TRL Shaping transport

TRL REPORT XPR147

Evaluation of Bikeability Level 2 Training

Long-term impact

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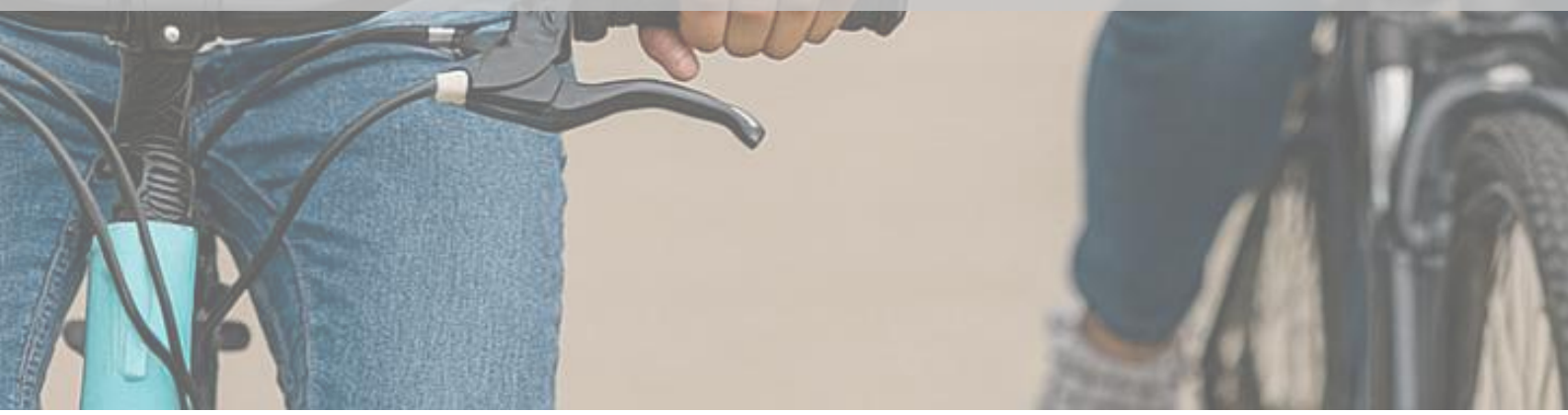

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Executive Summary

This study evaluated the longer-term impacts of Bikeability Level 2 (L2) training on cycling behaviour, skills, attitudes and wellbeing among former learners (people who completed their L2 training since it's initiation in 2007 and were aged 16 and above), parents/carers and teachers. Drawing on surveys with 924 former learners, 280 parents/carers, and 79 teachers, the findings indicate that Bikeability L2 positively impacts learners' physical and mental health, retention of road safety skills, and perceptions of and participation in cycling in the long term.

A majority of **former learners** described cycling as a regular part of their weekly routines, with 76% reporting that they cycle at least once a week and only 5% reporting that they never cycle. Cycling was used for leisure/social reasons as well as a range of local journeys including visiting friends and family (57%), commuting (51%), and running errands (49%). Across the sample, there were substantially higher levels of cycling participation than reported in the general population through the National Travel Survey (76% vs 13% cycling at least weekly). 37% of the survey respondents reported cycling 150 minutes of more, indicating they fulfil WHO's recommended activity level from cycling alone. Many respondents felt the training contributed to their sense of confidence on the road and provided a foundation for the cycling habits they maintain today. 70% reported that they remembered their training well and 44% demonstrating strong knowledge of safe cycling practices. Most respondents also expressed intention to cycle more in the future, suggesting a longer-term propensity towards active travel amongst this group.

Parents/carers of children who had completed L2 training between 2020 and 2025 were also asked to respond to a survey. Overall, parents/carers tended to recognise notable gains in children's independence, awareness and enthusiasm for cycling. Many viewed cycling as beneficial for health and an important life skill and positive changes in confidence after Bikeability L2 training were commonly noted. However, concerns about traffic conditions, driver behaviour and the limitations of local routes continued to shape decisions about when and where their children ride regardless of improved confidence in their child's ability to cycle following training.

Teachers reported similar patterns, observing that pupils generally become more self-assured and engaged in the two weeks after participating in L2 training. Some teachers reported increased cycling to school shortly afterwards, particularly where local street conditions were favourable. However, teachers also highlighted several constraints which were felt to limit their ability to cement longer term cycling habits in pupils, such as limited time amongst other curriculum priorities, inconsistent access to cycles among some pupils and varying parental engagement. These constraints limit how far cycling can be embedded into everyday school life without additional support.

A **segmentation analysis** provided further insight into differences among former learners. We used two complementary methods to interpret variation among former learners. First, a **travel-behaviour segmentation** was used to group respondents by *how often* they travel and *which modes* they use. This produced four segments:

- **Highly Multimodal, High-Frequency Travellers:** regular travellers by multiple transport modes such as cycling, walking, public transport and driving.
- **Public Transport & Car Mix, Low-Frequency Travellers:** infrequent travellers mainly using car and public transport.
- **Public Transport & Active-Leaning Moderate-Frequency Travellers:** people who cycle occasionally, but tend to walk or use public transport more often than cycling.
- **Walking and Driving Mix, Moderate- Frequency Travellers:** travellers who primarily walk and drive.

Second, a **Stages-of-Change segmentation** placed respondents along a behavioural continuum from Pre-contemplation, Contemplation, Preparation, and Action to Maintenance, describing the stages in which a person adopts a behaviour (i.e., cycling).

Taken together, the analyses showed that most regular, confident cyclists (67%) sit in *Maintenance stage* and tend to be *Highly Multimodal, High-Frequency Travellers*, while those aspiring to cycle more (*Preparation stage)* are concentrated in the *Public Transport & Car Mix, Low-Frequency Travellers* segment (58%) and earlier stages, indicating they had strong intentions to cycle more but felt constrained by practical barriers or lacked consistent routines. The analysis suggests that past learners in the *Preparation stage* are well-placed to benefit from targeted, confidence-building opportunities that help translate motivation into behaviour.

It is important to note the limitations of this study when interpreting results. The findings are based on observed associations and self-reported perceptions captured via a series of online surveys. The study did not include a before-and-after or counterfactual design and therefore cannot be used to estimate causal impacts. It is also possible that the survey samples were subject to some self-selection bias resulting in greater focus on those interested in cycling. Future evaluation should therefore prioritise longitudinal, before-and-after studies with baseline data and appropriate comparison groups to strengthen causal inference and better understand the long-term impacts of Bikeability training.

Despite these limitations however, the study provides valuable evidence that Bikeability Level 2 training is associated with the development of cycling competence, awareness and motivation needed among young people to encourage cycling in the long term. The following recommendations are proposed to help realise the full benefits of the Bikeability L2 training, particularly to steer past learners towards more consistent on-road cycling:

- **Support motivated but less frequent** cyclists in the *Preparation stage* by offering simple, confidence-building opportunities (e.g., short, guided rides) that help turn intention into routine.
- **Improve local cycling conditions** through safer, more consistent routes that address concerns around driver behaviour, traffic speed and road layout.
- **Reinforce safe cycling practices** by offering optional refresher sessions and promoting campaigns aimed at improving interactions between people driving and people cycling.

- **Provide schools with ready-made resources** so they can promote cycling without significantly increasing staff workload.
- **Strengthen parents' confidence** by creating family-friendly cycling opportunities that allow adults and children to build skills together.

1 Background

The Bikeability Trust is responsible for managing, developing and promoting the Bikeability programme on behalf of Active Travel England (ATE) and the Department for Transport (DfT). With a vision to ensure that everyone has the confidence to cycle and enjoy this skill for life, the Trust plays a central role in advancing cycling education across England, particularly for children. Its work supports the continued strengthening of the national cycle training programme, ensuring that its benefits are widely recognised and its impact maximised.

Bikeability is the government's flagship national cycle training initiative for schoolchildren in England and forms a key component of the wider active travel strategy set out in the second Cycling and Walking Investment Strategy (CWIS2), and Active Travel England's Business Plan 2025-26. The programme's Level 2 module provides practical, structured training that equips children with the skills, understanding and confidence needed to cycle safely and competently on today's roads.

TRL was commissioned by The Bikeability Trust to conduct an evaluation of the longer-term impact of the Bikeability programme's Level 2 module on learners' cycling attitudes, confidence, behaviours and road safety skills. Specifically, the research sought to understand whether and how the benefits of Level 2 training extend beyond immediate post-training outcomes and continue to influence behaviours and attitudes many years after completing the course. The evaluation also sought to explore emerging patterns among past learners to understand similarities and differences and to identify where targeted interventions might be most effective to support continued cycling beyond training and embedding cycling culture among schools and the wider community.

1.1 Research objectives

The research aimed to explore the following topics:

Health

- **Physical health**
    - The extent to which past learners intended cycling frequency following Bikeability Level 2 translates into actual cycling frequency several months or years later, as well as their intentions for cycling in the future.
    - Patterns in journey types and distances, and whether Level 2 training supports increased engagement in both utility and leisure cycling.
    - Mode shift, including the replacement of car based or other passive journeys with cycling.
    - Shifts from sedentary behaviour to moderate physical activity, supported by increased confidence and skills.

- **Mental health**
    - Longer term wellbeing of past learners, particularly in terms of confidence, independence, and stress reduction associated with cycling.
    - The influence of cycling on social connections, including past learner's sense of belonging and integration within their peer groups and communities.
    - The contribution of improved cycling skills and confidence to young people's future mobility and access to education, training and employment opportunities.
- **Road safety**
    - Skill retention, including the extent to which past learners maintain their Bikeability Level 2 competencies over time.
    - Past learners' experiences of near misses, collisions or other safety-related incidents, and how Level 2 training influences their ability to recognise and respond to road risks.
    - Parental or carer attitudes as gatekeepers to children's cycling, including perceptions of safety and how these shape children's opportunities and freedom to cycle.
    - The broader role of cycling in supporting community mindedness, such as increased awareness of others on the road or in shared spaces.
- **Schools and active travel**
    - Schools' participation in Bikeability cycle training and their engagement with wider active travel initiatives.
    - Attitudes within schools towards cycling and active travel, including perceived benefits, barriers and the role of Level 2 training in shaping school culture around cycling.

The study was designed to align with wider UK governmental priorities around active travel, public health and sustainable mobility, and to contribute to the national evidence base on the effectiveness of cycle training.

1.2 Previous research

The project began with a focussed literature review to identify key factors which influence cycling participation. The aim was to inform the design of the study, in particular the surveys and associated research materials, to ensure that the study built on existing evidence and was able to capture information on the multidimensional influences on cycling attitudes and behaviours relevant to the three overarching research areas of health, road safety, and schools and active travel. A summary of the key findings from this literature review is provided below.

Previous research identifies a broad set of factors that influence the likelihood that individuals, particularly children and young people, will engage in cycling. Individual perceptions and cognitive frameworks play a central role in shaping cycling behaviour. Research consistently identifies attitudes, perceived capability, and personal assessments of risk as key determinants of whether individuals choose to cycle. These factors also interact with parental and cultural influences and built and natural environmental factors, influencing whether cycling is viewed as a feasible and desirable travel option.

Formal cycling training programmes, such as Bikeability, have been shown to improve children's cycling skills, including risk assessment, signalling, and maintaining appropriate road position (Ipsos MORI, 2015). Parents report corresponding increases in their children's safety awareness. Although these improvements may enhance readiness and confidence, the evidence regarding whether training leads to increased long-term cycling frequency is mixed. Some studies identify positive associations, whereas others suggest little change following training (UCI 2019; Ipsos MORI, 2015; McKay et al., 2020). Thus, while training reliably enhances competence, its behavioural impact appears dependent on broader contextual factors.

Motivation, particularly intrinsic enjoyment, emerges as a strong predictor of cycling participation. Children frequently describe cycling as enjoyable and exciting, and cycle training may reinforce these positive feelings (Ipsos MORI, 2015). Bishop et al., (2024) notes that 'automatic motivation', which includes affective perceptions such as whether cycling feels enjoyable, relaxing, or convenient, predicts cycling participation more strongly than 'reflective motivation' such as perceiving cycling as socially responsible. However, these motivational influences operate within broader structural constraints. Enjoyment alone is often insufficient to sustain regular cycling when external barriers, particularly safety concerns, remain pronounced.

Cycling behaviour is shaped by wider social norms and cultural expectations. Individuals are more likely to cycle when it is perceived as a normal, socially valued activity (i.e., "cycling is cool") within their peer group or community (De Souza, 2014; Willis et al., 2015). Social modelling from friends, family members, and colleagues further reinforces uptake (Dill and McNeil, 2016; Cabral and Kim, 2020; Bishop et al., 2024). For children and adults alike, having role models who cycle promotes familiarity and acceptance of cycling as part of everyday life. Participation in cycle training can also strengthen positive perceptions, contributing to a supportive social environment around cycling.

Parental attitudes are particularly influential for children's cycling opportunities. Parents who cycle themselves are more likely to support their children's cycling, and children who cycled to school are more likely to cycle in adulthood (Bishop et al., 2024; Bishop et al., 2025; The Bikeability Trust, 2025). Parents' assessments of their child's competence and the local traffic environment strongly shape the freedom granted to cycle independently. Even when parents recognise the health, self-confidence, and enjoyment benefits of cycling, concerns about safety often dominate decision-making related to cycling on roads.

Perceived safety consistently emerges as one of the strongest deterrents to cycling. Parents frequently express concerns related to traffic volume, vehicle speeds, and unpredictable

behaviour of other road users (Ipsos MORI, 2015). These anxieties persist even when children demonstrate improved skills following training. Safety concerns inhibit both children's autonomy and adults' willingness to cycle, particularly in contexts perceived as hostile to vulnerable road users. As a result, perceived safety constraints continue to limit cycling uptake irrespective of individual competence.

The built environment constitutes a major structural factor of cycling behaviour. Inadequate cycling infrastructure, hostile traffic conditions, and motorist aggression are widely cited barriers (Dill and McNeil, 2016; Hosford et al., 2020; Fraboni et al., 2021; Pearson et al., 2023; Cycling Scotland, 2023; Martin Lopez et al., 2025). Fear of collisions contributes to perceptions of danger and reduces willingness to cycle, particularly among less experienced riders. The absence of safe, continuous, and protected cycling routes exacerbates these concerns, limiting the likelihood that individuals, especially children, will be permitted or encouraged to cycle on roads. Infrastructure therefore influences both objective and subjective safety, shaping behavioural choices across age groups.

Finally, demographic variables were consistently identified as strong predictors of cycling participation. In "low-cycling" countries like the UK, Australia, and the USA, men are significantly more likely to cycle than women (Aldred et al., 2016; Dill and McNeil, 2016; Cabral and Kim, 2020; McKay et al., 2020; Graystone, 2022; Cycling Scotland Wave 5, 2023). Aldred (2016) defined "low-cycling" countries as those where cycling accounts for a very small proportion of all trips, often under 5%, and "high-cycling" countries are those where cycling makes up a substantial share of all trips, typically 10–30% or more. For instance, Aldred et al. (2016) reported that in the UK, men are twice as likely as women to cycle to work. This gender gap is often attributed to women perceiving higher safety risks and having more complex travel patterns, such as "mobility of care" journeys involving children or groceries.

These papers have also reported that the likelihood of cycling generally declines with age, particularly in low-cycling contexts. Younger adults (18–34) often show the highest participation rates. However, Dill and McNeil (2016) and Aldred et al., (2016) noted that in "high-cycling" countries like the Netherlands and Germany, cycling remains prevalent among older age groups, suggesting age-related declines are culturally specific rather than biological.

Higher Socio-Economic Status (SES), often measured by income or education, is frequently associated with a higher likelihood of cycling, particularly for leisure. Conversely, lower-income individuals may cycle out of necessity rather than choice if they lack access to a car. Research in the UK has shown that White individuals are more likely to cycle than those from ethnic minority backgrounds (Eime et al., 2015; Ipsos MORI, 2015; Aldred et al., 2016; McKay et al., 2020; Cycling Scotland Wave 5, 2023).

These findings were useful in guiding the development of the research material and approach to analysis. The next section describes how the existing literature was incorporated in the study to ensure various datapoints were gathered to develop a cohesive understanding of current behaviour, future intentions to cycle, perceived enablers and barriers, and key motivators to cycle among Bikeability L2 graduates.

2 Methodology

To evaluate the longer-term impact of Bikeability Level 2 training, we implemented a mixed method, non-experimental approach using multiple surveys to capture cycling behaviour and attitudes towards cycling from past learners, their parents or carers, and school staff. The approach was designed to capture comparable data across the various health, road safety, and schools and active travel topics. The phrasing and types of question incorporated into the surveys were directly informed by the findings from the desk review in Section 1.2.

2.1 Data collection

Three surveys were developed to address the research aims and to capture data aligned with the key focus areas outlined in **Table 1**.

Table 1: Mapping of key focus area against each survey

Key focus area		Survey 1	Survey 2	Survey 3
Health	Cycling frequency	■	■	
	Journey types	■	■	
	Mode shift	■	■	
	Physical activity	■	■	■
	Mental wellbeing	■	■	■
	Social connectedness/belonging	■	■	■
	Employment opportunities	■		■
Road Safety	Skill retention	■		
	Near misses, collisions	■	■	
	Parental/carer attitudes	■	■	■
	Community mindedness	■	■	■
Schools and active travel	Engagement in training / active travel		■	■
	Attitudes to cycling		■	■

Survey 1 covered all focus areas except outcomes relating to 'schools and active travel'. Surveys 2 and 3 provided complementary data on specific topics such as parental attitudes, safety perceptions and school-level active travel engagement. All three surveys were hosted online.

Survey questions relating to motivation, and enjoyment were mapped onto the health objectives by examining how attitudes, confidence, independence, and affective responses

to cycling contribute to both physical and mental wellbeing. Items on cycling frequency, journey types, mode shift, and sedentary versus active behaviour were developed to address the extent to which Bikeability Level 2 training leads to increased physical activity, engagement in utility and leisure cycling, and reductions in car-based journeys. Similarly, questions on confidence, independence, and perceived stress reduction were included to assess longer term mental health outcomes, alongside items capturing social belonging and peer connectedness, reflecting the training's effect on the social and emotional benefits of cycling.

Questions relating to training, skills acquisition, parental attitudes, safety perceptions, and the built environment mapped onto the road safety aims. Items on skill retention and self-reported or observed competencies addressed the extent to which Bikeability Level 2 skills are maintained over time. Questions on near misses and collisions in the past year were designed to explore the prevalence of incidents in the sample of past learners. Parental perceptions of safety and their role as gatekeepers were also incorporated to understand how parents of past learners mediated past learner's exposure to road environments and opportunities to cycle.

Finally, questions in Survey 3 were positioned to capture the contextual conditions that support or hinder cycling uptake in school settings. These questions explored the extent of school participation in Bikeability, the schools' involvement in cycling and active travel initiatives, perceived benefits and barriers within the school environment, and how Level 2 training may influence school wide norms and practices. Respondents were also invited to comment on general impacts of cycling on children's physical, mental, and social wellbeing observed in school.

2.1.1 Survey 1: Former Bikeability Level 2 learners (Aged 16+)

Survey 1 was the most comprehensive of the three instruments, covering all key focus areas. The majority of the questions were multiple-choice questions with some open-ended sections to provide details.

The survey was distributed to individuals aged 16 and above who had previously completed Bikeability Level 2 training. We targeted a sample of 1000 former learners who completed their training between 2007 and 2024 through Roots Research, a third-party recruitment agency.

2.1.2 Survey 2: Parents and carers of learners under 16

Survey 2 collected complementary insights from parents and carers, with a particular focus on parental attitudes, perceptions of safety, and household cycling behaviours. Most of the questions were multiple-choice with some open-ended sections to provide further details. We targeted parents/carers with children aged 15 and below who had completed L2 training between 2020 and 2025.

Participants were recruited through The Bikeability Trust's mailing list, consisting of approximately 3,000 parents/carers of children who had undertaken Level 2 training within

the past year, and 7,900 parents from previous years. We anticipated a response rate of 1% (109) due to varying levels of engagement from parents.

2.1.3 Survey 3: Teachers in schools delivering Level 2 training

Survey 3 targeted teachers working in schools that had delivered Bikeability Level 2 training in the previous year. There were some multiple-choice questions with several open-ended sections to provide descriptive responses.

Distribution was facilitated through The Bikeability Trust's existing school contacts. Recognising the workload pressures faced by teachers, we intentionally designed a brief survey that could be completed in under 15 minutes, increasing the likelihood of participation.

We did not set a target sample size for this survey, expecting a relatively small number of responses due to the nature of the target group, with a focus on gathering qualitative insights rather than a statistically representative sample.

2.1.4 Incentives

Survey 1 participants received a monetary incentive equivalent to £6 administered by Roots Research, reflecting the length of the learner-focused survey.

To encourage participation across surveys 2 and 3, respondents were given the opportunity to enter a prize draw for a chance to win one of four shopping vouchers:

- 1 x £150 voucher
- 3 x £75 voucher

2.2 Data analysis

2.2.1 Summary of survey responses

For all three surveys, ineligible responses were removed. This included multiple responses from a minority of respondents, respondents who did not give consent to participate in the study, and a respondent who contacted the research team to delete their data.

The final samples achieved for each survey were as follows:

- Survey 1: 979
- Survey 2: 280
- Survey 3: 79

All questions with multiple choices were tallied and summarised in an appropriate chart. Descriptive statistics were used to detail the majority of the findings. Questions with free-text responses were reviewed individually to add more context to the quantitative findings.

Survey 1 responses were further explored by comparing findings with relevant national datasets such as the NTS survey.

Findings from the three surveys were examined alongside each other to understand how propensity to cycle could be increased nation-wide.

To explore potential relationships between responses to related questions, chi-square tests of independence were conducted on a selected subset of survey questions. This analysis was undertaken to understand the degree of parental influence on childhood exposure to cycling and on cycling frequency in the longer-term post training.

2.2.2 Segmentation analysis

2.2.2.1 Approach 1: Travel behaviour segments

To better understand the travel behaviour of the Survey 1 participants, a segmentation analysis was implemented using questions on transport mode share and purpose of transport. Questions 7 and 8 asked about the frequency with which the respondents used the following modes of transport: walking, cycling, public transport, driving and taxi. A bottom-up approach was implemented for this part of the segmentation analysis to identify underlying groups within the data without a pre-conceived idea about the common characteristics of these groups.

The analysis utilised feature engineering to quantify the frequency of use and reliance for use of a particular mode of transport. The possible answers for Questions 7 were assigned a number to scale the frequency with which the survey respondent used a specific mode of transport – “4 days or more a week” was assigned a 4, “1 to 3 days a week” was assigned a 3, “Once or twice a month” was assigned a 2, “Less than once a month” was assigned a 1 and “Never” was assigned a 0. This frequency calculation was computed for each mode of transport.

Separately to this, Question 8 was quantified by checking what proportion of journeys each respondent reported making for each mode of transport. Respondents answered “Yes” or “No” to the question “Do you use mode X for reason Y?”. These answers were transformed from “Yes” or “No” into 1 or 0, respectively, for each sub-question. The modes of transport included walking, cycling, public transport, driving and taxi. Trip reasons included commuting, transporting others, errands, socialising and leisure. A ‘reliance’ score was calculated by summing scores for all the journeys made by a particular mode and dividing by all journeys made. For example, car reliance was calculated by summing scores for all the journeys made by car and dividing it by all the journeys made using any mode of transport.

The final part of feature engineering was to calculate a ‘multimodality score’ which indicated how varied the modes of transport used regularly by a respondent were. The score ranged from 0 to 5 based on how many modes of transport were used “1 to 3 days a week” or more. This provided insight on a respondent’s flexibility and frequency of travel. A high multimodality score equated to a high frequency of journeys made regularly, using a high variety of modes.

Together a total of 9 features were calculated which describe the transport behaviour of a respondent, supporting easier interpretation of the segmentation analysis, compared to if the analysis was run using all 42 sub-questions included in Question 7 and 8.

The next step was to run a segmentation algorithm which fit the participants into clusters with distinctive behavioural features. Using Principal Component Analysis (PCA) and the k-means algorithm, two pilot calculations were first made to determine if segmentation analysis was statistically viable and to inform the choice of input parameters. **Figure 1** illustrates into how many components the data can be partition into while retaining sufficient information about participants. Using 9 components we preserve 100% of the information/variance about the participant group due to the 9 features engineered in the earlier stage.

Figure 1 was used to inform the number of segments for the clustering k-means algorithm. In this case, the optimal value was determined to be 4 components as it still provided a significant gain in cumulative variance while still allowing for a significant reduction in dimensions. Although choosing a 3-component solution would have also been statistically acceptable - having exceeded the commonly used 75% cumulative variance threshold (as highlighted by the red dotted line), using 4 components provided meaningful additional gain in retained information with limited additional complexity in interpreting results.

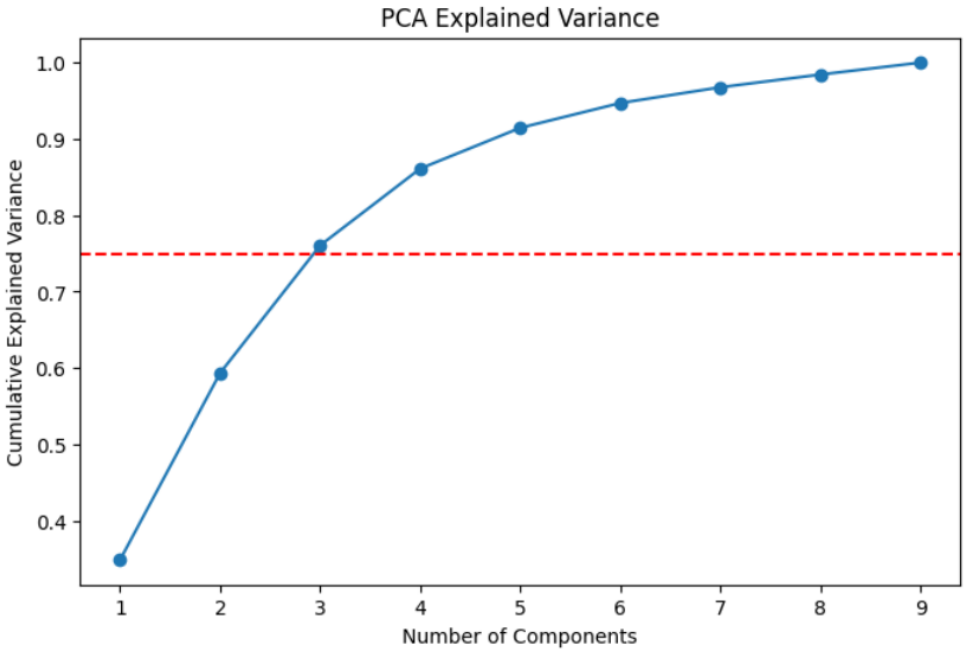

Figure 1: Cumulative Explained Variance

The Elbow method plot shown in **Figure 2** presents the within-cluster sum of squares (WCSS) for increasing number of clusters. The curve displays a clear reduction in the rate of improvement beyond a small number of clusters, explained by diminishing returns from adding further clusters. The characteristic “elbow” shape supports the statistical viability needed to proceed with segmentation analysis.

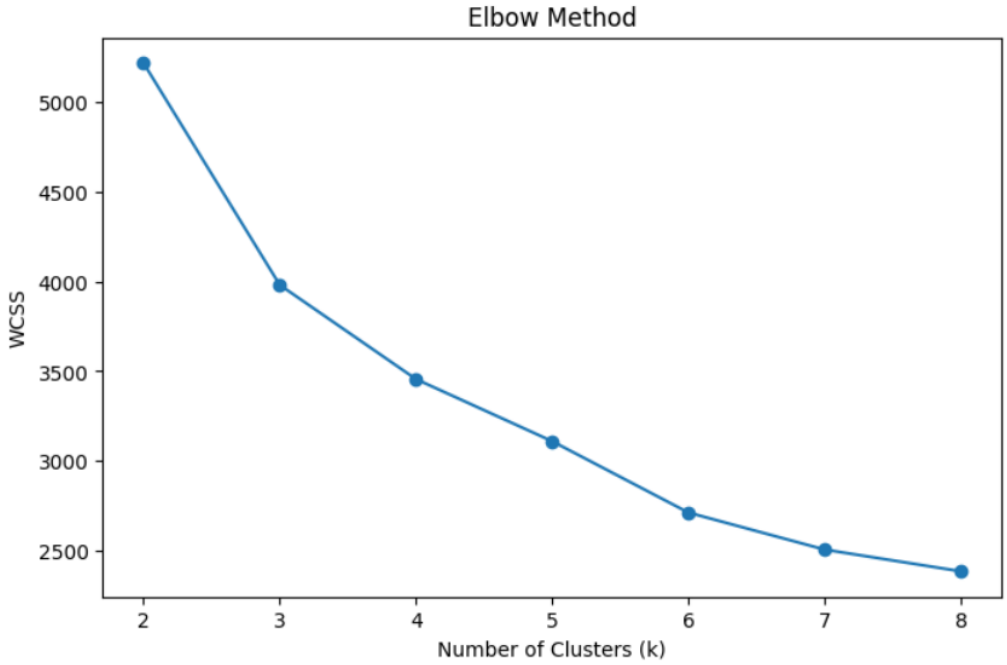

Figure 2: Elbow method for assessing statistical viability

Following this initial assessment, the data was projected into a four-component PCA space, which retained the majority of the meaningful variation in the respondents' travel behaviour while significantly reducing dimensionality. The transformed data was then used as the input for the k-means clustering algorithm which computed each segment's mean values for the engineered behavioural features and assigned each participant to the statistically closest segment.

2.2.2.2 Approach 2: Stages of Change and Reasons for cycling

A second segmentation approach was also explored to provide additional understanding of the characteristics of the survey participants. This consisted of two aspects – described below.

Stage of Change

Firstly, respondents were segmented according to the Five Stages of Change Model, created by James Prochaska. The model defines the following stages in a person's progress towards creating a healthy habit (Prochaska, 1994; Prochaska, 1997):

- **Pre-contemplation:** Individuals are not considering behaviour change and have no intention to modify current behaviour in the foreseeable future. They may be unaware of the negative consequences of their current behaviour or underestimate the upsides from building the healthy habit.
- **Contemplation:** Individuals recognise the benefits of said habit/behaviour change and consider taking action in the foreseeable future (typically the next 6 months) but remain conservative and not yet committed to change.

- **Preparation:** Individuals intend to initiate behaviour change in the near future and may begin taking preliminary steps to facilitate the change, such as acquiring resources or removing barriers (i.e. purchasing a bike, planning cycling routes)
- **Action:** Individuals have initiated the behaviour change process and are actively engaging in the new behaviour, though it has not yet been sustained long enough to become consistent.
- **Maintenance:** Individuals have consistently sustained the behavioural change for an extended period of time (typically more than 6 months) and focus on maintaining the new behaviour while preventing relapse/termination.

For this segmentation approach, the survey participants were hypothesised to exist in one of the Five Stages of Change, in relation to their cycling behaviour. The factors that influence whether a person exists in one of these stages, in the context of cycling, include cycling frequency, consistency, confidence in cycling ability, physical obstacles, etc.

Using the Survey 1 responses, it was possible to determine where a respondent fitted within these stages of change based on a combination of answers to specific questions. This is summarised in **Figure 3** below, which demonstrates what questions and answers were used to place a participant into one of the six stages of change segments.

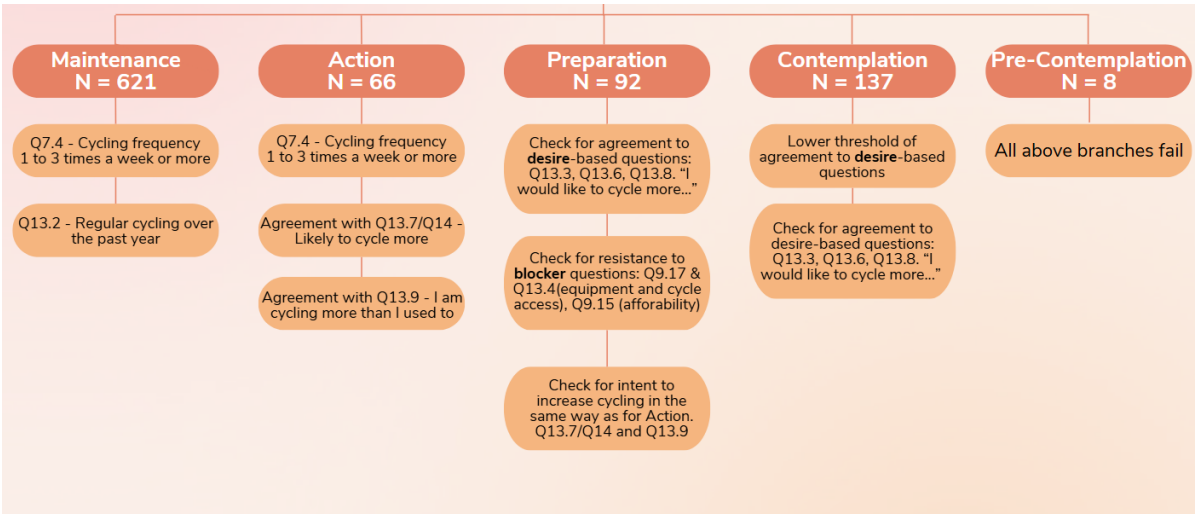

Figure 3: Flow chart of decisions made to place a participant in a segment

For example, if a participant stated they cycle "1 to 3 times a week" or more on Question 7, as well as 'agreed' or 'strongly agreed' with the statement "I cycled regularly over the past year", then they were placed in the Maintenance stage, defined by a person's strong consistency in maintaining their habit. Participants' alignment with each segment was considered in a fixed order, starting with Maintenance. If the conditions for Maintenance were not met, the next stage (Action) in the sequence was assessed, followed by Preparation, Contemplation and Pre-Contemplation.

The summary of the criteria for each stage of change is as follows:

- **Maintenance:** Participant must cycle 1 to 3 times a week or more and agree or strongly agree with the statement "I cycled regularly over the past year".
- **Action**: Participant must cycle at least once a week and exhibit a "plan to increase cycling" score of more than zero.
- **Preparation**: Participant must exhibit a desire score, enabler score and "plan to increase" cycling score of more than zero.
- **Contemplation**: Participant must exhibit a desire score of more than zero.
- **Pre-contemplation**: Everyone else.

Each participant could only be assigned to one segment.

For the Action, Preparation and Contemplation stages, participants were fitted based on their reported levels of desire or plans to increase their cycling in future. A "Plans to increase cycling" feature was generated and measured on a scale of 0 to 2 based on answers to the following questions:

- If a participant selected "Likely" or "Very likely" to Question 14 "How likely are you to increase the amount of cycling this year?" or 'agreed' or 'strongly agreed' with the statement "I plan to cycle more than I do currently" on question 13.7, they were attributed appropriate point(s) towards "plan to increase cycling".
- If a participant 'agreed' or 'strongly agreed' with question 13.9 "I am cycling more than I used to", they were attributed appropriate point(s) towards "plan to increase cycling"

This point system was implemented to quantify the behaviour of a participant and enable assignment to a particular segment. In the case of the "plan to increase cycling" feature, the possible values a participant could be assigned were 0, 1 or 2. For example, if a participant specified they are "Likely" to increase the amount of cycling in the next year but disagreed with "I am cycling more than I used to", they would be assigned a score of 1 for the "plan to increase cycling" feature. If they specified, they were "Likely" to increase the amount of cycling they do and agree with "I am cycling more than I used to", they would be assigned a score of 2.

This same point-system framework was used for measuring desire towards cycling and "enablers" – a measure of the extent to which barriers to cycling were experienced by participants.

To measure desire, for each of the questions 13.3, 13.6, and 13.8, participants were assigned a point for agreeing or strongly agreeing to the associated statements: "I would like to cycle for health and fitness more than I do currently", "I would like to cycle for pleasure more than I do currently", and "I would like to cycle to get to places more than I do currently". Similarly to the "plans to increase cycling" score, agreement with each statement would attribute a point towards the "desire" score, this time scaling from 0 to 3.

For barriers the following questions were used: "I have all the things I need (e.g., cycle, helmet), to help me cycle more often", "I can afford to own and maintain a cycle and other

cycling items (e.g., helmet)", and "I do not own a cycle but can easily hire, rent, or borrow one if I needed". If the participant showed agreement, they were assigned a point.

Reasons for cycling

In addition to segmenting Survey 1 respondents according to the Stages of Change model, respondents were also assigned a group on the basis of their reasons for cycling. Here, a similar point-system to that described above was applied to determine the main reasons for cycling: cycling for health/fitness, cycling for pleasure or cycling to get somewhere. In this case, points were assigned based on strength of agreement:

- Strong disagreement = -2
- Disagreement = -1
- Indifference = 0
- Agreement = 1
- Strong agreement = 2

On Yes or No questions, Yes was computed into 1 and No was computed into -1.

Once quantified, each agreement/disagreement score was summed up into a respective "Reason for cycling" variable. For example, if a participant stated "Yes" to "I cycle to go somewhere for leisure reasons", they were attributed a point towards the "Cycling for leisure" score.

Because the variables had different ranges, a weighting system was applied to make them comparable and make it equally as likely for a participant to exist in either of the three "Reason for cycling" segments.

The following statements were used for each segment, and the weightings are explained accordingly:

- **Cycling for health/fitness**:
    - "I cycle because it is good for my mental health."
    - "I cycle to keep physically fit and active."
    - "Cycling helps me manage my stress levels."
    - "Cycling has improved my fitness level."
    - "I would like to cycle for health and fitness more than I do currently."
    - "I don't want to cycle for health and fitness." (computed in reverse – disagreement attributes points to cycling for health/fitness).
    - No weighting was applied to these questions. All the questions were Agree/Disagree questions.

- **Cycling for leisure**:
    - "I cycle to go somewhere for leisure reasons."
    - "I like to cycle for pleasure."
    - "Cycling on roads is an enjoyable experience."
    - As there were fewer questions in this segment, a weighting was applied. The score of the first question from these was given a 4 times multiplication as it is a yes/no question while the others were given a double weighting.
- **Cycling to get somewhere**:
    - "I cycle to go somewhere for personal business."
    - "I like to cycle to get to places (e.g., shops)."
    - "I would like to cycle to get to places more than I do currently."
    - "Cycling has positively influenced my ability to access work or job opportunities."
    - "Cycling makes travelling to work or school/college easier."
    - "Cycling reduces my overall expenses on transport."
    - The first question from these was a yes/no question and was given a double weighting.

The reason for cycling with the highest agreement (highest points value) was associated to each respondent. If a respondent had an equal value for agreement across multiple reasons, they were marked to be excluded from the analysis – however, in our survey group, no such case occurred.

Using this approach, we were able to classify respondents on two dimensions; their alignment with the 'stages of change', and their 'reason for cycling' segment.

Similarly, it was possible to combine the findings from Approach 1 ('bottom-up' travel behaviour segmentation) and Approach 2 ('top-down' stages of change segmentation) to find intersections and assess how many respondents within a given stage of change belonged to a given travel behaviour segment, and vice versa.

The results from the segmentation analysis are provided in section 3.1.8.

3 Findings

3.1 Survey 1: Long term impact on past pupils

Survey 1 received a total of 979 responses. However, after the removal of 45 duplicate responses, 9 responses who didn't agree with their use in the analysis, and a single response with an erroneous ID number, this resulted in a total of 924 responses.

