to their environments. This practice-based tool is a product of PAR analysis and can help inform future practice to ensure that the youth's voice is valued in interventions and decision-making that affect them (Groundwater-Smith et al., 2015). The artefact's development, strengths, and limitations will be discussed in Chapter 4: The Critical Commentary.

3.7 Conclusion

This chapter has explained the theoretical and methodological perspectives underpinning the research projects and how the chosen methods enabled the co-researchers and provided opportunities for collaborative research. The project has helped to enable young people to participate at all stages of the research process, including developing and implementing interventions (Baum et al., 2006). The following chapter critically reviews the knowledge produced through the research project.

Chapter 4: Views and Perspectives of Young People Living in Tauranga

This chapter provides critical commentary (a key part of the practice-based postgraduate pathway chosen) based on the research process and findings of the co-researchers It focuses on enabling the views and perspectives of young people living in Tauranga. As a young researcher and practitioner in public health, it enables me to reflect on my project. The critical commentary also discusses the creation of an artefact aimed at helping organisations, such as councils, to enable the voices and agency of young people in city and neighbourhood design.

As discussed in Chapter 3, section 3.6.3, the data analysis was partly conducted through a participatory process, ensuring alignment with the principles of PAR rather than using an individual analysis approach. The sections of this chapter will highlight the voices and experiences of the co-researchers through italicised quotations. These quotes were identified from the transcript of the recording of the second session. For ethical reasons such as upholding confidentiality, the co-researchers have been labelled with pseudonyms and will be referred to as C-R1, C-R2, C-R3, C-R4, C-R5 and C-R6 (where C-R is short for co-researcher). The co-researchers' collective findings will be presented using the pronouns they/them. Due to the nature of PAR, as the primary researcher, I am an insider in the group. However, I will refer to myself using pronouns such as I/me. Separating my voice from the co-researchers ensures that the co-researchers' voices remain authentic and powerful rather than being driven or skewed by me as the primary researcher (Finlay & Gough, 2003). This will help maintain researcher reflexivity as I can critically reflect on my assumptions and worldviews without impacting the co-researchers voices.

In this instance, the participatory analysis involved the co-researchers in driving the identification and ranking of key ideas and strategies. To actively participate in the analysis, it was essential the co-researchers understood how to identify and develop themes. Therefore, they practised identifying and creating themes using a brainstorm they developed in the first session. They did this by collectively identifying keywords or phrases with similar meanings and then deciding on a word or phrase encompassing the group of words or phrases. This exercise was completed at the beginning of the second session to help recentre them in the research mindset. The exercise aimed to help the co-researchers feel more confident in identifying themes from their collective findings. By enabling the co-researchers to lead the theme development, the research process

upheld the principles of PAR and prioritised collaboration and shared decision-making (Baum et al., 2006). Through this participatory analysis approach, the co-researchers are more likely to feel heard, and their findings are more likely to be relevant to them and their community (Cahill, 2007). The co-researchers then themed the key ideas and strategies they had identified in the FGD. The following themes were identified and ranked: alternatives to driving, infrastructure/physical environment, environment (with green space and water as sub-themes), and services.

The chapter is structured around the ranking activity the co-researchers participated in at the end of the second session (see Figure 12). Each co-researcher individually ranked the themes they had identified as a collective from most to least important. The section starts with the theme the majority of co-researchers identified as most important and continues through to the theme that, on average, was ranked lowest. Each theme was assigned points based on the co-researchers' rankings: one for the highest priority and four for the lowest. For example, Transport, also referred to as 'alternatives to driving,' was ranked first by three co-researchers, third by two, and fourth by one; thus, it would receive a total score of 13 (see Figure 13). This ranking exercise resulted in the following structure: Theme 1: Infrastructure/Physical Environment with 12 points, Theme 2: Transport/Alternatives to Driving with 13 points, Theme 3: Environment with 15 points, and Theme 4: Services with 19 points. In summary, this chapter will discuss the identified themes in order of their ranking, reflecting the collective voice and priorities of the co-researchers.

Figure 12.

Co-researchers Ranking Exercise

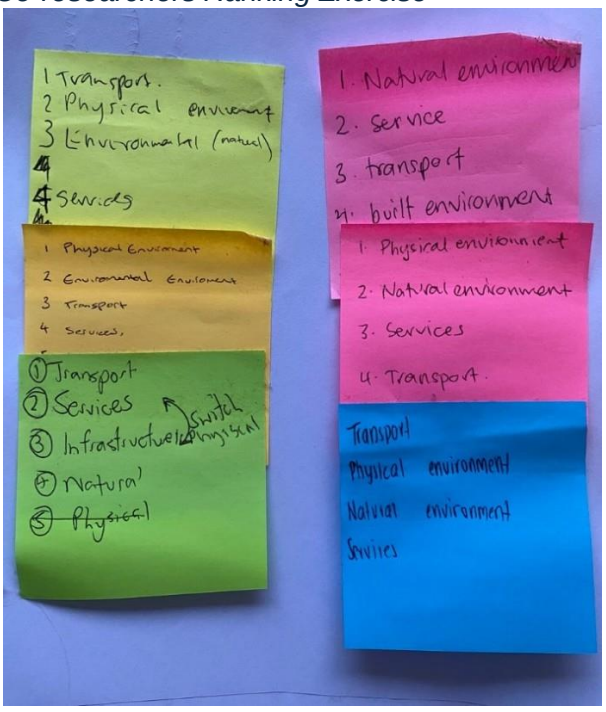
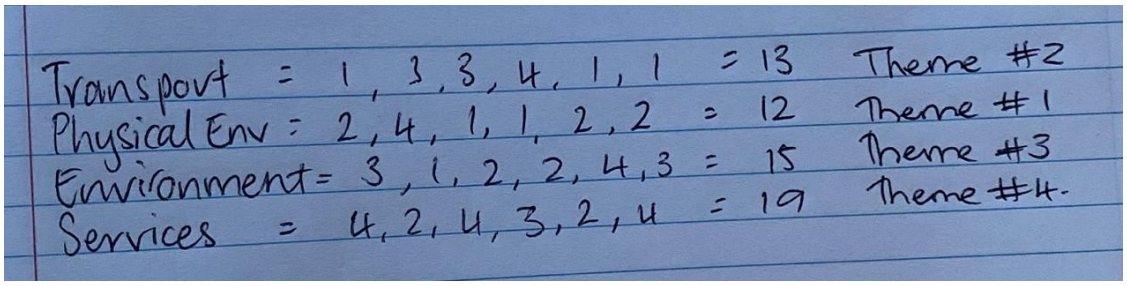


Figure 13.

Image of How the Structure of Critical Commentary was Identified



4.1 Theme 1: Infrastructure/Physical Environment

This theme encompasses the physical and built elements of Tauranga's streets and neighbourhoods. The co-researchers referred to it interchangeably as infrastructure and physical environment. No specific subthemes were identified; therefore, I have structured this theme using quotes from the co-researchers. The theme covers the discussions the co-researchers had about "access for people," "helps me feel safe", "community feel", and "helping the city grow".

4.1.1 "Access for People"

Bike and walkways were prominent topics within this theme. The co-researchers had varying priorities when speaking about pathways. For instance, C-R5 emphasised the need for well-maintained footpaths to ensure they were accessible for everyone, including disabled people or prams, stating, "*Uneven footpaths decrease access for people*". C-R2 highlighted the need for separate roads, bikes, and pedestrian paths to reduce conflicts, particularly in high-traffic areas: "*Shared footpath creates conflict between cyclists and pedestrians/ swimmers, especially in summer*". This discussion reflects how infrastructure affects the co-researchers' navigation of Tauranga. Pedestrian and cycle-friendly infrastructure has been shown to help improve physical health through enhancing the accessibility of outdoor activities and alternative transport options (Thompson & Kent, 2014; WHO, 2020). The design and accessibility of the physical environment plays a significant role in shaping young people's physical, mental, and social well-being (Benninger et al., 2021; Sallis et al., 2015; Thompson & Kent, 2014). The co-researchers placing emphasis on infrastructure and the physical environment shows the importance of well-designed, accessible pathways when creating a healthier, more accessible city.

4.1.2 "Helps Me Feel Safe"

Safety was a recurring and implicit theme in the discussion. How the infrastructure impacted the co-researchers feeling safe was mentioned multiple times throughout the

session. For example, C-R3 noted, "*New bike/walkway means no riding next to cars, which means it is safe*", highlighting the importance of separate bike paths for cyclists' safety. C-R2 mentioned, "*wide cycle lanes help me feel safe*", emphasising the need for well-maintained and adequately sized bike lanes. C-R1 echoed this by saying, "*maintained safe bike lines – I felt safe on the road, and no one was going to sideswipe me*".

