# Do schemes to restrict cars outside schools work and why?

# Findings from a national evaluation

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# What's the problem?

The school run is a big part of daily life for many families, but traffic can be dangerous and creates noise and air pollution. To address this, many local authorities have introduced "School Streets" or "No Car Zones" which restrict car access outside schools at drop-off and pick-up times.

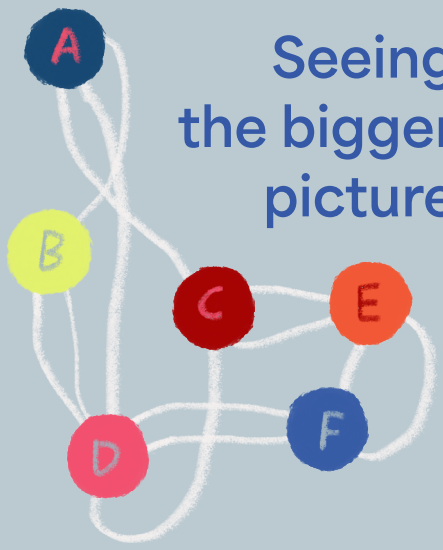
These schemes are implemented in various ways, using signs, volunteers who set up barriers, or camera enforcement. They aim to make school journeys safer, improve air quality around schools, and encourage children and families to walk, cycle, scoot, or "park-and-stride" (drive part of the way, then walk the rest). The roll-out of these schemes increased rapidly during the Covid-19 pandemic, particularly in London, where more than a quarter of state-funded primary schools now operate them [1].

Until recently, there has been little evidence to show whether these schemes actually change travel behaviour. We are only aware of three other studies: one which studied a one-day street closure in Canada [2], and two from the UK where schemes were implemented for several months. A study in Bradford found that after schemes were introduced there were reductions in walking, cycling and scooting [3], while a study from Newcastle found only minimal change in travel behaviour [4].

Our research project aimed to look at the picture nationally, from a variety of different perspectives, to understand not just whether these schemes impact how children travel to school, but also how they work.

# What methods did we use?

Our study had several different parts which come together to provide a richer understanding of how schemes work, in terms of both the numbers of children who changed their mode of travel to school and people's experience of the schemes.

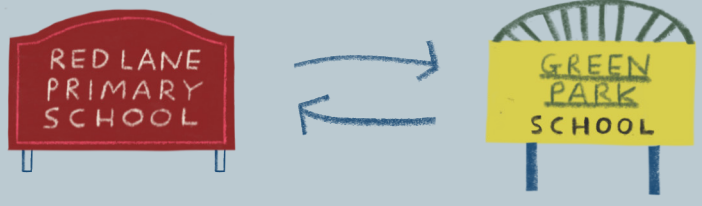



## Seeing the bigger picture

- Mapped out the factors influencing school travel.
- Talked to stakeholders to understand different factors.
- Created a casual loop diagram to show connections.

## Measuring the impact

- Looked at schools in England and Scotland with and without traffic restriction schemes.
- Compared how active travel changed at schools with schemes compared to those without.
- Compared scheme effects in different context.