To gather deeper insights, cross-analysis was conducted between selected Survey 1 questions where meaningful relationships were anticipated. For example, combining cycling frequency questions and demographics questions to find out the demographic differences between frequent and infrequent cyclists. It is important to note that this approach can result in relatively small subgroup sample sizes and therefore the insights should be interpreted with caution.

3.1.1 Demographics of respondents

The geographic distribution of respondents is shown in Figure 4, which highlights that close to a half of the respondents were based in London (42%). The North West (11%) and South East (11%) formed the next largest proportions, while the remaining regions contributed smaller, single-digit percentages. This indicated a significant concentration of respondents in London relative to the rest of the country.

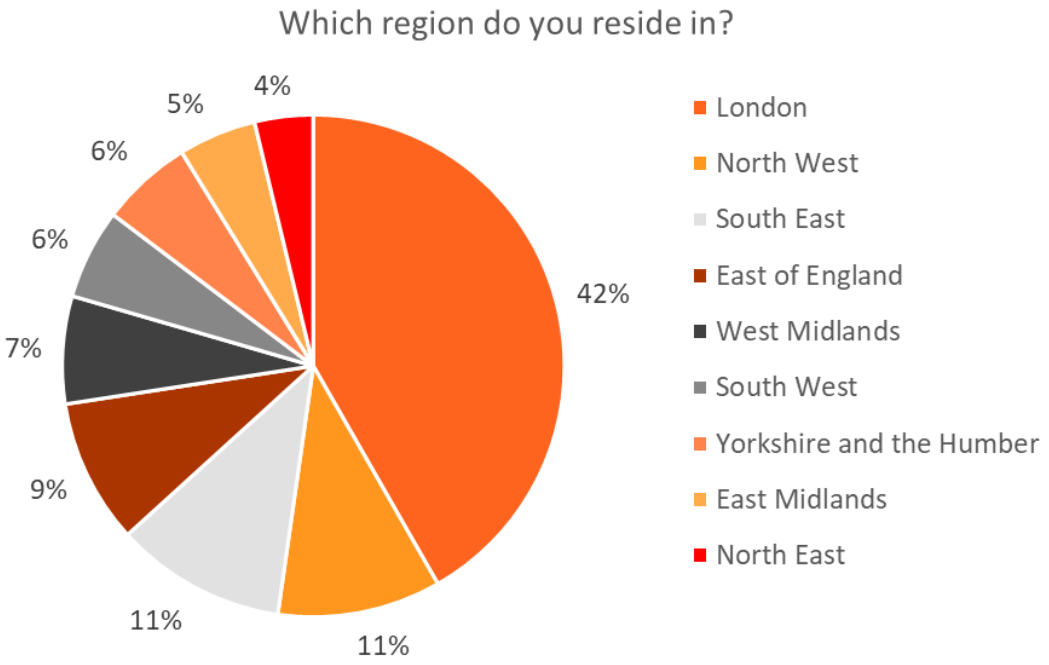

Figure 4: Geographic distribution of respondents

In comparison, Figure 5 presents the geographic distribution of where Bikeability training was delivered across England. As a proxy for delivery volume, the analysis used the average

number of places delivered across the two most recent years available[1]. The comparison between survey responses and the distribution of Bikeability delivery shows notable variation across regions. London is over-represented, accounting for 42% of all survey responses despite representing only 11% of delivery.

By contrast, all other regions appear under-represented relative to delivery levels. Yorkshire and The Humber region has a lower proportion of survey responses than would be expected based on their share of delivery activity (6% vs. 12%).

Overall, the results suggest that the survey dataset is not evenly distributed across regions. Some areas contribute disproportionately high levels of feedback relative to delivery, while others are less represented. These differences should be considered when interpreting regional findings, as they may influence the extent to which the survey reflects the experiences of participants across all regions.

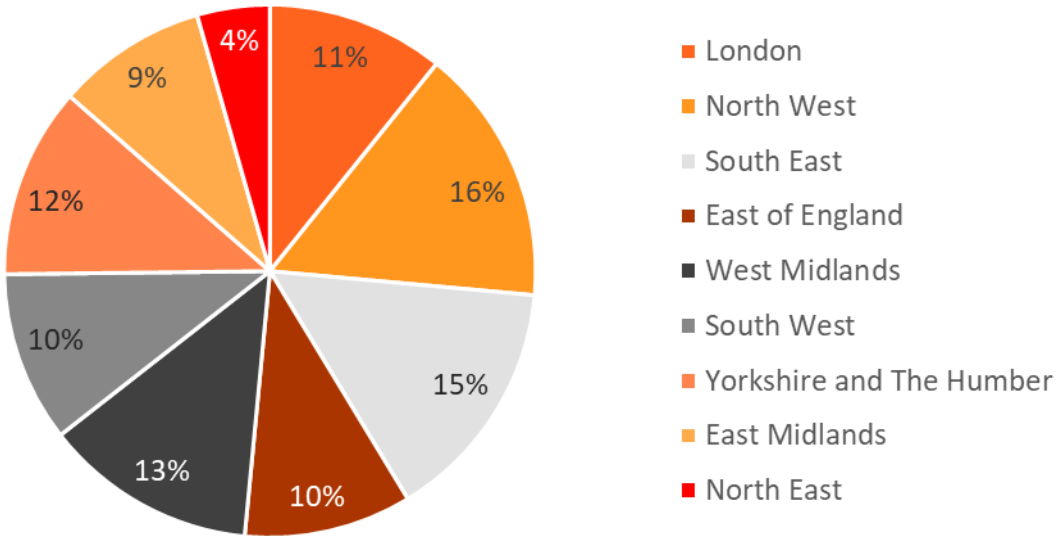

Figure 5: Proportion of Bikeability training delivered by region

Figure 6 shows that most respondents lived in urban areas, accounting for 59% of the total sample. Suburban areas represented the next largest group at 28%, while a smaller proportion of respondents reported living in rural areas (12%). Only a very small number of respondents (1%) selected “I don’t know”. The skew towards urban areas is likely partly due to the skew of respondents from London.

[1] This time period was selected as the most complete data on Bikeability delivery was available for these years.

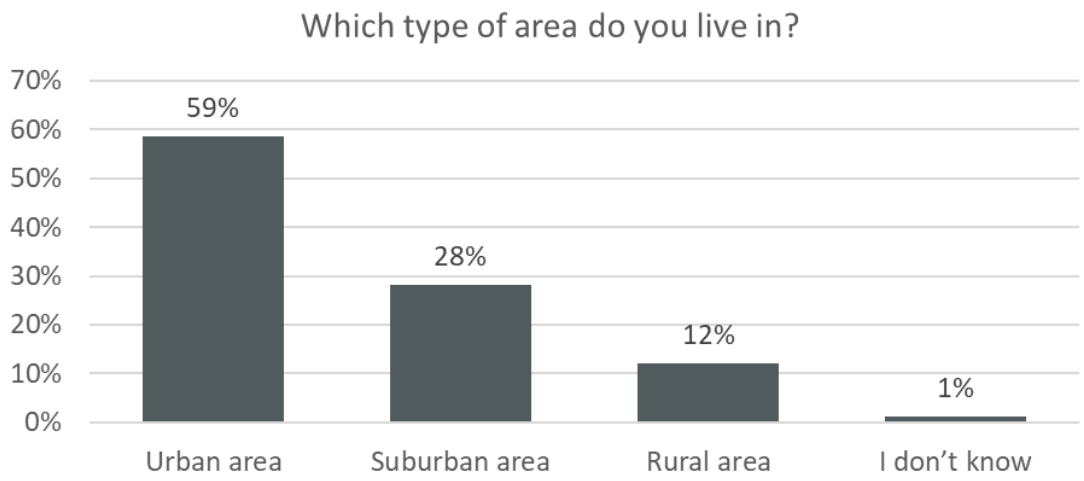

Figure 6: Types of areas where respondents resided

Figure 7 shows that the majority of respondents reported being White (56%), followed by Black/African/Caribbean/Black British (36%). Smaller proportions of respondents were Asian/Asian British (9%) and "Any other ethnic group" (3%). 1% selected "Prefer not to say".

The ethnicity distribution of Survey 1 respondents differs notably from the national profile of England and Wales reported in the 2021 Census. The Survey 1 sample over-represents Black respondents (4.2% nationally vs. 36% in the survey) and under-represents White respondents (81% nationally vs. 56% in the survey) relative to the national population. This likely reflects the voluntary, self-selecting nature of the survey and the demographic characteristics of those who chose to participate. As a result, while the data provide valuable insights into the experiences of respondents, the ethnicity distribution should not be interpreted as representative of past Bikeability Level 2 learners nationally.

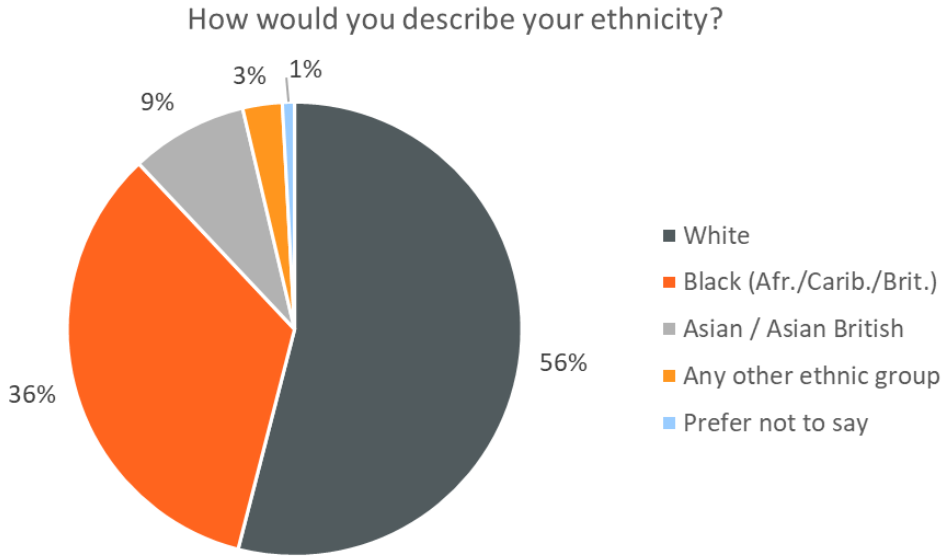

Figure 7: Ethnicity distribution in survey respondents

Figure 8 shows the types of long-term conditions, impairments or differences lasting 12 months or more reported by survey respondents. Most respondents reported no impairments (81%) with 19% reporting at least one impairment or long-term condition. Neurodivergence/cognitive conditions were reported by 8% of respondents, and mental health conditions by 11%.

Below is the expanded description of each disability type presented to the respondent:

- Mental health (e.g. anxiety, depression)
- Neurodivergence/cognitive (e.g. autism, ADHD, dyslexia, dyspraxia, learning disability)
- Mobility/physical (e.g. wheelchair user, mobility-scooter user, limited dexterity, energy/pain condition)
- Sensory (e.g. deaf, hard of hearing, blind, low vision, deafblind, use BSL, hearing aid, assistance dog)
- Communication & speech (e.g. non-verbal, speech impairment, uses AAC)

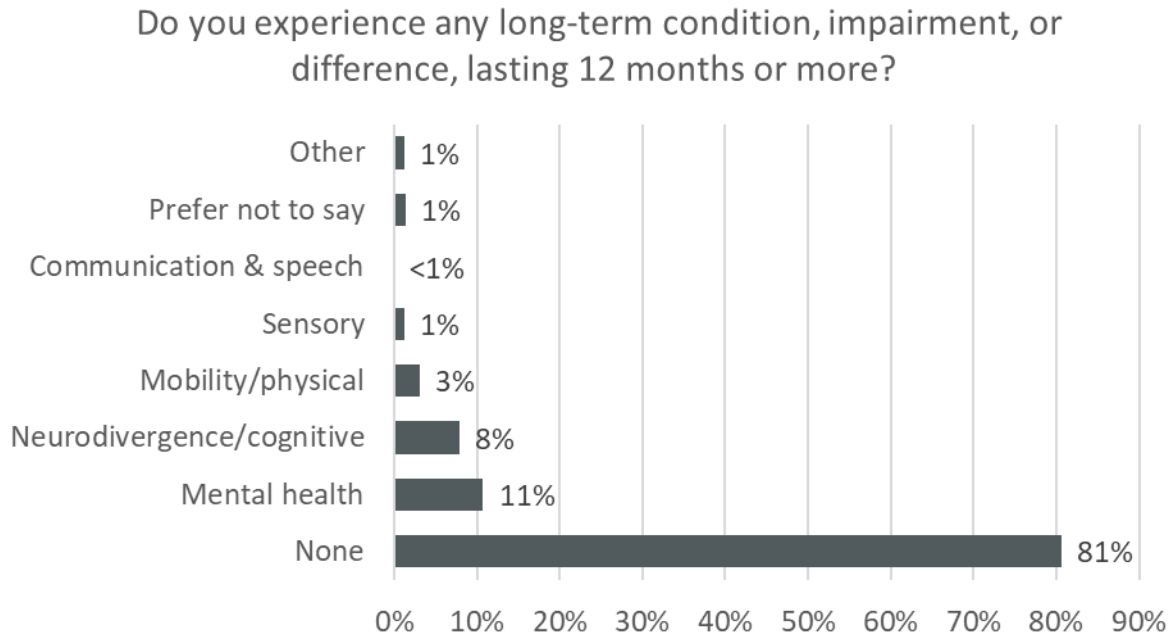

Figure 8: Distribution of respondents by disability status

Figure 9 shows a larger share of survey respondents were female (54%) than male (45%). 14 individuals selected “Non-binary” (1%) or “Prefer not to say” (0.3%).

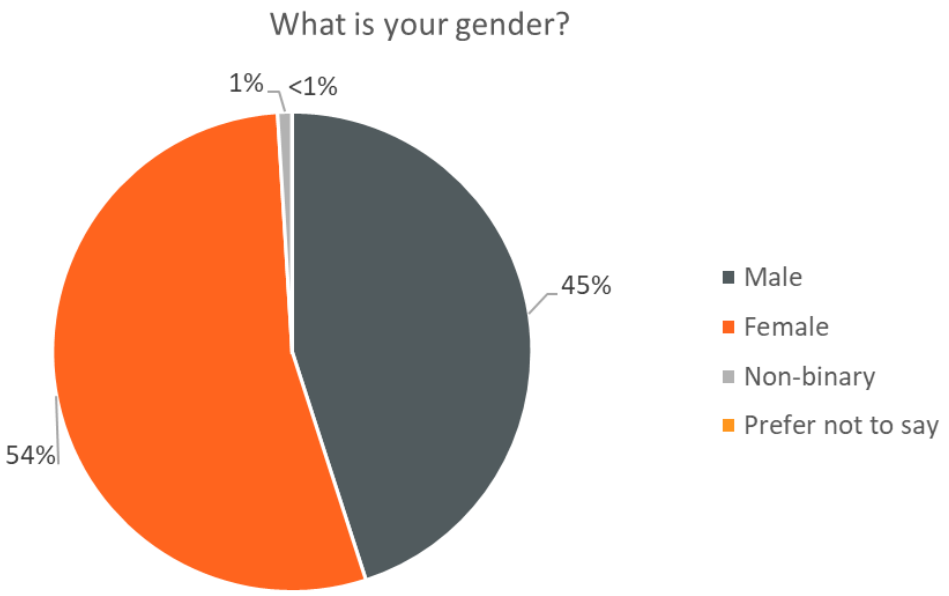

Figure 9: The distribution of gender groups

Figure 10 shows the distribution of respondent age in the survey sample. Ages ranged from 16 to 32, in line with the sampling methodology which required a minimum age of 16 years old to participate, and for respondents to have completed Bikeability Level 2 training between 2007 and 2024. Although previous research recognised age influences cycling frequency, this survey was unable to compare across age groups and instead reflects patterns associated with the 16-32 age group.

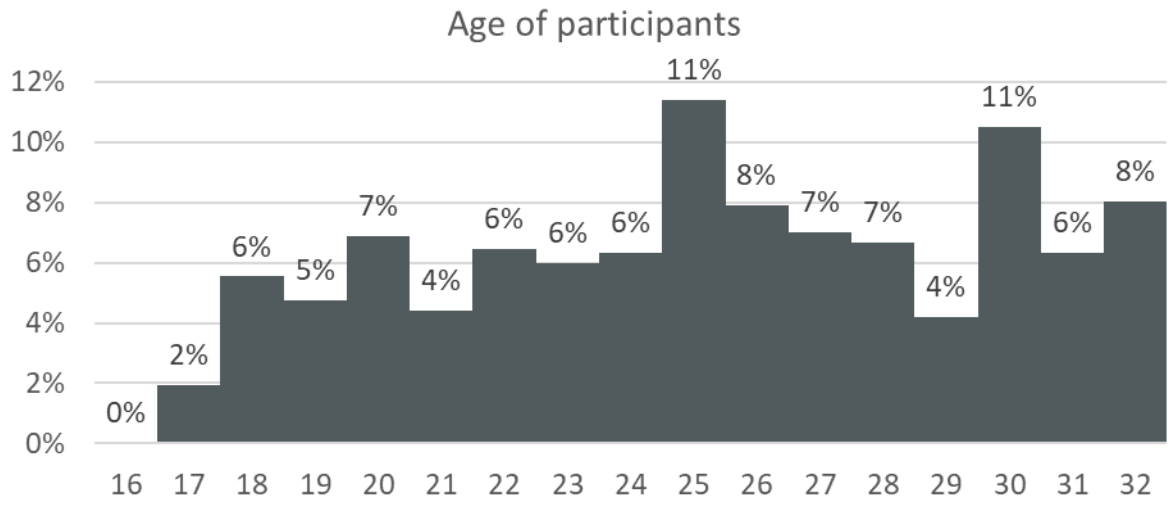

Figure 10: Distribution of age of respondents

Figure 11 illustrates the current employment status of survey respondents. Most respondents reported being employed full time (58%). A further 19% stated that they are in education, including school, college or university, in line with the young age group that

makes up the survey sample. Smaller proportions of respondents were employed part-time (12%) or self-employed (4%). The 2% of participants who answered "Other" mostly consisted of being in education and part-time work.

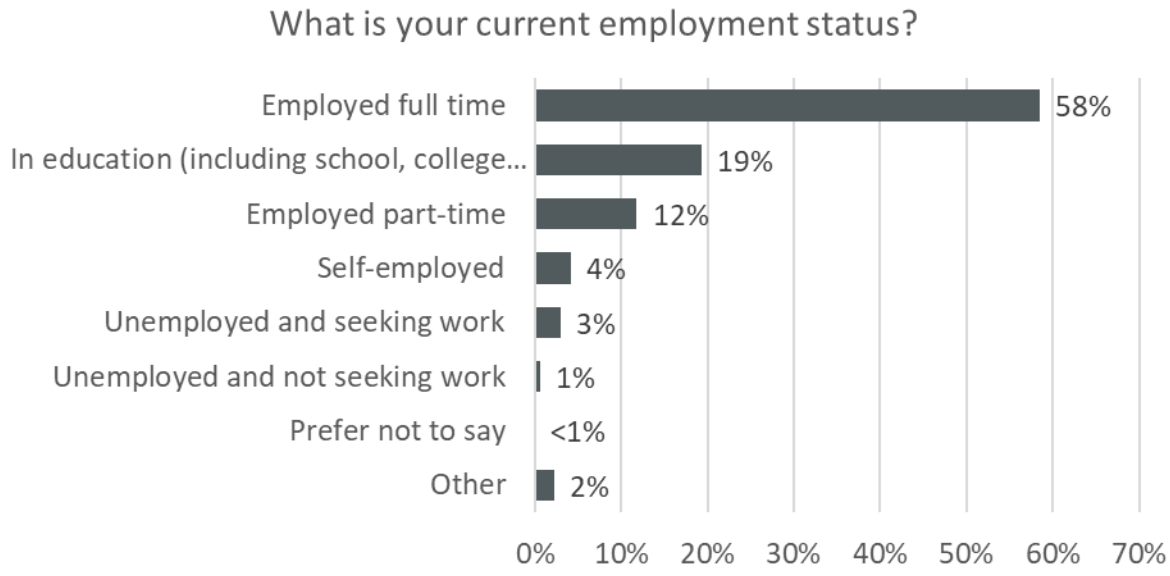

Figure 11: Respondent employment status

To summarise the demographic data, survey respondents were mostly young, urban-based individuals, with a strong concentration in London and predominantly White but with a sizeable Black/African/Caribbean/Black British minority. A minority reported having impairments or long-term conditions. The sample had slightly more women than men, and most people reported being in full-time employment or education.

3.1.2 Retention of Bikeability training

Figure 12 suggests that Bikeability Level 2 training was generally well remembered amongst survey respondents. A total of just over 6% of respondents reported either not remembering the training very well or not remembering it at all. About 70% reported remembering it either 'very well' or 'quite well'. The responses to this question closely align with the positive responses regarding the impacts of Bikeability training shown in Figure 32.

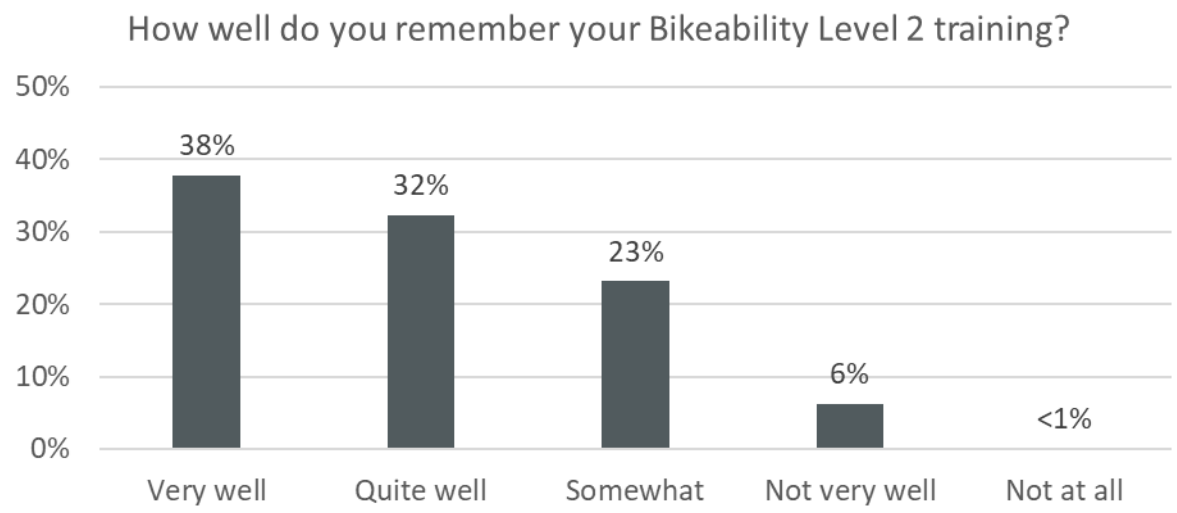

Figure 12: Response rates to the question "How well do you remember Bikeability Level 2 training?"

Good retention of Bikeability Level 2 training may make it more likely that participants also retained the skills learned from the training; this was also assessed in the survey. Figure 13 shows the percentage of correct answers selected on questions 3 to 6. Participants were given between 2 to 5 choices on each of the following questions:

- "When would you ride in the middle of your lane of travel?"
- "You are approaching a junction. How do you let other people know your intended direction of travel?"
- "You want to turn LEFT out of a side road onto a main road. Which of these is correct?"
- "When should you carry out a check over your right shoulder?".

For each question there was a correct choice and a set of incorrect choices. Participants were assigned a score based on the proportion of correct answers.

Each bar value in Figure 13 shows the percentage of respondents whose scores fell within a specified interval. For instance, 22% of respondents scored between 50-60%. Achieving a score of 70% or more can be considered indicative of good knowledge of safe cycling practices. In Survey 1, 44% of respondents achieved a score above this threshold.

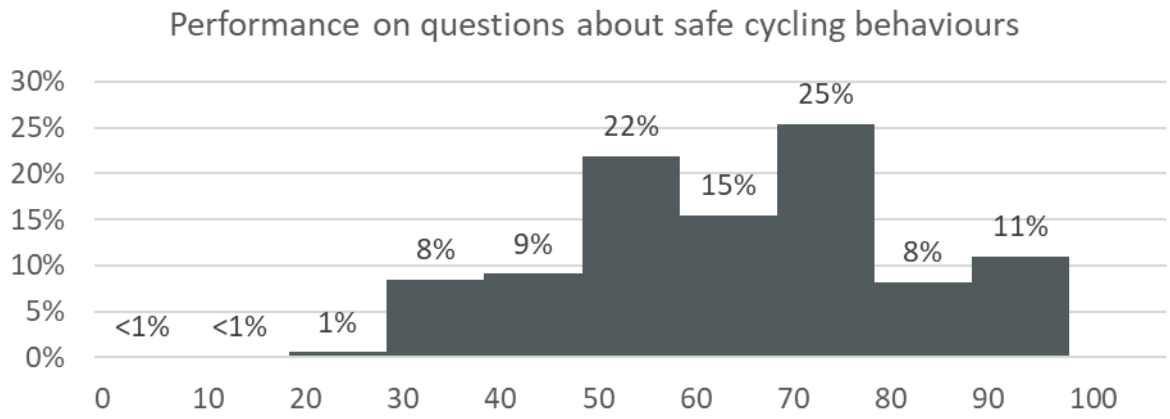

Figure 13: Distribution of scores achieved on the knowledge of safe cycling behaviour questions

In comparison, regular cyclists (self-reported cycling frequency of "1 to 3 times a week" or more) performed better than the rest of the survey population. This suggests better knowledge of safe cycling behaviours in those who cycled regularly. More than twice as many regular cyclists achieved scores of 80–100 points compared with infrequent cyclists (22% vs 9%). In contrast, infrequent cyclists had 4–5% more respondents in the lower score ranges (30–40, 40–50, and 50–60 points).

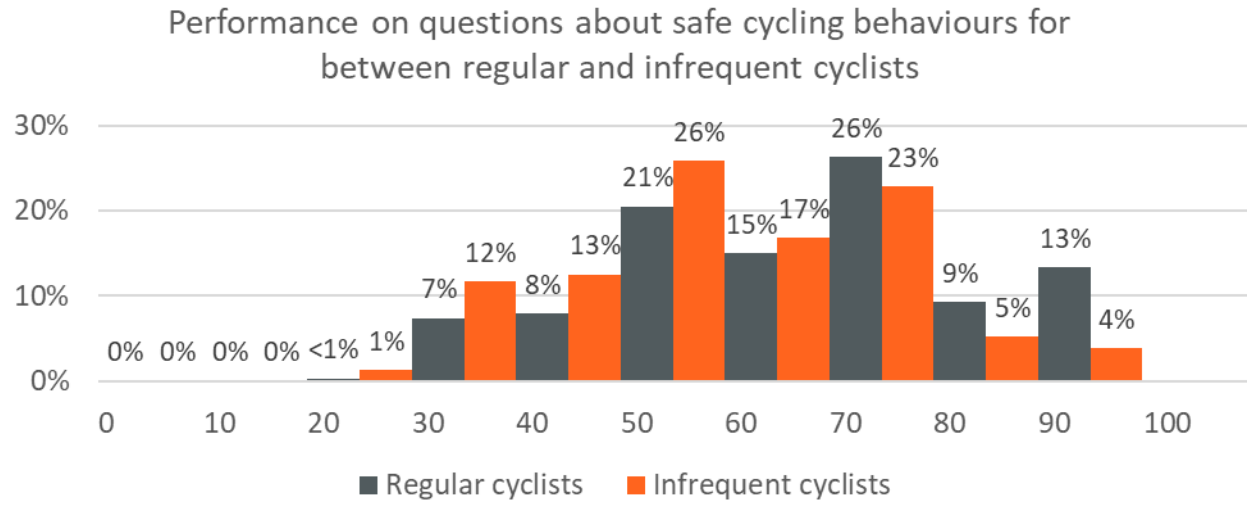

Figure 14: Distribution of scores achieved on the knowledge of safe cycling behaviour questions for regular cyclists

3.1.3 Current cycling behaviour

Figure 15 illustrates how frequently respondents use different modes of transport to get somewhere. Walking or using mobility aids was the most regularly used mode, with just over half of respondents (52%) reporting that they do this "Four or more days a week".

Cycling, including use of electric cycles, was also a frequently used mode, with 39% cycling four or more days a week and a further 36% one to three days a week.

Car or van use was also common amongst the sample, with 37% reportedly using a car four or more days a week and 40% using one to three days a week. Public transport was used less intensively, with most respondents reporting they use it one to three days a week (47%) or once or twice a month (23%), rather than daily. Taxi or Uber services were used infrequently overall amongst respondents, with the largest proportion of respondents using them once or twice a month (35%) or less than once a month (28%), and relatively few using them on a weekly basis.

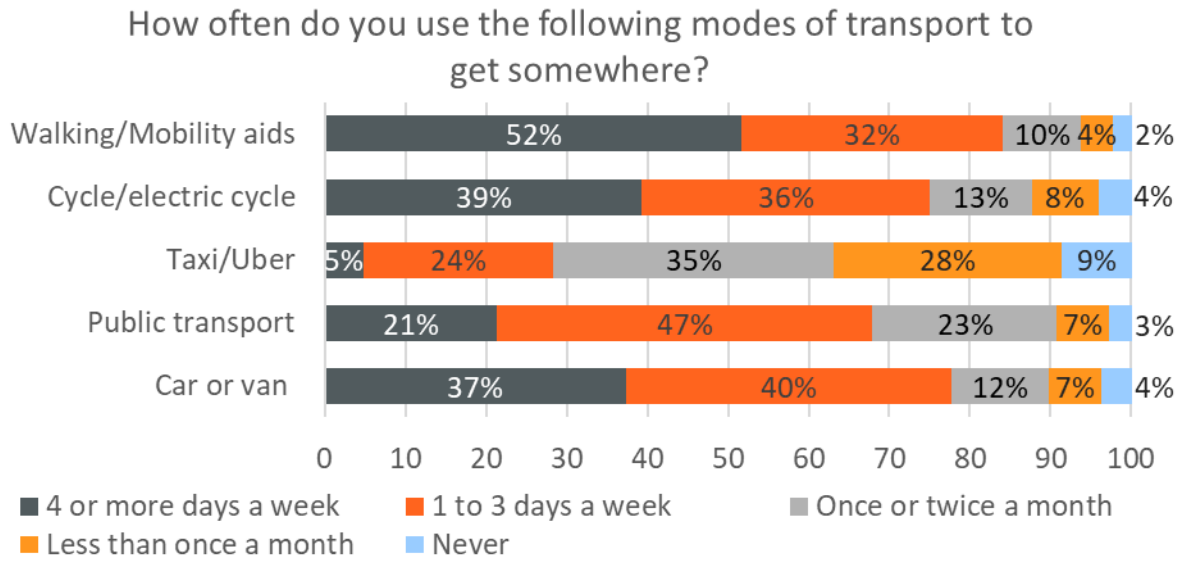

Figure 15: Number of journeys completed by bike for each respondent

To contextualise the results of the survey, Figure 16 shows the frequency of cycling in the respondents of Survey 1 against the general UK population. This uses data from the 2024 National Travel Survey (NTS) as a benchmark. The NTS data includes a much wider, nationally representative sample of respondents covering all age groups, compared to the limited age group of Survey 1 (16 to 32 years old). A much larger proportion of Survey 1 respondents reported that they cycle on a weekly or daily basis, represented by 76% of the data in Figure 14, compared to the 13% in the NTS data. While 5% of Survey 1 respondents reported that they "never" cycle, the NTS data show 69% of the wider population report "never" cycling (DfT, 2024).

Overall, this suggests that the sample of L2 Bikeability trained participants had substantially higher levels of cycling participation than the general population. It is important to note, however, that there is likely to be some self-selection bias in the sample, such that people with an interest in cycling may have been more likely to have completed this survey than those who are less interested in cycling. As such, some caution is needed in generalising these findings to all Bikeability L2 graduates. Nevertheless, together with the relatively high levels of regular cycling presented in Figure 15 these findings suggest that Bikeability L2

training may contribute to sustained cycling participation into later life among those who engage with it, aligning with a primary goal of the Bikeability programme.

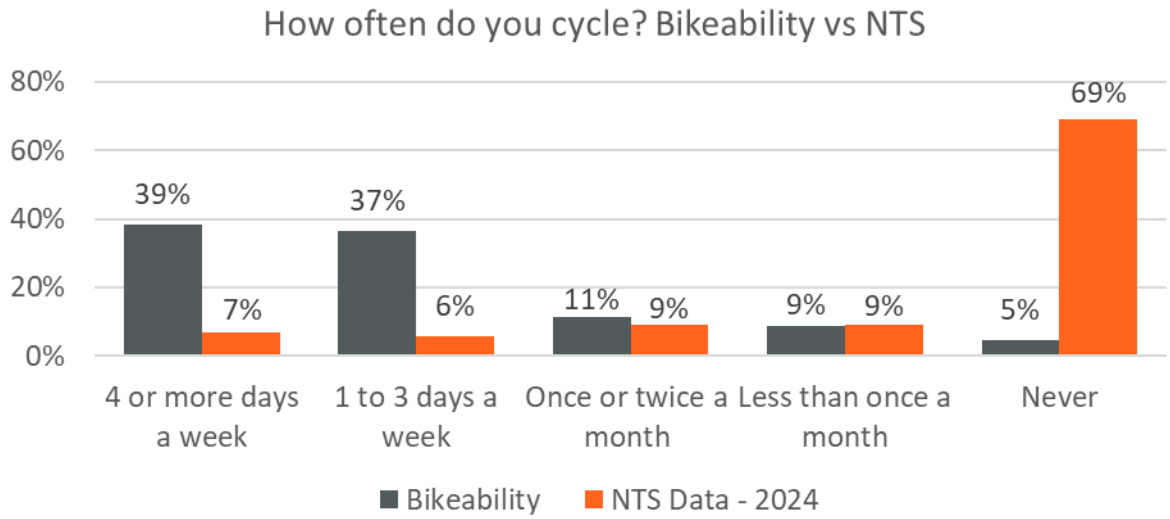

Figure 16: Comparison with National data for cycling frequency

The data from this question was used in Segmentation analysis (see section 3.1.8).

Figure 17 illustrates cycling frequency across ethnic groups comparable to Figure 7. Respondents identifying as White report cycling most frequently, with around half cycling at least once a week. In comparison, respondents from minority ethnic groups are more likely to cycle infrequently, with higher proportions reporting that they cycle less than once a month or never.

The accompanying ethnicity breakdown shows that over half of respondents identify as White, with just over a third identifying as Black African, Caribbean or Black British. Taken together, these findings reflect patterns noted in previous UK research, which shows that White individuals tend to cycle more often than those from minority ethnic backgrounds (Eime et al., 2015; Ipsos MORI, 2015; Aldred et al., 2016; McKay et al., 2020; Cycling Scotland Wave 5, 2023).

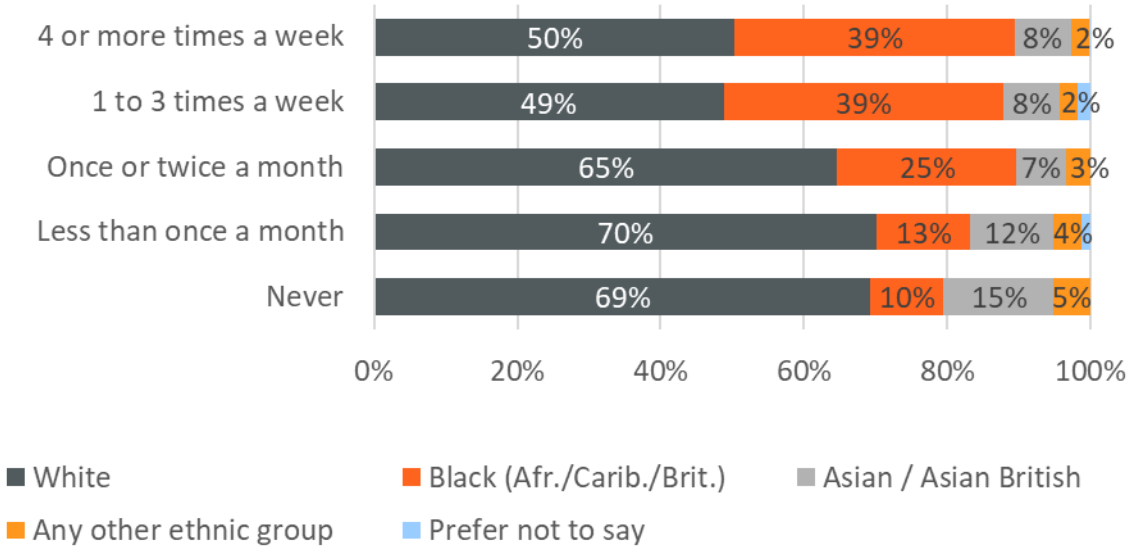

Figure 17: Ethnicity demographic spread by cycling frequency

Figure 18 illustrates the frequency with which respondents of different genders report cycling. Although the survey received 9% more responses from women than men (Figure 9), the data show that men cycle more frequently overall. Just over half of men report cycling at least once a week (52% cycling four or more times a week and 48% cycling one to three times a week). In contrast, women are more likely to cycle infrequently, with 75% cycling less than once a month and 69% reporting that they never cycle.

These findings mirror wider trends observed in "low-cycling" countries such as the UK, Australia, and the USA, where men consistently cycle more than women (Aldred et al., 2016; Dill and McNeil, 2016; Cabral and Kim, 2020; McKay et al., 2020; Graystone, 2022; Cycling Scotland Wave 5, 2023). The pattern shown in Figure 18 therefore aligns closely with established evidence on gender disparities in cycling participation.

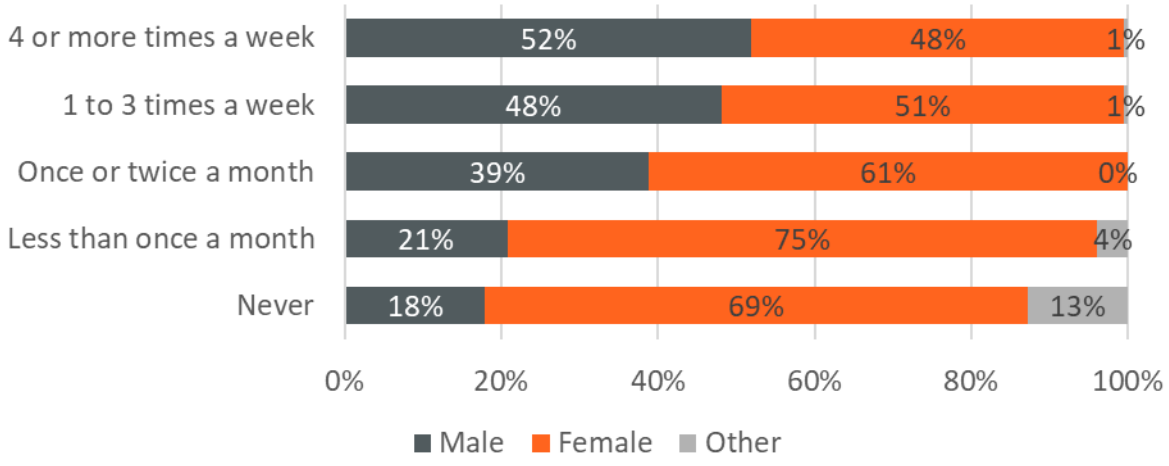

Figure 18: Gender distribution by cycling frequency

The data in Figure 19 shows the clear differences in cycling frequency across suburban, rural and urban environments, reinforcing the critical role of cycling infrastructure in shaping cycling behaviour. Respondents who cycle "4 or more times a week" are slightly disproportionately based in urban areas (65%) compared to the 59% of all survey respondents who reported living in urban areas in Figure 6. In contrast, lower cycling frequencies are more common among those living in suburban and rural areas, particularly at the "less than once a month" and "never" categories. The concentration of frequent cyclists in urban settings suggests that infrastructure quality in these areas may better support cycling as a regular activity. However, it's not possible to tell from the responses whether more training led to increased cycling, or whether those already more interested in cycling were simply more likely to seek out extra training. This pattern aligns with existing research showing that inadequate cycling infrastructure, hostile traffic conditions, and motorist aggression are widely cited barriers (Dill and McNeil, 2016; Hosford et al., 2020; Fraboni et al., 2021; Pearson et al., 2023; Cycling Scotland, 2023; Martin Lopez et al., 2025).