Safety was also a concern from drivers' perspectives regarding navigating the road with cyclists: "*Yeah, inconsistent bike/walk paths can be annoying and dangerous for everyone involved*", C-R3 stated. C-R5 added, "*Cars feel too close to cyclists, which is dangerous*", while C-R4 commented, "*Cyclists sharing the road with cars feels dangerous, especially crossing bridges*". To address the safety concerns highlighted above, the co-researchers proposed serval solutions. C-R2 suggested "*Make traffic lanes narrower to reduce speeds*", and C-R1 suggested both "*Install speed humps to reduce speeds*" and "*Have more pedestrian crossings*". These solutions highlight the importance of controlling traffic speed to ensure cyclists and pedestrians feel safe when navigating their city.

In addition to cycling and walking safety, there was a brief discussion about the general feel of the city. C-R5 mentioned, "*Tagging makes spaces feel unsafe*", and C-R4 expressed concerns about public transport, stating, *"Bus stops feel unsafe, has lots of people under the influence hanging round*". Although the co-researchers implicitly implied these safety concerns, they highlight the significant role safety plays in how co-researchers navigate Tauranga. Urban planners and designers should understand and consider the safety concerns of young people when implementing HSAs.

4.1.3 "Community Feel"

The co-researchers also identified infrastructure as a significant factor influencing moods and creating a "*community feel*". C-R3 highlighted the positive impact of a new bike and walkway: "*New bike/walkway means no riding next to cars, which means it is safe, there are good views, it is more relaxing and enjoyable and improves moods. People enjoying their commutes will likely increase positivity and impact the community*". The quote from C-R3 highlights the mental and social benefits of a well-designed public space, as they described improved moods and a stronger sense of community.

This idea that well-designed infrastructure can enhance moods, foster social connections, and positively impact communities is well-supported in the literature (Benninger et al., 2021; Carmona, 2019; Thompson & Kent, 2014). Infrastructure

influences mental health through social interactions, safety, and a sense of community (Benninger et al., 2021; Carmona, 2019). This was an important aspect of C-R4's description of their area: "*School in area is good for community feel*". Studies have shown that young people are often the loneliest (Moore et al., 2023). Providing a sense of belonging and social connections is crucial for fostering mental well-being (Benninger et al., 2021; Carmona, 2019; Thompson & Kent, 2014). The co-researchers' findings emphasise the importance of a "*community feel*" and demonstrate the need to ensure that infrastructure and physical environments connect and support young people.

4.1.4 "Helping the City Grow"

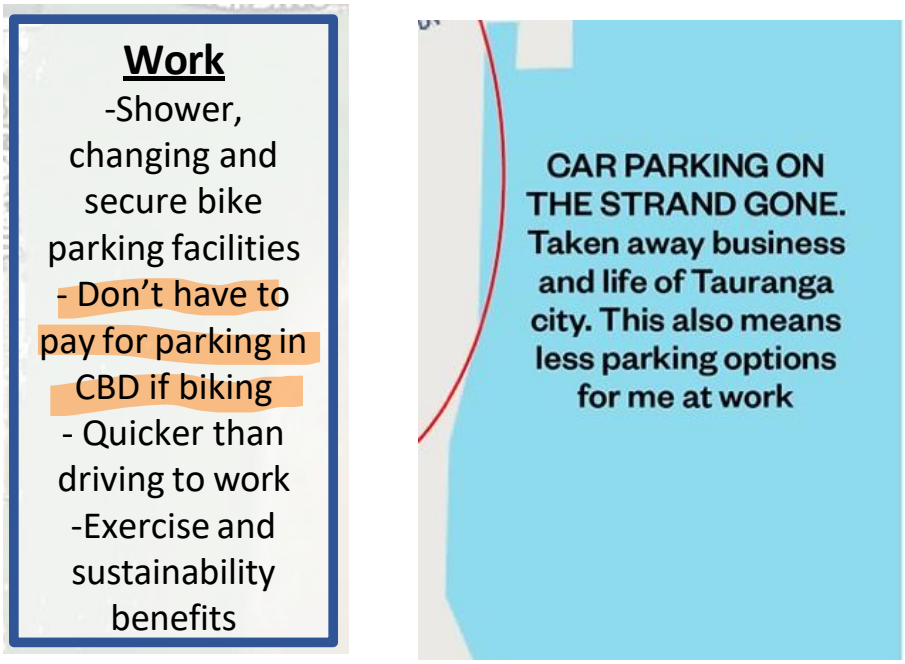
Another significant topic of conversation was city growth. The co-researchers discussed this in the context of new apartment developments and the reduction of city car parking. C-R5 mentioned that new apartments would bring in people and, therefore, money into the city: "*New apartments mean money and people. This helps the city to grow*". This highlights an interest in the economic well-being of the city. However, the co-researchers also raised concerns about the impact of reduced parking on the city's growth. C-R4 stated, "*Parking taken away means taken away business for the city, and it hard to find parking when you are working in the city. Have to pay for parking, which is expensive*". C-R5 echoed this statement: "*Council has taken away lots of car parks and lots of roadworks impacts parking which is annoying and impacts people using the city and business*". Lack of parking was a recurring theme discussed under the transport theme and infrastructure, as some co-researchers felt the lack of free parking was primarily an infrastructure issue. There were differing opinions about the necessity of free parking in the city (see Figure 14). Some co-researchers preferred alternative transportation to access the city, while others felt that the lack of parking negatively impacted their experience and local businesses.

Successful HSAs implemented globally have shown that designing walk and bike-able cities with attractive public spaces can benefit the local economy by attracting tourism and new businesses (Public Health England, 2018; Sicignano, 2022). Examples include the Piazze Aperte initiative in Milan and the urban redesign of Haren (Public Health England, 2018; Sicignano, 2022). However, the co-researchers' conflicting opinions highlight the importance of ensuring safe and accessible alternative transportation modes. Some co-researchers, particularly the females in the group, expressed safety concerns about using the public transport in Tauranga. C-R4 highlighted: "*Bus stops feels unsafe, has lots of people under the influence hanging round*". This view emphasises the need for diverse community representation during the community engagement stage of implementing HSAs. Addressing these barriers is crucial to

ensuring young people, especially young females, feel safe and are willing to use alternative modes of transport.

Figure 14.

Co-researchers' Perspectives on Parking



4.2 Theme 2: Alternatives to Driving

The second theme identified by the co-researchers was alternatives to driving/transport. While the theme was referred to as transport throughout the session, listening to the recording, C-R3 suggested a more specific name, 'alternatives to driving'. "C*ould a theme be, like, alternatives to driving? Like, public transport or walking or biking or those kinds of things?*". This theme encompasses various modes of transportation, including public transport, active transport (walking or biking), and private transport (driving). The co-researchers discussed different forms of transportation and the benefits and challenges of these alternatives. C-R1 identified transport that did not involve private commuting: "*Yeah, there were a few things popping up that it's like things that aren't private driving*", and C-R3 identified biking and public transport vs private transport: "*Yeah, buses and bus stops and then we've got biking and public transport vs private transport*". This theme was unsurprising since the co-researchers were asked to capture their journeys around Tauranga, making the type of transport they used a significant influence on how they navigated the streets. No specific subthemes were identified. Therefore, I have structured this theme using quotes from the co-researchers: "helps me feel safe", "easier/less stressful", and "better for the environment".

Transport is critical to implementing HSAs, and city planners and designers significantly impact how people navigate their cities (Pineo, 2022). Specifically, transport planning and land use decisions affect the convenience, attractiveness, and safety of using active transport (Giles-Corti et al., 2016). The session included three co-researchers who regularly used cycling as alternatives to driving and two who primarily used private vehicles. This mix of transport modes led to interesting and diverse discussions mainly centred around the benefits and challenges of cycling but also included brief conversations about the challenges associated with using public transport. The co-researchers' insights highlight the importance of considering various transport options in urban planning to promote a healthy and accessible city. Their discussions align with research suggesting that designing cities to support active and public transport can improve public health and reduce environmental impacts (Pineo, 2022; Giles-Corti et al., 2016).