## Understanding traffic restriction schemes

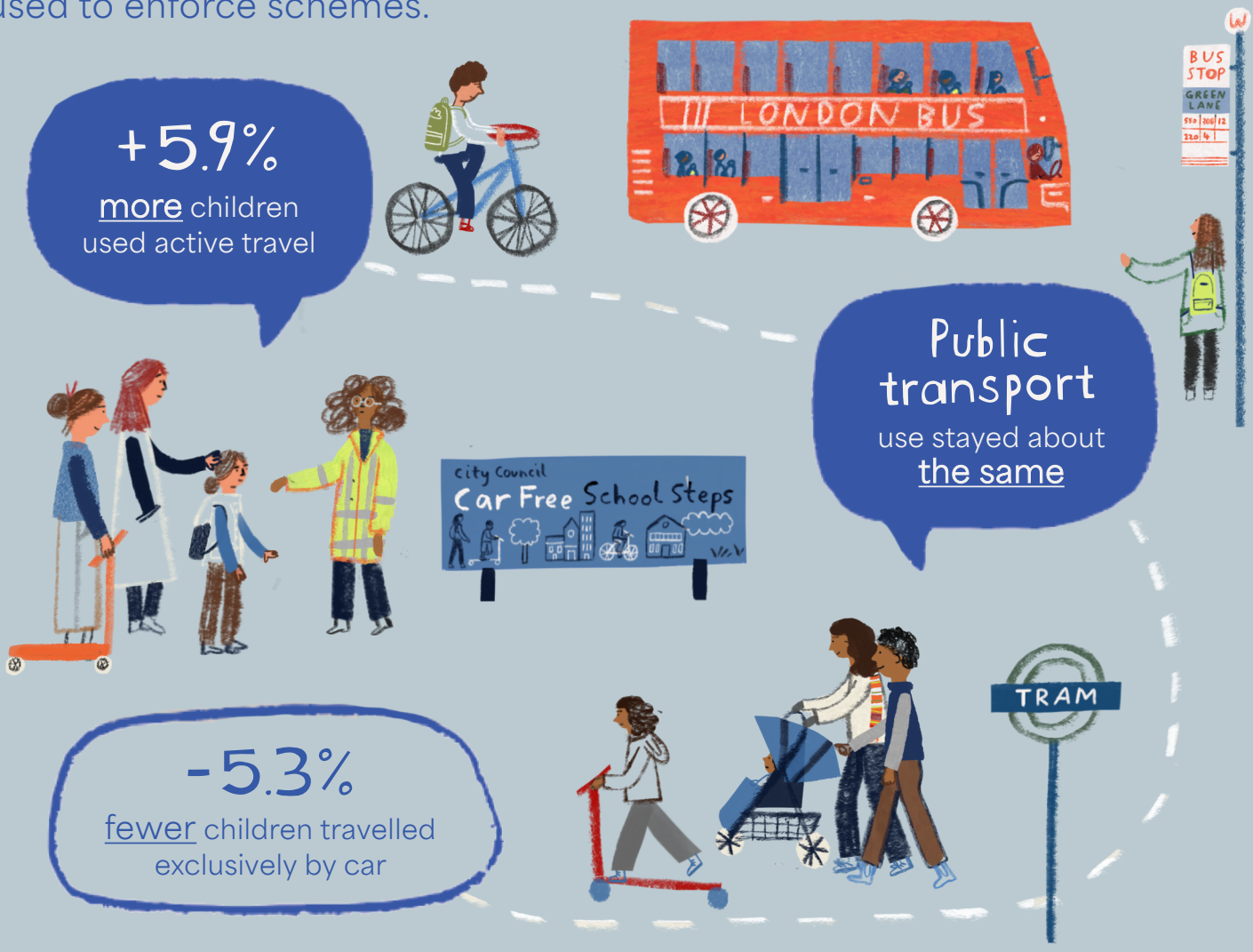
- Talked to:
  - 14 families
  - 7 teachers
  - 4 local councils

- Travelled the route to school with families to see schemes in action.
- Children independently took photos of their journey and spoke to us about them.
- Got an understanding of how schemes worked and what people thought of them.

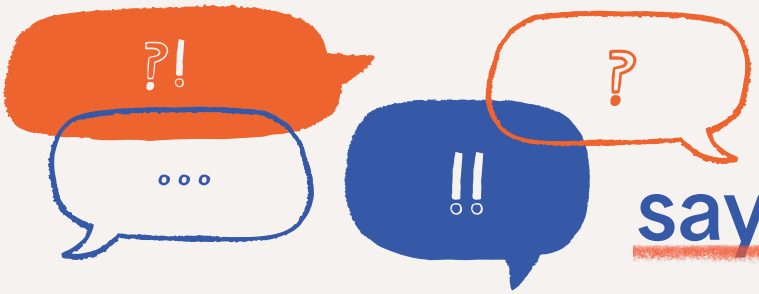
# What were the impacts of schemes?

We used data collected from 498 schools between 2012 and 2023 [5].

The biggest change came from families reporting 'park-and-stride' - families still used cars but walked the final stretch. These results were consistent across different types of schools. Most intervention schools were in London, but similar patterns were seen in Scotland and the rest of England. Importantly, the outcomes did not depend on whether or not cameras were used to enforce schemes.




Schools with schemes have some different characteristics to those without. For example, participating schools tend to be more common in London and other large cities, to be larger schools, and to have a higher baseline level of active travel (before schemes were implemented). For this reason, we chose schools that were most similar to the schools that implemented a scheme in terms of factors like their and school size and if they were located in an urban or rural area.