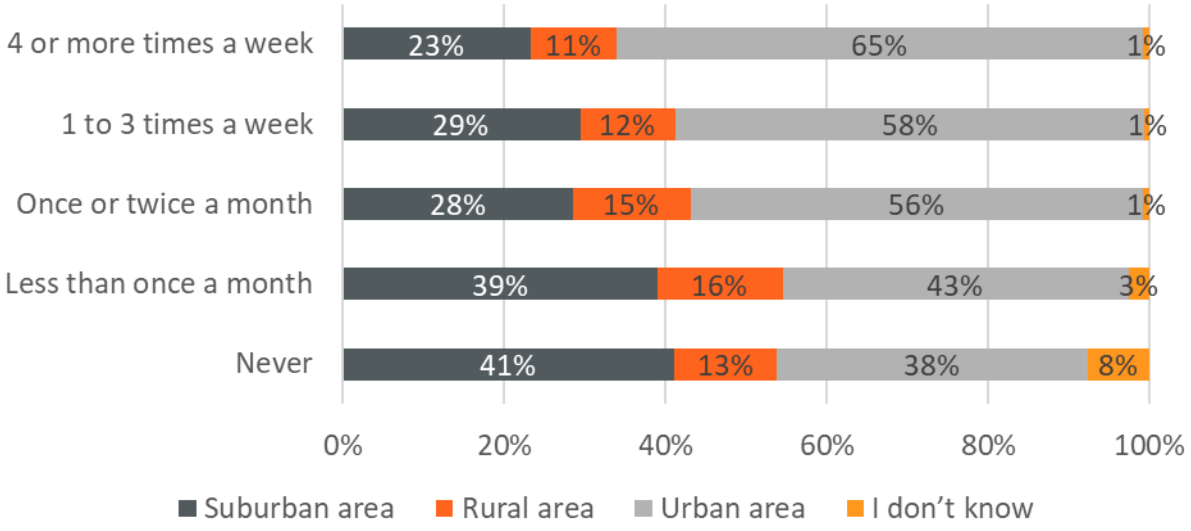

Figure 19: Area type distribution by cycling frequency

Figure 20 shows the purposes for which respondents use cycling as a mode of transport. The most common reasons for cycling are leisure or social activities (58%) and visiting friends or family (57%), suggesting that cycling is widely used for non-work-related trips. Around half of respondents also reported using cycling to travel to and from work, school, college or university (51%), as well as for personal errands such as shopping or healthcare appointments (49%). In contrast, cycling is used less frequently to transport others, with only 20% of respondents selecting this option. This aligns with expectations as generally fewer people use cargo bikes, trailers and tandems than traditional bikes.

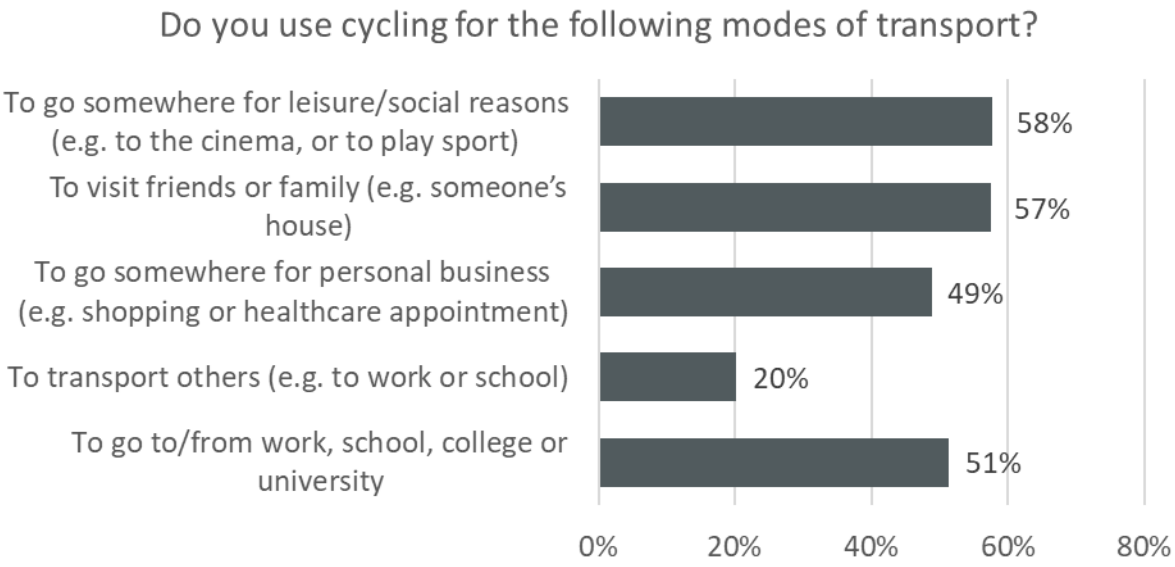

Figure 20: Types of journeys made by bike

Figure 21 shows which modes of transport respondents would be most likely to use if they did not cycle. The most common alternative would be using a car or van, selected by 66% of respondents, highlighting the role of cycling in replacing car journeys. Walking or using mobility aids (50%) and bus or coach travel (49%) were also frequently cited alternatives. Trains would be used by 38% of respondents, while around a third indicated they would be likely to use taxi or Uber services (34%). Tram or tube was the least selected option, at 15%, suggesting more limited relevance for this mode among the sample.

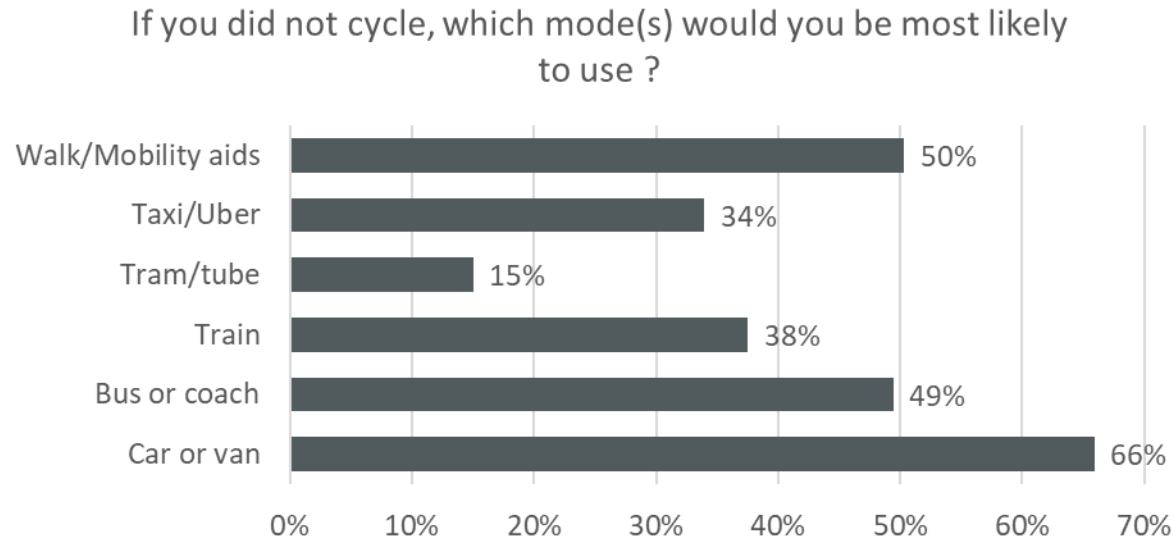

Figure 21: Alternatives to cycling for respondents

Figure 22 shows the distribution of cycling distances covered on typical journeys made by the participants. Only 1% of the participants were unable to answer the question with the remaining 99% giving an answer. The most common answer among participants was 3-5

miles (43%) with the next most common answer being 1-2 miles (27%). The next most common answer was 6-10 miles (15%), followed by “More than 10 miles” (6%) and “Less than 1 miles” (3%).

This aligns closely with data from the National Travel Survey. NTS0601 provides the typical cycling distance on cycling trips made by the wider population. For 2024 data, comparing the average of the age groups 17 to 20, 21 to 29 and 30 to 39 years old (i.e. to match the age range of the Survey 1 sample), the typical cycling distance is 3.31 miles. NTS data for “All ages” gives an average of 3.46 miles. This suggests the typical cycling distance reported by the majority of the Survey 1 sample aligns with the national average.

To estimate the average distance travelled by participants in Survey 1, the mid-point of each distance bin was used as a representative value. For the “More than 10 miles” category, a conservative value of 12 miles was applied. The options “Less than 1 mile” and “I do not cycle” were assigned values of 0.5 miles and 0 miles respectively. Using these representative values, the indicative grouped-frequency mean distance was calculated to be 4.05 miles for a typical journey. This suggests that Survey 1 participants cycled slightly longer distances, on average, than the general population as captured in the NTS data.

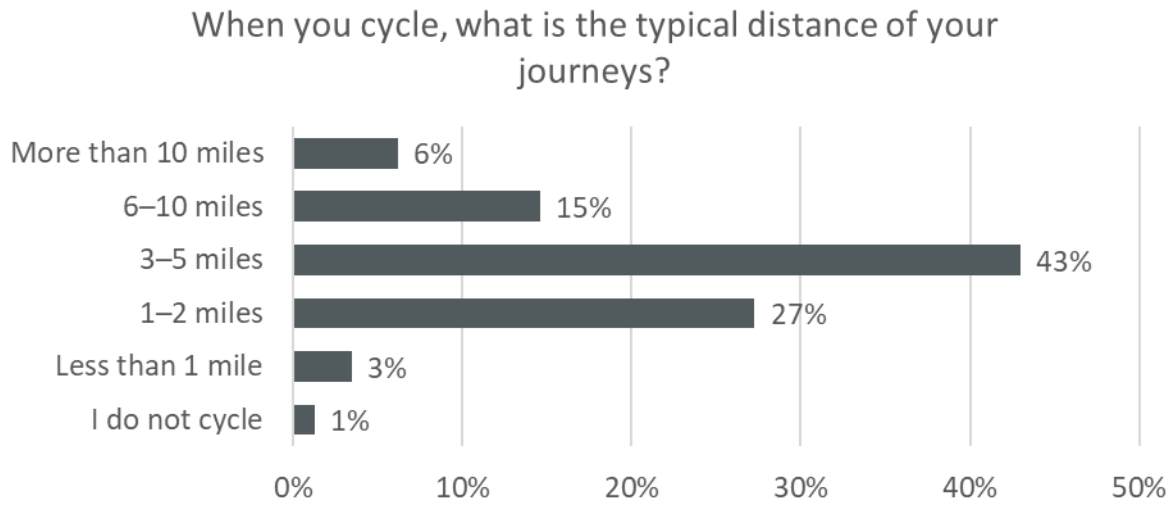

Figure 22: Distribution of typical cycling distance

Figure 23 shows the amount of time respondents typically spend cycling in a week. The distribution is weighted towards lower weekly cycling times, with the largest proportion of respondents cycling up to around 50 minutes per week (30%), followed by 50–100 minutes (19%). Participation gradually declines as weekly cycling time increases, with relatively few respondents cycling more than 300 minutes per week. Only very small proportions reported cycling at the highest time intervals, suggesting that while most respondents cycle regularly, high-volume cycling is less common within the sample.

The World Health Organization (WHO) states adults aged 18 to 64 should “do at least 150 minutes of moderate-intensity physical activity” on a weekly basis (WHO, 2026). 37% of the survey respondents reported cycling 150 minutes of more, indicating they fulfil WHO’s recommended activity level from cycling alone.

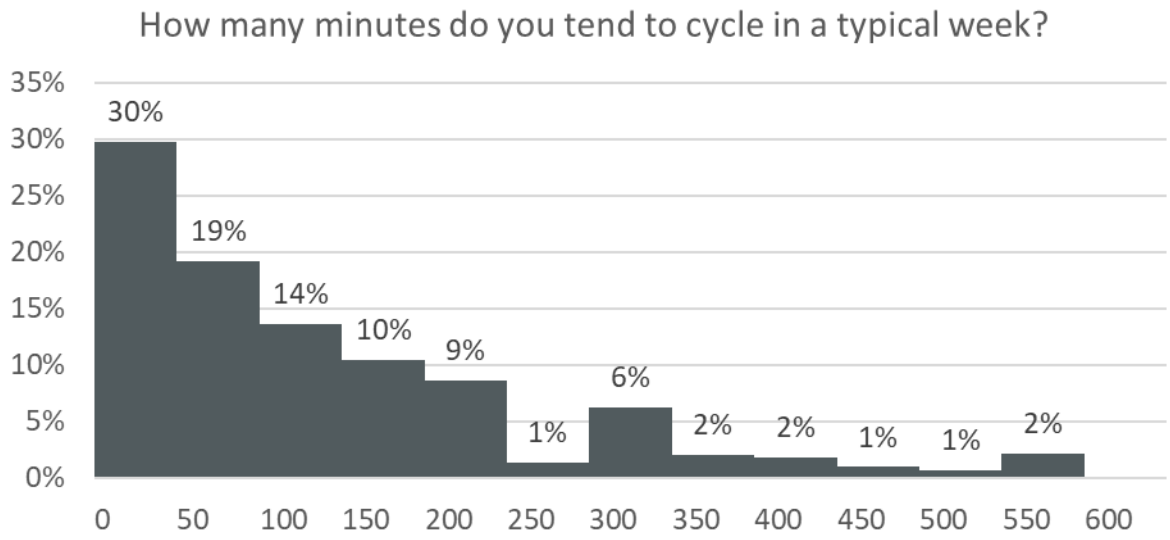

Figure 23: Histogram of minutes cycled in a typical week

3.1.4 Experiences with cycling

Figure 24 shows the proportion of respondents who experienced incidents while cycling in the past 12 months. A substantial share of respondents reported experiencing a near miss, with 43% indicating this had occurred, suggesting that safety concerns remain relatively common. In comparison, a smaller but still notable proportion of respondents (15%) reported being involved in a collision while cycling in the last 12 months. This highlights that while collisions are less frequent than near misses, almost half of the respondents still had an unsafe experience on the road.

Figure 24 also shows the types of incidents experienced by respondents who reported a collision or near miss while cycling. If respondents had more than one incident they could remember, they were asked to describe the most recent. Near misses were more common than collisions across all categories, particularly those involving motor vehicles, which represented the most frequently reported near-miss type (19%). Near misses with pedestrians were as frequent as those with cyclists, both representing 10% of the near miss experience for the respondents. Collisions of any type were reported by relatively few respondents (15%), especially those involving pedestrians (2% of respondents) or other micromobility users (3% of respondents). The most common type of collisions, reported by 6% respondents, were those involving motor vehicles, followed by collisions with other cyclists, reported by 4% of respondents.

Most respondents who experienced a near miss or collision reported that, after the incident had occurred, they felt more cautious and alert, often chose quieter routes, cycle lanes, or avoided busy roads and junctions. Many described a temporary drop in confidence, sometimes taking short breaks from cycling before gradually rebuilding confidence through practice. A smaller group said the incident did not affect their confidence or frequency, viewing it as part of cycling and instead becoming more vigilant, improving road awareness,

positioning, and signalling. A few respondents experienced significant anxiety, avoiding certain roads or cycling less frequently for a period.

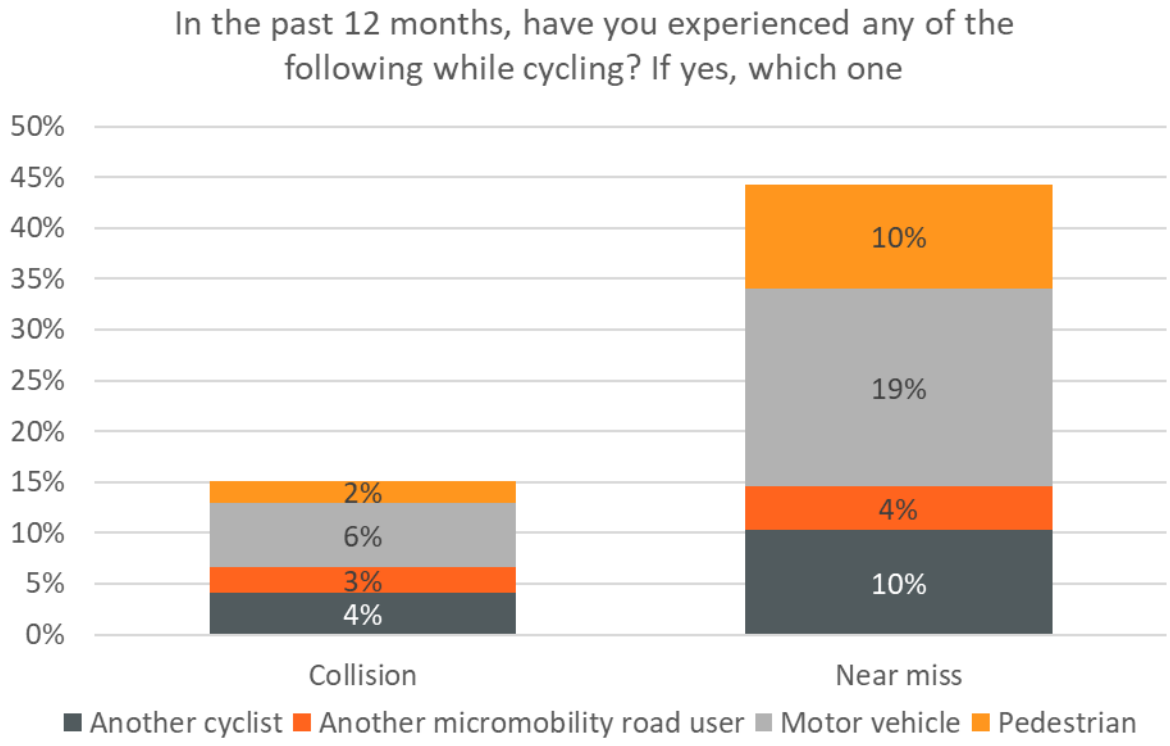

Figure 24: Distribution of respondents who experienced a near miss or collision

Whilst respondents reported a range of collisions and near misses, it is not possible to contextualise these figures against national datasets due to lack of standardised national definitions and inconsistencies in how this data is collected. Nationally reported cycling collisions typically refer only to incidents involving serious or slight injury, and are recorded through police-reported STATS19 definitions, which differ from the broader, self-reported incidents such as those captured in this study. As such, these results should be interpreted as an indication of respondents' experiences rather than a direct estimate of population-level incident rates.

3.1.5 Attitudes towards cycling

Participants were presented with a series of statements to understand their attitudes towards cycling, their perceived enablers and barriers to cycling, and reasons which would encourage them to cycle more. Their responses to these are presented in a series of charts below from Figure 25 and Figure 29.

Figure 25 presents respondents' agreements with statements reflecting their skills, capacity, and motivations relating to cycling. A large majority agreed they can afford cycling and cycling-related kit (90%), felt fit enough to ride up to five miles (86%), know how to cycle safely on busy roads (87%), and 74% said they can do minor repairs. Cycling for mental health (86%), physical fitness (89%), environmental benefits (77%) were strong stated

motivators. Only 29% agreed, while 62% disagreed with being able to hire or borrow a cycle, which supports the large agreement with the statement that they can afford to own a cycle and cycling-related kit.

Overall, attitudes towards cycling were broadly positive amongst the survey sample, with strong agreement that cycling is good for physical and mental health and with many respondents feeling confident cycling on roads. The high levels of confidence and perceived competence also correspond with the existing research that states that individuals who continue cycling into adulthood are likely to do so based on comfort and confidence in road environments.

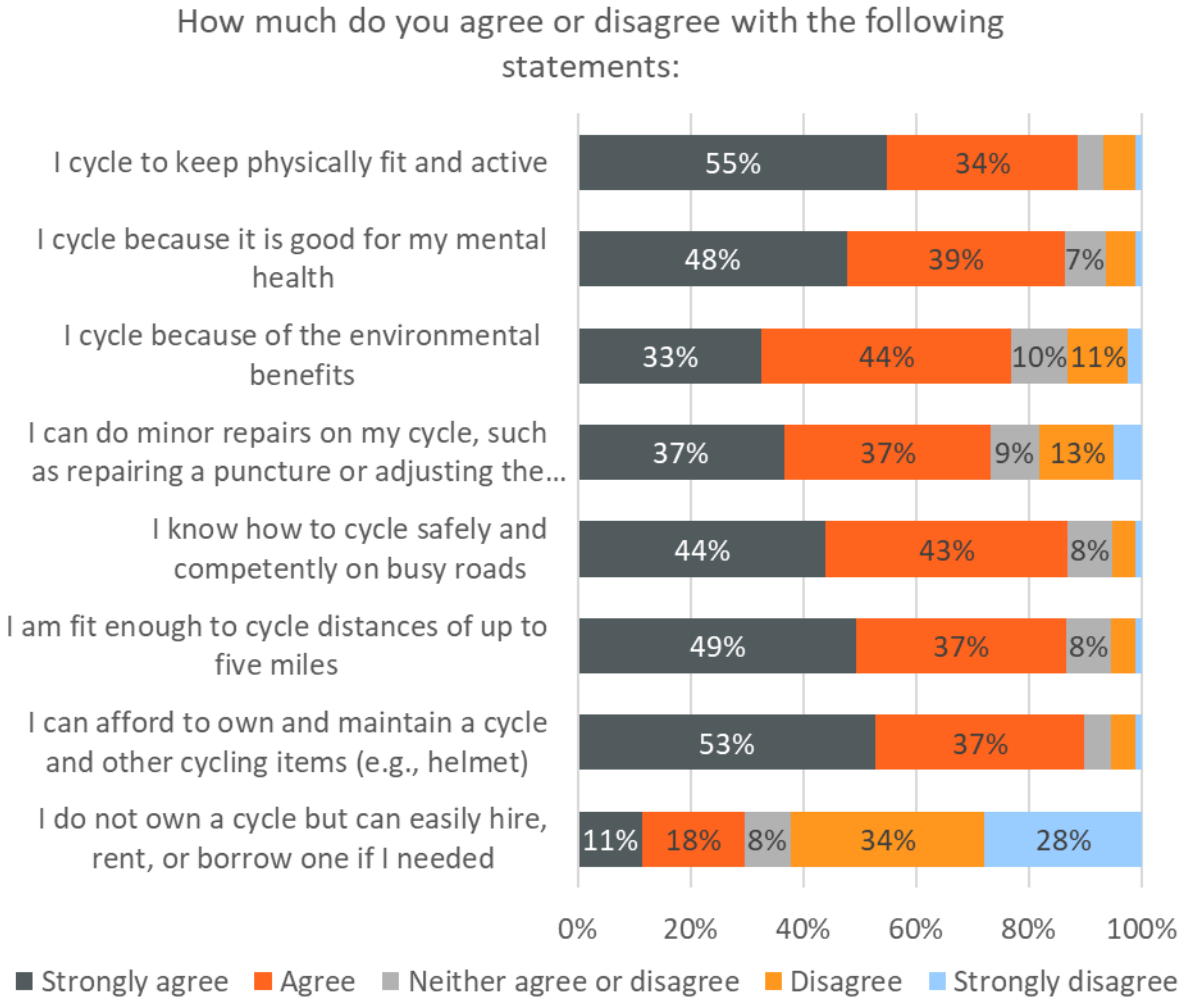

Figure 25: Respondents' extent of agreement with statements reflecting their skills, capacity, and motivations relating to cycling.

Figure 26 presents respondents' agreements with statements relating to cost and convenience of cycling. Most respondents agreed that cycling is cheaper than driving for some journeys (96%) and often more convenient (88%). 57% agreed they often need to

carry too much to cycle compared to 32% disagreed with this. Public transport was seen as equally reliable for journeys less than 5-miles by 53% of the sample (with 30% disagreeing).

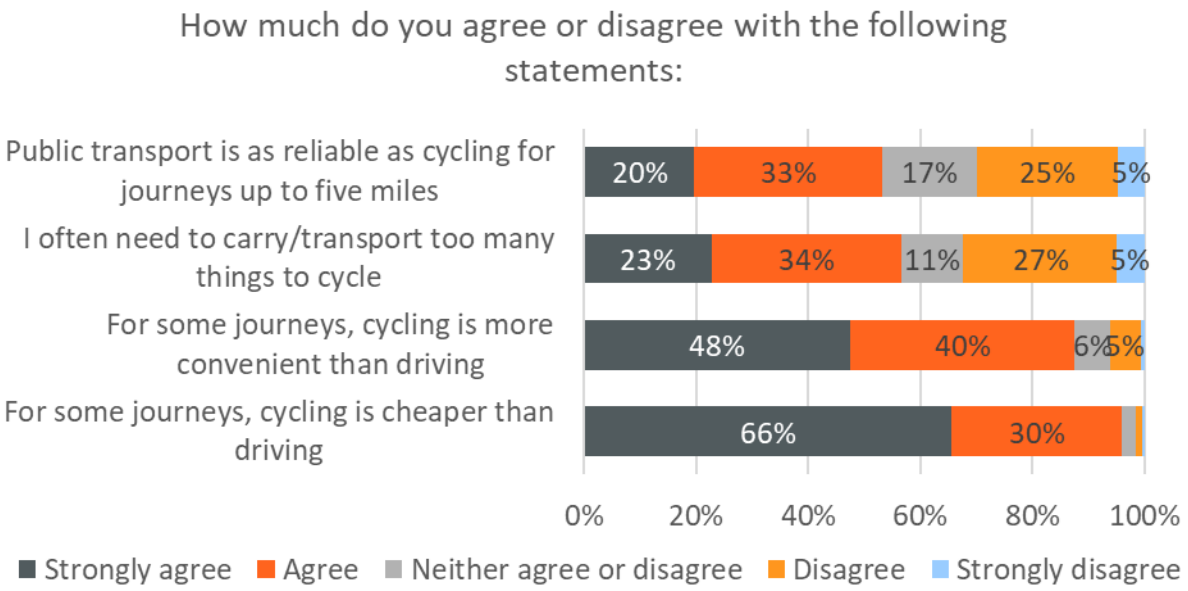

Figure 26: Respondents' agreements with statements relating to cost and convenience of cycling.

Figure 27 presents respondents' agreements with statements on the enablers and barriers to cycling. A large majority identified poor weather (81%), distance (72%), and time (56%) as discouraging factors. Many also indicated they would cycle more if shower/changing facilities were available (69%), if friends/family cycled (72%), and if secure storage existed at destinations (87%). Over 90% said they would cycle on roads if they were safer, and similarly high numbers said they would cycle more if separated cycle lanes were available.

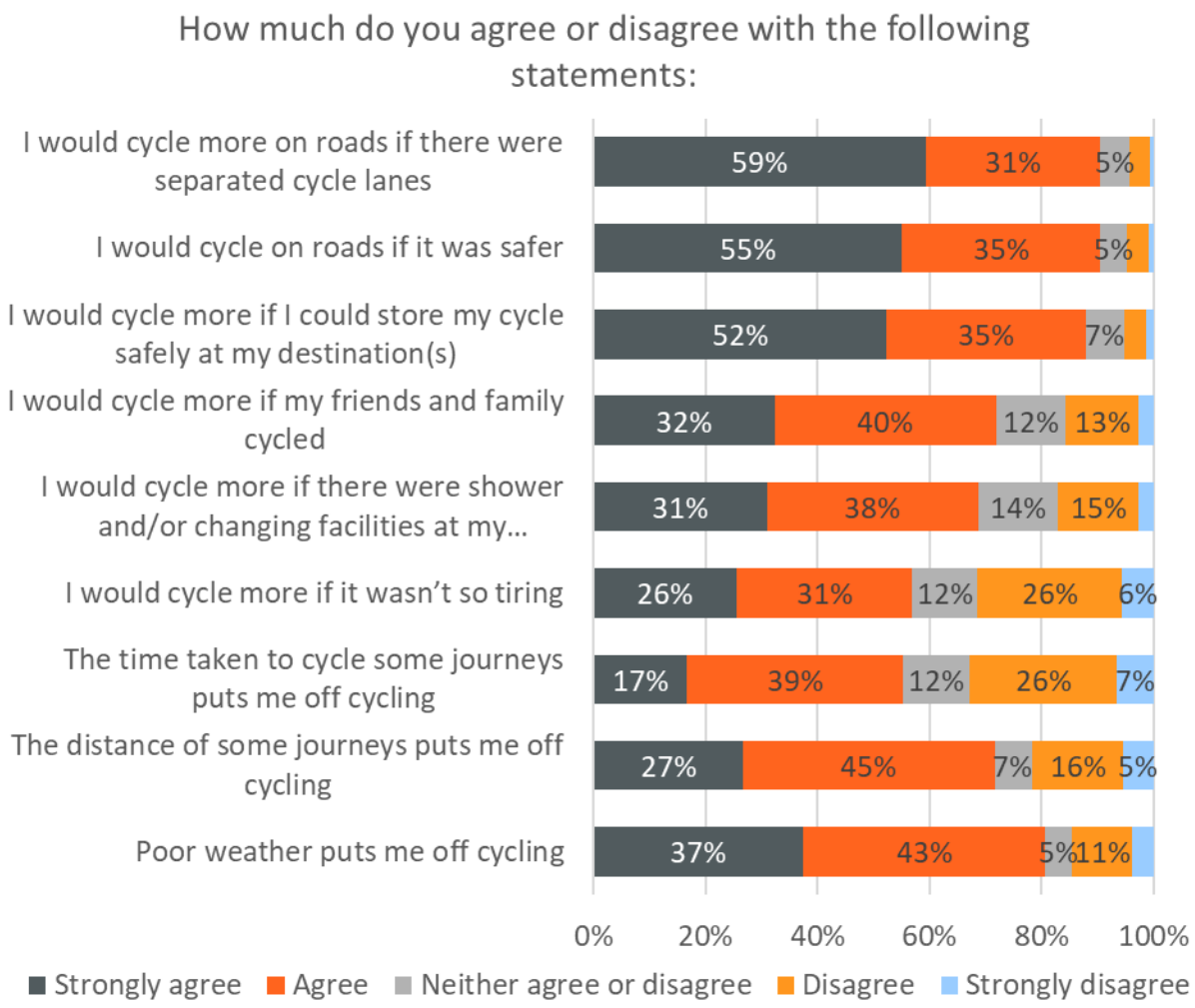

Figure 27: Respondents' agreements with statements enablers and barriers to cycling.

Figure 28 presents respondents' agreements with statements regarding their current cycling behaviour. Most respondents stated they enjoy cycling for pleasure (90%), enjoyed cycling "to get to places" (83%), and have cycled regularly over the past year (77%). 68% also reported cycling more than they used to, although agreement with this statement showed more variability, with a minority unsure/disagreeing, suggesting recent uptake or interest in cycling more.

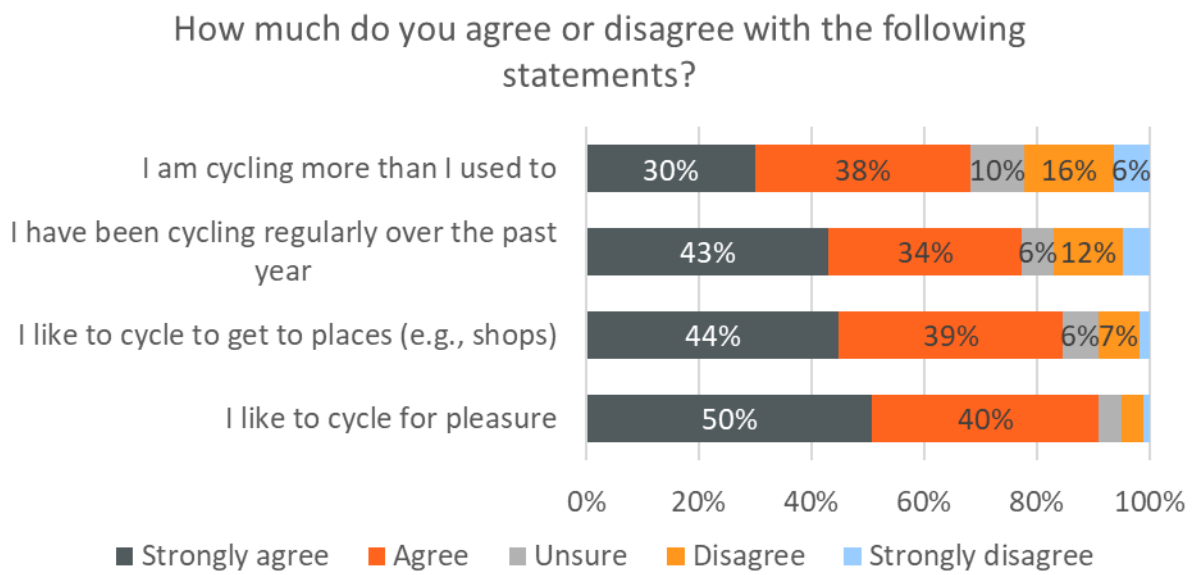

Figure 28: Respondents' agreements with statements regarding current cycling behaviour

Figure 29 presents respondents' agreements with statements regarding desire to cycle more in the future. Intentions to cycle more were extremely high; a strong majority agreed they would like to cycle for health and fitness (90%), for pleasure (87%), and to get to places more than they currently do (83%). Many (81%) also felt they have what they need (bike, helmet, equipment) to cycle more. Only a small proportion (17%) reported that they do not want to cycle for health/fitness.

Overall, the responses to attitudes towards cycling, their perceived enablers and barriers to cycling, and reasons which would encourage them to cycle more indicate clear desire to cycle more for various reasons, especially for health and fitness reasons. The sample also appeared to be confident in their skills and ability to take up more regular cycling. There were a few barriers that were highlighted through these statements:

- Safety concerns when cycling on roads; there was a high preference for segregated/dedicated cycling lanes or cycling on 'safer' roads.
- External factors such as poor weather, and distance and time of travel appeared to be discouraging factors.
- Social cycling may be a motivational factor evidenced by more than half of the respondents willing to cycling more if their friends/family did.
- Secure-storage at their destinations would also be an enabler of cycling.

Figure 29 results align with the results of the segmentation analysis in finding health and fitness as the most agreeable reason for cycling. High agreement to statements of general intent to cycle more is a behaviour exemplified by the Contemplation stage in the Stage of Change model. This is consistent with Figure 40, where the Contemplation stage appears as the second-highest segment in the analysis results.

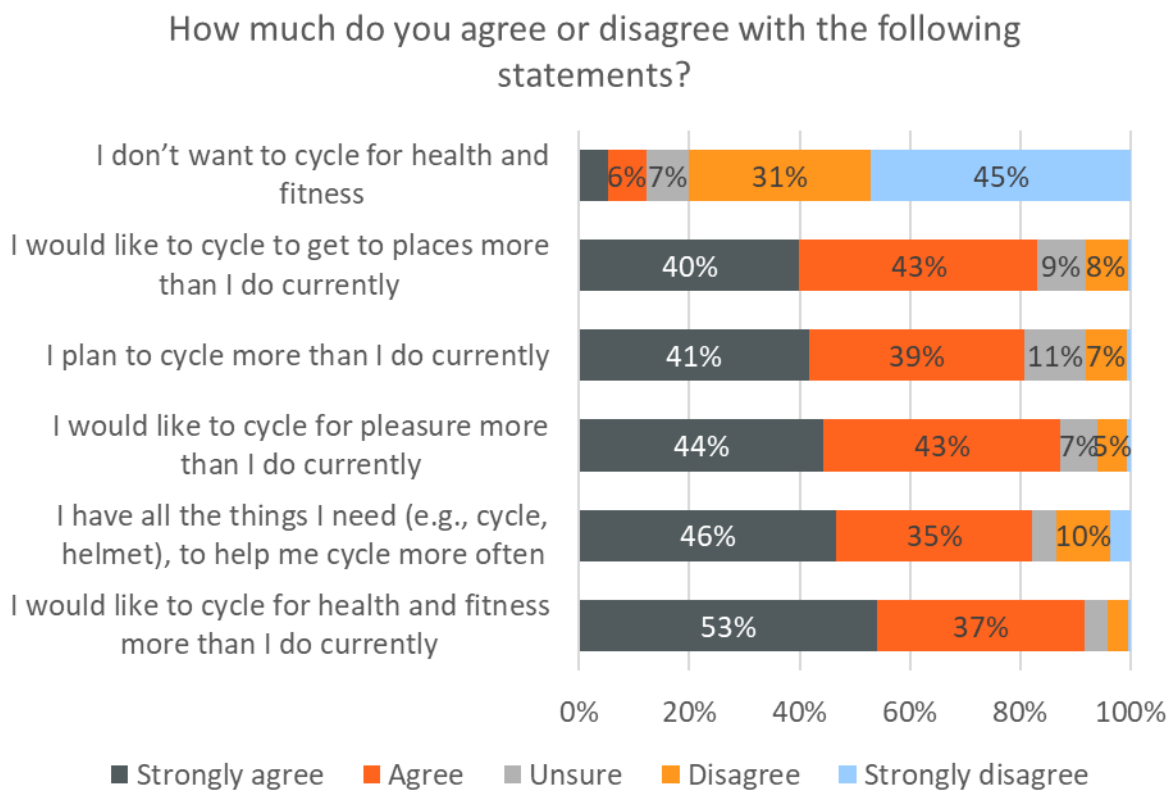

Figure 29: Respondents' agreements with statements regarding desire to cycle more

Figure 30 shows respondents' likelihood of increasing the amount of cycling they do over the next year. The results are strongly positive, with the majority indicating they are either likely (39%) or very likely (44%) to cycle more. A smaller proportion were unsure (10%), while only a small minority reported being unlikely (6%) or very unlikely (1%) to increase their cycling. Overall, this suggests a high level of intention among respondents to increase their cycling activity in the near future and corroborates with findings in Figure 29.