4.2.1 "Helps Me Feel Safe"

Safety emerged as key topic in the transport discussion. It was clear that safety was a priority to the co-researchers across all transport options. They emphasised the importance of bike lanes for enhancing safety when sharing the road with cars. C-R1 highlighted: "*wide cycle lanes – helps me feel safe*" (Figure 15). C-R3 noted the mental impact of inconsistent bike paths: "*Inconsistent bike/walk paths are more stressful and slow, it can be more dangerous, and I arrive at work anxious and annoyed, which decreases my patience*" (Figure 15).

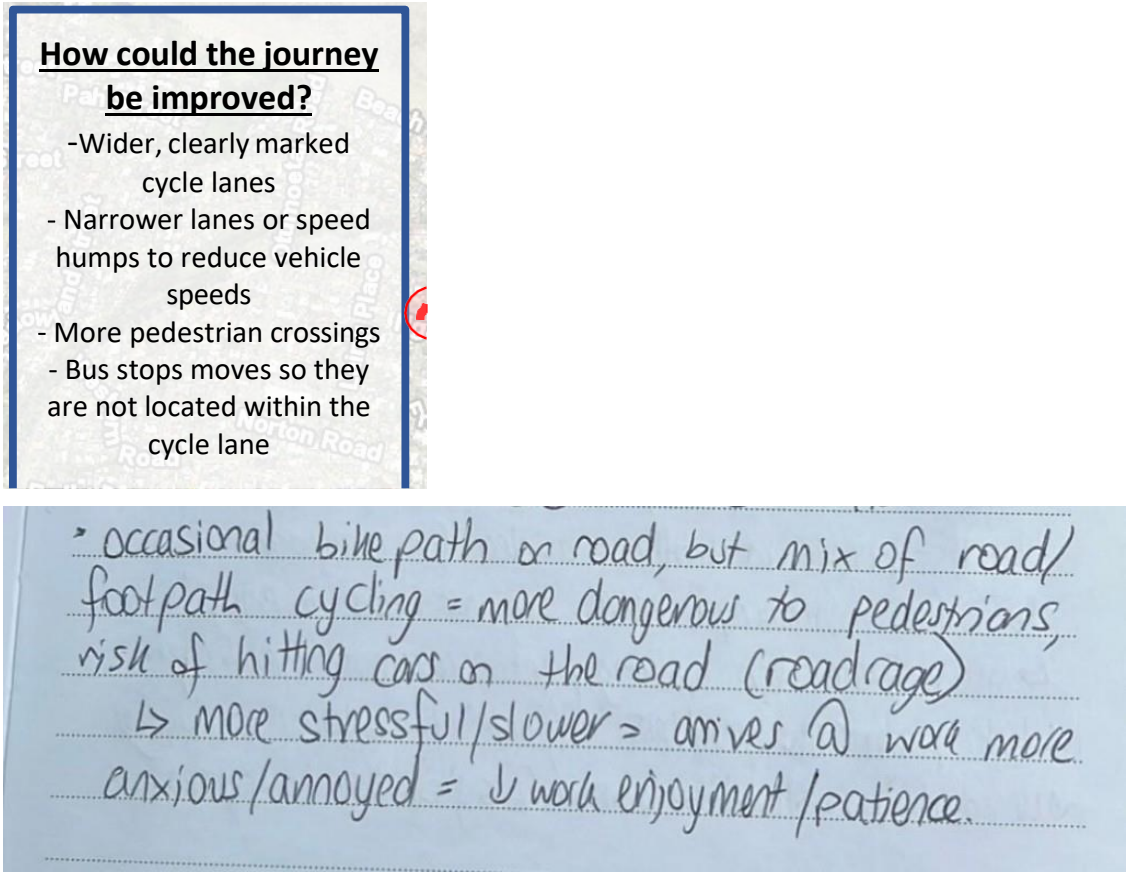
As mentioned in 4.2.1 "Helps Me Feel Safe", co-researchers agreed on the necessity for well-maintained and consistent bike lanes. C-R3 suggested solving these issues by ensuring clearer, more consistent boundaries/paint differentiating paths from the road: *"clearer boundaries or, like, paint identifying the bike and walking paths in the road if they are on the same place"*. Separation from cars through wide footpaths and bike lanes, street trees, and fences is found in the literature to influence the perception of traffic safety and reduce traffic speed, which was also a concern of some co-researchers (Dorji et al., 2023). This highlights that the design of a footpath is vital to ensuring young people feel safe navigating their cities.

The co-researchers, who primarily used private transport, discussed the barriers they encountered to public transport. Safety concerns were a significant part of this discussion. As mentioned above, bus stops were identified as negatively impacting co-researchers' feelings of safety. The co-researchers also discussed issues of unreliability and lack of flexibility with the bus system in Tauranga. C-R1: "*Yeah, they are unreliable*

and not flexible". This highlights the importance that private transport co-researchers place on safety and autonomy. By addressing these safety concerns through well-designed infrastructure and reliable public transport, cities can encourage more young people to use alternative transport options, promoting healthier, safer environments.

Figure 15.

Co-researchers' Perspectives of Feeling Safe



4.2.2 "Easier/Less Stressful"

C-R3, whose primary mode of transport was cycling, highlighted the mental and physical impacts of cycling to work: "*Biking is easier/less stressful/ more convenient than parking at the mall*", "*being physically active on the way to work is healthy and good for my body and mind*", and "*quick commute (by biking) to work makes me happy and sets me up for a productive day*". These comments emphasise the positive impact of active travel on mental well-being and mood, which aligns with findings from other research (Dorji et al., 2023; Stark et al., 2018). Designing cities that promote active transport encourages lifelong physical activity habits (Pineo, 2022). According to the WHO (2018b), sedentary behaviour is closely related to an increased risk of NCDs. This highlights the importance of designing cities that promote and enable healthy habits, such as regular use of active transport (Pineo, 2022; WHO & United Nations Habitat, 2016). These discussions

suggest that the mental impacts of transport choices significantly influence how young people navigate their cities.

Creating environments that facilitate and encourage active travel fosters overall well-being. As the co-researcher noted, biking to work is convenient, and its health benefits contribute to a happier and more productive day. This perspective is supported by research indicating that enabling easy access to active transport can positively impact young people's mental health (Dorji et al., 2023; Stark et al., 2018). By promoting active transport, city planners can help contribute to young people developing sustainable and healthy habits to carry into the future (WHO, 2018).

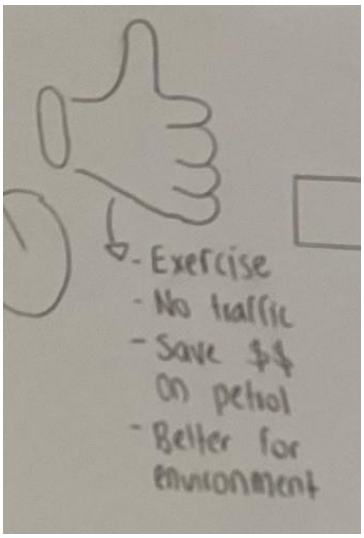
4.2.3 "Better for the Environment"

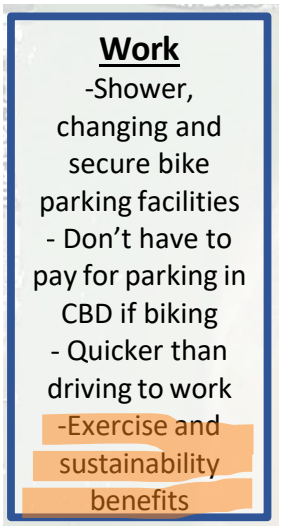
Some of the co-researchers' maps highlighted the environmental impacts of biking with comments from C-R1: "*better for the environment*" and C-R2: "*sustainability benefits*" (see Figure 16). Using alternatives to driving, such as biking, helps reduce air pollution and greenhouse gas emissions (Alessio et al., 2021; Giles-Corti et al., 2016). Air pollution significantly contributes to climate change and has additional health impacts (WHO, 2021). According to the WHO (2021), reducing air pollution could prevent up to 3.3 million deaths worldwide.

The environmental benefits of alternative transport options are well-documented in the literature. However, the co-researchers did not discuss the environmental impacts of transport options in depth, which might indicate that environmental concerns are not the primary driver for active transport. Instead, convenience, cost, and personal health benefits may be more significant in their decision-making processes. This aligns with findings in other studies where personal considerations were prioritised over environmental impacts (Pineo, 2022; Stark et al., 2018) and highlights how understanding and addressing young people's motivations behind transport choices can help urban planners and policymakers create more effective strategies for promoting sustainable transport options.

Figure 16.