# What did people say about schemes?

We visited three areas in the UK: Perth & Kinross, Haringey & Sheffield. We found two main themes:

## 1. Negotiating changes

Across different areas, schemes were typically introduced in response to overlapping contextual pressures, including congestion, safety concerns and poor air quality. These shared pressures created a joint sense that "something had to change". It fuelled political, school-level and family support, which drove implementation and initial acceptance. Familieswere then more willing to experiment with new travel routines.

> "That's a 20, not that everybody's doing 20... people are much more inclined to drive fast there because it's heading to a bigger road towards the A9." (Parent)

> "We put the School Street in, it was heaven... we can't believe the smile on our children's faces now coming into school. Parents are saying it's much less stressful... it did so much for the school's community." (Teacher)

Once new schemes were introduced around schools, families found new ways to adapt. How they did this depended on where they lived, how far from school they were and what other transport options were available. In urban areas, for some families who could walk all the way it became easier to leave the car behind. Even when families still needed to drive, many found ways to share journeys or reduce the distance driven.

> "... it's super cool because I get to see a lot of my friends on the way. And now, I'm allowed to go to school by myself!" (Child)

As streets became calmer and cleaner, parents and children noticed big improvements in their journeys - less stress, less noise and pollution, and a greater sense of safety. Over time, walking and cycling became more normal and even part of the school's culture. While not everyone supported the changes at first, most people came to see the benefits.

# 2. How schemes evolved over time

Participants described unintended but not unanticipated changes including the challenges of displaced traffic and air quality, and of balancing equity for some groups and accessibility for others. They also described teething problems in the initial period after implementation. Visible contrasts with nearby streets were described as a reinforcing mechanism for the need for, and importance of, these schemes.

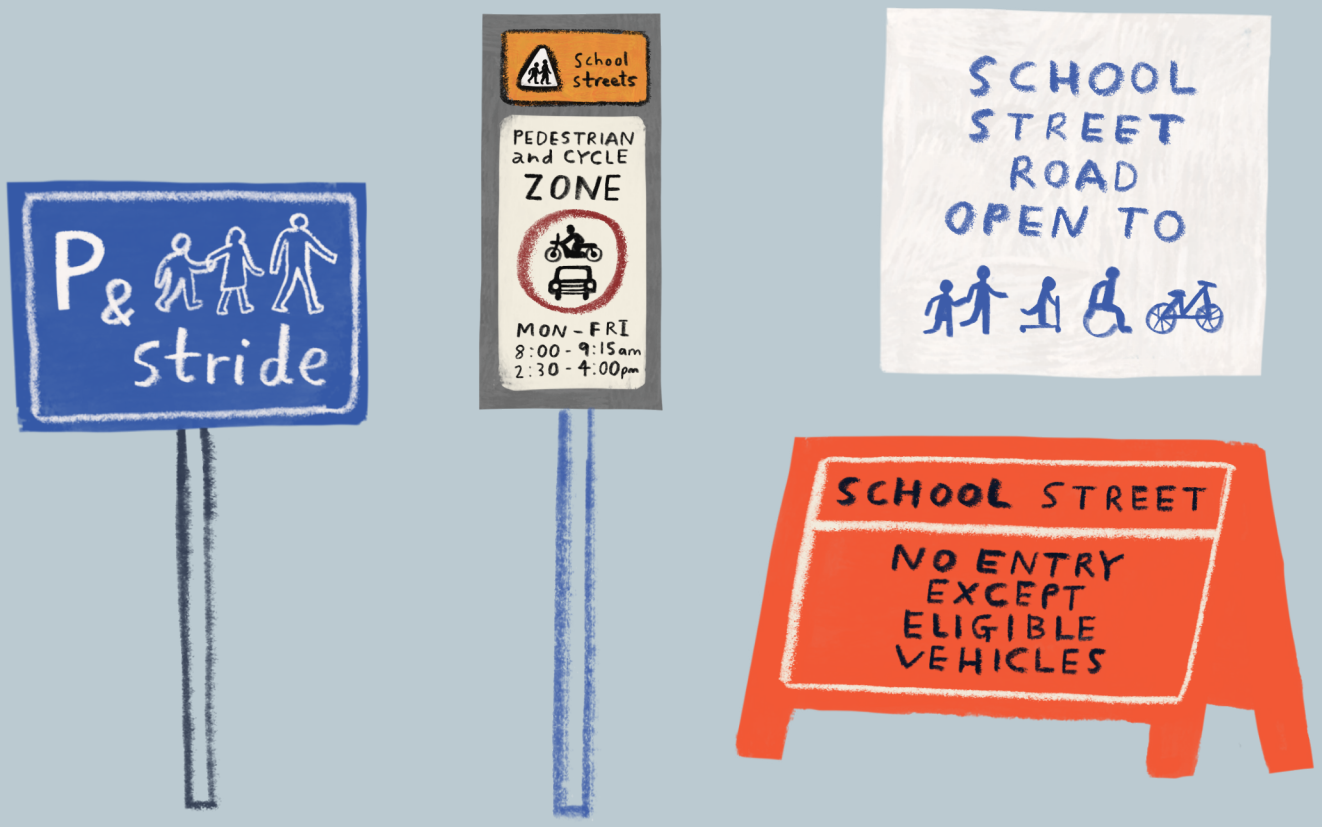
"I think it was confusing at first."
(Child)