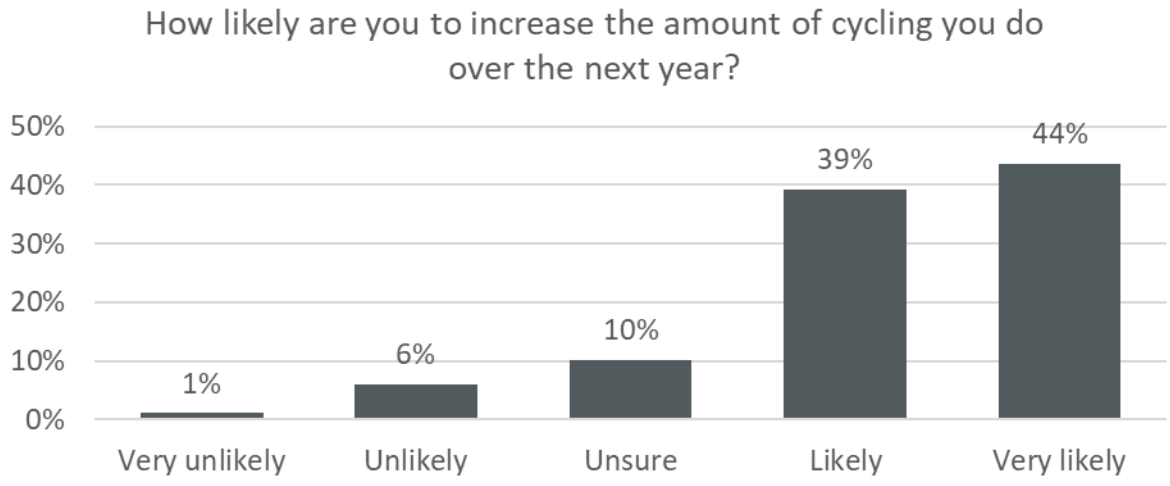

Figure 30: Distribution of likelihood for participants to increase cycling

Most respondents who were very likely or likely to increase their cycling next year cited health, fitness, and wellbeing as their main reasons. They described cycling as a way to stay active, lose weight, improve mental health, reduce stress, and maintain overall fitness. These responses reinstate respondents' perceived barriers and enablers to cycling, further driving clear areas of intervention to support uptake of regular cycling habits. Many also mentioned enjoyment, convenience for short trips, and the desire to adopt more environmentally friendly and cost-effective travel habits. Some respondents expected to cycle more because of recent changes such as purchasing a new bike, moving to an area with better routes, having more free time, or feeling more confident following Bikeability Level 2 training. A smaller group who was already cycling regularly expressed an intention to extend their distances, join cycling groups, or use cycling more consistently for commuting.

Those who were unsure, unlikely, or very unlikely often described practical, personal, or environmental constraints. Common barriers included poor weather, long commutes, limited time, health issues or injury, unsafe road conditions, heavy traffic, lack of bike storage, fear of theft, or not owning a bike. Figure 25 to Figure 29, as well as findings from literature that have noted many of these common barriers. Some already cycle frequently and felt there was little scope to increase their activity. Others anticipated relying more on cars due having recently passed their driving test, increasing work demands, or long-distance travel needs. Overall, intentions to cycle more were strongly shaped by individual circumstances, confidence, and the presence of safe, accessible cycling conditions.

These data were used in the segmentation analysis (see section 3.1.8).

Figure 31 shows respondents' agreement with statements about the wider impacts of cycling. Overall, respondents reported a range of positive effects, particularly in relation to physical fitness (91%), spending time outdoors (92%), and managing stress (85%), with a high proportion agreeing or strongly agreeing with these statements. Many also felt that cycling helps reduce transport costs (92%) and makes daily travel easier, such as commuting to work or education (73%). Social and wellbeing benefits were also evident, with respondents agreeing that cycling helps them feel more confident (82%), connected to others (62%), and part of a community. While some respondents reported that cycling on roads can be stressful (51%), the balance of responses suggests that the perceived benefits of cycling outweigh the negatives for most participants. These attitudes could also be a reflection of a result of regular cycling being common for a majority of this sample, and would also explain reasons for interest in cycling amongst infrequent cyclists in the sample. These findings also highlight the value of introducing cycle training at a young age, as early support in developing road skills and confidence could help people carry these positive attitudes later in life.

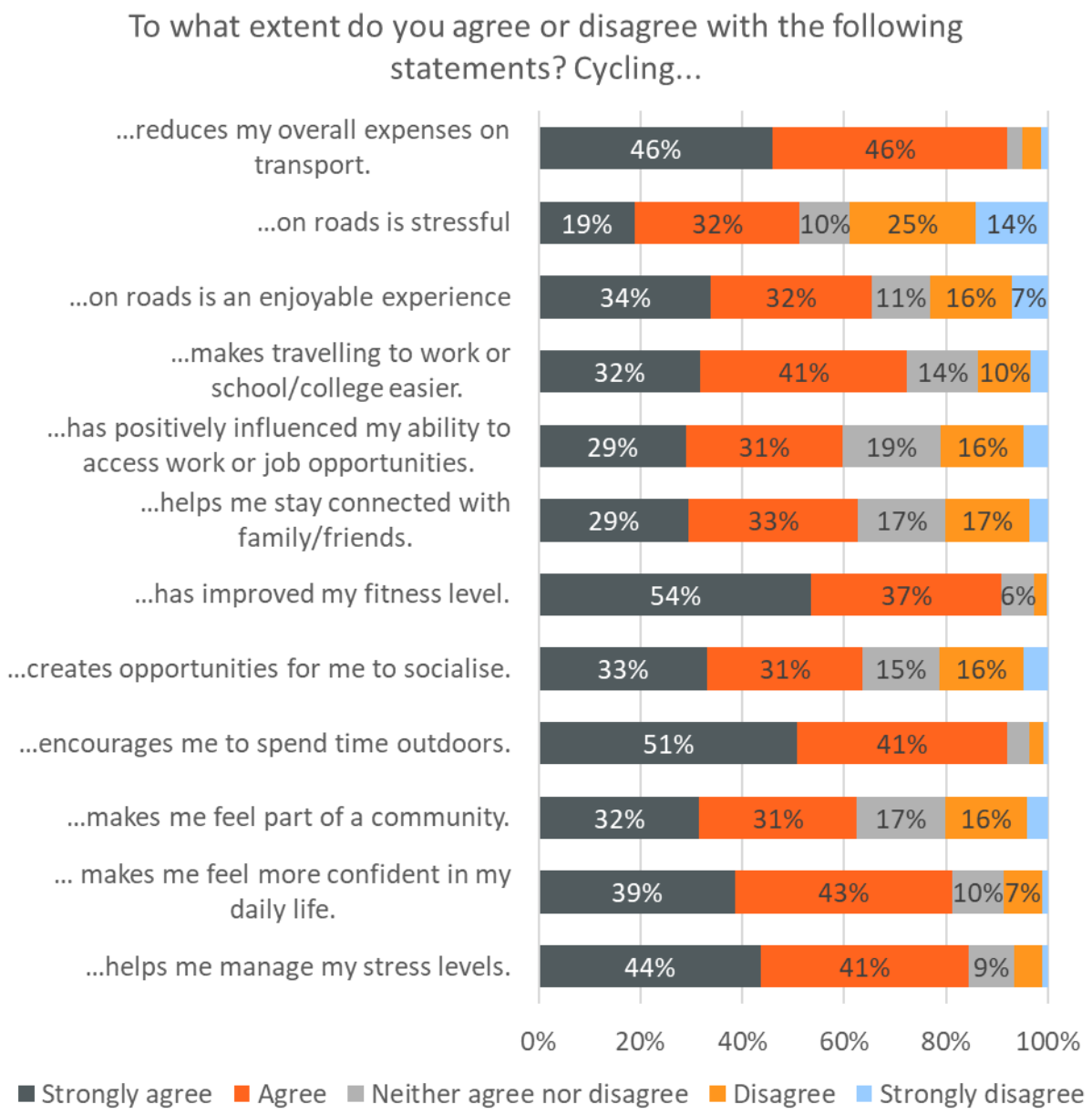

Figure 31: Distribution of attitudes to cycling

Figure 32 shows respondents' agreement with statements about their perceived impacts of Bikeability Level 2 training on their understanding, safety, behaviours and attitudes. Overall, responses suggest the training has had a positive and lasting influence on respondents, particularly in helping them cycle on roads more often (86%) and increasing awareness of road hazards (95%). Many respondents agreed that the training encouraged them to cycle more often which helped increase their levels of physical activity (81%) and improved mental health (81%). There is also evidence of wider benefits, including improved understanding of environmental impacts (82%) and increased parental or carer confidence in respondents' ability to cycle safely (74%).

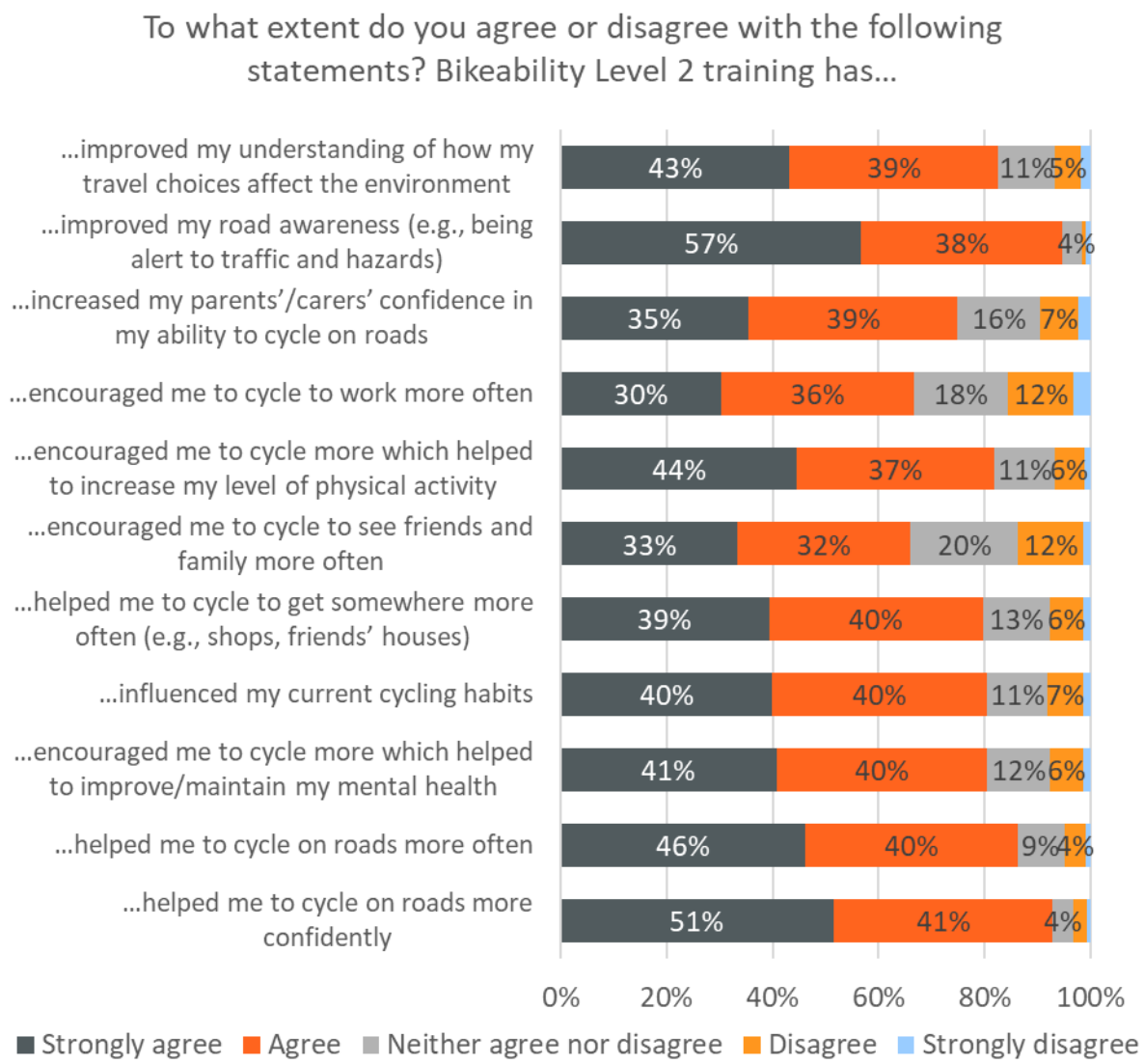

Figure 32: Distribution of attitudes towards Bikeability Level 2 training

3.1.6 Involvement in cycling training post-L2

Figure 33 shows the types of cycling training respondents have completed since Bikeability Level 2 training. Almost half of respondents (46%) reported that they have not completed any further cycling training. Among those who did, Bikeability Level 3 (32%) and adult cycle training (30%) were the most common, while fewer respondents completed family cycle training (14%). However, this question did not capture the detail about the type of adult or family cycle training which does not indicate whether these were established cycling programmes and to what extent it helped their cycling skills or confidence since completing that training.

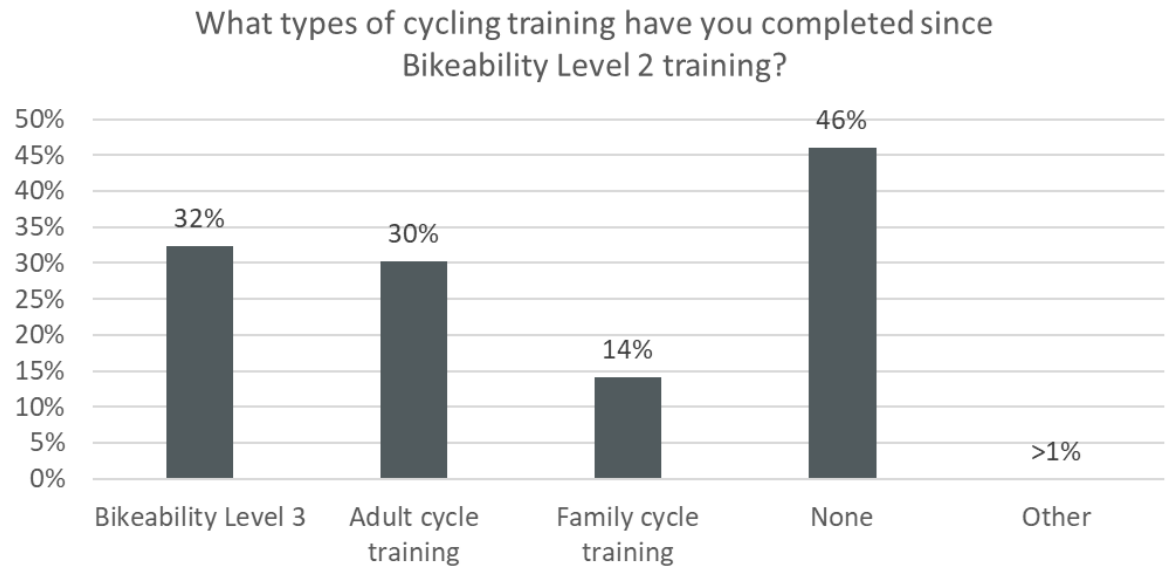

Figure 33: Cycling training completed since Bikeability Level 2 training

Figure 34 shows a pattern between follow-up cycle training and how often respondents' reported cycling. Regular cyclists were much more likely to have completed additional training, with 70% of those cycling "4 or more times a week" and 54% of those cycling "1 to 3 times a week" reporting participation. This drops sharply among less frequent cyclists, with only 17% of those cycling less than once a month and 13% of those who never cycle having undertaken further training. It is not possible to determine whether greater interest in cycling led to additional training, or whether undertaking further training contributed to higher cycling frequency with this data. Therefore, interpretations should be made with caution.

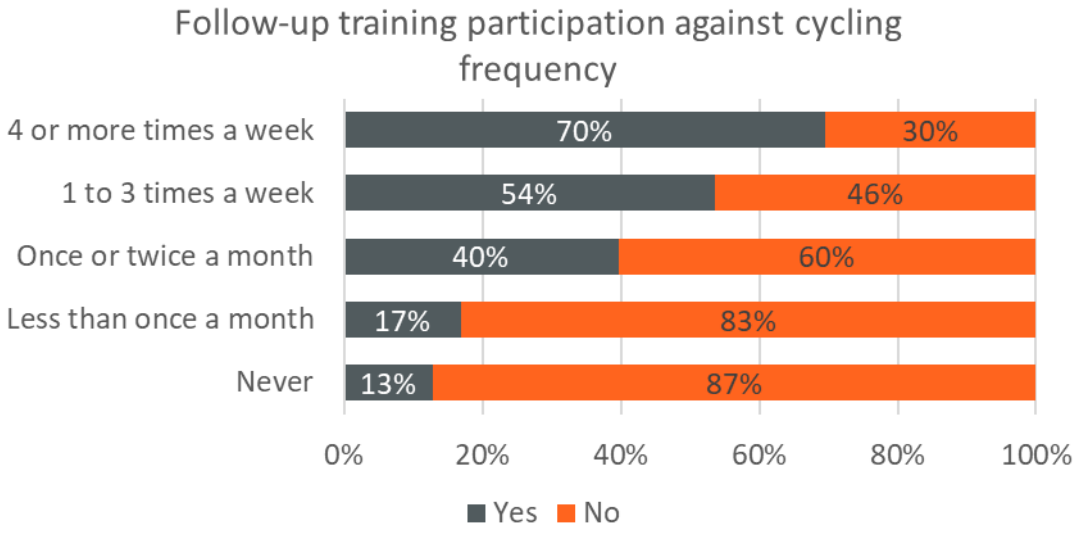

Figure 34: Cycling completed since Bikeability Level 2 for people in various cycling frequency groups

Figure 35 shows whether respondents have taught or helped other people to learn to cycle. Just under half of respondents (47%) reported that they have helped someone else learn to cycle, while a slightly larger proportion (53%) said they have not. Of those who have taught or supported others, they reported having worked with either children, siblings, cousins, friends or partners and often in parks or quiet streets. They mentioned focussing on specific cycling skills such as balancing, pedalling, braking, starting/stopping, signalling and road positioning/awareness, with some running led rides or volunteering on Bikeability/charity sessions. Those who had not taught or helped others frequently noted not having had the opportunity or that they "don't remember", or "would consider it in future".

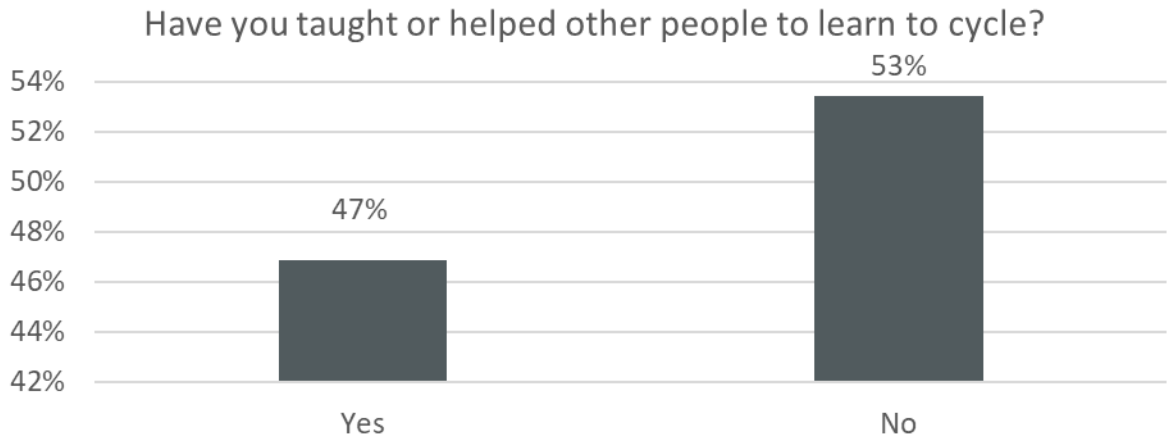

Figure 35: Proportion of respondents who helped others to learn to cycle

3.1.7 Parental influence on children's cycling

Figure 36 illustrates the extent to which respondents were encouraged or discouraged to cycle by their parents or carers. Most respondents reported positive encouragement, with 40% saying they were encouraged and 34% strongly encouraged. Neutral responses accounted for 18%, while only small proportions reported being discouraged (5%) or strongly discouraged (1%). This indicates that parental or carer attitudes towards cycling were generally supportive for the majority of respondents.

Chi-square tests of independence (described in Section 2.2.1) were conducted for several questions. These tests revealed several statistically significant associations; this indicates that the variables are related, as the results lead us to reject the null hypothesis of independence between them. The significant associations do not, however, provide evidence of the direction or strength of any causal relationship between the variables. It is also worth noting that while the tests aimed to assess associations between parents' and children's cycling-related behaviours and attitudes, chi-square analysis requires sufficiently large numbers within each response category to produce reliable results. In this dataset, some categories had only a small number of responses because there were many possible response options. As a result, the ideal conditions for this test were not always met, hence, the findings from this analysis should be interpreted with caution.

The chi-square test assessing the relationship between parents' encouragement and respondents' cycling frequency showed a statistically significant association, indicating that these variables are not independent. The pattern of observed and expected frequencies suggests that respondents who experienced greater parental encouragement were more likely to cycle frequently, whereas those reporting neutral levels of encouragement tended to appear under-represented in higher cycling-frequency categories. However, those who responded, 'Strongly discouraged' and 'Discouraged' to the question in Figure 34 represented only 1 and 5% of the sample, respectively. These small subgroup sizes limit the ability to draw robust conclusions. As such, while the overall association is statistically significant, caution in interpretation is advised.

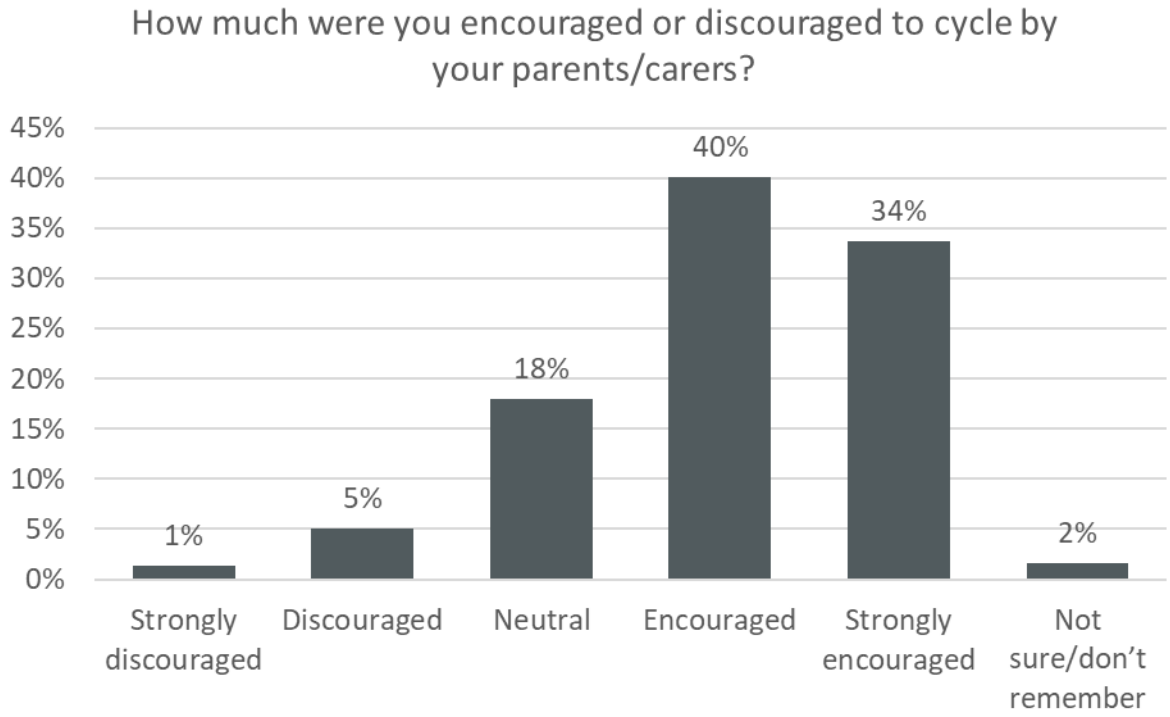

Figure 36: Proportion of respondents who felt encouraged or discouraged to cycle by their parents/carers

Figure 37 shows how knowledgeable respondents perceived their parents or carers to be about safe cycling practices. Nearly half of respondents (49%) reported that their parents or carers were somewhat knowledgeable, while a further 39% described them as very knowledgeable. In contrast, 11% felt their parents or carers were not at all knowledgeable, and only 1% were unsure or did not remember.

The chi-square test examining the relationship between parents' cycling knowledge and respondents' cycling frequency was found to be statistically significant, indicating that these variables are not independent. The pattern of observed versus expected frequencies suggests a clear tendency: individuals whose parents possessed greater cycling knowledge were more likely to cycle frequently as adults. This aligns with the expectation that parental familiarity with cycling may facilitate early exposure, skill development, or positive attitudes

that persist into adulthood. While this association is statistically robust, interpretation should still consider the broader context of behavioural and environmental factors that may also contribute to long-term cycling habits.

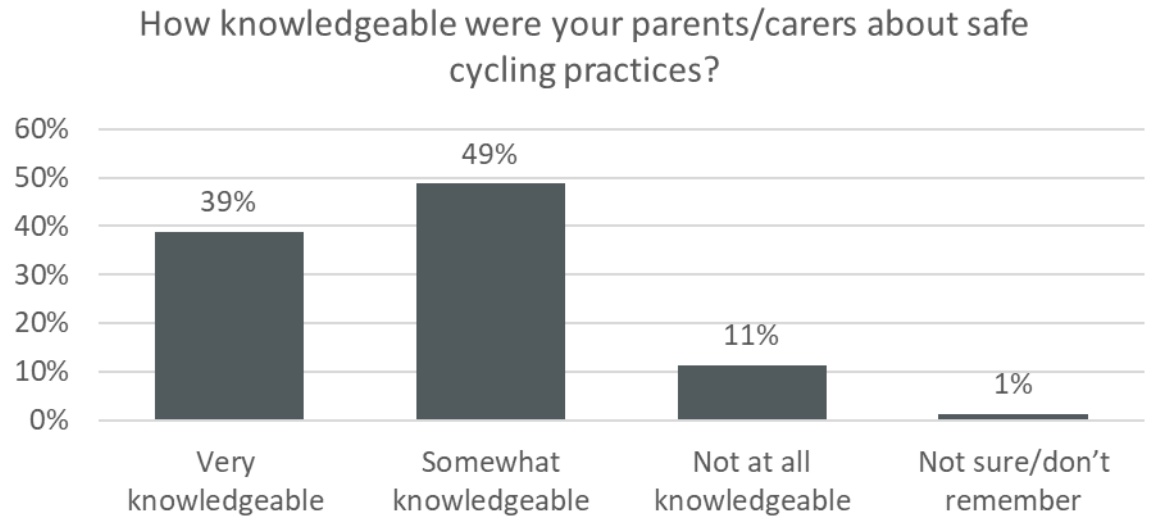

Figure 37: Distributions of cycling knowledge about cycling of respondents' parents

Figure 38 shows how much respondents' parents or carers restricted where or when they were allowed to cycle. Responses were evenly split between those who felt somewhat restricted (27%) and those who felt very free (27%), with a further 24% reporting they were somewhat free. A smaller proportion described their situation as neutral (13%), while very few respondents reported strong restrictions or were unsure or unable to remember.

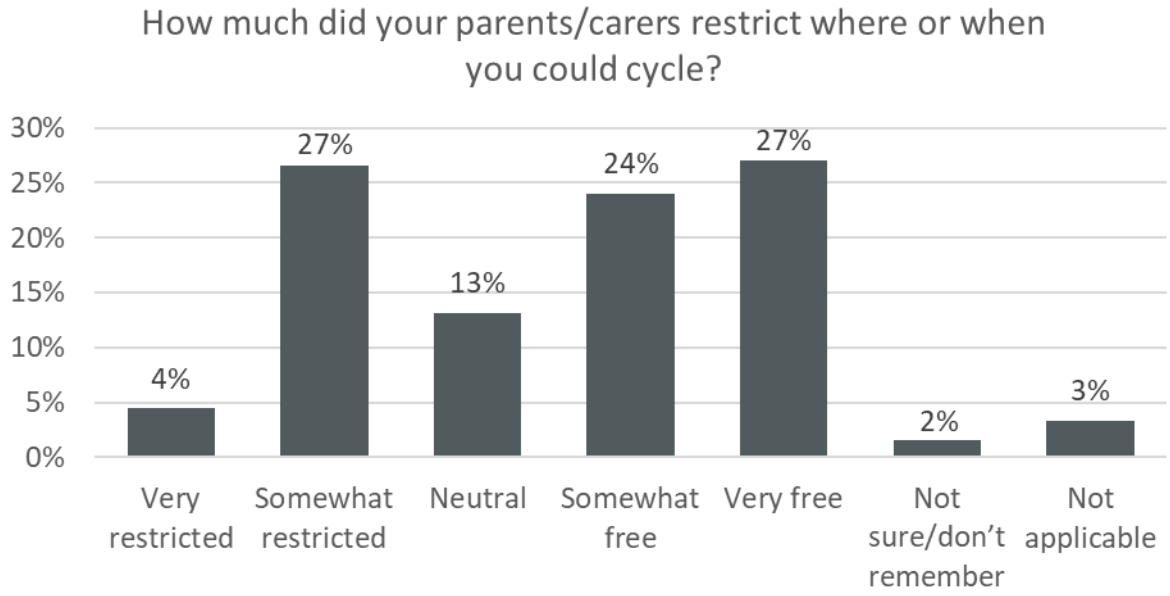

Figure 38: Distributions of encouragement attitude to cycling of respondents' parents

Participants were asked to elaborate on their response. Most learners who reported being "very restricted" described strong limits on cycling, usually due to safety concerns. They were often only allowed to ride on quiet streets, near home, or not on roads at all, with fears about traffic, crime, or past incidents shaping these rules.

Those who felt "somewhat restricted" said they generally could cycle locally but with clear boundaries. These limits usually involved avoiding busy roads, cycling only in daylight, staying within a certain distance, or needing to inform parents of their route. Many restrictions were described as sensible safety measures, particularly when learners were younger or less experienced. Weather, dangerous junctions and lack of confidence also shaped parental rules.

Learners who selected "neutral" described little active restriction or encouragement parent, or rules varied with age and context. Some simply noted that cycling was not frequent enough for restrictions to matter.

Respondents who felt "somewhat free" generally had broad independence, with parents offering guidance rather than limitations. Restrictions, where they existed, were light-touch, relating mainly to avoiding busy roads or cycling after dark.

Finally, those who felt "very free" consistently reported no restrictions at all. These learners often said parents trusted their judgement, encouraged cycling, or shared cycling as a family activity. Overall, this suggests a mixed experience, with many respondents reporting at least some freedom to cycle during childhood.

The chi-square test showed a relationship between childhood cycling freedom/restriction and adult cycling frequency. Respondents who reported being 'very free' to cycle as children were more likely to cycle frequently in later life, whereas those with neutral or moderately restricted access to cycling in their childhoods tended to fall into lower-frequency categories. Although a similar high-frequency pattern appeared among the very restricted group, this subgroup contained only around 50 respondents, and its small size limits the reliability of conclusions.

Lastly, agreement with the statement "I like to cycle for pleasure" was also associated with levels of childhood cycling restriction. Although the trend was less pronounced than in the other analyses, individuals who grew up with minimal restrictions on cycling were generally more likely to report enjoying cycling for pleasure. As with the previous findings, this pattern reflects broad tendencies rather than deterministic outcomes and should be interpreted in context.

3.1.8 Segmentation analysis results

3.1.8.1 Segments identified

The segmentation analysis used data from questions 7, 8, 9, 12, 13, 14, and 15 for the various insights available. The final number of survey respondents – 924, was high enough to utilise a statistically reliable segmentation analysis approach.

Table 2 demonstrates the output of the combination of PCA and k-means algorithms which determine mean values for each segment and each feature used in the analysis. The variation between the segments is distinguishable, and normalising the data into values from 0 to 1 allowed for clearer separation between the data points.

Based on interpretation of these means, Segments 1 to 4 were named as follows:

- Segment 1 - Highly Multimodal, High-Frequency Travellers
- Segment 2 - Public Transport & Car Mix, Low-Frequency Travellers
- Segment 3 - Public Transport & Active-Leaning Moderate-Frequency Travellers
- Segment 4 - Walking and Driving Mix, Moderate- Frequency Travellers

Table 2: Output of segmentation analysis for travel behaviour

	Driving freq.	PT freq.	Cycling freq.	Walking freq.	Bike reliance	Car reliance	Walk reliance	PT reliance	Multimodality	Count	Proportion
Seg. 1	99%	97%	100%	100%	100%	94%	75%	86%	100%	**432**	**47%**
Seg. 2	100%	61%	4%	0%	0%	100%	0%	58%	0%	**161**	**17%**
Seg. 3	0%	100%	24%	82%	67%	0%	100%	100%	16%	**174**	**19%**
Seg. 4	95%	0%	0%	94%	55%	92%	64%	0%	15%	**157**	**17%**

Most of the participants were assigned to Segment 1 (47%, as indicated by the “Proportion” column in Table 2). Classified by flexible travel behaviour with frequent use of all types of modes of transport queried in the survey, the people in this Segment indicated they travel frequently between work/school, social settings, for leisure and home. Participants also rely on a high mix of modes of transportation queried in the survey, with limited dependency on any single mode.

The remaining segments were roughly equal in size, making up between 17 - 19% of the sample each, and 53% of the sample combined.

Across these three segments, the travel patterns of participants were more diverse. Segment 2 was classified by significant dependence on driving and public transport with the lowest multimodality across the groups. The participants in this segment indicated they travel least frequently and if they did, they relied on their car or public transport much more than other segments. They exhibited the lowest walking frequency, walking reliance and cycling reliance, indicating a negligible travel using active modes.

Segment 3 and Segment 4 contained moderately frequent travellers with moderate dependence on all modes of transport. While Segment 3 showed greater dependence on

the use of public transport and walking (with slight use of cycling), Segment 4 showed highest dependence on the use of walking and driving.

The characteristics described above can be visualised in the graph in Figure 39. A large surface area for a given segment on the spider diagram corresponds to members of that segment having a tendency for completing a larger number of journeys for a given mode. Likewise, a high value in the Multimodality metric indicates several modes were highly frequently used by members of that segment.

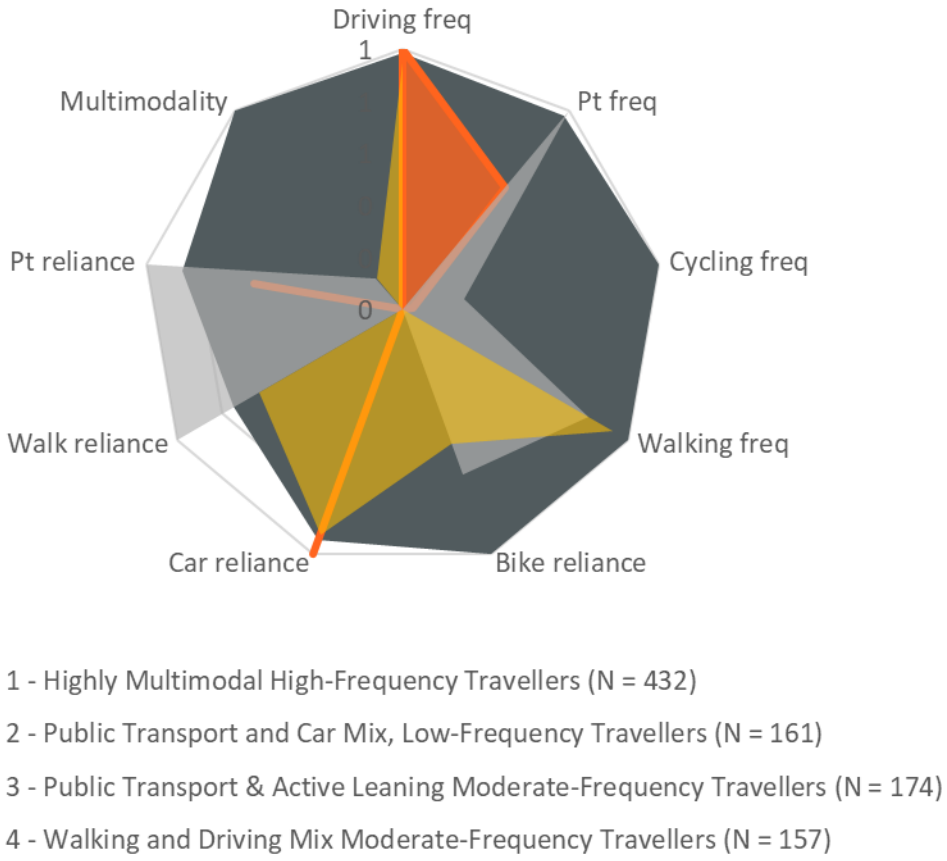

Figure 39: Plot of normalised data from Table 2 (Pt = Public transport)

The results of the travel behaviour analysis showed that individuals who cycle frequently do not use cycling as a sole mode of transportation. None of the segments showed cycling as a predominant behaviour to distinguish themselves from other segments. This is crucial considering that 76% of participants answered that they cycle at least once a week or more as per Figure 15.

The results below demonstrate the output of the segmentation analysis according to the Five Stages of Change. The analysis found clear patterns underlying within the data for the 924 participants used in the survey.

Table 3: Results of segmentation analysis for five stages of change (described in Section 2.2.2.2)

Count of respondents by segment	Cycling for fitness	Cycling for fun	Cycling to get somewhere	Sum/Total
Maintenance	297	157	167	**621**
Action	36	13	17	**66**
Preparation	59	14	19	**92**
Contemplation	114	8	15	**137**
Pre-contemplation	5	1	2	**8**
Total	**511**	**193**	**220**	**924**

A significant majority of the survey respondents were assigned to the Maintenance stage, due to their agreement with the statement "I cycled regularly over the past year" and current indication of cycling at least once a week or more. 621 participants or 67% of the survey respondents were classified into the Maintenance stage. This aligns with the data shown in Figure 15 where 76% of respondents indicated that they cycle at least once a week or more.

Across all stages, participants showed greater tendency for cycling for fitness than for fun or getting somewhere. This was especially true for those assigned to the Contemplation stage, with 114 out of the 137 participants in this segment fitting in with "Cycling for fitness". The data indicates that people who are yet to start cycling see the fitness aspect as more beneficial, than the people who already cycle who value all benefits equally.

The Pre-contemplation stage had the fewest participants. This was because very few participants showed no desire or intention to cycle, exemplified by this stage.

As each participant was assigned to a Stage of Change ('bottom-up') and a Travel Behaviour segment ('top-down'), the two approaches were combined to better understand the participants of the survey and their behaviour. This was the last step of the segmentation analysis, shown in Figure 40 which combines the results from the top-down and bottom-up approaches. The normalised data presents the relative composition of people in the five Stages of Change alongside their associated Travel Behaviour segments. It should be noted the 27% of participants in the Action stage and Segment 1 equate to 18 people. A small sub-group such as this one means any insights drawn from it may be unreliable or statistically fragile.