Co-researchers' Perspectives on the Impact of Biking on the Environment





4.3 Theme 3: Environment

The third-ranked theme identified by the co-researchers was the environment. This theme was recognised by the co-researchers. C-R3: "*Yeah, I was going to say there's quite a lot of environment."* C-R1: "*Oh, yeah. Water and green space?*" The co-researchers also pinpointed specific subthemes, including water and green space; therefore, this theme is divided to address each subtheme individually.

4.3.1 Green space

The co-researchers highlighted the importance of green space in the city. C-R5: "*Greenery and trees are nice on the eyes, breaks up the concrete vibes*". This emphasises the necessity of incorporating greenery into urban design, as visual elements significantly impact mental well-being. C-R1 noted, "*Green space to break up biking on the road means less traffic noise and dealing with different obstacles instead of cars*". This statement also connects to safety, highlighting co-researchers value feeling safe while travelling around their city.

Green spaces play a vital role in fostering a sense of community. C-R4 observed, "*Parks create community feel*". Additionally, co-research six mentioned the number of people using nature trails, "*Walking through nature is nice, mostly clean, lots of people using tracks for walking and biking*". This highlights that for many co-researchers, access to green spaces, like parks or walking tracks, significantly influences their connection to the community. Accessible green spaces help foster social connections and create a sense of belonging, positively impacting people's mental well-being (Benninger et al., 2021;

Carmona, 2019; Thompson & Kent, 2014). The literature supports these discussions, linking green spaces with enhanced mental and social well-being. Urban greenery reduces stress, improves mood, and encourages social interactions (Benninger et al., 2021; Sallis et al., 2004). Ensuring that cities include green spaces can help mitigate the negative impacts of urban environments, such as high traffic noise and lack of visual appeal (Thompson & Kent, 2014). The co-researchers' discussions highlighted the importance of green space in urban design. By prioritising green space, cities can work to enhance mental health, promote social cohesion, and create safer, more enjoyable environments for the community.

4.3.2 Water

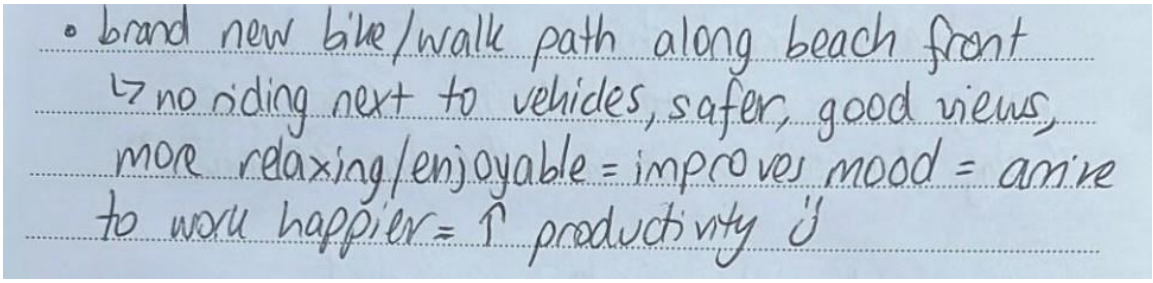
The group discussed water in both positive and negative ways. Water was mentioned in relation to its positive impact on mood and mental health. C-R3 highlighted: "*Water views are pretty, which helps my mood*", and C-R2 mentioned: "*Access to the beach is important to me for my mental health*". C-R3 also identified in their data collection, *"brand new bike/ walk path along beach front – no riding next to vehicles, safer, good views, more relaxing/ enjoyable = improves mood = arrive to work happier = increased productivity"* (see Figure 17). These statements highlight the co-researchers' need for access to the beach and proximity to water. Like green space, incorporating water elements into a city's design can positively affect people's mental well-being. However, the co-researchers also expressed concerns about the cleanliness of nearby bodies of water. C-R6 mentioned, "*The pond/river we walk over isn't the cleanest; people throw bikes, trolleys, and clothes into it*" and C-R4 highlighted: "*I don't like not knowing if the water is clean… like can you swim in it?*" Dirty water often contains toxins, and the risk of illness increases without clear signage (Dannenberg et al., 2003). These concerns reflect the importance of maintaining clean and safe water environments for community health and well-being.

These discussions emphasised the priority young people place on having neighbourhoods and cities that acknowledge and incorporate their physical, mental, social, and environmental health needs. Of significance, the co-researchers highlighted the interconnection between proximity to water and mental well-being. Many expressed gratitude for living in Tauranga, where there is easy access to the beach and many suburbs within walking distance from the ocean or estuary. The literature supports the idea that access to natural water bodies can improve mental health by reducing stress and promoting relaxation (Benninger et al., 2021; Sallis et al., 2004). Easy access to natural water sources is valuable when enhancing quality of life (Benninger et al., 2021; Sallis et al., 2004). Access to water bodies has been linked to lower stress levels, enhanced mood, and increased physical activity (Benninger et al., 2021; Sallis et al.,

2004). The co-researchers' emphasis on water as a subtheme highlights the significance of integrating water features into city designs to foster a more enjoyable and healthier urban environment.

Figure 17.

Co-researchers' Perspective How the Environment Can Positively Affect Mental Health



4.4 Theme 4: Services

Services was the theme ranked fourth by the co-researchers. The theme emerged from discussions about solutions to the negative aspects identified during their journey. C-R2: "*What about services? Would advertising things be services?*". While no subthemes were identified, the co-researchers explored ideas such as driving campaigns, increasing the number of speed cameras, and increasing the lighting and security around the city.

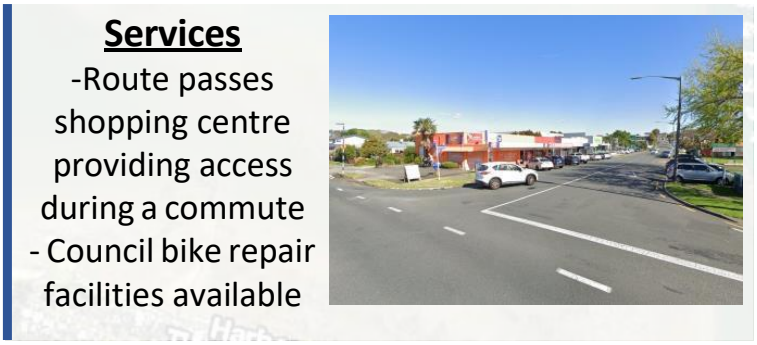
One suggestion was implementing public driving campaigns to raise awareness of driving conditions and navigating a shared road. C-R3: "*I have suggested public driving to conditions campaigns on TV or something. Yeah, you know how they have the speeding ones? Do something like that*". Another idea suggested by C-R1 was to increase speed cameras to slow down vehicles and create safer roads for cyclists and pedestrians. "*For speeding cars, put more speed cameras*". Additionally, improving lighting and security around the city was discussed to enhance safety, especially at night when people are accessing the city.

All the ideas discussed under this theme shared the underlying concept of safety, highlighting how important it is for the co-researchers to feel safe in their city. This theme differed from the other three because it was solution focused. It presented practical ways to address the co-researchers' negative experiences on their journeys. When examining the co-researchers' mapped journeys, access to various services was a recurring positive aspect. One co-researcher's map identified access to shopping facilities and bike repair services as a beneficial element of their journey (see Figure 18). The co-researcher's focus on services highlights the importance of implementing practical

solutions to enhance safety and convenience. By addressing these concerns, cities can improve the quality of life and ensure that the environments meet the diverse needs of their communities.

Figure 18.

Co-researchers' Journey Highlighting Access to Key Services



4.5 Overview of the Four Themes

Overall, the four themes the co-researchers identified are strongly interconnected. This is highlighted in the interaction between C-R5 and C-R3. C-R5: "*This is about commuting? Would it be transport."* C-R3: *"But it could be down to your physical environment and infrastructure that you live close to work. Could we put that in the middle?*" This transcript excerpt highlights that the co-researchers found the themes overlapped, and many ideas could fit in more than one theme.

Infrastructure/physical environment influences how young people navigate their cities. The co-researchers highlighted that well-designed infrastructure, such as walking paths, bike lanes, and safe areas to crossroads, play a critical role in influencing the accessibility of the city and their personal feelings of safety. Well-designed and accessible infrastructure can also help to reduce the reliance on driving and encourage alternative modes of transport such as biking, walking, and public transport, which links to the 'Alternatives to Driving' theme the co-researchers identified. Enabling alternative transport options helps to address the issue of affordability that young people may be experiencing when using private vehicles. It can also support the sustainability and climate change goals of cities by reducing car emissions, resulting in better air quality. The co-researchers highlighted how the environment impacts their physical health as well as their mental and social well-being. Accessing clean water bodies and green spaces helped improve their mood and feeling of safety and created a sense of connectedness. Easy access to services such as schools, shops, recreational centres, and parks, without relying on cars, also helps young people have a sense of belonging

and connectedness. Further, it helps foster social connection and resilience for young people as they are enabled through their environment to meet their needs.