"Sometimes it's robbing Peter to pay Paul."
(Local government official)

"The other side, which isn't a School Street, can be quite gnarly... people driving too fast, people driving dangerously. I think people have really noticed the contrast and now love this street."
(Parent)

Families, schools and local stakeholders shared ideas for how to improve the schemes going forward. Parents in rural and faith-school settings suggested safe 'park-and-stride' points located outside restricted zones, while others called for cheaper, more reliable public transport.

Clear and consistent communication was also seen as vital, with families wanting signage to be clearer and more consistent.




"People are getting angry because they are getting caught out," (Parent)

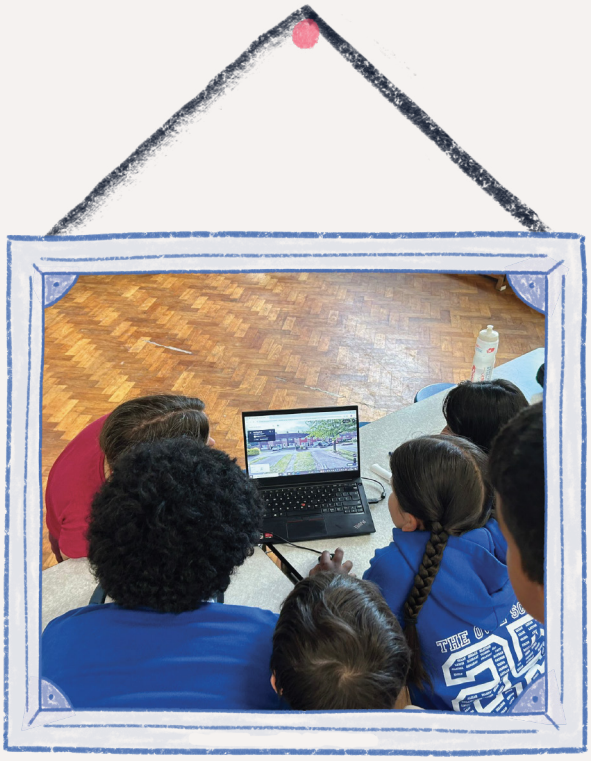
Many highlighted the importance of genuine consultation and early engagement to make sure schemes reflect local needs. Teachers and local authorities found that involving children helped build lasting community support.