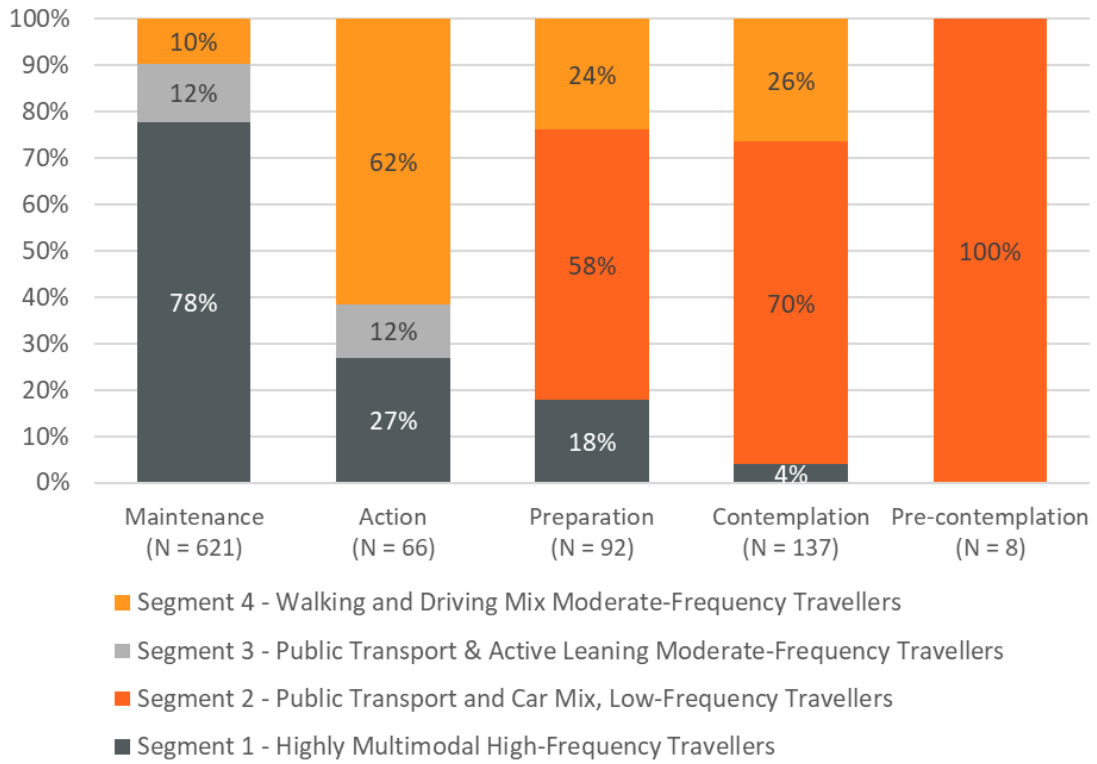

Figure 40: Combination of the segmentation approaches

The chart shows that Segment 1 has a larger presence in the later stages, with its share increasing from Contemplation to Maintenance. In contrast, Segment 2 is entirely absent from both the Action and Maintenance stages. Instead, Segment 2 is concentrated in the earlier stages, with its highest representation appearing in the Preparation and especially Pre-contemplation groups.

3.1.8.2 Notable trends within the segments

Figure 41 shows the distribution of ethnicity across the stages of change segments. Across all segments, the majority of respondents identified as white, which aligns with the overall survey sample demographic. Notably, the proportion of White respondents increases progressively from Maintenance (47%) to Pre-contemplation (75%). Respondents identifying as Black (African, Caribbean, or British) represented a substantial share of the Maintenance group (41%), but their representation declines considerably in subsequent stages—falling to 5% in the Action stage and 13% in Pre-contemplation. Although Asian / Asian British respondents made up 9% of the overall sample, they were proportionally more represented in the Action (21%) and Preparation (28%) stages. However, the relatively small number of respondents within these sub-groups should be taken into account when interpreting these patterns. Respondents who selected “Any other ethnic group” or “Prefer not to say” comprised relatively small proportions across all stages.

Previous research reports that White individuals tend to cycle more often than those from minority ethnic backgrounds (Eime et al., 2015; Ipsos MORI, 2015; Aldred et al., 2016;

McKay et al., 2020; Cycling Scotland Wave 5, 2023). This aligns with the patterns identified in this segmentation analysis, where the majority of respondents in the Maintenance and Action stages – associated with greater tendency to cycle – identified as White.

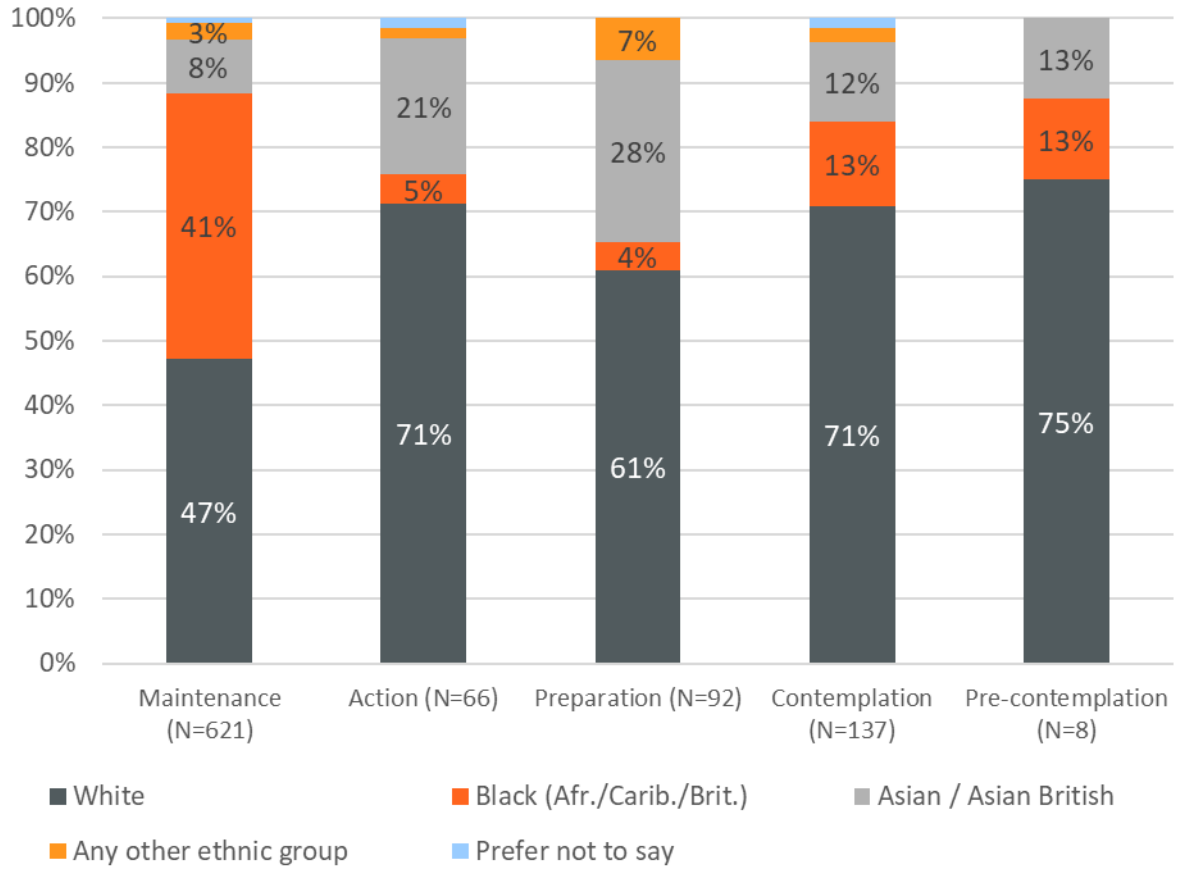

Figure 41: Ethnicity distribution within segmentation analysis

Figure 42 shows the distribution of gender across the stages of change in the segmentation analysis approach. In stages associated with lower cycling readiness or activity – Action, Preparation, Contemplation, Pre-contemplation - women represented the largest proportion of respondents. This aligns with the gender demographic spread of the survey where women made up a higher share of respondents (54% female). However, while males accounted for 45% of overall respondents, they made up 51% of the Maintenance stage which aligns with the findings observed in "low-cycling" countries such as UK, USA, and Australia, where men consistently cycle more than women (Aldred et al., 2016; Dill and McNeil, 2016; Cabral and Kim, 2020; McKay et al., 2020; Graystone, 2022; Cycling Scotland Wave 5, 2023). However, these patterns have limited reliability as breaking down the sample into sub-groups, within each stage of change reduces the number of respondents in each category. For instance, the 51% vs 48% split in the Maintenance stage corresponds to only 317 men and 301 women.

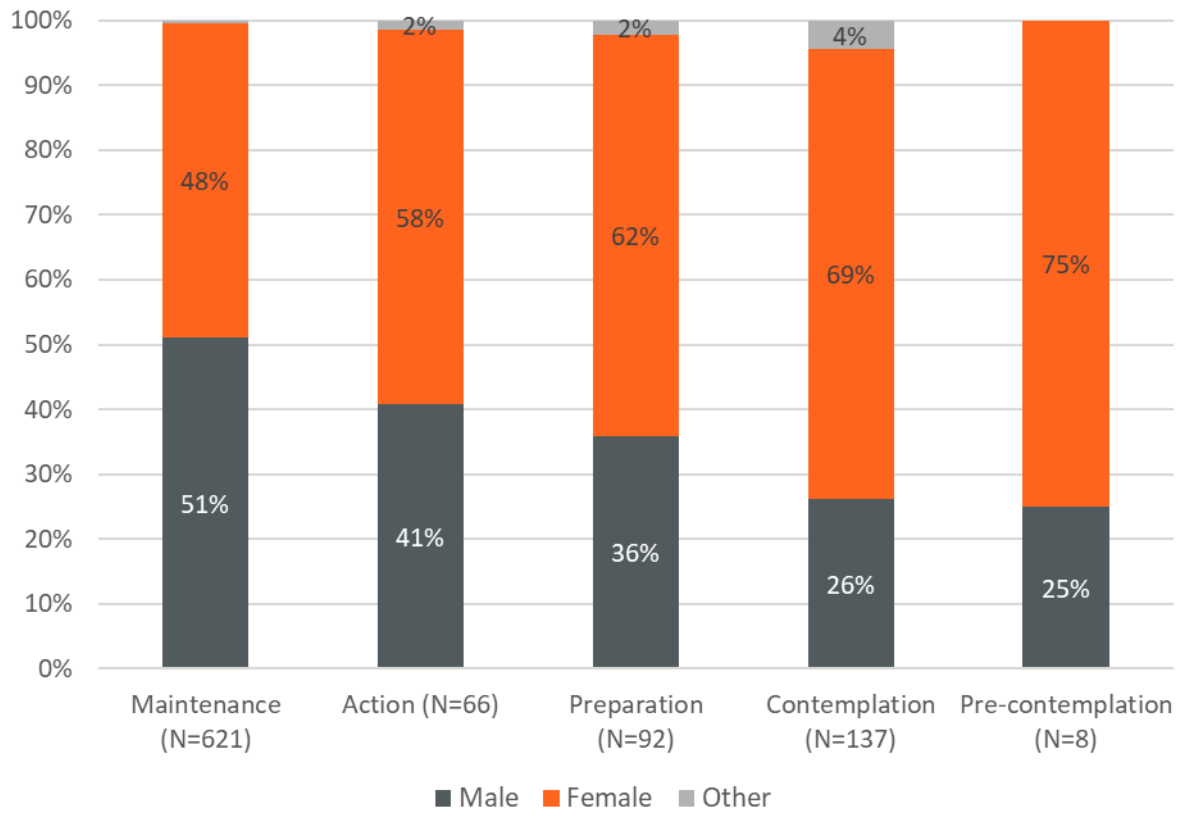

Figure 42: Distribution of gender within segmentation analysis

3.1.9 Summary of Survey 1 findings

Overall, Survey 1 indicates that many past Bikeability Level 2 learners retain both the skills and behaviours associated with cycling over time. A majority of respondents (70%) reported remembering their training well, and 44% demonstrated strong knowledge of safe cycling practices through scoring above 70% in assessment questions. Cycling participation levels were notably high, with 76% reporting cycling at least weekly compared to 13% in the 2024 National Travel Survey, and only 5% reporting that they never cycle.

Clear demographic patterns emerged in relation to cycling frequency, particularly across gender. Despite women comprising a slightly larger proportion of the sample (54%), men reported substantially higher levels of cycling participation. Just over half of male respondents cycle at least once a week, whereas women were disproportionately represented in lower-frequency categories, with 75% cycling less than once a month and 69% reporting that they never cycle. This difference is further reflected in the segmentation analysis, where men were slightly overrepresented in the “Maintenance” stage associated with regular cycling, while women were more prevalent in earlier Stages of Change (Contemplation/Preparation), characterised by lower readiness or activity. Taken together, these findings suggest that although training outcomes are broadly similar across genders, there are behavioural differences in long-term engagement.

Gender-related patterns intersected with other variables, particularly environment and travel behaviour. For example, higher-frequency cycling was concentrated in urban areas, where 65% of those cycling four or more times per week were based, compared to 59% of the overall sample. The lower participation among certain groups, particularly women, may reflect greater sensitivity to these infrastructural barriers due to gender differences in perceived safety, as noted by Aldred (2016).

Age-related patterns were less explicitly differentiated within the dataset due to the relatively narrow age range (16–34), but the findings still point towards higher cycling participation among younger adults within this cohort. When considered alongside the high overall rates of weekly cycling in the sample (76%), this suggests that Bikeability-trained individuals maintain relatively strong cycling habits into early adulthood, compared to the general population. However, the evidence also indicates that cycling behaviour is shaped by life-stage factors, such as employment, travel demands, and access to alternative transport modes, which may begin to influence frequency as individuals transition into adulthood.

Respondents identifying as White reported the highest levels of cycling participation, with around half cycling at least once a week, whereas those from minority ethnic backgrounds were more likely to cycle infrequently or not at all. This trend is reinforced by the segmentation analysis, where White respondents were more prevalent in the "Maintenance" and "Action" stages associated with regular cycling, while representation from Black and other minority ethnic groups declined in later stages of behavioural change. At the same time, the survey sample itself over-represented Black respondents (36% compared to 4.2% nationally), meaning these disparities are unlikely to be driven by underrepresentation alone. Taken together, these findings suggest that differences in cycling frequency by ethnicity persist even among Bikeability-trained individuals, indicating that cultural or infrastructural barriers may continue to influence participation beyond the training.

Cycling was reportedly used for a range of journey purposes, most commonly for leisure or social activities (58%), visiting friends or family (57%), commuting (51%), and completing errands (49%). Typical reported journey distances were relatively short, with the majority between 1 and 5 miles, aligning with national averages. The segmentation analysis grouped journey purposes into three categories: fitness, fun, and cycle to get somewhere. Among these, fitness emerged as by far the most common reason for cycling among survey participants with the "to get somewhere" reason marginally more common than "fun".

The most consistently recognised benefits were perceived improvements in physical fitness, mental wellbeing (including stress reduction), confidence, and independence. Confidence and independence, in particular, emerged as highly salient outcomes, with respondents frequently linking cycling to increased autonomy and the ability to travel without reliance on others. Enjoyment and time spent outdoors were also commonly cited, especially among those who cycled for leisure.

Some differences were observed in how associated benefits were reported across respondents. Those who cycled more frequently were more likely to report benefits related

to fitness, wellbeing, and convenience. Those who cycled less frequently more often referred to enjoyment or occasional use rather than regular or functional benefits.

Parental influence extends beyond simple encouragement, with both parental knowledge and childhood autonomy showing strong associations with long-term cycling behaviour. Respondents whose parents were more knowledgeable about safe cycling, and those who reported greater freedom to cycle independently as children, were significantly more likely to cycle frequently and express enjoyment of cycling in adulthood. This suggests that early-life experiences, particularly those that build confidence and independence, play a critical role in shaping sustained cycling habits over time.

The segmentation analysis identified 67% of respondents in the *"Maintenance"* stage of behaviour change, reflecting regular and sustained cycling. Smaller proportions were assigned to earlier stages in the Stages of Change model, including *"Preparation"* and *"Contemplation"*. The travel behaviour segmentation showed that frequent cyclists were disproportionately represented within the "highly multimodal, high-frequency travellers" group, while those expressing a desire to cycle more tended to belong to lower-mobility segments. It also highlighted that most frequent cyclists combined cycling with other modes of transport, including walking, public transport, and driving, rather than relying on cycling exclusively.

3.2 Survey 2: Feedback from parents

This section reports the findings from Survey 2. A total of 280 eligible responses were received from parents/carers of past learners aged 16 and below.

3.2.1 Children's cycling behaviour

Parents/carers were asked what difference the Bikeability L2 training made to their confidence in their child's ability to cycle in various scenarios. Figure 43 shows that parents/carers generally reported an increase in confidence in their child's ability to cycle across all three different scenarios (in general, on roads, and independently), with the majority reporting they felt either a little or much more confident. A small minority reported no change or reduced confidence.

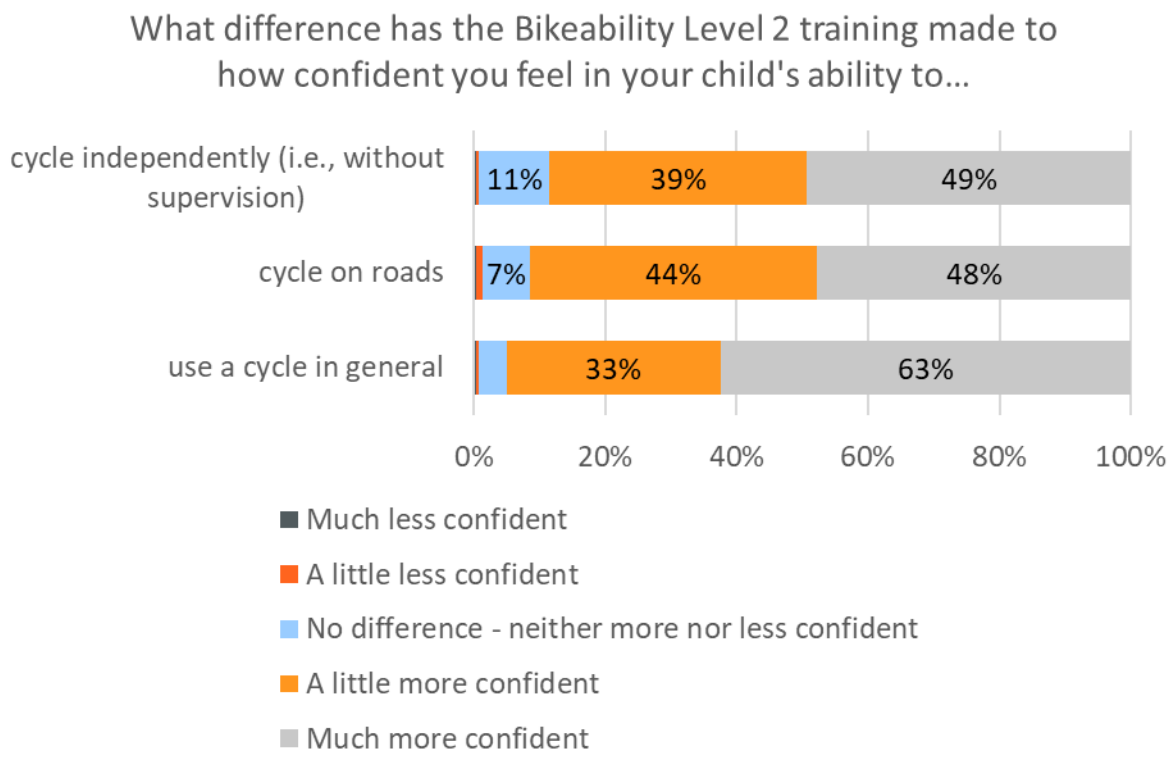

Figure 43: Change in children's cycling confidence since training

Parents/carers were asked if they encouraged their child to cycle on and off roads after completing their Bikeability L2 training. Figure 44 shows that parents/carers were much more likely to encourage off road cycling "always" (59%) than on road (18%), indicating a clear preference for lower traffic environments. Encouragement of on road cycling was typically conditional (64% for "sometimes"). A small minority said they did not encourage cycling (on road 18%; off-road 4%). These findings are in line with those from the literature which indicated parental concerns about child's safety when cycling on roads persist even when an increase in confidence in children's cycling skills following training.

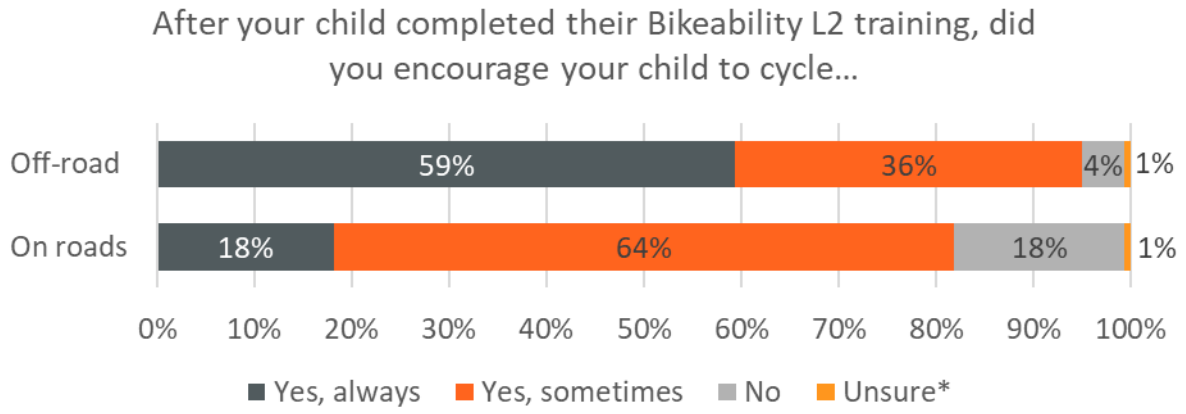

Figure 44: Likelihood of parents encouraging their child to cycle after training

Figure 45 illustrates the frequency of children cycling after the training for different journey purposes. Over 40% reported that their child cycles for exercise/fun (49%), leisure/social (45%), and to get to places (41%) at least once per week. There was a similar proportion of respondents who cycled less often for exercise/fun (43%) and leisure/social (48%). 30% of parents/carers reported their child never cycled to school or work.

There were several respondents who selected 'Other' reasons, but the descriptions given were considered in line with the main categories. 3% of these responses indicated their child cycles more than once a week to shop with them. The number of 'unsure' and 'never' responses to 'other' journey types were higher than they were for journeys to get to places, for leisure/social reasons, or for exercise/fun.

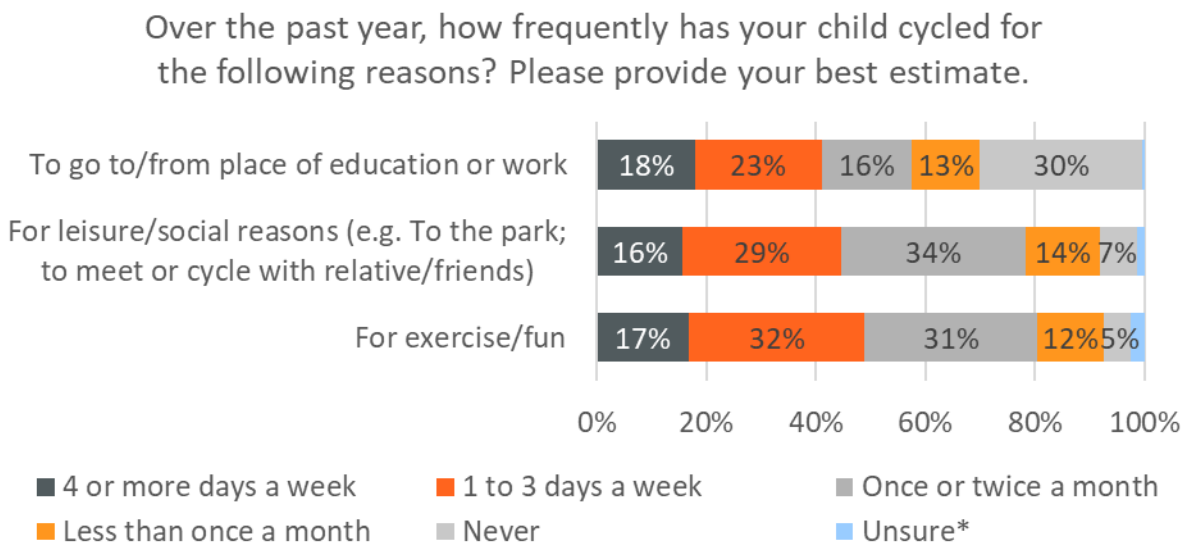

Figure 45: Frequency of child cycling post training for different reasons in the past year

Parents/carers were asked how they expected their child's frequency of cycling might change over the next few years. Figure 46 shows that parents/carers most commonly reported that they expected their child to increase cycling for leisure/social and exercise/fun. Expected changes in education/work trips were more mixed, with a larger share reporting no change. There were many blanks or 'unsure' options selected for 'Other journey types'; these are not presented in Figure 36. Some feedback from open-ended responses suggested parents/carers who anticipated increased cycling behaviour was due to child getting older and hence feeling more independent to cycle to school or for fun.

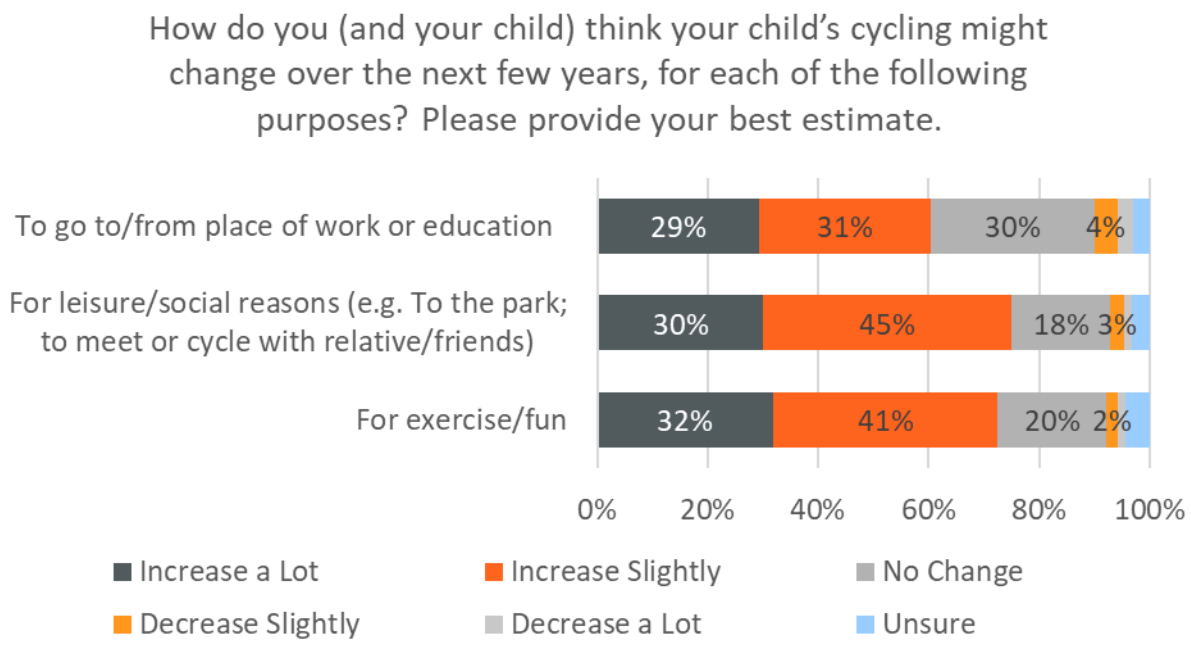

Figure 46: Parent/carer-reported expected changes in child cycling frequency by journey purpose.

Figure 47 shows the typical distance cycled of children's cycling trips. The typical reported cycling distances for most children were 5 miles or below, with 1–2 miles being the most common (44%), followed by 3–5 miles (27%) and <1 mile (19%). Longer trips that are 6 miles or more were relatively uncommon (<6%).

Similarly to Figure 17, a grouped-frequency mean distance was calculated from the binned distances in the data. A midpoint value was assigned to each of the distance bins. The options "They do not cycle" and "Unsure" were assigned a zero distance while "Less than 1 mile" and "More than 10 miles" were assigned values of 0.5 and 12, respectively. Weighting these midpoints by the proportion of respondents in each bin produced an indicative mean journey distance of 2.36 miles.

For context, the 2024 National Travel Survey (NTS) reports an average cycling distance of 1.78 miles for journeys undertaken by individuals aged 0–16. The children of the parents/carers who responded to Survey 2 were aged 11–15, meaning a direct like-for-like comparison with the NTS data is not possible. However, 33% of the sample reported cycling 3-5 miles or more on average, which is higher than the national average reported in the 2024 NTS.

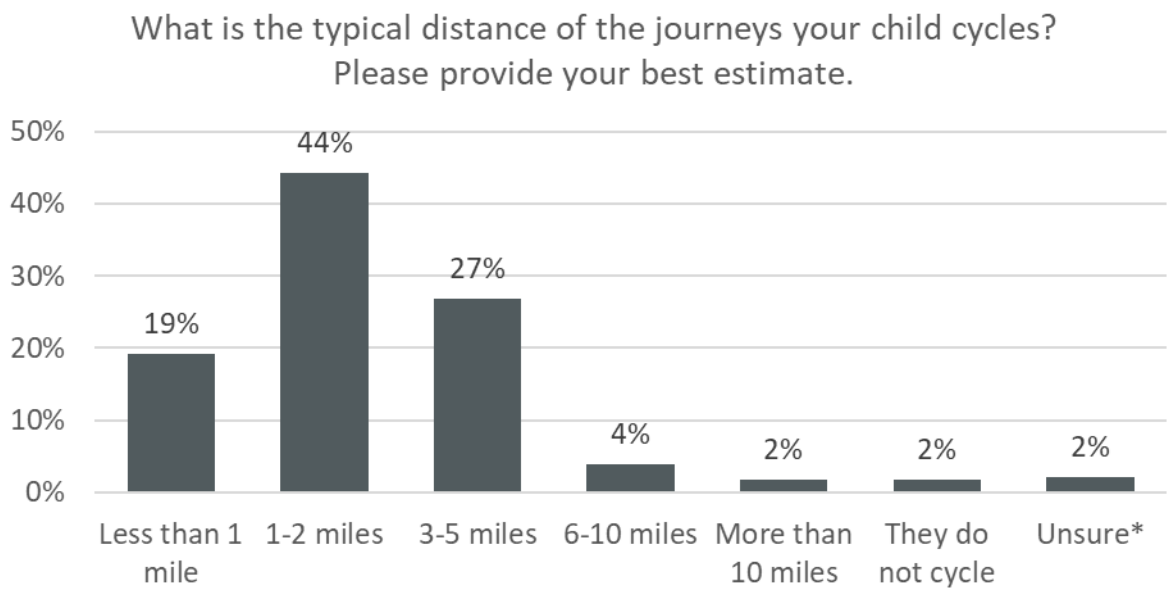

Figure 47: Typical distance cycled of child's cycling trips

Figure 48 shows the distribution of types of incidents parents/carers reported their child was involved in. Thirty-two (12%) respondents reported that their child had been involved in a collision (6, 2%) or a near miss (26, 9%). Incidents involving motor vehicles accounted for the largest share of near misses.

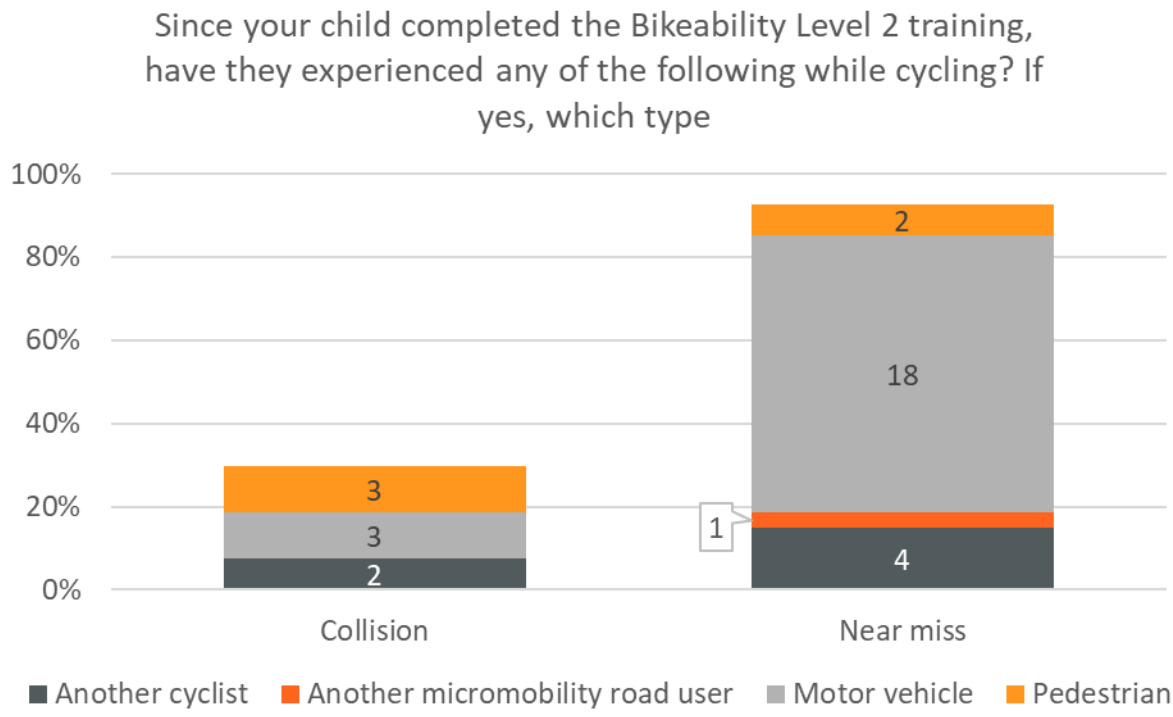

Figure 48: Involvement in different types of incidents (collisions and near misses) in the past year

3.2.2 Parents' views on cycling

Figure 49 shows the main concerns parents/carers had about their child cycling on roads since completing their Bikeability L2 training. External factors related to the road environment were the most commonly reported concerns by parents/carers. This included unsafe driver behaviour (59%), high vehicle speeds (57%), high traffic volume (49%), and lack of safe infrastructure (32%). Weather (23%) and parked cars on pavements (21%) were also notable concerns. Lack of cycling skills or fitness levels of child or parent/carer were only cited by a small proportion of respondents. Only 1–2% reported 'none of the above' indicating that the types of barriers included in the question were prevalent for the sample.

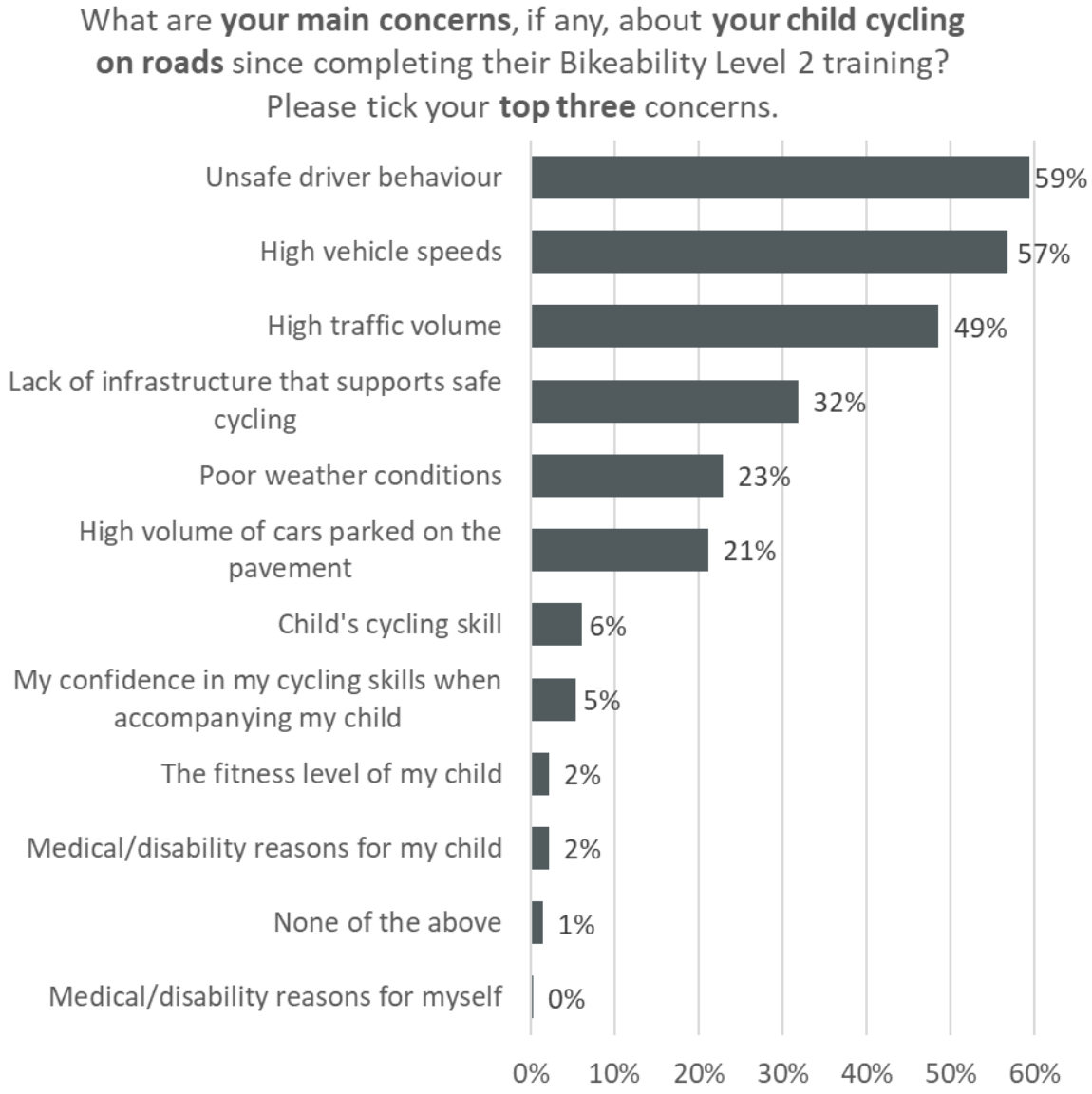

Figure 49: Parent/carer concerns regarding their child cycling on roads beyond training

Figure 50 shows changes in circumstances that parents/carers think would encourage children to cycle more. Parents most often selected 'improved driver behaviour' and 'more direct/dedicated routes' as the top changes that could enable more cycling, followed by 'lower traffic volumes' and 'slower speed limits' on roads their child cycles on. These factors are directly linked with the top three concerns that parents/carers had about their child cycling on roads since completing their Bikeability L2 training (see Figure 49) reiterating their significance as a barrier to cycling on roads.

Peer interest, fewer parked vehicles on pavements, and more cycling initiatives received some support as well. More training, improved signage on cycling routes, equipment and storage-related factors received less support, indicating less need for addressing these.

The results shown in Figure 48 and Figure 49 both support findings from the literature about the most common types of parent/carer safety concerns and their likelihood (or not) to encourage their child to cycle on the road, as noted in Figure 44.