When viewed together, these themes highlight the need for cities to be planned and developed with a holistic approach that is sustainable and responsive to people's needs and the needs of future generations. The HSA is an example of a strategy that enables city planners to prioritise the health, mobility, and well-being of the environment, young people, and the wider community over car-centric planning. These themes and the discussions from the co-researchers shaped the development of the artefact discussed below.

4.6 Development of the Artefact

I chose a practice-orientated approach for this research project instead of the traditional path, which is wholly written. By taking this practice-orientated approach, I had initially aimed for young people to develop a tool or strategy from their research that is relevant and beneficial to them and their community. This was important to me as traditional pathways often concentrate on the research outcomes rather than the people involved or the broader effects of the research process. However, due to the time restraints of this master's research project, I have led development of the draft artefact with suggestions made by the co-researchers.

Reflecting on the PAR process with the co-researchers and listening to their discussions about what is important to them in their neighbourhoods and cities, I developed an artefact to support organisations, such as councils, in engaging with young people and enabling their voices to shape the environments they use. Ideally, this artefact would have been co-designed with the co-researchers, but due to time constraints, I developed it separately.

The development of the artefact moved through different phases. Initially, it was displayed as a step-by-step guide for engaging and enabling young people. While this approach would have been adaptable for councils, it needed to enable the voices of the young people who had driven the research process. To highlight the outcomes identified by the co-researchers, I adapted the artefact to incorporate their findings. This led to the development of an infographic. Below is a draft hand-drawn version of the artefact (Figure 19). The key steps of enabling and engaging young people are presented through an infographic because it is a common tool used in public health that effectively communicates findings and processes. This format aligns with the YPAR methodology, emphasising creativity and visual communication. Infographics are commonly used in

public health to ensure information is accessible and easily distributable (Baxter et al., 2021). They display complex information succinctly and are visually appealing, facilitating a broader reach and impact (Baxter et al., 2021).

The artefact's final draft begins by identifying where and how organisations can engage young people and where they might find them to engage with. It then incorporates PAR into a cyclical process, emphasising the importance of the young people driving the entire process (Appendix E). This ensures that young people actively drive the research process, implementation, and outcomes (Smith et al., 2024). This YPAR process differs from general PAR, as it is tailored to meet the needs of young people. For instance, in the first stage of the YPAR, engaging with young people through platforms like TikTok and Instagram are often preferred over Facebook. Engagement locations should be youth-friendly environments, such as local cafés or community spaces, rather than traditional settings like council buildings.

Additionally, data collection methods should be flexible and creative. This may include drawing, taking photos, or videoing findings instead of traditional surveys or structured interviews (Ozer et al., 2022). Data collection and analysis are likely to be peer-led and collaborative, contrasting with the top-down approaches where an ‘expert’ facilitates the session (Kim, 2016; Smith et al., 2024). These aspects ensure the research process is adaptable and responsive to young people’s lifestyles and preferences. These elements are key distinctions from PAR conducted with the general population (Smith et al., 2024).

This process was conducted in a major city in Aotearoa New Zealand. However, organisations in smaller cities or towns can easily adapt the artefact. The same process and principles apply, but each location should adjust them to reflect their smaller environment's unique characteristics and needs. This process is scalable and adaptable, ensuring relevance across different urban settings.

The artefact highlights how enabling young people to lead or partner in the research process enriches the data collected and creates a space for them to grow/enhance their power, fostering a sense of ownership and agency in shaping their community (see Appendix E for the final draft of the artefact). Areas for further development of the artefact include the potential use of emerging platforms like TikTok for more dynamic engagement methods and adaptions for cultural contexts. To build on this artefact, prioritising cultural connection is essential. Due to my positionality and the scope of an individual research project, I was not best placed to lead these cultural adaptations. However, future iterations should prioritise incorporating and adapting the process to

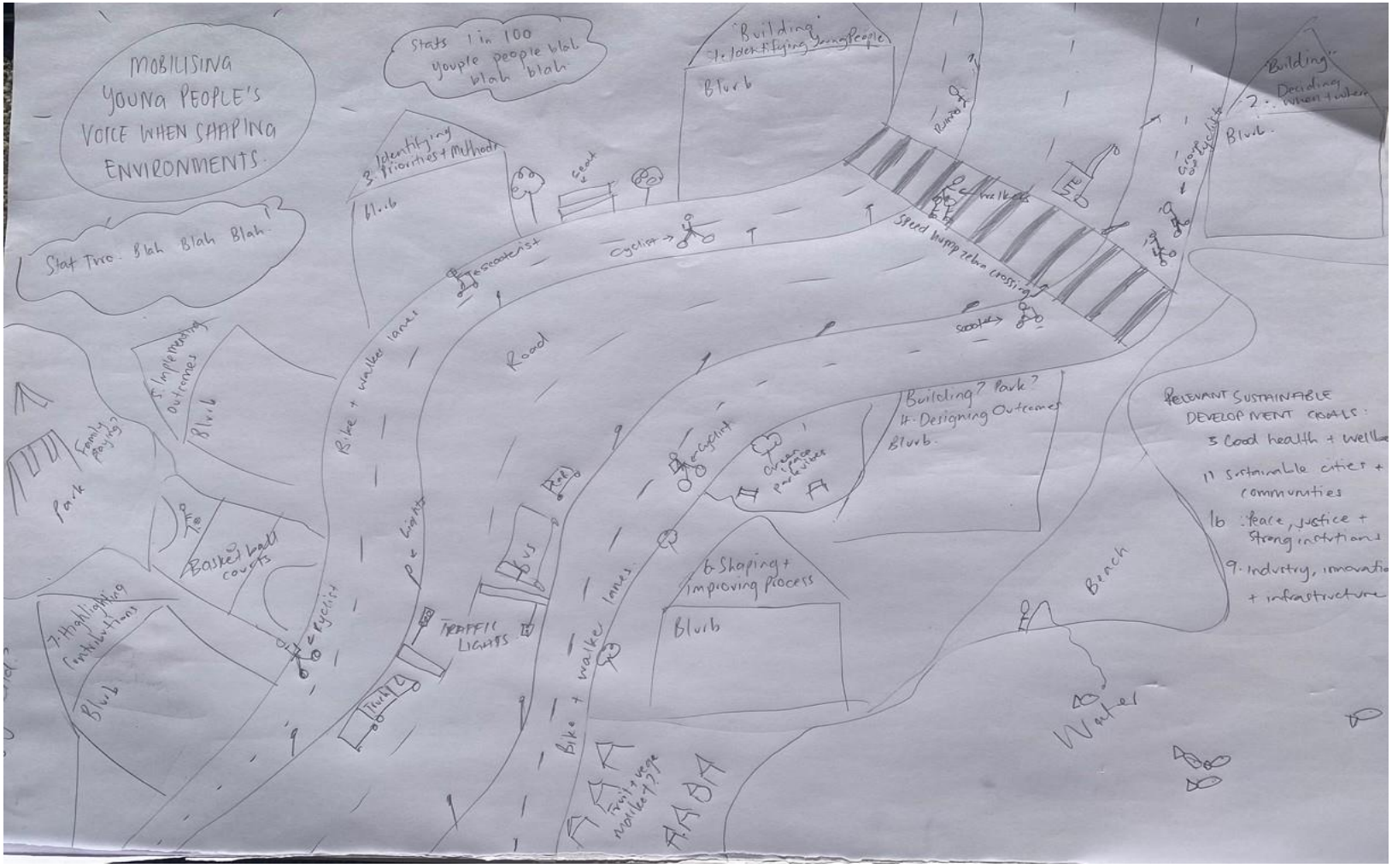
ensure it is culturally relevant and appropriate to the local communities. This will help ensure the process resonates with young people, enabling them to create change that aligns with their values.

4.7 Conclusion

This chapter focused on enabling the views and perspectives of young people living in Tauranga through a critical commentary on the research process and findings from the co-researchers. It also outlined the development of an artefact that aims to help organisations, such as councils, to enable the voices and agency of young people in city and neighbourhood design. The final chapter summarises the findings from the research project, identifies any limitations, and considers how this project might inform future policy and practice.