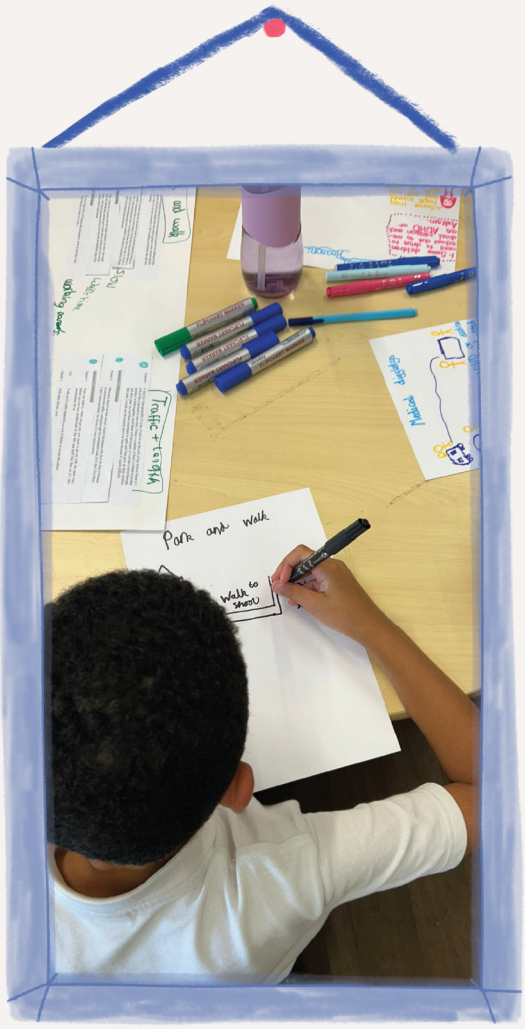
# What else have we done?

We visited the Oval School in Birmingham, which recently implemented a School Street, to work with pupils and explore their thoughts about our research. Students were asked to map their journeys to school and how they feel at different parts of the journey.

Students then worked with some examples of interview data from children we talked to from Sheffield. We asked them to think about what the children there said and if they thought it resonated with them, or if anything was different at the Oval or other schools in Birmingham.

They talked about speeding cars and the sensory experience of smells and fumes on the school journey and trusted adults (e.g. teachers and volunteers) enhancing their feelings of safety. Pupils highlighted the need for flexible arrangements and felt that these could be important for their classmates with neurodivergence or other disabilities. In general, they were supportive of schemes.



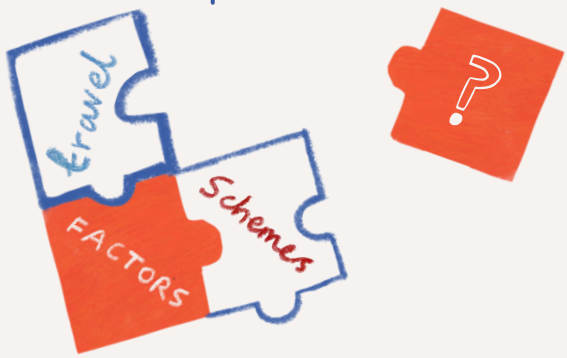


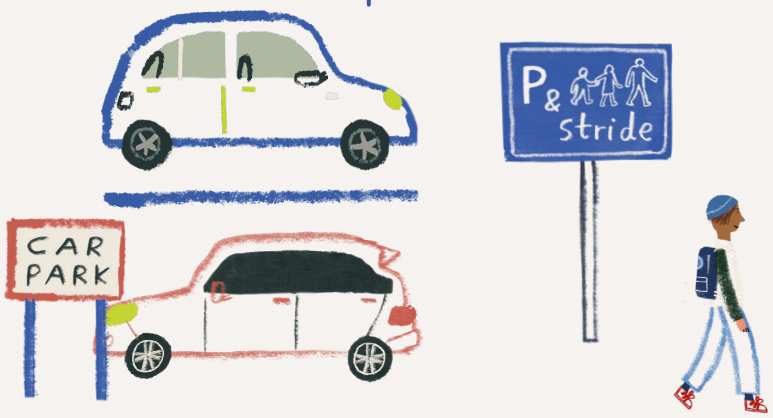
OVAL SCHOOL
BIRMINGHAM

# Summary

This study provides evidence that overall these schemes can encourage children to use more active modes of travel on the journey to school. Our work has shown the importance of the environment along the route to school as well as the area right outside school. Schemes like this will not be appropriate in all schools, but we provide recommendations about how they can be implemented.

Schemes are not a complete solution on their own, but they can play a valuable role in creating healthier, safer, and cleaner environments for children & families.




Nearby carparks helped to ease congestion by providing an alternative parking spot. In some places these were at nearby supermarkets, while in others they were at small corner shops or village halls.

Parents and teachers needed to support the scheme and its implementation, and it was most successful when it was not just the responsibility of the school to think about gaining support for children and their safety.

We did not measure the changes in air quality in this study or the possible impact of traffic problems moving elsewhere. These are important consequences and their impacts on outcomes like asthma or road traffic injuries could be estimated in the future.

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