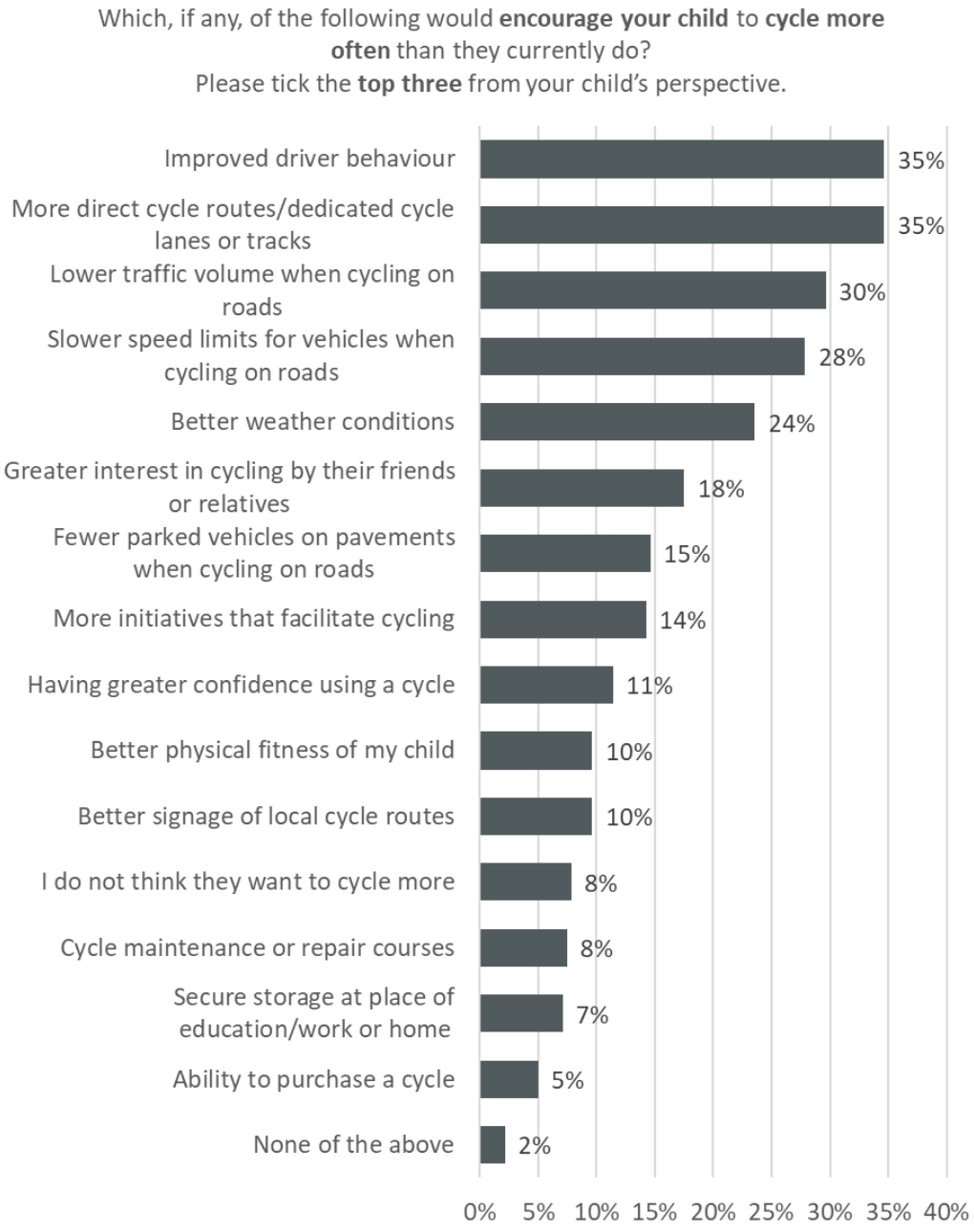

Figure 50: Ways children could be encouraged to cycle more often than they currently do

Figure 51 presents the extent to which parents/carers agreed with statements about the benefits of cycling for their child. Parents/carers largely agreed or strongly agreed that cycling is an important life skill and improves physical activity. Many also agreed it supports time outdoors, healthy engagement, family cycling, and reduces dependence and costs. These findings indicate that parents/carers saw the benefits of cycling. Almost half (53%) agreed that cycling on roads can be stressful for their child which aligns with their reported concerns regarding their child cycling on the road (Figure 39).

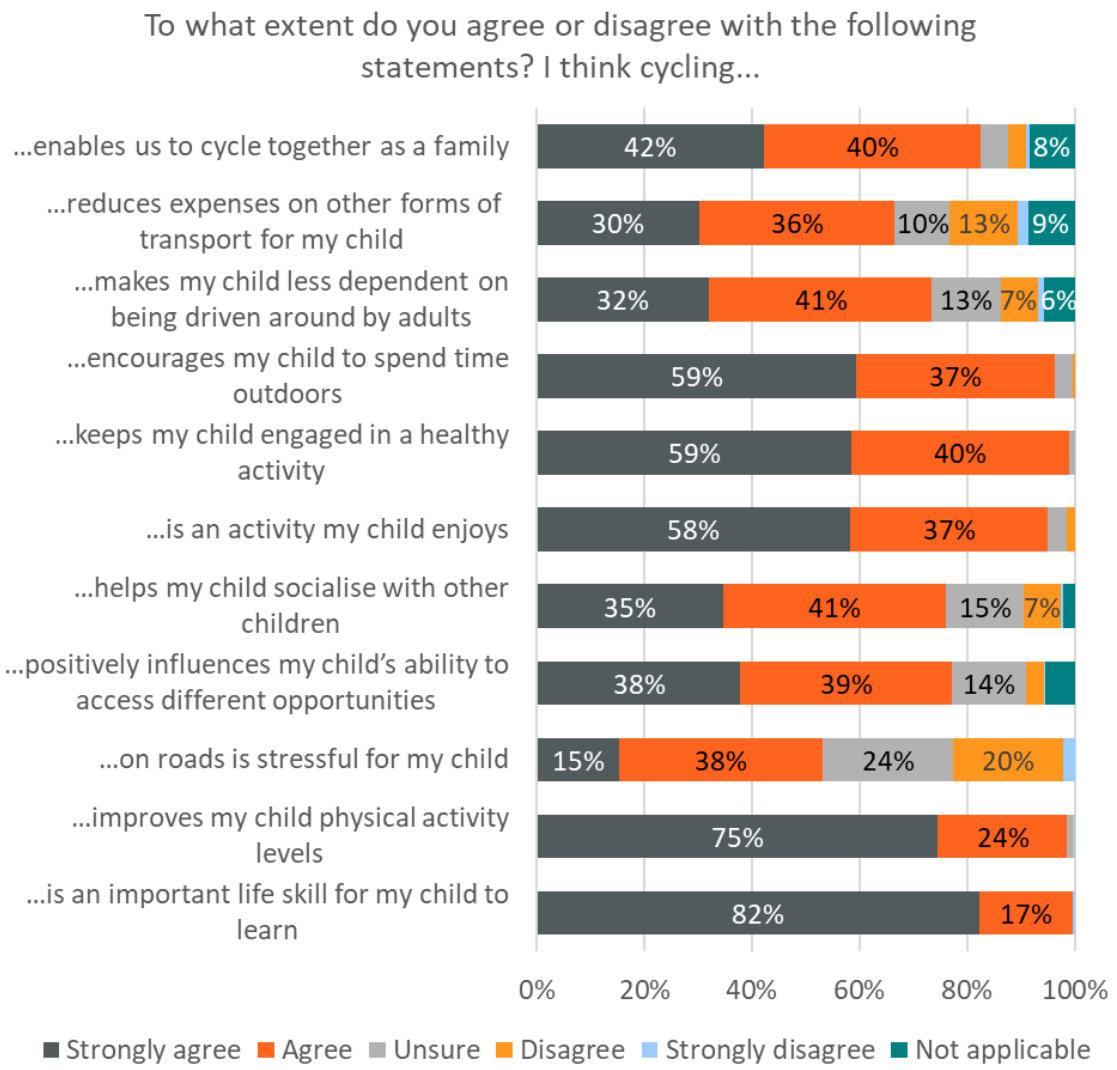

Figure 51: Parent/carer agreement with statements about the benefits of cycling for their child

Figure 52 presents the extent to which parents/carers agreed about the outcomes from Bikeability L2 training on their child's cycling skills and interest. Overall, parents largely agreed that the Bikeability L2 training positively impacted their child's interest and confidence in cycling, and knowledge of road rules and sharing road space. Similarly, there was also agreement by most respondents that their child benefitted from improved road awareness, trip preparation knowledge, and environmental understanding.

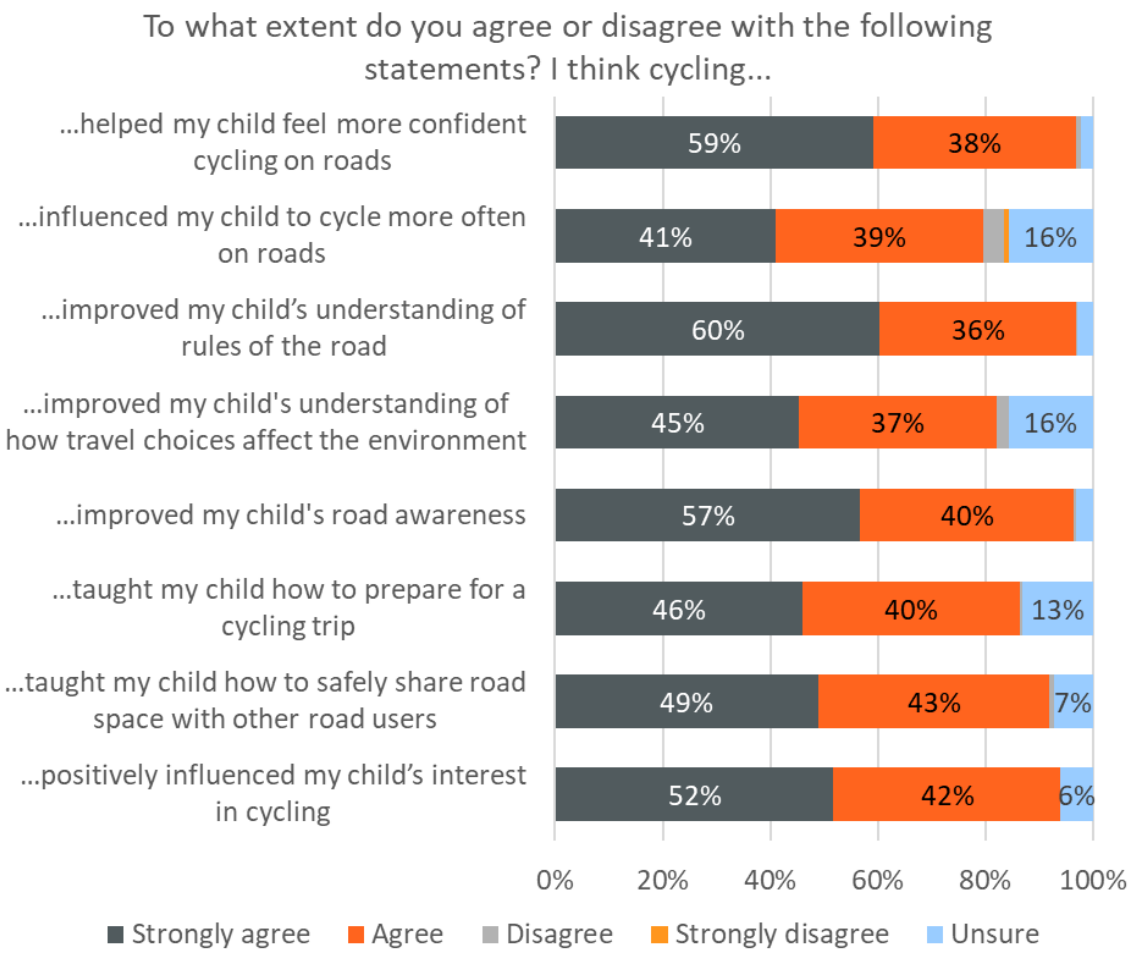

Figure 52: Parent/carer agreement with statements about outcomes from Bikeability L2 training on their child's cycling skills and interest

3.2.3 Parents' cycling behaviour

Figure 53 shows the frequency of cycling of parents/carers. Responses are spread across the scale. 31% of parents/carers reported cycling at least once per week, while 46% cycled less often. 23% reported never cycling.

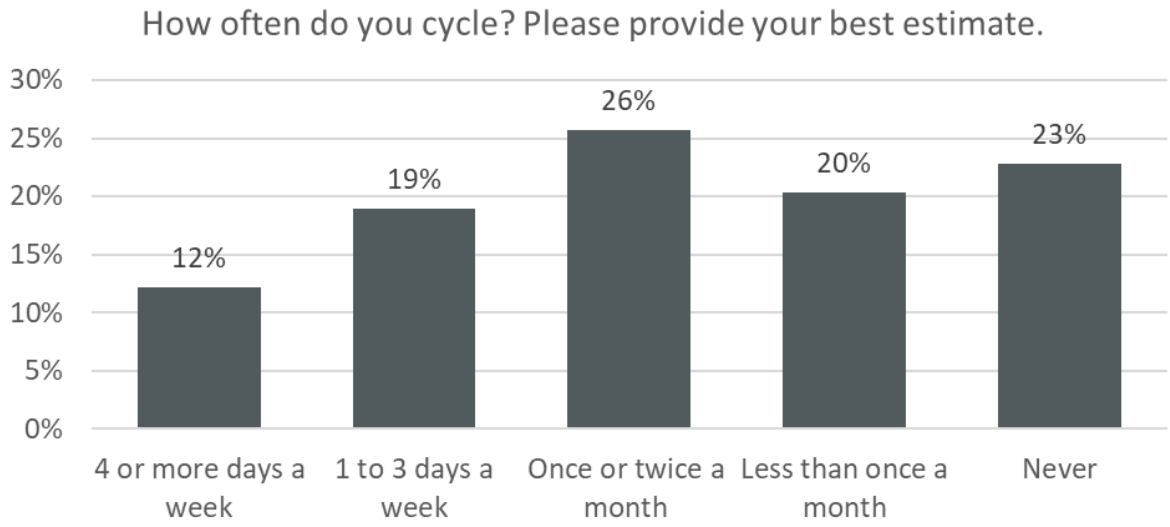

Figure 53: Parents/carers own cycling frequency

Figure 54 compares the cycling frequency of parents/carers and their children. This combines the data from Figure 53 and Figure 46. Parents who reported cycling at least once a week were combined into a "Regular" cyclist category, while those reporting that they cycled "Once or twice a month" or "Less than once a month" were categorised as "Occasional" cyclists. The analysis indicated that parents who regularly cycle were more likely to have children who regularly cycle as well (1-3 days per week or more). 59% of children who cycle "4 or more days a week" had parents who cycle regularly, compared with only 15% of children who cycle "Once or twice a month" or "Less than once a month".

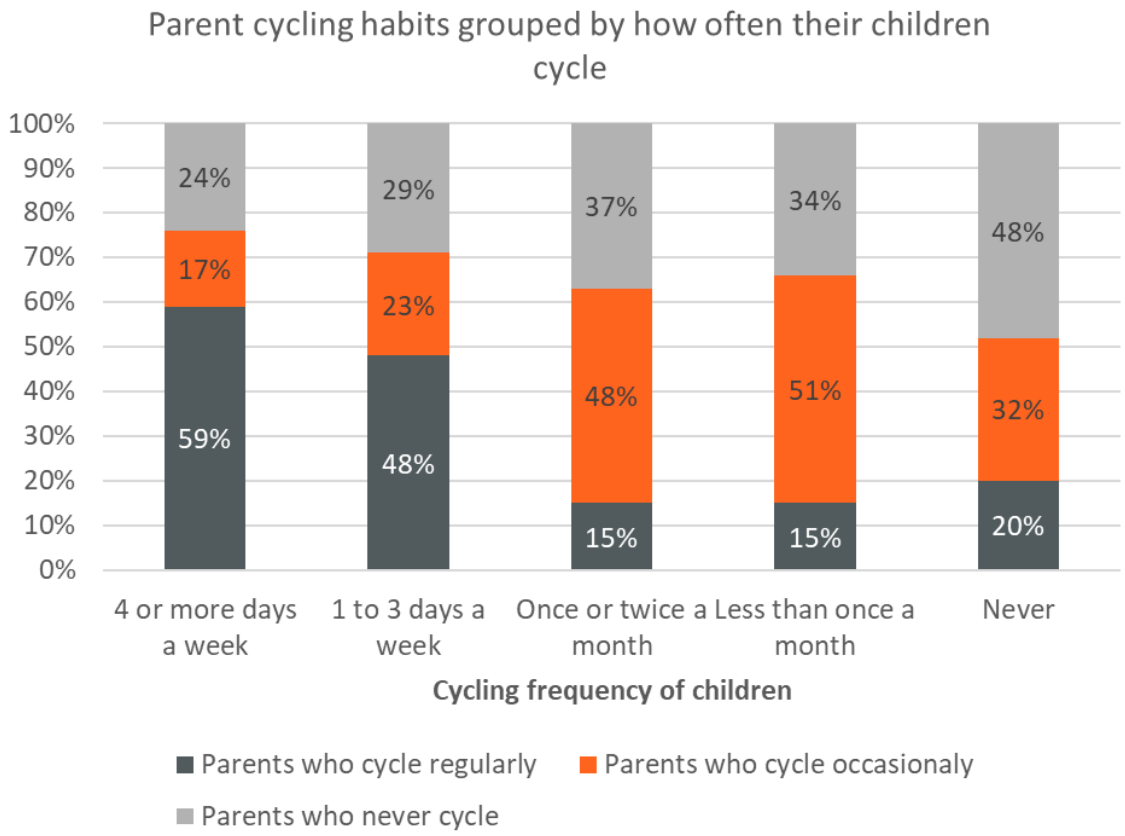

Figure 54: Cycling frequency for parents and their children

Likewise, 48% of children who never cycle also have parents/carers who never cycle. Taken together these results suggest a clear relationship between parents/carer cycling behaviours and the cycling behaviours of their children; though cause-and-effect cannot be established.

Figure 55 shows the proportion of respondents who had cycle training either as a child or an adult. Most (61%) parents/carers reported they had not completed any formal cycle training themselves. Around a quarter (28%) reported having completed Bikeability training as a child, and very few reported completing training as an adult.

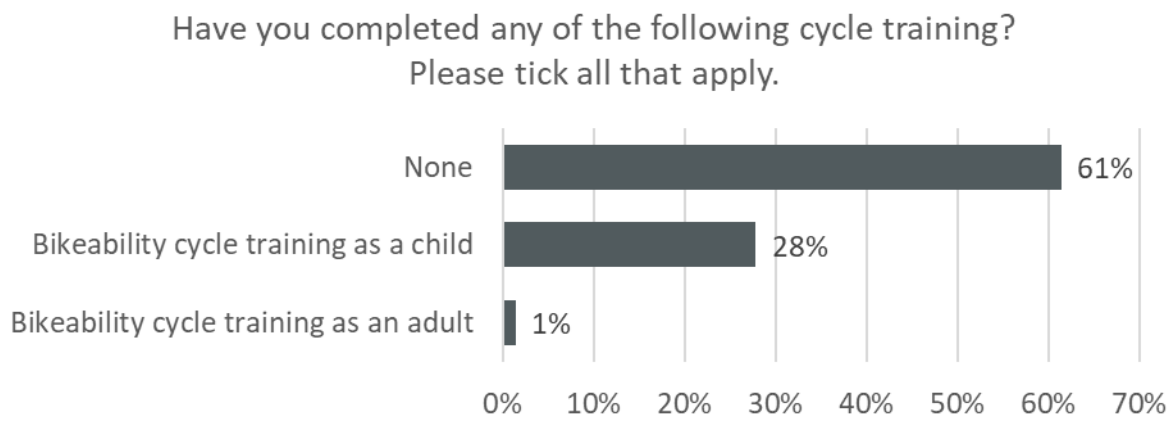

Figure 55: Parents/carers cycle-training history as a child or adult

Parents/carers were asked questions to indicate their knowledge of cycling skills. Figure 56 shows the percentage of correct answers selected on these questions about parents/carers own cycling skills. These questions assessed if the respondent would make the right decision in hypothetical situations on the road. Each bar value represents the percentage of respondents whose scores fell within a specified interval. For instance, the 50-60 bin includes all individuals with scores greater than 50 and less than or equal to 60. Just over a quarter of parents/carers (28%) achieved a good performance on the cycling knowledge questions, defined by a score of 70% or more. This indicates a gap in the understanding of safe cycling practices amongst most parents/carers who took part in Survey 2.

When comparing parents/carers knowledge about safe cycling with that of past learners who took part in Survey 1 (presented in Figure 13), we observe that the past learners, on average, achieved higher scores than the parents/carers of recent learners. The median score for past learners (Survey 1) was 60-70% while for parents/carers (Survey 2), the median score was 50-60%. Additionally, Survey 1 respondents achieved high scores more frequently than Survey 2 respondents. This is inferred from the fact that 3% of Survey 2 respondents achieved 90-100%, compared to 11% of Survey 1 respondents. Only a third of parents/carers in this sample had completed formal cycling training themselves, which may have contributed to the difference in scores observed. Whilst cause-and-effect cannot be established here, the findings show support for the benefits of Bikeability L2 training on promoting safe cycling skills.

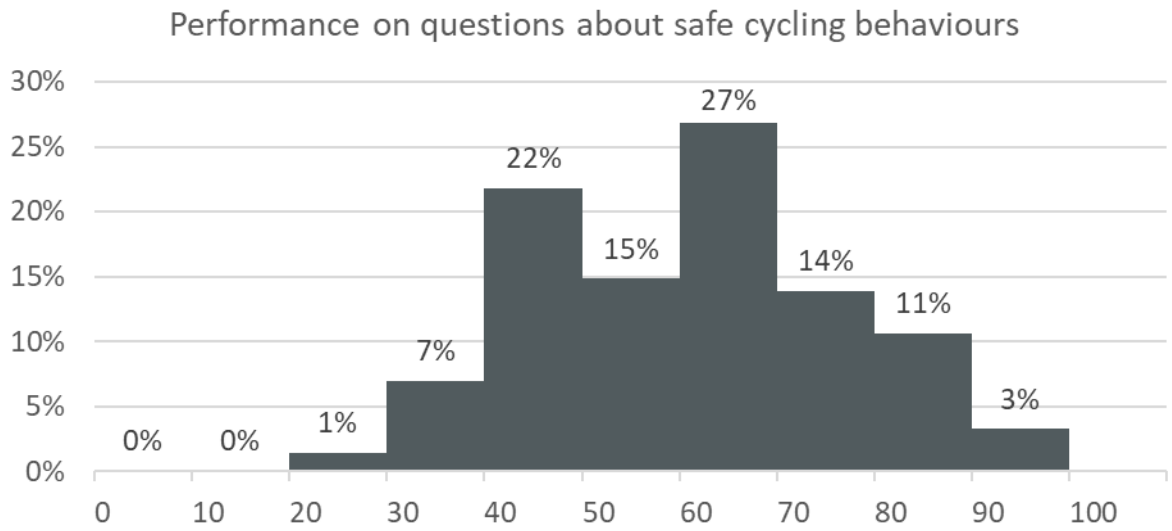

Figure 56: Distribution of scores achieved by parents/carers on the ability to cycle questions

Figure 57 shows how often parents/carers cycled in different contexts – cycling on their own, with their child, or with friends/colleagues. The most common response across different contexts was 'Never' or rarely ("less than a year"). Respondents were asked to provide a reason for their responses. For those who cycled on their own, the most common explanations included not being aware of local events or groups, having limited time due to work or family commitments, not owning a bike or facing bike-related cost issues, lacking confidence in cycling, or findings local routes difficult or unsafe. Similar reasons were provided for not cycling with friends, colleagues, or other family members. Some also noted that their friends or relatives simply do not cycle, reducing opportunities for group rides.

For cycling with their child, reasons provided for less frequent cycling were similar but also included child-related factors. These reasons ranged from having younger children who were unable to cycle yet, differing abilities between their younger and older children. There were also mentions of lack of awareness of suitable family friendly groups.

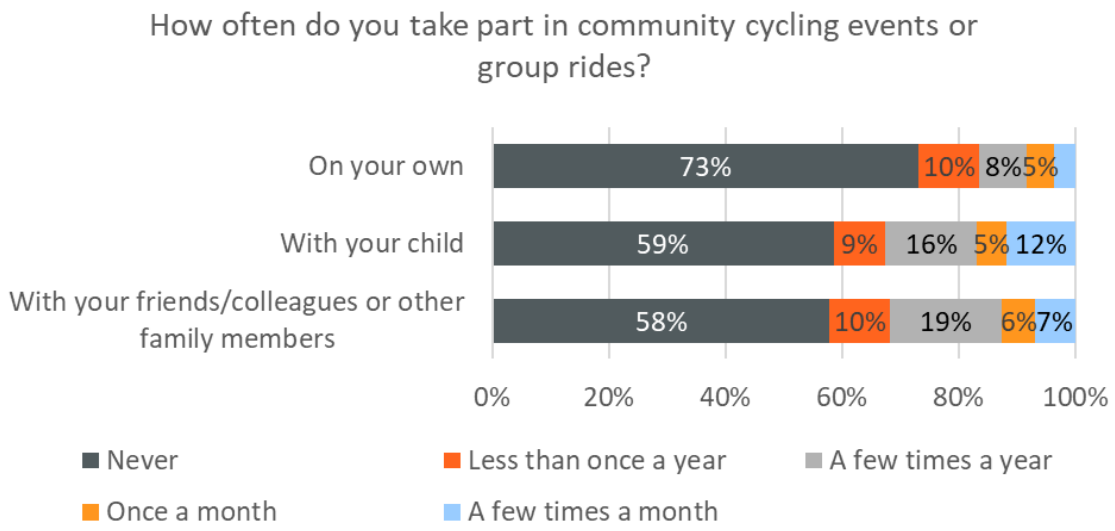

Figure 57: How often parents/carers cycle in different contexts

3.2.4 Parents/carers recollection of school engagement about cycling

Figure 58 presents parents/carers views on the quality of information provided by schools relating to cycling. Generally, parents/carers felt well informed by schools or Bikeability training providers. Communication was most often rated 'well' for the importance safe cycling habits (74%), cycling as a lifelong skill (70%), and health benefits (66%). In contrast, communications about opportunities for community, or school events and how to get involved were less often rated well, with only 42–52% rating these areas as well communicated and relatively higher levels of uncertainty ("unsure"). These findings suggest either less communication or less memorable communication about broader cycling opportunities and engagement, indicating opportunities for schools to signpost activities and pathways more clearly. Alongside the findings presented in Figure 57, stating limited awareness of local events or groups, suggestions or information from schools about cycling activities could increase more uptake of cycling by parents.

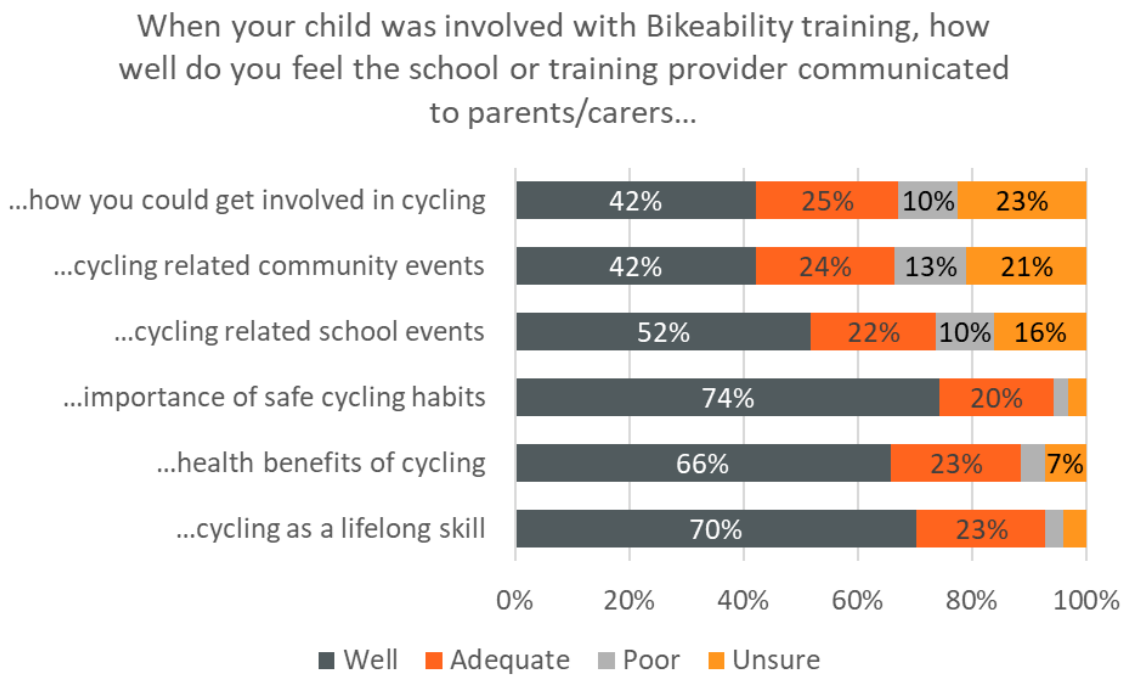

Figure 58: Parent/carer views on the quality of school communication about cycling (topics and depth of information).

When asked about the influence of cycling related communication from school on parent/carer interest in cycling, 39% of parents felt encouraged to cycle, while about half reported no influence (47%) (see Figure 59). No one reported being discouraged, and 14% were unsure.

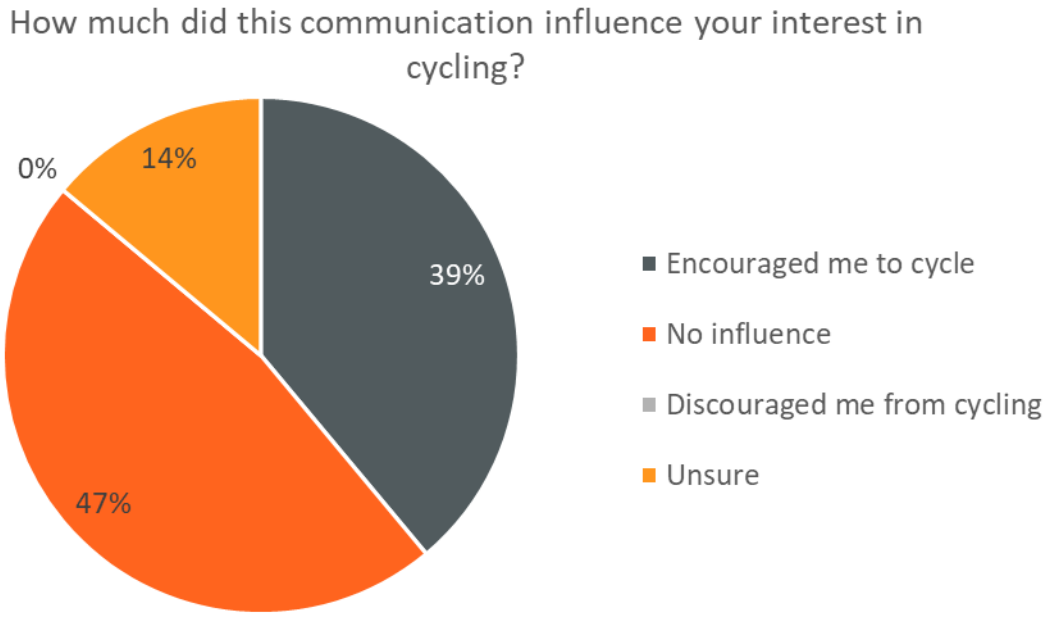

Figure 59: Influence of school communication on parent/carer cycling behaviour

3.2.5 Summary of Survey 2 findings

The parents' survey shows that while most children continue to cycle after completing Bikeability Level 2, they were far more likely to do so off-road than on roads, reflecting ongoing parental concerns about traffic and driver behaviour. Respondents' reasons for cycling were most commonly for exercise/fun, and social/leisure, and less so for travel to school or other routine destinations. Trips typically remained within 1–5 miles, and most parents/carers reported that their child's cycling for social/leisure and exercise/fun had increased since training. Parents strongly believed that cycling benefits their child's health, independence, and confidence, and many felt Bikeability Level 2 has strengthened their child's road awareness, rule-knowledge, and readiness to share space with other road users.

While parents/carers generally recognised the value of cycling and Bikeability training, their own cycling behaviour was limited. Parental knowledge of cycling skills is relatively limited compared to trained learners, with only 28% achieving scores of 70% or more and a lower overall median score. The most common response across different contexts was that parents/carers never or rarely cycle, often citing barriers such as lack of time, confidence, access to bikes, and concerns about local road conditions. This suggests that many parents may lack the confidence or capability to effectively support their child's cycling, despite recognising its benefits.

Parents' own cycling frequency was mixed but generally lower than that of their children. While 31% of parents cycle at least once per week, a larger proportion cycle infrequently (46%) or never (23%). In contrast, over 40% of children cycle at least once per week for purposes such as leisure, exercise, or travel, indicating that children's cycling participation was, in many cases, higher than that of their parents. This suggests that Bikeability training may be enabling children to engage in cycling even where it is not a strongly embedded household behaviour, and that there is a gap in parental interest/support for cycling and their participation in cycling.

Safety concerns persisted as the most significant barriers to regular cycling. Parents/carers consistently cited unsafe driver behaviour, high traffic speeds, and traffic volume as leading obstacles, alongside a perceived lack of safe, dedicated infrastructure. Similarly, parents/carers identified better driver behaviour, more protected or direct cycle routes, and quieter roads as the most impactful enablers of increased cycling. A minority reported their child being involved in collisions or near misses, most commonly involving motor vehicles. Parents/carers themselves tended to cycle infrequently, and most had no formal cycle training, though some reported feeling encouraged to cycle by their child's participation in Bikeability.

Communication from schools about cycling was generally viewed positively, especially on safety and cycling as a life skill, though information on events and ways to get involved was less consistently rated. The influence of school communication on parental behaviour was mixed. While 39% of parents/carers reported feeling encouraged to cycle as a result, 47% reported no influence, and 14% were unsure. Their responses suggest that low awareness of local cycling opportunities and limited social or community engagement further restrict participation.

Overall, the findings indicate that while parents/carers value cycling and training, their own behaviours and safety perceptions can limit children's cycling frequency and independence. Increasing parental confidence, awareness, and engagement appears critical to supporting sustained cycling among younger learners.

3.3 Survey 3: Feedback from teachers/schools

This section reports the findings from Survey 3. A total of 80 responses were submitted. One response was removed from analysis at the respondent's request for their data to be deleted. A total of 79 responses were analysed. Given the low number of respondents, no inferential statistical analysis was conducted. With a sample of this size, such analyses would not produce reliable or generalisable estimates and would risk overstating patterns that may simply reflect sampling variability. Instead, the analysis is focused on descriptive statistics, supported by thematic review of open-text responses. These descriptive patterns help illustrate the types of barriers and enablers teachers encounter when supporting post-training cycling but should not be interpreted as indicative of prevalence or trends across all schools. This approach ensures the findings are presented appropriately, without implying statistical robustness beyond what the sample size can support.

3.3.1 Observed changes in pupils and parents following training

Figure 60 shows teachers' views of pupils' confidence in general after completing Bikeability Level 2. A majority of teachers (75) reported that pupils were either "Much more confident" or "A little more confident" after Bikeability L2 training, with "Much more confident" being the most frequent response. Only one respondent felt confidence had not changed, and a small number (3) selected "Not sure/don't know."

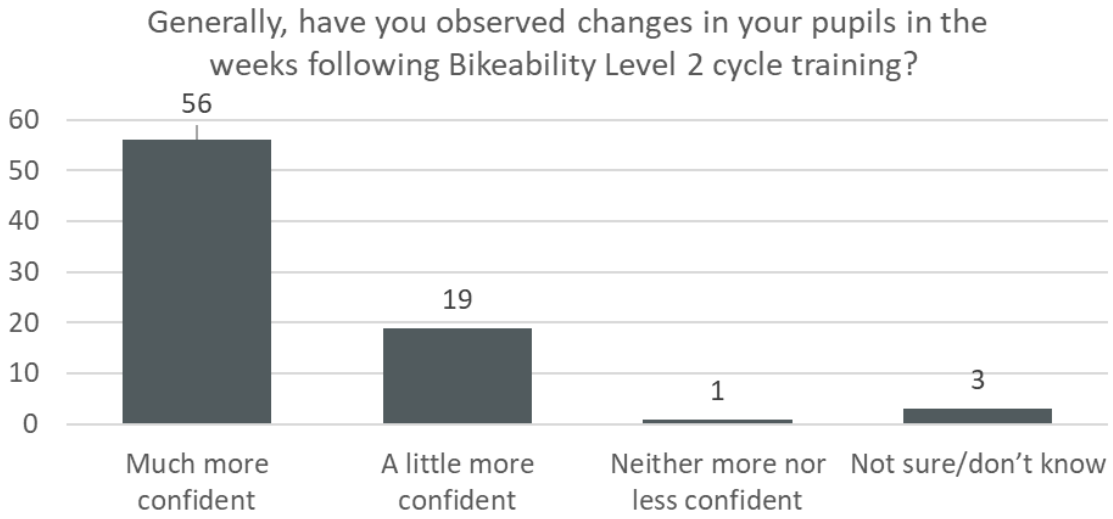

Figure 60: Teachers' views of pupils' confidence after completing Bikeability Level 2

Teachers were asked to describe changes they have observed in pupils in the two week period following Bikeability Level 2 training. Teachers reported a variety of changes

observed. Many respondents described pupils as happier, more enthusiastic, and more positive in the weeks following training. Teachers frequently commented on improved focus, better concentration, and calmer behaviour, with some noting that pupils appeared more regulated after outdoor cycling sessions.

Increase in general confidence emerged as one of the most frequently reported outcomes, in line with the responses in Figure 60. Teachers noted that pupils often experienced a sense of achievement and greater self-assurance, and some reported improved independence in other tasks or behaviours. A number of teachers also observed an increase in cycling to school or active travel following training, although some noted that this was influenced by seasonal conditions such as weather or daylight.

A minority of respondents indicated that they observed no clear change or were unable to comment, often because they did not teach the pupils who had taken part in the training.

Consistent with the open-ended responses described above, most teachers reported increases in both the number of pupils cycling to school and the frequency of pupils cycling (see Figure 61). In contrast, the number of parents or carers cycling with their children was more often reported to have stayed the same, with only a small number of teachers (8) reporting increases. A notable minority (24) selected "Not sure/don't know," particularly regarding parent/carer cycling. Very few respondents indicated decreases across any of the measures, suggesting a tendency for positive impacts of L2 training on cycling behaviours.