Figure 19.

First Draft of Artefact



Chapter 5: Significance of the Research

5.1 Introduction

This project aimed to understand the research question: ‘How can YPAR enable young people’s voices and agency to improve the implementation of a HSA in Tauranga?’The research objectives were:

1. To explore current knowledge about young people’s perceptions of their main journeys in the context of HSAs.
2. To understand how young people perceive their main journey in Tauranga as a means of exploring sustainable and healthy journeys.
3. To support young people in developing strategies (an artefact) for promoting healthy streets through healthier journeys.

The research question was addressed through a critical literature review and empirical study. This chapter of the exegesis summarises the findings and considers how the research project might inform future policy and practice. It will also identify the research project's limitations, address the key contributions, and discuss the scope for further research.

5.2 Summary of Findings

The research project identified the significance young people place on feeling safe in their communities and highlighted the impact moving around cities can have on their mental health and well-being. It also found room to expand the literature and understanding of YPAR in Aotearoa New Zealand.

The research project further highlighted that young people are interested in helping to shape the environments in which they live, work, and play. Reflections from some co-researchers indicated they were surprised at how engaging and fun participating in the project was. They would be more inclined to participate if more projects were like the current one.

This empirical research project concluded that there is a need to ensure young people are actively involved in the planning, design, and implementation of incorporating a HSA in cities. It identified that the engagement strategies used highly influenced young people’s participation. Ensuring engagement strategies are innovative, allow individual creativity, and enable young people to drive the process is extremely important when engaging young people in policy development and implementation (Coyne & Carter,

2018). Therefore, this research project resulted in the development of an artefact highlighting how councils and other organisations can actively engage with and enable the voices and agency of young people. Improving engagement with and enabling young people could allow a more inclusive and youth-led approach to the design and layout of cities in the future.

Following the data collection and analysis, I developed four themes that young people view as most important in their cities based on the co-researchers' analysis. Themes included the physical environment/infrastructure, alternatives to driving, environment, and services. I then outlined the key steps organisations, such as councils, could take to enable young people to shape their cities.

Furthermore, the infographic proposes using QR codes to provide more in-depth detail on engaging and enabling young people. Using an infographic to disseminate the findings enables a wide reach, as infographics can be digital and hard copies with no change in the information available. Infographics are also highlighted as appropriate for public health as they help display complex information succinctly and are visually appealingly, which helps facilitate a broader reach and impact (Baxter et al., 2021).

This research project highlighted the importance of involving young people in urban planning to create healthier and safer communities. By using innovative and culturally relevant engagement strategies, planners and designers can ensure that cities meet the needs of all residents, particularly young people. The artefact developed as a result of the project is a tool for organisations to enable young people and create a more inclusive and youth-led approach to city planning.

5.3 Methodological Issues and Limitations

This research project utilised a PAR methodology, allowing the co-researchers to choose their data collection methods. Focus group discussions were also used in the PAR process to facilitate collaborative findings discussions and conduct the participatory data analysis. Allowing the co-researchers to choose their methods and conduct participatory data analysis enabled them to be heard while working to their strengths and specific circumstances. In using PAR methodology, it is also important to consider some methodological issues and limitations encountered within the project.

Conducting group discussions using a PAR approach resulted in me being involved in the co-researchers' discussions. Sharing commonalities and meeting the inclusion criteria assisted my role as a facilitator and allowed me to use the information to develop

an artefact. I also shared similar demographics with the co-researchers. These similarities helped to reduce the power imbalances often present in traditional research, making my connection to the group more seamless (Nind, 2011; Pyett, 2002).

Recognising the context of Aotearoa New Zealand, this project highlighted the need for additional skills and knowledge to integrate Māori culture and context in urban planning, designing, and implementing city changes. Research emphasises the importance of incorporating Māori perspectives in planning processes to ensure city designs align with their communities' culture and values (Public Health Agency, 2022). Although I did not feel best placed to lead these cultural adaptions due to my positionality and expertise, I, as a Tauiwi and Tangata Tiriti, strongly advocate for future iterations to prioritise these adaptions. This approach ensures the process is culturally relevant and appropriate to the local young people and enables their values and voices to facilitate positive change in their communities.

5.4 Implications of the Research Project for Policy and Practice

This research project contributes to using YPAR in Aotearoa New Zealand. It is one of the first studies to enable the voices of young people living in Tauranga through YPAR within the context of implementing a HSA. The project provides innovative insights into how organisations can enable the voices and agency of young people in decision-making and policy development that affect young people's environments.

The environment young people navigate, as evident in this research project, significantly impacts their health and well-being. The policies and practices that have shaped the current environment do not often include the voices of young people. This exclusion can result in spaces that do not meet the needs and preferences of young people. Including them in urban planning can create more inclusive, accessible, and safer environments that promote both physical and mental well-being. The following sub-sections will examine the relationship between YPAR and aspects that influence the mobilisation of young people, such as enabling their agency and voices, sustainability, and replication of the research project.

5.4.1 Enabling the Agency and Voices of Young People

The research project shows that strategies designed specifically to enable young people are critical. Young people are more likely to be actively involved in the process of planning and designing healthy cities and communities if the engagement process is creative, fun, relatable, and enabling (Coyne & Carter, 2018; Ozer et al., 2022). Therefore, to support the active involvement of young people in urban policy and

decision-making, it is essential to ensure organisations have strategies that enable the voices and agency of young people. These strategies could include creating young people's advisory groups, having young people's representatives on committees/ boards, or investing in training/resources. These strategies could help organisations recognise the importance of enabling young people and being aware of the power imbalances that are often present.

The research project highlights the benefits of engaging young people in decision-making processes, as it enables the co-researchers to actively shape the project's outcomes. Enabling young people to participate in decision-making actively benefits the city through inclusive cities and provides a sense of belonging to young people, as many young people struggle with seeing their place in their community (Pyett, 2002; Rymenants et al., 2023).

A common perception of PAR is the amount of resources and capacity required to effectively engage with people; however, PAR can help build the capacity of young people, providing them with the experience and knowledge they need to advocate for their interests and contribute to society (Pyett, 2002; Smith et al., 2024). This research project also helps to demonstrate the value of youth input through a wider representation of how the environment people travel through affects them. The project highlights the importance of young people driving city design as it helps to create more inclusive, safe, and youth-centric environments.

5.4.2 Sustainability

Implementing the findings from the research project, such as incorporating more green spaces, enhancing transport options, and increasing safety measures, would not only positively impact the health and well-being of young people but also lead to healthier and safer communities for everyone. By prioritising the voices of young people, urban planners will design cities and neighbourhoods that are accessible, safe, and inclusive, aligning with the HSA. By implementing these strategies, organisations and urban planners can contribute significantly to achieving the sustainable development goals while creating a more inclusive and healthier environment for young people and their communities.

Social sustainability is also a positive outcome of enabling the voices and agency of young people. As seen through the critical commentary, the co-researchers emphasised 'feeling safe' and 'community feel'. Creating safe and welcoming public spaces encourages social interaction and community cohesion, which is essential to young

people's mental health and well-being (Thompson & Kent, 2014). These spaces also provide a sense of belonging and community identity. Young people often struggle to see themselves reflected in their cities or communities (Rymenants et al., 2023; Stoecker, 2022). Enabling to actively shape the cities and neighbourhoods helps to ensures young people feel seen and heard in their communities, which helps to provide a sense of belonging (Rymenants et al., 2023; Stoecker, 2022).

Finally, it is essential that young people actively drive the planning and design of their cities as they face different challenges and opportunities (Kontak et al., 2022). Therefore, the sustained involvement of young people in policy development and decision-making ensures that improvements to cities and neighbourhoods are responsive to the present needs of young people and can evolve with future changes. Enabling young people's voices to shape their environments supports the sustainability of their community's health and well-being, increasing the quality of life (Benninger et al., 2021; Sallis et al., 2015; Thompson & Kent, 2014).

5.4.3 Replication

This study can provide a template for other communities to replicate. The YPAR approach used in this project can be adapted and applied in a range of contexts. Applying a YPAR approach can strengthen other policies and practices by incorporating youth voices and can help other communities benefit from the engagement process. Strategies and practices identified through this research project to enable young people can be scaled to fit different contexts, as the principles remain the same. This could result in young people influencing local or national policies and practices.

By sharing the successes and limitations of this research project, organisations and urban planners can use it as a starting point when seeking the voices of young people. Replicating a YPAR approach, such as the one used in this research project, can help create systemic change in how public health and urban planning policies are developed and implemented. This would result in more inclusive, safe, and resilient communities.