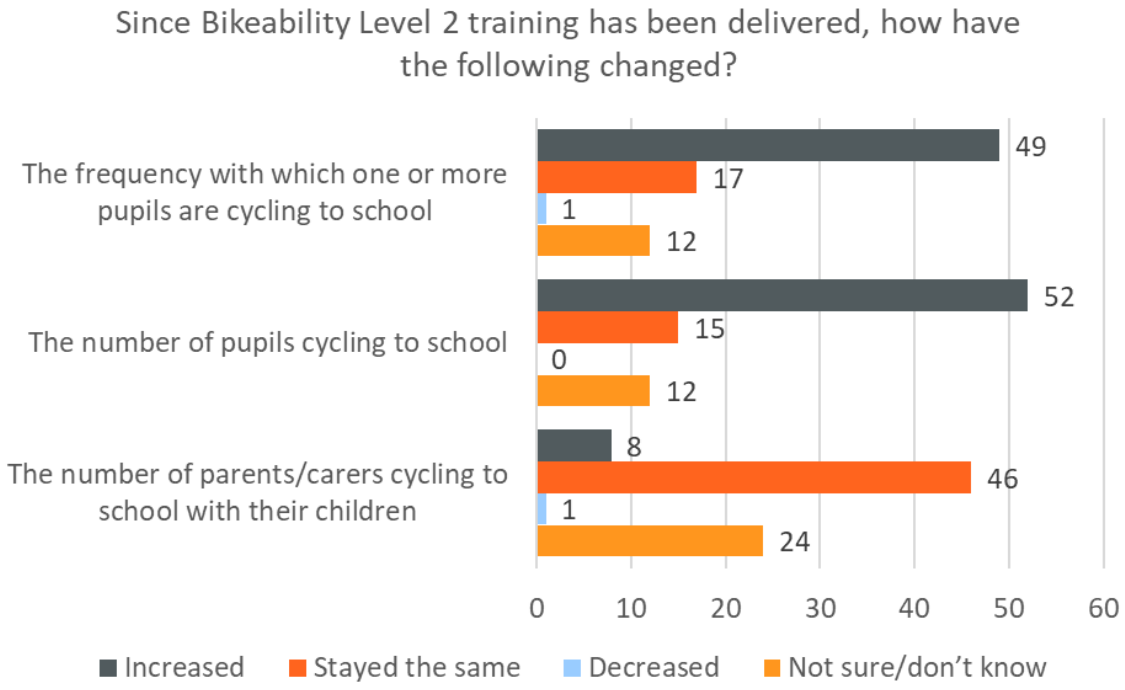

Figure 61: Perceived changes in pupil and parent/carer cycling behaviours following Bikeability Level 2

Figure 62 shows changes in expressions of interest in cycling-related topics from pupils and parents /carers, as observed by teachers. Teachers most commonly reported that

expressions of interest in cycling-related activities and further cycling training for children increased after training. Interest in adult cycling training was largely reported as unchanged or unknown. Concerns or queries about cycling were most often reported as unchanged, with a small proportion reporting some increases or decreases. Across all topics, "Not sure/don't know" responses were relatively common.

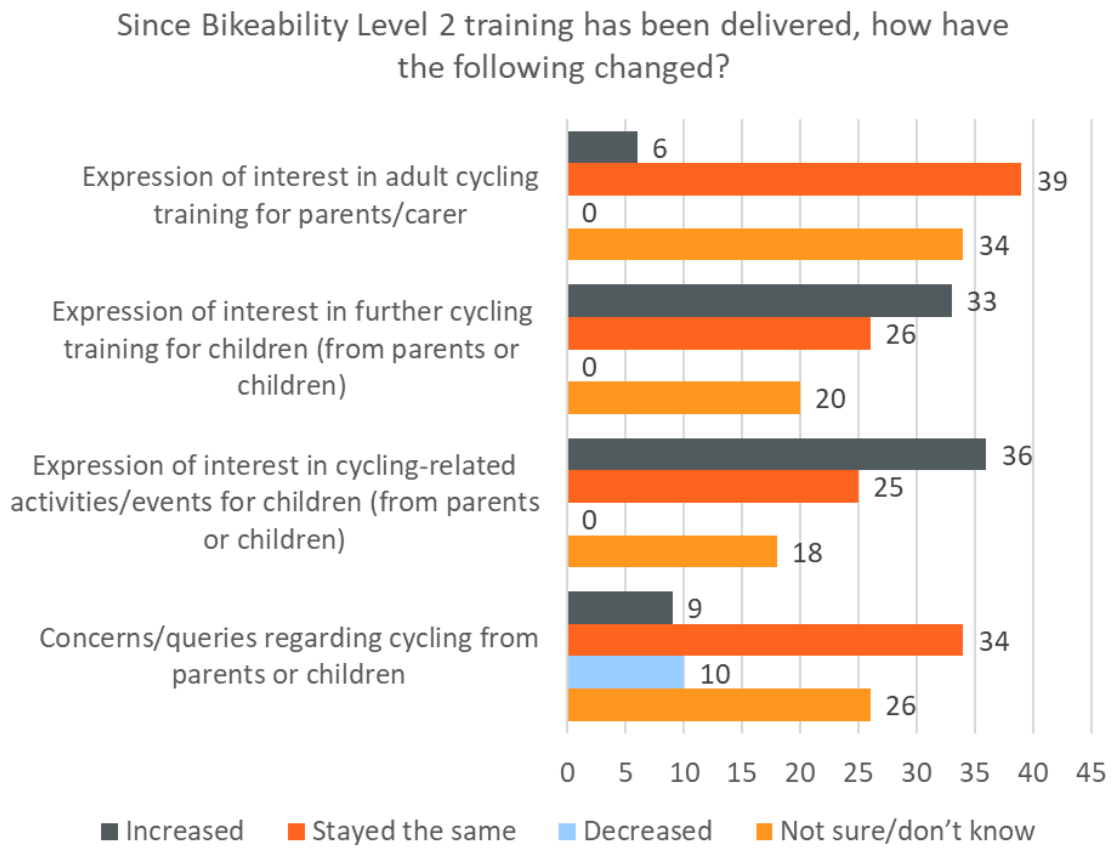

Figure 62: Changes in expressions of interest in cycling-related topics from pupils and parents/carers

3.3.2 Attitudes towards cycling

Teachers were asked to indicate the extent to which they agreed or disagreed with statements relating to Bikeability Level 2 training (Figure 63). The responses indicate that teachers most strongly associated Bikeability with providing pupils an important life skill (84%) and improving road awareness (70%), with high proportions selecting "Strongly agree." Benefits related to encouraging children to go outdoors were also widely endorsed with 53% of teachers strongly agreeing to this statement. In contrast, fewer teachers strongly agreed that the training encourages socialising (23%) or makes cycling feel socially accepted (34%), though these were still positively rated overall. A small proportion selected "Unsure," "Disagree," or "Strongly disagree" across several categories.

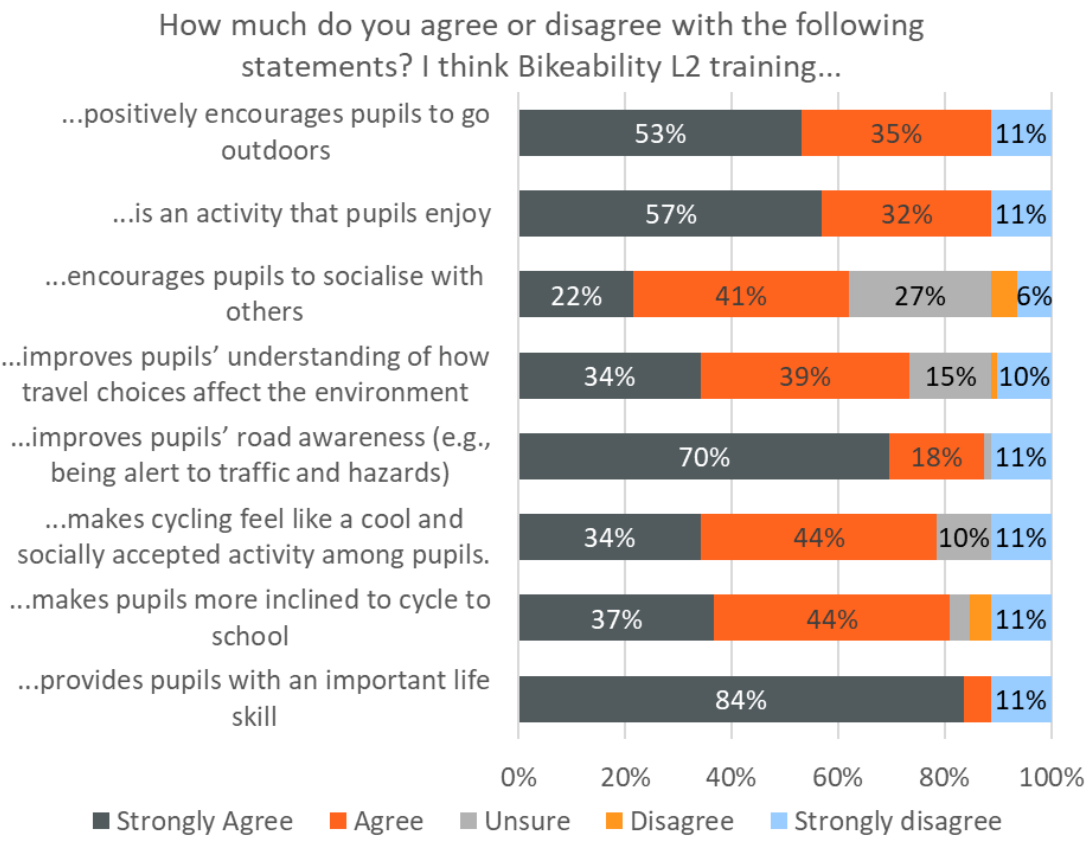

Figure 63: Teachers' views on the benefits of Bikeability Level 2 training

3.3.3 Frequency of school communication regarding cycling

Figure 64 shows the frequency with which schools communicate cycling-related information to parents/carers. "Termly" communication was the most common frequency reported by teachers, followed by "Rarely." Monthly communication was less commonly selected, and weekly communication was very uncommon. Only a small number of teachers (3) indicated their school never communicates cycling information.

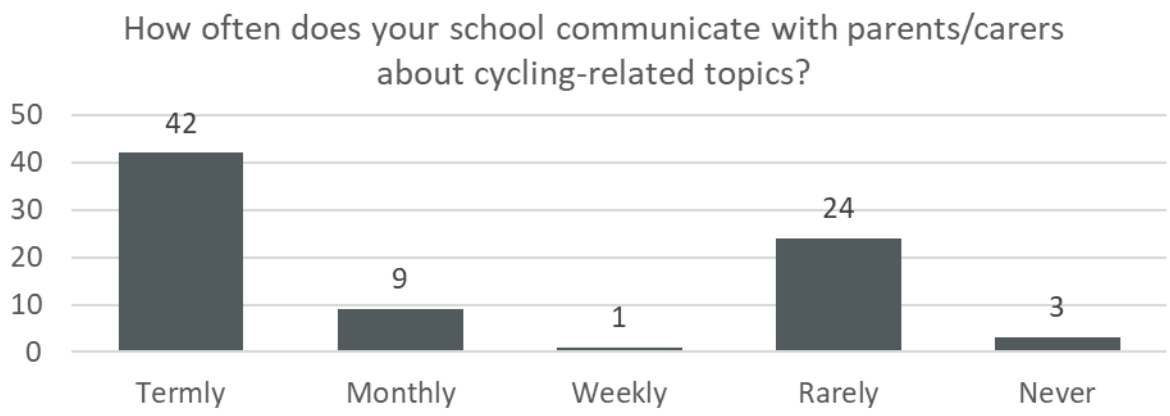

Figure 64: Frequency with which schools communicate cycling-related information to parents/carers

Figure 65 shows the types of cycling-related information schools communicated to parents about. Teachers most frequently selected general road safety guidance, followed by information on the health benefits of cycling and cycling-related school events. Communications about the broader benefits of cycling and safe cycling habits were also widely selected. Responses indicated few schools provide information about cycling as a lifelong skill or community cycling events. Small numbers chose “Other” or “None of the above.

When asked about how the communication with parents/carers about cycling-related topics could be improved, schools identified several areas. Many asked for more frequent or regular updates on cycling-related matters. Schools also suggested improving the use of communication channels such as newsletters, bulletins, Class Dojo (an online app used by schools), posters, websites, and social media for sharing cycling information. Some teachers reported needing more information from external organisations about local events, cycling schemes, and safety guidance in order to share this effectively with families.

A number of teachers highlighted challenges with parent/carer engagement, suggesting that cycling-related communications are not always acted upon or acknowledged. A small proportion of respondents reported that communication in their setting was already sufficient.

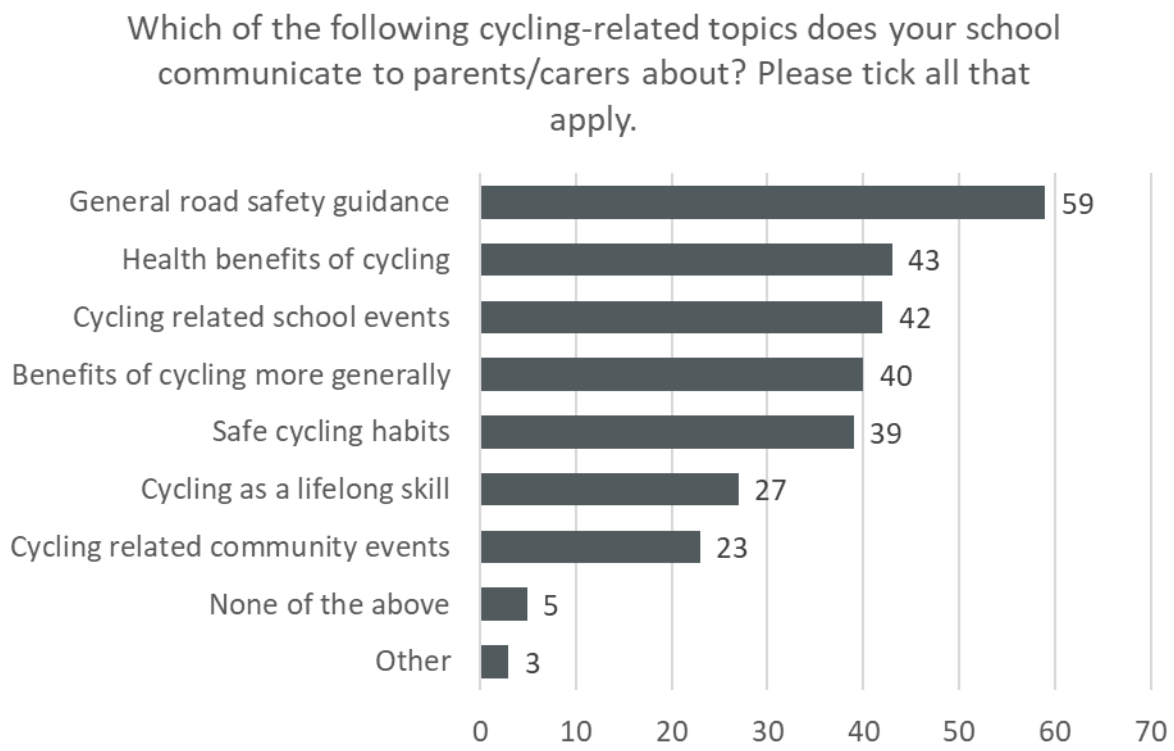

Figure 65: Types of cycling-related information schools communicated to parents/carers about

3.3.4 Supporting cycling in school

Figure 66 shows the types of support schools currently provide to pupils to promote cycling beyond Bikeability Level 2. Teachers most commonly reported providing general road-safety guidance, making it the most widely offered form of support. This was closely followed by information on the health benefits of cycling and various cycling-related school events, which were also frequently selected. Many teachers indicated that they offer information on the broader benefits of cycling and on safe cycling habits, reflecting a focus on equipping pupils with practical knowledge. Support relating to cycling as a lifelong skill and community cycling events was selected less frequently, while only a small number of respondents chose "Other" or "None of the above."

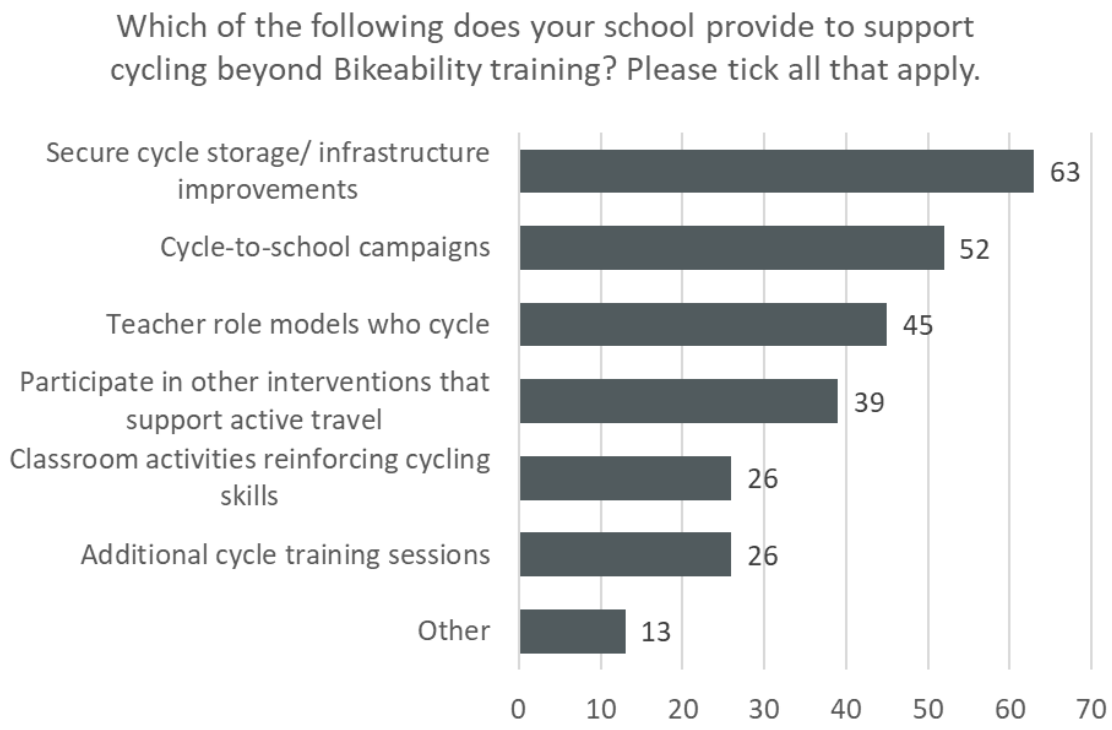

Figure 66: Types of support schools currently provide to pupils to promote cycling beyond Bikeability Level 2

Teachers described a wide range of approaches used to promote cycling beyond formal Bikeability provision. These approaches commonly included participation in cycling related events and campaigns such as Cycle to School Week, the Big Walk and Wheel, Walk to School Week, Bling Your Bike days, bike buses, and other active travel initiatives.

Teachers also reported embedding cycling within the curriculum and wider school day, including PE based cycling, learn to ride sessions, balance bike activities, on site cycling tracks, and opportunities to use bikes during break and lunchtimes. Several teachers noted investment in cycling infrastructure and equipment, including bike racks, shelters, secure storage, and school-owned fleets of bikes and balance bikes. Extra-curricular activities such as cycling clubs, competitions, and learn to ride clubs were also highlighted. Teachers frequently referenced working with external partners, including the Walk Wheel Cycle Trust (formerly Sustrans), local councils, Modeshift Stars, and other community cycling groups.

A number of teachers reported the use of incentives and tracking systems such as WOW, travel trackers, and reward schemes. Others provided bike maintenance opportunities (e.g., Dr Bike) and safety focused activities including helmet use and reflective gear campaigns. A small number mentioned access and equity initiatives such as bike loan schemes or adapted bikes. A minority reported that local road conditions limited their ability to encourage cycling to school.

Figure 67 shows the barriers schools face in promoting cycling beyond Bikeability Level 2. The most frequently cited barriers schools face in the promotion of cycling beyond

Bikeability training included (lack of) cycle ownership among pupils and time constraints within the curriculum. Cost and parent/carer engagement were also reported as significant barriers by many teachers. Other challenges, including the suitability of the local environment, staff engagement, uncertainty about how to support further cycling, and lack of facilities, were mentioned less frequently but still represented notable obstacles for some.

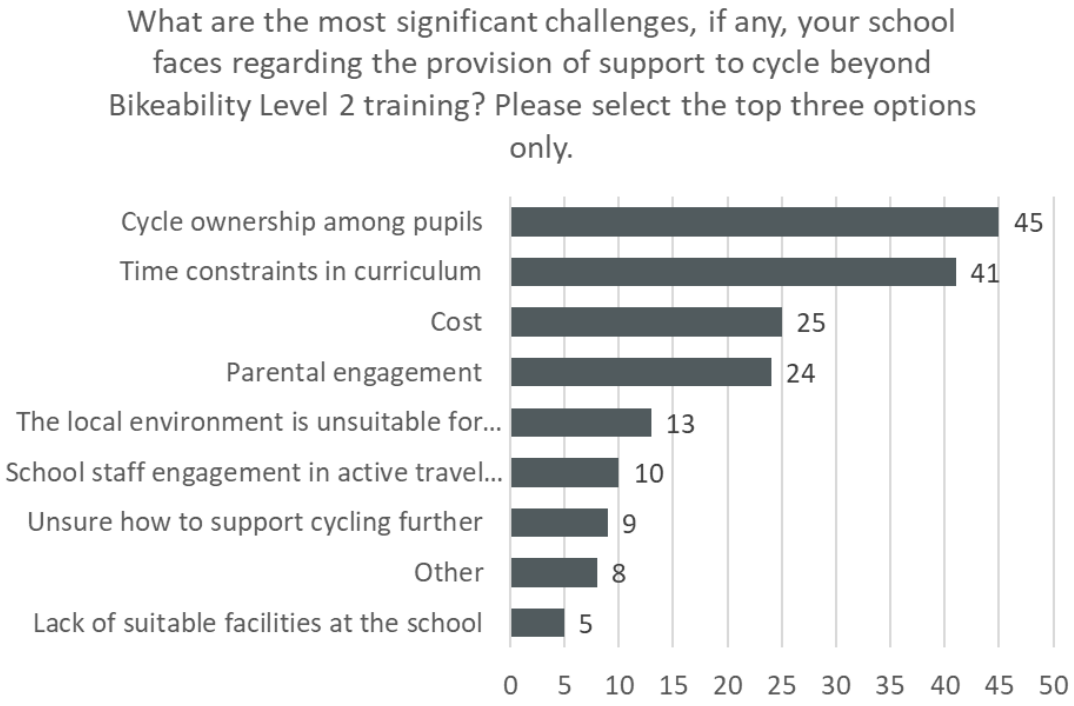

Figure 67: Barriers to promoting cycling beyond Bikeability Level 2

When asked about how the schools could be supported to promote cycling to pupils beyond Bikeability L2 training, the most common request from teachers was for parent/carer focused materials, workshops, or ready-made letters to share with families. Many teachers also expressed interest in after-school sessions, events, off-road activities, or additional opportunities for pupils to continue practising cycling after completing Level 2.

Teachers requested access to resources and promotional materials such as assembly packs, posters, communication templates, and guidance. Several teachers reported wanting clearer signposting to local cycling events, groups, routes, and case studies. Requests relating to access to affordable bikes, loan schemes, or financial support were raised by several respondents, alongside interest in maintenance-related support including Dr Bike and safety equipment provision. Teachers also referenced a desire for follow on opportunities such as Bikeability Level 3 or equivalent progression pathways, as well as support with transition into secondary school. A small number highlighted the potential value of staff training or curriculum linked resources.

3.3.5 Summary of Survey 3 findings

The survey 3 findings indicate that teachers view Bikeability Level 2 very positively, reporting noticeable improvements in pupils' confidence, behaviour and engagement in the short-term period after training. Many teachers observed increased interest in cycling and, where conditions allowed, some increase in pupils cycling to school. Teachers also recognised the broader benefits of cycling as an important life skill and as a contributor to pupils' physical and mental wellbeing.

Despite this, teachers reported that schools face some practical constraints that limit their ability to reinforce cycling beyond the training period. These included limited curriculum time, varying levels of cycle access among pupils, and the influence of parental engagement. Teachers also reported gaps in infrastructure and local cycling conditions, which affect both pupil and parent willingness to support cycling. Cycle ownership, which restricts pupils' ability to practise beyond training, was the most cited barrier. This was closely followed by curriculum time pressures which reduce scope for follow-on cycling activities. Responses to other surveys did not indicate that access or ownership of a cycle was a major barrier, but this could be due to self-selection bias in the survey samples. This finding somewhat resonates with feedback from parents/carers where they rated communication from schools positively, but noted that schools could provide more information about community cycling events. Some teachers noted variable parental engagement, which aligns with parents/carers reported levels of engagement in community cycling activities.

Communication about cycling tended to occur occasionally rather than systematically, and teachers suggested that additional ready-to-use materials and clearer information about local opportunities would strengthen their ability to promote cycling. While teachers indicated that many schools already engage in events or initiatives related to active travel, further support, particularly resources, equipment access and follow-on opportunities would help embed cycling more consistently in school culture.

Overall, teachers were supportive of cycling and positively contribute to cycle-mindedness among their pupils but would benefit from additional tools and favourable local conditions to sustain momentum beyond the formal Bikeability training programme.

4 Discussion

This study implemented a multi-pronged survey with past Bikeability Level 2 learners (aged 16+), parents/carers of recent learners (aged 15 and below), and teachers from schools involved in delivery of Bikeability training to evaluate the longer-term impacts of Bikeability Level 2 training. Key areas of interest included impacts of the training on learners' physical and mental health, retention of road safety skills, perceptions of and participation in cycling, and cycling culture. Taken together, the responses to these surveys provide a rich dataset which provides valuable insights into the impacts of Bikeability training on cycling attitudes and behaviour, and the barriers which affect greater cycling uptake.

While the findings provide strong indications that Bikeability L2 training contributes positively to past learner's confidence and participation in cycling and cycling skills, the degree to which specific outcomes can be directly attributed to the training varies across the research objectives around health, road safety, participation in cycling, and school and active travel. These areas are discussed further in the following sections.

4.1 Health outcomes

The findings show that many past learners engage in regular cycling and report associated physical and mental wellbeing benefits, directly addressing the research objectives relating to physical activity, mental wellbeing, and future mobility.

These outcomes appear to be linked to the extent to which cycling becomes embedded in routine behaviour and not simply reliant on completion of training alone. This aligns with existing literature, which finds that while cycle training improves competence and confidence, its impact on long-term cycling frequency is mixed and context dependent. Studies have shown that training increases readiness to cycle but does not consistently lead to sustained behavioural change without supportive conditions (UCI 2019; Ipsos MORI, 2015; McKay et al., 2020).

The relationship observed between cycling frequency and reported benefits reinforces this interpretation. More frequent cyclists reported stronger outcomes across perceived fitness, stress reduction, and confidence benefits. This is consistent with wider evidence that regular participation contributes to positive perceptions of cycling (Dill and McNeil, 2016; Cabral and Kim, 2020; Bishop et al., 2024).

The findings also reflect established evidence on the importance of intrinsic motivation, particularly enjoyment, in supporting cycling behaviour. Prior research by Bishop et al., (2024) highlights that affective factors, such as the perception of cycling as enjoyable or convenient, are stronger predictors of participation than abstract motivations such as environmental concern. While enjoyment was widely reported among past learners, the findings suggest that it operates alongside, rather than independently of, structural conditions and the built environment of where people can cycle.

The segmentation analysis reinforces these patterns by showing that learners in the "Maintenance" stage, those who cycle most frequently, were also the group most

motivated by health and fitness. This aligns with wider evidence that "automatic motivation" (e.g. enjoyment, stress relief) predicts continued participation more strongly than rational arguments alone.

In practical terms, the findings demonstrate that L2 training contributes to several health-related objectives by enabling participation in cycling, but that ongoing cycling participation is required for the long-term benefits to be realised. This reinforces the importance of viewing training as one component within a broader system supporting active travel. There is an opportunity to frame cycling as a fun activity done for leisure. If opportunities for engaging in fun-filled cycling were to be delivered it group settings, it may help to further normalise the activity and encourage participation in those not currently regularly cycling. Looking at it from a Stages of Change Model, it will effectively support individuals in the Contemplation and Preparation stages to move toward forming lasting habits.

4.2 Road safety

The findings showed strong retention of cycling skills and confidence among past learners, directly addressing the research objective relating to skill retention and competency maintenance. This is consistent with existing evidence that formal cycle training programmes improve key competencies such as hazard perception, signalling, and road positioning (Ipsos MORI, 2015). Parents/carers also commonly reported increased safety awareness following training, reinforcing the role of L2 in building individual capability.

However, the findings also showed that some past learners experienced near misses and some perceived safety concerns even when not involved in any incidents. Additionally, high traffic volume, vehicle speeds, and unpredictable driver behaviour were cited as top concerns by parents/carers, and indicated that addressing these would encourage their child to cycle, and their own willingness to allow their child to cycle independently on roads more. This aligns with the literature, which consistently identifies perceived and actual safety as major barriers to cycling, particularly in environments characterised by high traffic volume, vehicle speeds, and unpredictable driver behaviour (Ipsos MORI, 2015; Dill and McNeil, 2016; Hosford et al., 2020; Fraboni et al., 2021; Pearson et al., 2023; Cycling Scotland, 2023; Martin Lopez et al., 2025).

The findings suggest that training improves awareness of other road users and how individuals respond to risk, rather than eliminating the risk itself. This distinction is important and reflects the Safe System approach, which emphasises that individual-level interventions alone cannot fully address road safety outcomes without corresponding changes in the external environment. Active Travel England's guidance on "critical safety issues" also highlights how street design, traffic speeds and infrastructure quality must work together to protect vulnerable road users, further reinforcing this insight.

Parental attitudes emerged as a critical factor within this context, directly addressing the research objective relating to parents as gatekeepers. The findings showed that parental decisions about children's cycling were strongly influenced by safety perceptions, even where children demonstrate competence. This is consistent with the literature, which highlights that parental concerns about traffic conditions often outweigh recognition of

cycling's benefits when determining children's independence (Bishop et al., 2024; Bishop et al., 2025; The Bikeability Trust, 2025).

Finally, segmentation patterns provided further evidence that safety concerns remain a major barrier for specific groups. Women and some minority ethnic groups were more strongly represented in the early Stages of Change (Contemplation/Preparation), aligning with previous research by Aldred (2026) which suggests these groups perceive higher levels of traffic risk despite having the capability to cycle.

Together, these findings point to a persistent gap between capability and opportunity, where individuals may have the skills to cycle safely but face constraints in applying them. This reflects the COM-B model, in which behaviour depends not only on capability but also on opportunity and motivation (Michie et al., 2011). Therefore, we can consider that Level 2 training positively improves parental readiness, but further intervention should be considered to overcome additional barriers, such as the environmental factors which are external to Bikeability training. To translate training into independent, on-road cycling, measures that address traffic speed, driver behaviour and common conflicts near schools are likely to be essential.

4.3 Participation in cycling and mode shift

The findings show that cycling is used regularly for short, local journeys and across a mix of leisure purposes and to get to places, addressing the research objectives relating to journey patterns, mode shift, and behavioural change.

However, for survey respondents, cycling was most commonly integrated within multi-modal travel patterns, rather than replacing other modes entirely. The segmentation analysis highlighted a distinction between individuals who have established cycling habits and those who expressed positive intentions but do not currently cycle regularly. This reflects a well-documented gap in the literature between intention and behaviour, where positive attitudes towards cycling do not necessarily translate into sustained participation. The literature suggests that this gap is influenced by a combination of factors, including perceived safety, social norms, and environmental constraints (UCI 2019; Ipsos MORI, 2015; McKay et al., 2020). The findings here are consistent with this pattern. It can be implied that while L2 training helps build positive attitudes and readiness to cycle, lasting behaviour change is more difficult to achieve without the right supporting conditions.

Social influences also play an important role. De Souza (2014) and Willis et al. (2015) highlights the importance of social norms and role modelling, with individuals more likely to cycle when it is perceived as 'normal' within their peer group or community. The findings from this study show that training contributes to positive perceptions, and that schools are supportive of organising cycle-to-school initiatives which can help to reinforce the idea of cycling as a socially accepted mode of transport.

The segmentation analysis supports the interpretation that cycling is sustained most readily where it fits into a flexible, multi-modal travel pattern. Individuals classified in the "Highly multimodal, high-frequency traveller" segment were by far the most likely to be in the

Maintenance stage. This is consistent with prior research which showed cycling adoption is strongest where it is socially normalised (De Souza, 2014; Willis et al., 2025) and practically convenient. Conversely, respondents in the car-dominated segment rarely progressed beyond early behaviour-change stages, indicating that improving connections between cycling and everyday destinations may be key for enabling mode shift among infrequent cyclists.

In addition to the opportunity to frame cycling as a fun activity done for leisure (see earlier section), there is also an opportunity to normalise and enable cycling to support essential travel by further supporting school efforts to promote cycling. This is discussed further in the next section.

4.4 Schools and active travel

School-related outcomes were assessed through participation in community cycling events, and through understanding the views and experiences of teachers of schools where Bikeability L2 training is delivered. The findings suggest that outcomes observed in teachers' attitudes towards cycling does not appear to be a hinderance in the uptake of cycling.

Teachers valued L2 training as foundational road-sense education and expressed interest in doing more to support post-training cycling among their pupils. This is a positive finding as schools are in a unique position to facilitate early engagement with cycling through school-related opportunities and normalising cycling and independent travelling. Several barriers to embedding cycling more fully in school culture were cited by teachers, and the support requested by teachers provides clear direction for ways to improve school engagement going forward.

For example, the top cited barrier was about access/ownership of cycles; this can be addressed by providing schools relevant information about bike-loan schemes or other financial support available to the school area to support cycling uptake. Lack of access or ownership of cycles was not found to be a barrier through Survey 1 and 2 responses but this could be due to the self-selection bias and high intertest in cycling already inherent in these samples. Hence, this finding reported by teachers should be given reasonable consideration.

Teachers expressed barriers around having limited time to plan and deliver cycling-related activities, and having a lack of information about community cycling activities. These can be addressed by providing teachers with practical support, including ready-made communication materials, after-school or holiday cycling sessions, and clearer signposting to local cycling events, groups and routes.

Addressing these challenges will not only support schools to more actively support uptake of cycling but also empower parents/carers to get more involved in cycling by addressing their reported challenges about lack of information on ways to support childrens' cycling beyond L2 training.

4.5 Limitations

It is important to acknowledge several limitations that shape the interpretation of these findings. All three surveys relied on voluntary participation, creating a strong likelihood of self-selection bias. Individuals who chose to respond may have been more likely to be people already engaged with and interested in cycling. Conversely, former learners who no longer cycle, those who cycle only infrequently, or those who had neutral or negative experiences of Bikeability Level 2 may have been less likely to participate in the survey due to a lack of interest in the area.

Additionally, the conclusions drawn from the findings are based largely on associations and self-reported perceptions rather than direct measures of behavioural change. The findings indicate relationships between training, attitudes and behaviours, but do not demonstrate causal effects.

As a result, reported levels of cycling frequency, confidence, skill retention, and perceived benefits should be interpreted with some caution and may not be representative of all children or young people who complete Bikeability Level 2. Nevertheless, self-selection bias is unlikely to account for all trends observed in the survey data and as such the findings reported here provide valuable insights into the likely long-term impacts of Level 2 training, particularly among those more likely to be engaged and interested in cycling. These limitations do not undermine the value of the findings but highlight the need for broader monitoring and targeted follow-up research to capture the perspectives of less-engaged groups and ensure a more complete understanding of long-term cycling outcomes.

The study also sought to explore wider outcomes about social connections, future mobility, improved access to places of education and employment, and community mindedness. Evidence in these areas is however more limited. While the data shows that cycling is clearly used for social and leisure purposes, there is insufficient data to draw firm conclusions about its influence on sense of belonging or community integration. Findings relating to confidence, independence, and use of cycling for local journeys suggest a potential contribution to future mobility behaviours; that is, the skills, perceptions, and experiences of cycling in childhood has the potential to influence how much learners cycle to get to places later in life. However, links with improved access to education or employment were not directly found in the responses. Similarly, broader aspects of community mindedness were not explicitly captured in the responses. These areas represent important dimensions of impact but would benefit from more targeted measurement in future research.

4.6 Summary

Overall, this study provides evidence that Bikeability Level 2 has a sustained and positive influence on cycling attitudes and behaviour, contributing to regular cycling participation and reinforcing key road skills that learners retain over time. Many respondents perceived associated health and wellbeing benefits of cycling as well. Parents/carers and schools further reinforce this foundation through generally supportive attitudes. However, the next step in realising the programme's full potential, especially encouraging more confident

on-road riding and supporting broader shifts towards active travel will require targeted efforts to overcome persistent concerns about other road users and cycling infrastructure to provide opportunities to continue cycling beyond the initial training. The implications for policy and future interventions detailed in this section have informed the development of recommendations, outlined in the following section.

5 Recommendations

Drawing on findings from this study and the wider evidence base from existing literature, the following recommendations are proposed.

5.1 Interventions to develop cycling-for-fitness habits

The segmentation analysis identified groups that could be introduced to a targeted behaviour change intervention designed to convert the intention to cycle into routine practice. Using the Stages of Change model, individuals in the *Contemplation* and *Preparation* stages typically expressed a desire to cycle more often, typically motivated by health and fitness benefits, but lacked the confidence, routine, or enabling conditions needed to turn intention into sustained action. These groups would therefore likely be responsive to structured, social, low-pressure opportunities that reinforce early success and gradually normalise cycling as part of everyday life.

To support their progression toward the *Action* and *Maintenance* stages, we suggest group-led rides could be delivered. These rides could be facilitated by experienced cyclists from community or local cycling clubs who take on the role of a ride leader. Group-led rides should:

- Take place on quiet, low-traffic or protected routes, reducing perceived risk and supporting development of confidence.
- Combine practical skills refreshers (e.g., road position, controlled stopping, junction approach) with short, guided rides that mirror everyday 1–5 mile journeys.
- Repeat weekly or fortnightly to strengthen behavioural consistency which is a known predictor of habit formation in Stages of Change transitions.
- Emphasise social modelling, peer encouragement, and shared goal-setting. These factors help contemplators build readiness and preparers move toward sustained action.
    - Social modelling is the concept where people learn by observing others, for example by observing someone who confidently demonstrates safe cycling behaviours.
    - Peer encouragement is when riders motivate each other by celebrating personal and group progress and normalising challenges that inexperienced cyclist may perceive as a big challenge.
    - Shared-goal setting refers to setting collective, realistic targets which helps participants commit to a behaviour, and motivates them to achieve the goal as a group, which in turn drives personal achievement as well.
- Include simple self-reflection prompts (e.g. “What made today easier?”, “What short trip could I try next?”) to support psychological progression through the stages.

Targeted approaches could be used to engage underrepresented groups such as females and ethnic minorities. The study highlighted notable differences in these groups cycling frequency compared to male cyclists and white cyclists. It was observed in a previous study by Gupta et. al., (2023) that used tailored intervention to engage girls and ethnic minorities in cycling training, that conducting group-only sessions delivered by representative ride leaders was effective in gathering interest in those groups.

- To enhance role modelling and foster inclusive participation, some group-led sessions could be delivered by community-based representatives who reflect the diversity of the participants, including women and individuals from under-represented ethnic groups.
- This approach can help build trust, improve relevance and encourage greater uptake among groups who may not currently feel represented within cycling.

These group rides could create a structured, supportive environment in which participants experience early wins, gain confidence, and practise regularly. These are critical elements for successfully moving from intention to habit. This intervention could be targeted at teens or young adults.

Suggested owners: The Bikeability Trust; Training providers; Local authorities

5.2 Prioritise safe, connected links that align with real travel patterns

The findings show that persistent concerns about safety are a major barrier to cycling on roads. Parent/carers especially noted that “high vehicle speeds”, and “high traffic volumes” were their main concerns and that addressing these would encourage their child to cycle more on roads. This not only limits riders’ willingness to cycle on roads, but also parents/carers’ likelihood to encourage their child to cycle on roads more. Experiences with collisions and near misses can exacerbate concerns, and lead riders to avoid busy roads and prefer quieter, protected routes, or reduce their cycling levels entirely.