The research project also used an infographic to effectively communicate the process of enabling young people through YPAR. Using an infographic to disseminate the process of YPAR and findings from the research also helps to facilitate easy replication. Infographics help to highlight the crucial steps and provide a visual representation of the approach (Baxter et al., 2006). They also allow for easy distribution to other communities as they can be accessed and used in both hardcopy and electronic form and, therefore, can be easily shared across different platforms such as social media and websites.

5.5 Recommendations for Future

This research project explored how YPAR could enable the voices and agency of young people. Due to time restraints, the co-researchers drove the first two phases of the research project, and I led the creation of the artefact based on the co-researchers' analysis (see Appendix E). Further research should enable the voices and agency of young people by allowing them to drive the creation and dissemination of any tools developed from the process. This research project also highlighted the importance of the composition of the research team for projects, especially in the context of Aotearoa New Zealand. To further implement this artefact, it is essential to prioritise the cultural context of the community. Given the context of living in Aotearoa New Zealand, it became clear that this project required additional skills and knowledge. Research has identified a need to strengthen the integration of Māori culture and context in planning, designing, and implementing changes to cities and communities in Aotearoa New Zealand (Public Health Agency, 2022). The primary researchers should work in partnership with cultural experts to enable the voices and agency of rangatahi Māori. Having a research team with cultural knowledge relevant to Aotearoa New Zealand would create a more culturally inclusive research process and strengthen the results from the process (Hudson & Russell, 2009). This approach aligns with equity and justice principles, promoting a research methodology that upholds Te Tiriti and respects and integrates Indigenous knowledge and perspectives (Hudson & Russell, 2009).

5.6 Closing Remarks

This research project has been an opportunity to enable the voices and agency of the young people living in Tauranga when implementing a HSA. The research project enabled young people to have an active role in shaping their environments. It also helped to fulfil an academic qualification.

YPAR projects, such as this one, help generate ideas and information that are context-specific and relevant to the young people involved. Actively involving young people in the research and decision-making processes helps to change how policies and practices are implemented. Incorporating young people into urban decision-making will result in urban policies and practices that are more inclusive, sustainable, and better suited to meet the needs of young people and future generations.

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Appendices

Appendix A: Ethics Approval

Auckland University of Technology Ethics Committee (AUTEC)

17 October 2023

Cath Conn
Faculty of Health and Environmental Sciences

Dear Cath

Re Ethics Application: **23/214 How PAR mobilises the voices and agency of young adults to enhance a Healthy Streets Approach in Tauranga**

Thank you for your responses to AUTEC's conditions.

Your ethics application has been approved for three years until 17 October 2026.

Standard Conditions of Approval

1. The research is to be undertaken in accordance with the Auckland University of Technology Code of Conduct for Research and as approved by AUTEC.
2. All public facing documents must have the AUTEC approval number and be of a high standard of spelling and grammar. Dates on the Information Sheet(s) and Consent Form(s) must be consistent.
3. Any amendments to the project must be approved by AUTEC prior to being implemented.
4. A progress report is due annually on the anniversary of the approval date.
5. A final report is due at the expiration of the approval period, or, upon completion of project.
6. Any serious or adverse events must be reported to AUTEC, this includes unforeseen issues that might affect continued ethical acceptability of the project.
7. AUTEC grants ethical approval only. You are responsible for obtaining management permission for access from any institution or organisation at which your research is being conducted and you need to meet all ethical, legal, public health, and locality obligations or requirements for the jurisdictions in which the research is being undertaken.

The application number and title need to be referenced on all correspondence related to this project.

All forms are available online http://www.aut.ac.nz/research/researchethics

For any enquiries, please contact ethics@aut.ac.nz
(This is a computer-generated letter for which no signature is required)

The AUTEC Secretariat
Auckland University of Technology Ethics Committee

Cc: bibbysimone@gmail.com; julie.trafford@aut.ac.nz

Auckland University of Technology, D-88, Private Bag 92006, Auckland 1142, New Zealand.
T: +64 9 921 9999 ext. 8316: E: ethics@aut.ac.nz; www.aut.ac.nz/researchethics

Appendix B: Advertisement

WANT TO HAVE YOURSAY!1

Get involved in research helping to mobilise the voice and agency of young adults to enhance our communities and neighbourhoods

ARE YOU...

a young adult between the age of 18 aind 39?	living in the Bay of Plenty !Region?
interested in worl<ing with otlher young adults to help to shape the neighbourhoods we live in	albie to provide approx. 3 hours of time towards the research project

if you are interested in being a co-researcher or have any questions about the research contact Simone Bibby on:
instagram: simonebibby
email: bibbY-simone@gmail.com
mobile: 022 043 8716

Participant Information Sheet

21/01/24

My name is Simone Bibby. I am currently studying my Master of Public Health. I would like to invite you to take part in a participatory research project.

The information below explains why I am doing this research project and what will happen during it.

Project Title

How Participatory Action Research mobilises the voices and agency of young adults to enhance a Healthy Streets Approach in Tauranga

What is the purpose of this research?

Urbanisation plays a substantial role in the development of people's physical health, social connections, mental health, and interaction with and connection to the environment. The design of our cities also influences the short- and long-term effects of climate change on both the environment and people.

With the urban population growing in Aotearoa, Tauranga is now New Zealand's fifth-biggest city and is classed as a major urban hub. This growth has resulted in the development of the Tauranga Urban Strategy 2050 to ensure Tauranga City Council (TCC) can plan to accommodate current and further growth, and be smarter about the use of space, while also preserving and enhancing the Tauranga lifestyle.

People living in their everyday environment are the experts of their environment and should be actively involved in the decisions that impacts them and their environment. This research aims to help enable young adults to take a kaitiaki (guardian) role for the health of the planet and future generations and diversify who contributes to the development and implementation of policies and initiatives.

Ensuring initiatives are relevant to participants can be achieved through implementing Participatory Action Research (PAR) approach. PAR ensures the participants are co-researchers and they steer the research process. This concept provides an opportunity for initiatives to involve communities ensuring they can exercise self-determination and are provided with the opportunity to build capacity and enable the community involved in the research.

The research will aim to help mobilise young adults to have an active role in what their future health, well-being and environment will look like, specifically aiming to help enhance the implementation of Tauranga City Council's Healthy Streets Approach.

The findings of this research may be used for academic publications and presentations.

How was I identified and why am I being invited to participate in this research?

You have received this information sheet because you have contacted me to express an interest in participating in the research that was advertised through Pāpāmoa Beach Sports Club social media.

From that expression of interest you have been invited to participate in this research project as you are a member of Papamoa Beach Sports Club or know someone who is a member of this club and are 18-39 years residing in Bay of Plenty.

How do I agree to participate in this research?

If after reading this information sheet you are happy to take part in the research project, you will be asked to complete the attached consent form. This consent form will need to be returned to me by the introductory session.

Your participation in this research is voluntary (it is your choice) and whether you choose to participate will neither advantage nor disadvantage you. You can withdraw from the study at any time. If you choose to withdraw from the study, then you will be offered the choice between having any contributions removed or allowing it to continue to be used. However, once the findings have been produced, removal of all contributions may not be possible.

What will happen in this research?

The research will be conducted using the methodology of Participatory Action Research (PAR). This means you will participate fully at all stages of the research process.
There are three sessions in this research project you will participate in. They include:

1. An introductory session (1 hour). At this session we will discuss the stages of the study and choosing a method such as transect walk, mapping, photos, videos, or journaling to document your journey to/ from your home. You will be required to use your chosen method to document your main journey around Tauranga. Noting what you are seeing, feeling, smelling etc.
2. Once you have collected your data, we will meet as a group (1 hour) to discuss and analyse the data you collected. In this session we will be finding patterns in the data.
3. We will then have another hour where you will have an opportunity to create an artefact/ suggest a strategy that promotes healthy and sustainable journeys.

Please note: There may be a couple (max 2) follow up session or input via the Facebook group required to finalise the artefact/ strategy that was developed at the focus group session. This is to ensure what was discussed at the focus group has been correctly interpreted and presented in a way you are proud of.

What are the discomforts and risks?

You will be sharing information in the form of artwork, images, videos etc. with me and my supervisors. This information will be reflective of your perception and experience. There is a small risk that you may be judged by other co-researchers.

How will these discomforts and risks be alleviated?

You will be in control of how much information you want to share and how you shared it. You will have control over what is shared and created in your discussions, how it is interpreted and whether it is presented in the final product.

What are the benefits?

The research will aim to help mobilise other young adults like you to have an active role in shaping your future health, well-being, and environment.

The research aims to benefits the community as the research is conducted collaboration with young adults like yourself and will serve to inform and educate the wider community about young adults' views on how to address health and sustainability issues that are present within the community. the research aims to increase the visibility of young adults views in hope of challenging and potentially changing the status quo regarding young adults' participation in developing policies and practices in relation to sustainable and healthy cities.

The research hopes to benefit you as the participant through empowering you to drive the research, shaping the process and its outcomes. Through the use of PAR, you actively participate in the research process instead of being passive subjects. By actively engaging in the research process it aims to create a sense of ownership and agency as you can freely express their opinions, and share your experiences. This aims to empower you and other young adults to take a kaitiaki (guardian) role in your health, the health of the planet and future generations (Hudson et al., 2010). It also helps to mobilise you and other young adults to become advocates and agents of change in your communities.

The research will also benefit me as I will be able to complete my Master of Public Health.

What compensation is available for injury or negligence?

In the unlikely event of a physical injury because of your participation in this study, rehabilitation, and compensation for injury by accident may be available from the Accident Compensation Corporation, providing the incident details satisfy the requirements of the law and the Corporation's regulations.

How will my privacy be protected?

The research will be confidential and your identity will be kept private and removed from any research outputs.

In this research project you will not be anonymous to the researcher. This is because you are a co-researcher and you will be working with the researcher. You and the other co-researchers will determine what findings are included in the artefact/ suggested strategy that promotes healthy and sustainable journeys and how the dissemination of this information occurs. This ensures you are in control and manage your information and the information that is disseminated. You will not be named in the study to respect your privacy and confidentiality.

What are the costs of participating in this research?

The research will cost your time. This will be a minimum time of 2 focus group sessions and you collecting/documenting your experiences in your own time. Follow up sessions or digital input may be required to finalise artefact/ suggested strategy that promotes healthy and sustainable journeys.

What opportunity do I have to consider this invitation?

You have two weeks consider this invitation. If you have not responded to the invitation, you will receive one follow up email. If you do not reply to the follow up email you will be removed from the contact list.

You can either bring the consent form to the information session or return it back to me via email.

Will I receive feedback on the results of this research?

You will be provided with a digital copy of the final artefact/ the suggested strategy that promotes healthy and sustainable journeys and the publication.

What do I do if I have concerns about this research?

Any concerns regarding the nature of this project should be notified in the first instance to the Project Supervisor, Cath Conn, cath.conn@aut.ac.nz, 09 921 9999 Ext 7407.

Concerns regarding the conduct of the research should be notified to the Executive Secretary of AUTEC, ethics@aut.ac.nz , (+649) 921 9999 ext 6038.

Whom do I contact for further information about this research?

Please keep this Information Sheet and a copy of the Consent Form for your future reference. You are also able to contact the research team as follows:

Researcher Contact Details:

Name: Simone Bibby

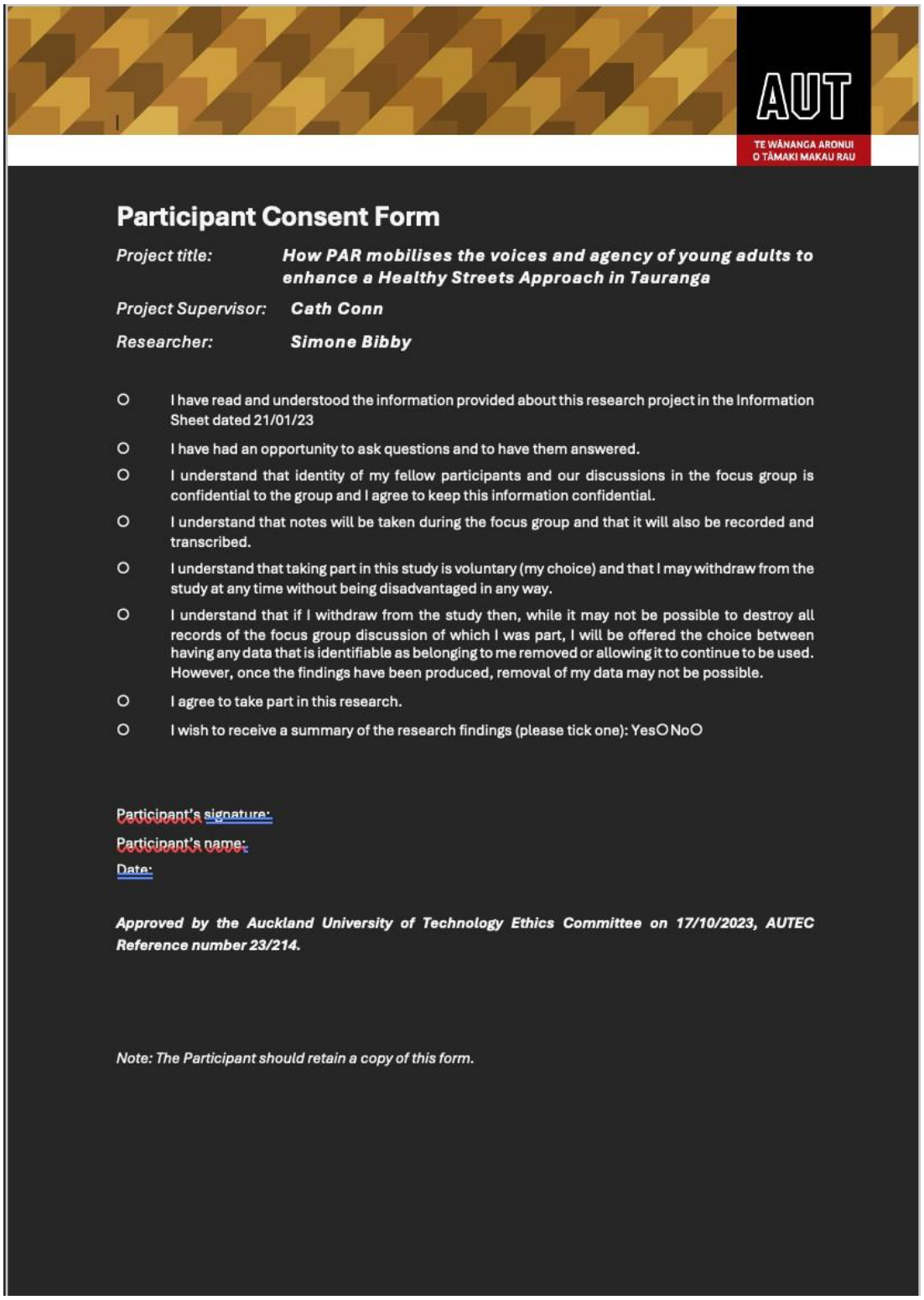
Email address: bibbysimone@gmail.com

Project Supervisor Contact Details:

Name: Cath Conn
Email address: cath.conn@aut.ac.nz
Phone: 09 921 9999 ext 7407

Approved by the Auckland University of Technology Ethics Committee on *17/10/2023*, AUTEC Reference number *23/214*.

Appendix D: Consent Form



AUT
TE WĀNANGA ARONUI O TĀMAKI MAKAU RAU

Participant Consent Form

Project title: ***How PAR mobilises the voices and agency of young adults to enhance a Healthy Streets Approach in Tauranga***

Project Supervisor: ***Cath Conn***

Researcher: ***Simone Bibby***

- O I have read and understood the information provided about this research project in the Information Sheet dated 21/01/23
- O I have had an opportunity to ask questions and to have them answered.
- O I understand that identity of my fellow participants and our discussions in the focus group is confidential to the group and I agree to keep this information confidential.
- O I understand that notes will be taken during the focus group and that it will also be recorded and transcribed.
- O I understand that taking part in this study is voluntary (my choice) and that I may withdraw from the study at any time without being disadvantaged in any way.
- O I understand that if I withdraw from the study then, while it may not be possible to destroy all records of the focus group discussion of which I was part, I will be offered the choice between having any data that is identifiable as belonging to me removed or allowing it to continue to be used. However, once the findings have been produced, removal of my data may not be possible.
- O I agree to take part in this research.
- O I wish to receive a summary of the research findings (please tick one): YesO NoO

Participant's signature:

Participant's name:

Date:

Approved by the Auckland University of Technology Ethics Committee on 17/10/2023, AUTEC Reference number 23/214.

Note: The Participant should retain a copy of this form.

Appendix E: Artefact Final Draft