To enable more consistent on-road cycling, particularly among less-confident groups, and to alleviate persistent parental concerns, local authorities and active travel partners should prioritise creating coherent, accessible links.

- Evidence shows quality, segregated infrastructure both improves perceived safety and encourages participation, particularly for less confident groups.
- Several measures can be implemented to make existing streets safer. This includes the following:
    - Identification and signposting of everyday cycling corridors to schools, workplaces and local shops, rail stations, and parks, focusing on protected space where traffic speeds and volumes require segregation.
    - Implementation of safe school zone hours, where streets include temporary restrictions on motor traffic and speeds around school start/finish times to

provide a calmer and safer street for children and families transiting to and from schools.

- 20 mph compliance: Streets that have achieved 20 mph compliance are perceived to be safer or more comfortable for active travel than nominal 20 mph zones.
- Parking controls near conflict points: Measures such as restricted parking at junction corners, near crossings, or along narrow roads can improve visibility and reduce the need for passing too closely to vehicles.

Suggested owners: Local authorities with ATE design support; schools to promote.

5.3 Reinforce road and driver awareness

In addition to concerns about safety while cycling on roads, described in 5.2, the findings emphasised that the concerns arise from other road user behaviour, particularly from "unsafe driver behaviour". We suggest consideration could be given to:

- Offering Level 2/3 refreshers for teens and adults that cover skills like assertive positioning, hazard anticipation, and riding in wet or dark conditions.
- Running driver campaigns on safe passing and junction conduct near schools. This could involve collaboration with DVLA and Driver training organisations to reinforce safe driving behaviour near cyclists and VRUs.

Suggested owners: The Bikeability Trust; Training providers; local road-safety teams; schools; police.

5.4 Support schools with ready-to-use materials

Survey 3 showed that teachers recognise the value of Level 2 training but face practical barriers such as limited curriculum time and uneven cycle access among pupils. To support schools in sustaining cycling beyond formal training, provision of the following types of information would help reduce staff workload to embed cycling in the schools' culture and regular communications:

- Provision of ready-to-use resources including assembly packs, newsletters, communication templates, and event kits that reduce staff workload and embed cycling within the school's regular communication rhythm.
- Information about or support to deliver after-school or holiday cycling sessions.
- Signpost to local routes, local quiet routes, and information on bike-loan and basic maintenance schemes.
- Information about bike-loan schemes or other financial support available to the school area to support cycling uptake.

These measures reinforce encourage practice and help schools cultivate a more supportive and visible cycling culture.

Suggested owners: The Bikeability Trust, training providers; local councils; schools.

5.5 Equip parents/carers as gatekeepers

Parents/carers play a decisive gatekeeping role in whether children are permitted to cycle on roads, and many express concerns about traffic, driver behaviour, and lack of safe space. Parents/carers who responded to Survey 2 indicated they were more likely to cycle in social/group cycling events. To alleviate parent/carer concerns and improve their confidence in cycling, we suggest considering:

- Encouraging family-led rides as part of a ceremony or celebration for graduates of Bikeability Level 2 training.
- Empowering schools, local councils, or local training providers to hold regular family/group-led cycling events.
- This could be introduced through group-led rides, as described in Section 5.1.

Most parents in the study lacked formal training and reported that they cycled infrequently. By providing parents more opportunities to get involved in cycling with their children, their concerns around safety on roads may be alleviated. Improved experience and cycling confidence in parents/carers may also help to consolidate and improve knowledge and skills in children.

Suggested owners: The Bikeability Trust, training providers; local councils; schools.

Together, these recommendations aim to address some of the key behavioural, practical, and infrastructural barriers identified in this study, closing the gap between initial training and sustained, confident cycling. By supporting learners, families, and schools with the right mix of skills, infrastructure, and opportunities, they seek to create the conditions in which cycling can become a safe, accessible, and habitual part of everyday life.

5.6 Further research and evaluation

While this study provides valuable insights into sustained cycling behaviour, confidence, and perceived benefits, the findings are based on self-selected participants and do not include a direct comparison with individuals who have not undertaken training. For this study, a longitudinal before-and-after design or inclusion of a comparison group was outside the scope and could not be accommodated within the available time and resources. Future evaluation should prioritise the development of longitudinal study designs, tracking participants over time to assess how cycling behaviour, confidence, and safety outcomes evolve. This should include the collection of baseline data prior to training, followed by repeat measurement at defined intervals. In addition, where feasible, research should incorporate a comparison group of non-participants of Bikeability training, enabling a clearer assessment of the extent to which observed outcomes can be attributed to Bikeability Level 2 training rather than external factors. This would strengthen causal inference and provide a more robust understanding of programme effectiveness. Future research could also directly explore gaps in this study relating to wider outcomes about

social connections, future mobility, improves access to places of education and employment, and community mindedness.

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Appendix A Notes on analysis

A.1 Literature review approach

A focused literature review was conducted to identify key factors which influence cycling participation. The review adopted a pragmatic and iterative approach.

The reports listed by The Bikeability Trust and those available on their website created a foundation of sources. Additionally, searches were carried out using a set of targeted keywords (e.g., cycle training, impacts of cycle training, impacts of Bikeability training, factors affecting cycling propensity, factors influencing cycling, parental and school role in cycling uptake, benefits of cycling, benefits of cycling training), which generated a core set of relevant sources.

For literature relevant to segmentation analysis, searches were carried out using an additional set of targeted keywords (e.g., clustering cycling behaviour, segmentation in cycling, type of cyclists), which were added to the core set of relevant sources.

From this base, a snowballing method was used to expand the evidence base by reviewing reference lists and related studies identified through academic databases and grey-literature reports. This approach allowed the review to focus on the most pertinent and recent evidence while remaining flexible enough to incorporate influential or frequently cited works that emerged during the search process.

A.2 Sampling approach for Survey 1 and limitations

The recruitment partner was provided the following criteria to recruit for the Survey 1:

- Target 1,000 respondents who:
    - Are aged 16 - 35 years old
    - Completed Bikeability L2 training between the years 2007 and 2024
    - Completed Bikeability L2 training in England
    - Currently live in the UK
    - Aim for diverse representation across age and gender but no strict quotas

Below are the questions used to filter participants. Eligible respondents were directed to Survey 1.

1. Have you ever completed Bikeability Level 2 cycle training?
    - Yes
    - No [not eligible]
    - Not sure [not eligible]

2. When did you complete Bikeability Level 2 training?
    - Less than 1 year ago
    - 1–2 years ago
    - 3–4 years ago
    - 5–10 years ago
    - 10-20 years ago
    - More than 20 years ago [not eligible]
    - Don’t remember [not eligible]

3. How old are you now?
    - 16–20
    - 21–24
    - 25–34
    - 35–44
    - 45–54
    - 55–64
    - 65+
    - (Exclude anyone under 16 and over 35)

4. Do you currently live in the UK?
    - Yes
    - No [not eligible]

The sample is likely affected by self-selection bias to some degree because participation was voluntary. Respondents may have been more likely to be engaged with or interested in cycling, while former learners who cycle infrequently, no longer cycle, or had neutral or negative experiences of Bikeability Level 2 may have been less inclined to take part.

Appendix B Survey 1: Long term impact of past pupils

Impacts of Bikeability Level 2 training

1. **Please enter your ID number provided to you in the confirmation email**.

2. **How well do you remember your Bikeability Level 2 training?**
   - ☐ Very well
   - ☐ Quite well
   - ☐ Somewhat
   - ☐ Not very well
   - ☐ Not at all

Please answer the following questions thinking about times when you cycle.

3. **3. When would you ride in the middle of your lane of travel? Please select all that apply.**
   - ☐ When I don't want drivers and cyclists behind to overtake me
   - ☐ At junctions
   - ☐ Where my lane narrows
   - ☐ All the time
   - ☐ Never
   - ☐ I don't know

4. **You are approaching a junction. How do you let other people know your intended direction of travel? Please select all that apply.**
   - ☐ I extend my arm to signal the intended direction of travel even if no one is around to see it
   - ☐ I extend my arm to signal the intended direction – but only if there are other road users nearby
   - ☐ I signal before I reach the junction
   - ☐ I signal whilst turning at the junction
   - ☐ I don't know

5. **You want to turn LEFT (<-) out of a side road onto a main road. Which of these is correct?**
   - ☐ I must wait for drivers and cyclists on the main road before I move out
   - ☐ Drivers and cyclists on the main road must wait for me to move out
   - ☐ I don't know

6. **When should you carry out a check over your right (->) shoulder? Please select all that apply.**
   - ☐ When changing position on the road

- ☐ When I am about to signal
- ☐ Just before turning right
- ☐ Frequently, to understand who is behind me
- ☐ I don't know

Cycling context and behaviour

7. How often do you use the following modes of transport to get somewhere? Please tick one response per row.

If you use more than one mode for a journey (for example, cycling to a train station and then taking the train), please answer based on how often you use each mode overall. For example, if you travel by cycle and train 4 or more days a week, then tick '4 or more days a week' for both 'cycle' and 'public transport' options.

Tick the option that best reflects your typical frequency for each mode.

**Wheeling is an equivalent alternative to foot/pedestrian-based mobility. It includes using mobility aids such as wheelchairs and mobility scooters.*

	4 or more days a week	1 to 3 days a week	Once or twice a month	Less than once a month	Never
Car or van	☐	☐	☐	☐	☐
Public transport (bus, train, tram, Tube)	☐	☐	☐	☐	☐
Taxi/Uber	☐	☐	☐	☐	☐
Cycle/electric cycle	☐	☐	☐	☐	☐
Walking/wheeling*	☐	☐	☐	☐	☐
Other (please specify)	☐	☐	☐	☐	☐

Please specify 'other' modes of transport used:

8. Which transport modes do you typically use for the following types of journeys? Please tick all that apply. You can tick multiple boxes per row.

**Wheeling is an equivalent alternative to foot/pedestrian-based mobility. It includes using mobility aids such as wheelchairs and mobility scooters.*

	Car or van	Public transport (bus, train, tram,	Taxi/Uber	Cycle/electric cycle	Walking/wheeling*	Other (please specify)	I do not make this type of
To go to/from work, school, college or university	☐	☐	☐	☐	☐	☐	☐
To transport others (e.g. to work or school)	☐	☐	☐	☐	☐	☐	☐
To go somewhere for personal business (e.g. shopping or healthcare appointment)	☐	☐	☐	☐	☐	☐	☐
To visit friends or family (e.g. someone's house)	☐	☐	☐	☐	☐	☐	☐
To go somewhere for leisure/social reasons (e.g. to the cinema, to play sport, or to visit a restaurant)	☐	☐	☐	☐	☐	☐	☐

Please specify 'other' modes of transport used

9. How much do you agree or disagree with the following statements:

	Strongly agree	Agree	Unsure	Disagree	Strongly disagree
For some journeys, cycling is more convenient than driving	☐	☐	☐	☐	☐
For some journeys, cycling is cheaper than driving	☐	☐	☐	☐	☐
Poor weather puts me off cycling	☐	☐	☐	☐	☐
I would cycle on roads if it was safer	☐	☐	☐	☐	☐
The distance of some journeys puts me off cycling	☐	☐	☐	☐	☐
The time taken to cycle some journeys puts me off cycling	☐	☐	☐	☐	☐

	Strongly agree	Agree	Unsure	Disagree	Strongly disagree
I would cycle more on roads if there were separated cycle lanes	☐	☐	☐	☐	☐
I am fit enough to cycle distances of up to five miles	☐	☐	☐	☐	☐
I would cycle more if it wasn't so tiring	☐	☐	☐	☐	☐
I would cycle more if there were shower and/or changing facilities at my destination(s)	☐	☐	☐	☐	☐
I would cycle more if I could store my cycle safely at my destination(s)	☐	☐	☐	☐	☐
I often need to carry/transport too many things to cycle	☐	☐	☐	☐	☐
I would cycle more if my friends and family cycled	☐	☐	☐	☐	☐
Public transport is as reliable as cycling for journeys up to five miles	☐	☐	☐	☐	☐
I can afford to own and maintain a cycle and other cycling items (e.g., helmet)	☐	☐	☐	☐	☐
I can do minor repairs on my cycle, such as repairing a puncture or adjusting the brakes	☐	☐	☐	☐	☐
I do not own a cycle but can easily hire, rent, or borrow one if I needed	☐	☐	☐	☐	☐
I know how to cycle safely and competently on busy roads	☐	☐	☐	☐	☐
I cycle because of the environmental benefits	☐	☐	☐	☐	☐
I cycle because it is good for my mental health	☐	☐	☐	☐	☐
I cycle to keep physically fit and active	☐	☐	☐	☐	☐

10. Thinking about your cycling journeys, if you did not cycle, which mode(s) would you be most likely to use for these journeys? Please tick all that apply.

**Wheeling is an equivalent alternative to foot/pedestrian-based mobility. It includes using mobility aids such as wheelchairs and mobility scooters.Wheeling is an equivalent alternative to foot/pedestrian-based mobility. It includes using mobility aids such as wheelchairs and mobility scooters.*

- ☐ Car or van
- ☐ Bus or coach
- ☐ Train
- ☐ Tram/tube
- ☐ Taxi/Uber
- ☐ Walk/wheel*
- ☐ Other (please specify):

11. When you cycle, what is the typical distance of your journeys?

- ☐ Less than 1 mile
- ☐ 1–2 miles
- ☐ 3–5 miles
- ☐ 6–10 miles
- ☐ More than 10 miles
- ☐ I do not cycle

12. How many minutes do you tend to cycle in a typical week?

13. How much do you agree or disagree with the following statements?

	Strongly agree	Agree	Unsure	Disagree	Strongly disagree	Not applicable
I like to cycle for pleasure	☐	☐	☐	☐	☐	☐
I have been cycling regularly over the past year	☐	☐	☐	☐	☐	☐
I would like to cycle for health and fitness more than I do currently	☐	☐	☐	☐	☐	☐

	Strongly agree	Agree	Unsure	Disagree	Strongly disagree	Not applicable
I have all the things I need (e.g., cycle, helmet), to help me cycle more often	☐	☐	☐	☐	☐	☐
I like to cycle to get to places (e.g., shops)	☐	☐	☐	☐	☐	☐
I would like to cycle for pleasure more than I do currently	☐	☐	☐	☐	☐	☐
I plan to cycle more than I do currently	☐	☐	☐	☐	☐	☐
I would like to cycle to get to places more than I do currently	☐	☐	☐	☐	☐	☐
I am cycling more than I used to	☐	☐	☐	☐	☐	☐
I don't want to cycle for health and fitness	☐	☐	☐	☐	☐	☐

14. How likely are you to increase the amount of cycling you do over the next year?

- ☐ Very likely
- ☐ Likely
- ☐ Unsure
- ☐ Unlikely
- ☐ Very unlikely

Please provide a reason for your answer above:

Physical activity, mental health, social connectedness, employment opportunities

15. To what extent do you agree or disagree with the following statements?

Cycling...

	Strongly agree	Agree	Unsure	Disagree	Strongly disagree	Not applicable
…helps me manage my stress levels.	☐	☐	☐	☐	☐	☐
… makes me feel more confident in my daily life.	☐	☐	☐	☐	☐	☐
…makes me feel part of a community.	☐	☐	☐	☐	☐	☐
…encourages me to spend time outdoors.	☐	☐	☐	☐	☐	☐
…creates opportunities for me to socialise.	☐	☐	☐	☐	☐	☐
…has improved my fitness level.	☐	☐	☐	☐	☐	☐
…helps me stay connected with family/friends.	☐	☐	☐	☐	☐	☐
…has positively influenced my ability to access work or job opportunities.	☐	☐	☐	☐	☐	☐
…makes travelling to work or school/college easier.	☐	☐	☐	☐	☐	☐
…on roads is an enjoyable experience	☐	☐	☐	☐	☐	☐
…on roads is stressful	☐	☐	☐	☐	☐	☐
…reduces my overall expenses on transport.	☐	☐	☐	☐	☐	☐

Attitudes towards cycling and active travel

16. To what extent do you agree or disagree with the following statements?

Bikeability Level 2 training has…

	Strongly agree	Agree	Neither agree nor disagree	Disagree	Strongly disagree
…helped me to cycle on roads more often	☐	☐	☐	☐	☐
…helped me to cycle on roads more confidently	☐	☐	☐	☐	☐
…helped me to cycle to get somewhere more often (e.g., shops, friends' houses)	☐	☐	☐	☐	☐
…influenced my current cycling habits	☐	☐	☐	☐	☐
…encouraged me to cycle more which helped to increase my level of physical activity	☐	☐	☐	☐	☐
…encouraged me to cycle more which helped to improve/maintain my mental health	☐	☐	☐	☐	☐
…encouraged me to cycle to see friends and family more often	☐	☐	☐	☐	☐
…encouraged me to cycle to work more often	☐	☐	☐	☐	☐
…increased my parents'/carers' confidence in my ability to cycle on roads	☐	☐	☐	☐	☐
…improved my road awareness (e.g., being alert to traffic and hazards)	☐	☐	☐	☐	☐
…improved my understanding of how my travel choices affect the environment	☐	☐	☐	☐	☐

Road safety

17. In the past 12 months, have you experienced any of the following while cycling?

	Yes	No	Not sure
A near miss while cycling	☐	☐	☐
A collision while cycling	☐	☐	☐

18. If yes, what type of incident was it? If you have had more than one incident, please respond in relation to the most recent.

- ☐ Near miss with a motor vehicle
- ☐ Near miss with another cyclist
- ☐ Near miss with another micromobility road user (i.e., scooter, skateboard, etc.)
- ☐ Near miss with a pedestrian
- ☐ Collision with a motor vehicle
- ☐ Collision with another cyclist
- ☐ Collision with another micromobility road user (i.e., scooter, skateboard, etc.)
- ☐ Collision with a pedestrian

If you experienced a near miss or collision, please let us know how it affected your confidence or frequency of cycling, or the types of road(s) you choose to cycle on etc.

Views on family and community engagement

19. How much were you encouraged or discouraged to cycle by your parents/carers?

- ☐ Strongly encouraged
- ☐ Encouraged
- ☐ Neutral
- ☐ Discouraged
- ☐ Strongly discouraged
- ☐ Not sure/don't remember

20. How knowledgeable were your parents/carers about safe cycling practices?

- ☐ Very knowledgeable
- ☐ Somewhat knowledgeable
- ☐ Not at all knowledgeable
- ☐ Not sure/don't remember

21. How much did your parents/carers restrict where or when you could cycle?

- [ ] Very restricted – I felt strongly limited in where or when I could cycle.
- [ ] Somewhat restricted – I had some limitations on cycling where or when I could cycle.
- [ ] Neutral – I felt neither restricted nor unrestricted
- [ ] Somewhat free – I generally had some freedom to cycle where or when I wanted.
- [ ] Very free – I did not have any restrictions on where or when I could cycle.
- [ ] Not sure/don't remember
- [ ] Not applicable

Please elaborate on your answer above

22. What types of cycling training have you completed since Bikeability Level 2 training?

- [ ] Bikeability Level 3
- [ ] Adult cycle training
- [ ] Family cycle training
- [ ] None
- [ ] Other (please specify):

23. Have you taught or helped other people to learn to cycle?

- [ ] Yes
- [ ] No

If yes, please elaborate on your answer above (e.g., who did you teach, in what context)

Demographics

24. How old are you?

25. What is your gender?

- [ ] Male
- [ ] Female
- [ ] Non-binary

- [ ] Prefer not to say
- [ ] Prefer to self-describe:

26. Do you experience any long-term condition, impairment, or difference, lasting 12 months or more? Please tick all that apply.

- [ ] None
- [ ] **Sensory** (e.g. deaf, hard of hearing, blind, low vision, deafblind, use BSL, hearing aid, assistance dog)
- [ ] **Mobility/physical** (e.g. wheelchair user, mobility-scooter user, limited dexterity, energy/pain condition)
- [ ] **Communication & speech** (e.g. non-verbal, speech impairment, uses AAC)
- [ ] **Neurodivergence/cognitive** (e.g. autism, ADHD, dyslexia, dyspraxia, learning disability)
- [ ] **Mental health** (e.g. anxiety, depression)
- [ ] Prefer not to say
- [ ] Other (please describe):

27. How would you describe your ethnicity?

- [ ] White (includes English, Welsh, Scottish, Northern Irish, British, Irish, Gypsy, Irish Traveller, any other white background).
- [ ] Asian / Asian British (includes Indian, Pakistani, Bangladeshi, Chinese, other Asian)
- [ ] Black / African / Caribbean / Black British
- [ ] Any other ethnic group (includes Arab and any other ethnic group).
- [ ] Prefer not to say

28. Which region do you reside in?

- [ ] North East
- [ ] North West
- [ ] Yorkshire and the Humber
- [ ] East Midlands
- [ ] West Midlands
- [ ] East of England
- [ ] London
- [ ] South East
- [ ] South West

29. Which type of area do you live in?

By a rural area, we mean villages or areas of open countryside and have resident populations below 10,000 people.

By a suburban area, we mean settlements located on the outskirts of towns or cities, typically within commuting distance of an urban centre, with a mix of residential housing and limited commercial or industrial development.

By an urban area, we mean built-up areas such as towns and cities and have resident populations above 10,000 people.

- ☐ Rural area
- ☐ Suburban area
- ☐ Urban area
- ☐ I don't know

30. What is your current employment status?

- ☐ In education (including school, college or university)
- ☐ Employed full time
- ☐ Employed part-time
- ☐ Self-employed
- ☐ Unemployed and seeking work
- ☐ Unemployed and not seeking work
- ☐ Looking after family
- ☐ Unable to work due to long term health condition or disability
- ☐ Maternity leave
- ☐ Prefer not to say
- ☐ Other (please specify):

Appendix C Survey 2: Feedback from parents

Impacts of Bikeability Level 2 training - Parent/carer survey

1. **Has your child completed Bikeability Level 2 training between 2020 and 2025?**
   - ☐ Yes
   - ☐ No

2. **Please indicate which year did your child complete their Bikeability Level 2 cycling training?**
   - ☐ 2020
   - ☐ 2021
   - ☐ 2022
   - ☐ 2023
   - ☐ 2024
   - ☐ 2025

3. **How old is your child who completed Bikeability Level 2 training NOW? If you have more than one child who completed this training, please provide a response for the youngest child.**

   ☐

The following questions will ask about your child's cycling activity. If you have more than one child who completed this training, please provide a response for the youngest child. We understand it may have been some time since your child has completed their Bikeability Level 2 training; please answer the questions to the best of your ability.

4. **After your child completed their Bikeability L2 training, did you encourage your child to cycle…**

	Yes, always	Yes, sometimes	No	Unsure/don't remember
…off-road (e.g., in parks, on pavements)?	☐	☐	☐	☐
…on roads?	☐	☐	☐	☐

5. **Over the past year, how frequently has your child cycled for the following reasons? Please provide your best estimate.**

	4 or more days a week	1 to 3 days a week	Once or twice a month	Less than once a month	Never	Not sure/ don't know
To go to/from place of	☐	☐	☐	☐	☐	☐

education or work						
For leisure/social reasons (e.g. To the park; to meet or cycle with relative/friends)	☐	☐	☐	☐	☐	☐
For exercise/fun	☐	☐	☐	☐	☐	☐
Other (please specify):	☐	☐	☐	☐	☐	☐

Please specify 'other' journey types:

6. **What is the typical distance of the journeys your child cycles? Please provide your best estimate.**
   - ☐ Less than 1 mile
   - ☐ 1–2 miles
   - ☐ 3–5 miles
   - ☐ 6–10 miles
   - ☐ More than 10 miles
   - ☐ They do not cycle
   - ☐ Unsure/don't know

7. **What are <u>your</u> main concerns, if any, about your child cycling on roads since completing their Bikeability Level 2 training?**

Please tick <u>your top three</u> concerns.

- ☐ High traffic volume
- ☐ High vehicle speeds
- ☐ Unsafe driver behaviour
- ☐ High volume of cars parked on the pavement
- ☐ Lack of infrastructure that supports safe cycling
- ☐ Child's cycling skill
- ☐ My confidence in my cycling skills when accompanying my child
- ☐ Medical/disability reasons for myself
- ☐ Medical/disability reasons for my child
- ☐ The fitness level of my child
- ☐ Poor weather conditions
- ☐ None of the above
- ☐ Other (please specify):

8. Which, if any, of the following would encourage <u>your child</u> to cycle <u>more often than they currently do</u>?

Please tick the <u>top three</u> from your child's perspective.

- ☐ More direct cycle routes, ideally with dedicated cycle lanes or tracks
- ☐ Better signage of local cycle routes
- ☐ Secure storage at place of education/work or home
- ☐ Lower traffic volume when cycling on roads
- ☐ Slower speed limits for vehicles when cycling on roads
- ☐ Improved driver behaviour (e.g., safer and more considerate driving)
- ☐ Fewer parked vehicles on pavements when cycling on roads
- ☐ Having greater confidence using a cycle (through more training)
- ☐ Cycle maintenance or repair courses
- ☐ More initiatives that facilitate cycling (for example, group rides)
- ☐ Greater interest in cycling by their friends or relatives
- ☐ Better physical fitness of my child
- ☐ Better weather conditions
- ☐ Ability to purchase a cycle
- ☐ I do not think they want to cycle more than they currently do
- ☐ None of the above
- ☐ Other (please specify):

9. How do you (and your child) think your child's cycling might change over the next few years, for each of the following purposes? Please provide your best estimate.

	Decrease a Lot	Decrease Slightly	No Change	Increase Slightly	Increase a Lot	Unsure
To go to/from place of work or education	☐	☐	☐	☐	☐	☐
For leisure/social reasons (e.g. To the park; to meet or cycle with relative/friends)	☐	☐	☐	☐	☐	☐
For exercise/fun	☐	☐	☐	☐	☐	☐
Others (please specify):	☐	☐	☐	☐	☐	☐

Please provide a reason for your answer above:

10. To what extent do you agree or disagree with the following statements?

I think cycling...

	Strongly agree	Agree	Unsure	Disagree	Strongly disagree	Not applicable
...is an important life skill for my child to learn	☐	☐	☐	☐	☐	☐
...improves my child physical activity levels	☐	☐	☐	☐	☐	☐
...on roads is stressful for my child	☐	☐	☐	☐	☐	☐
...positively influences my child's ability to access different opportunities (e.g., employment; after-school activities)	☐	☐	☐	☐	☐	☐
...helps my child socialise with other children	☐	☐	☐	☐	☐	☐
... is an activity my child enjoys	☐	☐	☐	☐	☐	☐
...keeps my child engaged in a healthy activity	☐	☐	☐	☐	☐	☐
...encourages my child to spend time outdoors	☐	☐	☐	☐	☐	☐
...makes my child less dependent on being driven around by adults	☐	☐	☐	☐	☐	☐
...reduces expenses on other forms of transport for my child	☐	☐	☐	☐	☐	☐
...enables us to cycle together as a family	☐	☐	☐	☐	☐	☐

11. How much do you agree or disagree with the following statements?

Bikeability Level 2 training has…

	Strongly agree	Agree	Unsure	Disagree	Strongly disagree
…helped my child feel more confident cycling on roads	☐	☐	☐	☐	☐
…influenced my child to cycle more often on roads	☐	☐	☐	☐	☐
…improved my child's understanding of rules of the road	☐	☐	☐	☐	☐
...improved my child's understanding of how travel choices affect the environment	☐	☐	☐	☐	☐
...improved my child's road awareness	☐	☐	☐	☐	☐
…taught my child how to prepare for a cycling trip	☐	☐	☐	☐	☐
…taught my child how to safely share road space with other road users	☐	☐	☐	☐	☐
…positively influenced my child's interest in cycling	☐	☐	☐	☐	☐

12. Since your child completed the Bikeability Level 2 training, have they experienced any of the following while cycling?

	Yes	No	Not sure/don't know
A near miss while cycling	☐	☐	☐
A collision while cycling	☐	☐	☐

13. If yes, what type of incident was it? If you have had more than one incident, please respond in relation to the most recent.

- ☐ Near miss with a motor vehicle
- ☐ Near miss with another cyclist
- ☐ Near miss with another micromobility road user (i.e., scooter, skateboard, etc.)
- ☐ Near miss with a pedestrian
- ☐ Collision with a motor vehicle
- ☐ Collision with another cyclist
- ☐ Collision with another micromobility road user (i.e., scooter, skateboard, etc.)
- ☐ Collision with a pedestrian

If your child experienced a near miss or collision, please let us know how it affected their confidence or frequency of cycling, or your concerns about your them cycling on roads etc.

14. How often do <u>you</u> cycle? Please provide your best estimate.

- ☐ 4 or more days a week
- ☐ 1 to 3 days a week
- ☐ Once or twice a month
- ☐ Less than once a month
- ☐ Never

The following questions are about your knowledge of cycling.

15. When would you ride in the middle of your lane of travel? Please tick all that apply.

- ☐ When I don't want drivers and cyclists behind to overtake me
- ☐ At junctions
- ☐ Where my lane narrows
- ☐ All the time
- ☐ Never
- ☐ I don't know

16. You are approaching a junction. How do you let other people know your intended direction of travel? Please tick all that apply.

- ☐ I extend my arm to signal the intended direction of travel even if no one is around to see it
- ☐ I extend my arm to signal the intended direction – but only if there are other road users nearby
- ☐ I signal before I reach the junction
- ☐ I signal whilst turning at the junction
- ☐ I don't know

17. You want to turn LEFT (<-) out of a side road onto a main road. Which of these is correct?

- ☐ I must wait for drivers and cyclists on the main road before I move out

- [ ] Drivers and cyclists on the main road must wait for me to move out
- [ ] I don't know

18. When should you carry out a check over your right (->) shoulder? Please tick all that apply.

- [ ] When changing position on the road
- [ ] When I am about to signal
- [ ] Just before turning right
- [ ] Frequently, to understand who is behind me
- [ ] I don't know

19. What difference has the Bikeability Level 2 training made to how confident you feel in your child's ability to…

	Much more confident	A little more confident	No difference - neither more nor less confident	A little less confident	Much less confident
…to use a cycle in general	☐	☐	☐	☐	☐
…to cycle on roads	☐	☐	☐	☐	☐
…to cycle independently (i.e., without supervision)	☐	☐	☐	☐	☐

20. Have you completed any of the following cycle training? Please tick all that apply.

- [ ] Bikeability cycle training as a child
- [ ] Bikeability cycle training as an adult
- [ ] None
- [ ] Other cycle training courses as a child or adult (please specify):

21. How often do you take part in community cycling events or group rides (for example, family-friendly gatherings; cycle club)?

	A few times a month	Once a month	A few times a year	Less than once a year	Never
On your own	☐	☐	☐	☐	☐
With your child	☐	☐	☐	☐	☐
With your friends/colleagues or other family members	☐	☐	☐	☐	☐

What are your reasons for the above answer:

22. When your child was involved with Bikeability training, how well do you feel the school or training provider communicated to parents/carers…

	Poor - communication was minimal	**Adequate** - communication covered good level of basic/introductory information	**Well** - communication was detailed with steps to find out more	Not sure / don't remember
…cycling as a lifelong skill	☐	☐	☐	☐
…health benefits of cycling	☐	☐	☐	☐
…importance of safe cycling habits	☐	☐	☐	☐
…cycling related school events	☐	☐	☐	☐
…cycling related community events	☐	☐	☐	☐
…how you could get involved in cycling	☐	☐	☐	☐

23. How much did this communication influence your interest in cycling?

- ☐ Encouraged me to cycle – It increased my interest or confidence in cycling.
- ☐ Discouraged me from cycling – It reduced my interest or confidence in cycling.
- ☐ No influence – It did not affect my attitudes or interest in cycling.
- ☐ Not sure / don't remember

The following questions will ask a little about the demographics of your child who complete Bikeability Level 2 Training. If you have more than one child who completed this training, please provide a response for the youngest child.

24. Does your child experience any long-term condition, impairment, or difference, lasting 12 months or more? Please tick all that apply.

- ☐ None

- [ ] **Sensory** (e.g. deaf, hard of hearing, blind, low vision, deafblind, use BSL, hearing aid, assistance dog)
- [ ] **Mobility/physical** (e.g. wheelchair user, mobility-scooter user, limited dexterity, energy/pain condition)
- [ ] **Communication & speech** (e.g. non-verbal, speech impairment, uses AAC)
- [ ] **Neurodivergence/cognitive** (e.g. autism, ADHD, dyslexia, dyspraxia, learning disability)
- [ ] **Mental health** (e.g. anxiety, depression)
- [ ] Prefer not to say
- [ ] Other (please describe):

25. How would you describe your child's ethnicity?

- [ ] White (includes English, Welsh, Scottish, Northern Irish, British, Irish, Gypsy, Irish Traveller, any other white background).
- [ ] Asian / Asian British (includes Indian, Pakistani, Bangladeshi, Chinese, other Asian)
- [ ] Black / African / Caribbean / Black British
- [ ] Any other ethnic group (includes Arab and any other ethnic group).
- [ ] Prefer not to say

26. Which region do you reside in?

- [ ] North East
- [ ] North West
- [ ] Yorkshire and the Humber
- [ ] East Midlands
- [ ] West Midlands
- [ ] East of England
- [ ] London
- [ ] South East
- [ ] South West
- [ ] Wales
- [ ] Scotland
- [ ] Other (please specify):

27. Which type of area do you live in?

By a rural area, we mean villages or areas of open countryside and have resident populations below 10,000 people.

By a suburban area, we mean settlements located on the outskirts of towns or cities, typically within commuting distance of an urban centre, with a mix of residential housing and limited commercial or industrial development.

By an urban area, we mean built-up areas such as towns and cities and have resident populations above 10,000 people.

- ☐ Rural area
- ☐ Sub-urban area
- ☐ Urban area
- ☐ I don't know

Appendix D Survey 3: Feedback from teachers/schools

Impacts of Bikeability Level 2 training - Teacher survey

1. Please provide the Unique Reference Number (URN) for your school

2. How long have you been a teacher in your current school?

3. Please describe your role and responsibilities in the school, and how you are involved with cycling activities in the school.

4. How is Bikeability training delivered in your school? Please tick all that apply.

- ☐ Pupils opt in
- ☐ Pupils opt out
- ☐ It is delivered during school time
- ☐ It is delivered outside of school time
- ☐ Not sure/don't know
- ☐ Other format (please specify):

5. For which year groups is Bikeability Level 2 training offered at your school? Please tick all that apply.

- ☐ Year 5
- ☐ Year 6
- ☐ Not sure/don't know
- ☐ Other (please specify):

6. Please describe ways in which your school encourages cycling beyond Bikeability training.

For example, does the school organise school-led cycling events; partner with local cycling groups or clubs; promote community cycling initiatives; share information about local cycling routes or resources.

7. Which of the following does your school provide to support cycling beyond Bikeability training? Please tick all that apply.

- [ ] Secure cycle storage/ infrastructure improvements (e.g., bike racks)
- [ ] Cycle-to-school campaigns
- [ ] Additional cycle training sessions
- [ ] Classroom activities reinforcing cycling skills
- [ ] Teacher role models who cycle
- [ ] Participate in other interventions that support active travel e.g. School Streets
- [ ] Other (please specify):

Please describe what led to the decision to introduce the type of support selected above.

8. What are the most significant challenges, if any, your school faces regarding the provision of support to cycle beyond Bikeability Level 2 training? Please select the top three options only.

- [ ] Time constraints in curriculum
- [ ] School staff engagement in active travel initiatives
- [ ] Cost
- [ ] Lack of suitable facilities at the school e.g. cycle storage
- [ ] Parental engagement
- [ ] Cycle ownership among pupils (i.e., not all pupils own/have access to a cycle)
- [ ] The local environment is unsuitable for cycling
- [ ] Unsure how to support cycling further
- [ ] Other (please describe):

9. Which of the following cycling-related topics does your school communicate to parents/carers about? Please tick all that apply.

- [ ] Cycling as a lifelong skill
- [ ] Health benefits of cycling

- [ ] Benefits of cycling more generally (for example: cycling as an alternative mode of transport)
- [ ] General road safety guidance
- [ ] Safe cycling habits
- [ ] Cycling related school events
- [ ] Cycling related community events
- [ ] None of the above
- [ ] Other (please specify):

10. How often does your school communicate with parents/carers about cycling-related topics?

- [ ] Weekly
- [ ] Monthly
- [ ] Termly
- [ ] Rarely
- [ ] Never

11. To what extent do you think the communication with parents/carers about cycling-related topics could be improved?

12. How can The Bikeability Trust support the school in promoting cycling to pupils beyond Bikeability Level 2 training?

13. Generally, have you observed changes in your pupils in the weeks following Bikeability Level 2 cycle training? For example, changes in pupils' mood, behaviour, and concentration in the classroom?

14. Generally, what difference do you think Bikeability Level 2 training has on pupils' confidence in cycling in the weeks following the training?

Pupils generally appear…

- ☐ Much more confident
- ☐ A little more confident
- ☐ Neither more nor less confident
- ☐ A little less confident
- ☐ Much less confident
- ☐ Not sure/don't know

15. Since Bikeability Level 2 training has been delivered, how have the following changed?

	Increased	Stayed the same	Decreased	Not sure/don't know
The number of pupils cycling to school	☐	☐	☐	☐
The number of parents/carers cycling to school with their children	☐	☐	☐	☐
The frequency with which one or more pupils are cycling to school	☐	☐	☐	☐
Concerns/queries regarding cycling from parents or children	☐	☐	☐	☐
Expression of interest in cycling-related activities/events for children (from parents or children)	☐	☐	☐	☐
Expression of interest in further cycling training for children (from parents or children)	☐	☐	☐	☐
Expression of interest in adult cycling training for parents/carer	☐	☐	☐	☐

16. How much do you agree or disagree with the following statements?

I think Bikeability Level 2 training...

	Strongly disagree	Disagree	Unsure	Agree	Strongly Agree
...provides pupils with an important life skill	☐	☐	☐	☐	☐
…makes pupils more inclined to cycle to school	☐	☐	☐	☐	☐
…makes cycling feel like a cool and socially accepted activity among pupils.	☐	☐	☐	☐	☐
...improves pupils' road awareness (e.g., being alert to traffic and hazards)	☐	☐	☐	☐	☐
...improves pupils' understanding of how travel choices affect the environment	☐	☐	☐	☐	☐
...encourages pupils to socialise with others	☐	☐	☐	☐	☐
...is an activity that pupils enjoy	☐	☐	☐	☐	☐
...positively encourages pupils to go outdoors	☐	☐	☐	☐	☐

17. Which region is your school located in?

- ☐ North East
- ☐ North West
- ☐ Yorkshire and the Humber
- ☐ East Midlands
- ☐ West Midlands
- ☐ East of England
- ☐ London
- ☐ South East
- ☐ South West
- ☐ Wales
- ☐ Scotland
- ☐ Other (please specify):

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Other titles from this subject area

XPR119 Bikeability Widening Participation: Fund (WPF) Evaluation. B Gupta, N Harpham, N Bull, LS Lee and G Beard (2023).

CPR4082 Development of The Bikeability M&E Framework and Tools. B Gupta, R Lynam, N Bull, J Weekley and G Beard (2023).

Modelling the impacts of Bikeability training on KSIs. N Harpham, I Marino, L Smith, G Beard (2024).

XPR148 Bikeability Level 3, Infrastructure, Collisions and Cycling to School. S Bozorg, A Rajasooriya, A Asmal, D Jenkins, T Pallikarides, J Weekley, G Beard. (2026)

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