

Governing Urban Transformation

New Cycling Infrastructure Developments in
Manchester: A success for Encouraging Student
Cycling Uptake?

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Author declaration:

I [9472025] confirm that this report is based on my own work and that I am happy with both my own and my partner's [9454987] contribution to the final submitted version.

Abstract

This research piece aims to identify how the new dedicated cycling lanes along Manchester's Oxford Road corridor have been successful in encouraging students to take up cycling. This involved gaining primary data from students at the University of Manchester, analyzing their perceptions and attitudes towards cycling along the new infrastructure developments. Using questionnaires which provided rich qualitative and quantitative data, it was found that students have not largely taken up cycling since the new developments. Many barriers exist which deter students from utilizing the new infrastructure. These barriers range from flaws in the new infrastructure such as lane width, alternative transport modes to cycling and poor communication on such developments. Recommendations are made throughout, which the council should heed to increase the uptake of cycling in the student population. The issues in this piece need to be understood to allow Manchester to become a cycling city and reduce its carbon footprint to become a more sustainable city.

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1. Introduction

Manchester City Council, with its investment in cycling infrastructure along Oxford Road, proclaimed they wanted to make Manchester a 'cycling city' with the goal of getting 10% of all journeys to be on bike by 2025 (Greater Manchester Combined Authority, 2014). In doing so, the city adopted the current planning trend of Amsterdam and Copenhagen, where as Pucher and Buehler (2008) highlight, completely revamped their cycling infrastructure to bring a multitude of benefits to both the city and individuals.

This investment in infrastructure follows from the logic that the biggest barrier to cycling uptake is safety and the perceived risks of cycling (Badland et al, 2013). By investing in safer cycling infrastructure, Manchester aims to get more people cycling. However, other factors such as mentality, prevalence of other transport methods and lack of communication have meant that, at least in the short term, the infrastructure itself has not led to a huge uptake in cycling.

This piece of research aims to unpick this, by looking at students specifically cycling to university, and their experiences of the new cycling infrastructure. To do this, three main research questions will be explored.

Research Questions:

1. How is the cycling infrastructure itself currently causing problems with cycling uptake?
2. What are the main barriers, stopping students from taking up cycling in Manchester?
3. How is lack of communication from the council, hampering the infrastructure from reaching its full potential?

2. Academic Context

Cycling has become a boon for cities trying to promote a new sustainable edge, with developments at an infrastructural level to bring benefits such as reducing pollution and traffic congestion (Pucher et al, 2010) to improve the livelihood of citizens (de Hartog et al, 2010). Due

to these well researched benefits, many cities like Manchester have aimed to mirror the cycling success stories of Copenhagen, and Amsterdam. (See Pucher and Dijkstra, 2003; Chataway et al, 2014; Snizek, Sick Nielsen and Skov-Petersen, 2013; Pucher and Buehler, 2008). Due to these well documented successes, cities like Manchester are aiming to market themselves as a new modern city, introducing cycling lanes that take inspiration from Amsterdam specifically. The MCC cycling plan proudly claims to be utilizing Dutch cycle planners (GMCA, 2014). The infrastructure implemented within Manchester can be described as closed-on-road cycle paths, aiming to make cycling safer but having designated bike lanes separated from Europe's busiest bus route. In doing so, this increases the safety and hence cycling uptake (Wang et al, 2016). However, the biggest question remains whether you can just plug in and play with regards to cycling infrastructure. Dill and Carr's (2003) work on cycling infrastructure in America, suggests that if the infrastructure is in place it will get used. However, this research piece, taking much inspiration from Aldred and Jungnickel's (2014) excellent work on the role of culture in transport infrastructure, aims to highlight difficulties in adopting a cycling culture within and beyond the student population (Bontham and Koth, 2010).

3.Methodology

In order to gain rich data from the student population questionnaire surveys were employed (see appendix). In total 11 questions were produced, exploring the main themes of cycling along Oxford Road as informed by observations and the relevant literature. The questionnaires were then given to a group of 25 students from the University of Manchester. Some of these students were known to be interested in cycling and had relevant experience so as to provide pertinent information on the topic, while others had no interest or experience. The differing opinions allowed mixed perspectives on cycling in the city. These questionnaires contained a mix of open and closed questions in order to produce both qualitative and quantitative data. In this way relevant data was collected while incorporating participants own original thoughts and feelings. Throughout the questionnaires participant confidentiality was maintained as no use of names or identification was used. The use of informed consent from respondents also made

sure the research was ethical as respondents understood how their answers would be used (Robinson, 2014).

Highly cost effective and time efficient (Munn and Drever, 1990), questionnaires were the most suitable method of data collection. Questionnaires are an effective way of determining attitudes and opinions while also classifying answers to observe patterns and commonalities (McGuirk and O'Neil, 2016). The use of questionnaires and surveys has been instrumental in producing rich information in scholarly research on students and cycling elsewhere (see Whalen et al., 2013). The data gathered from such questionnaires is therefore highly useful in understanding the contemporary and relevant attitudes and perspectives of student cyclists in Manchester. Attaining 25 samples produced a sufficient amount of data to be explored and identify general patterns for this small scale study. Enough responses were garnered to compare answers and identify main themes and responses to make the data generalizable (Robinson, 2014).

Limitations do arise with this research method however, as with questionnaires participants cannot always fully express their opinions due to the items present (Goddard III and Villanova, 2006). Furthermore, the sample size was limited to 25 students, mainly living in Fallowfield, which may not be representative of the entire student population. The sample used may render the findings less valid when concerning all students across Manchester, as such a large scale sample study would require more respondents from a random pool of students.

4. Findings and Discussion

4.1 Problems of Infrastructure

4.1.1 Safety

As discussed in the previous two sections, Manchester city council's aim was to both increase the safety of cycling within Manchester and increase the uptake of cycling across the city. The findings from our survey highlight how almost 80% of cyclists thought that cycling felt safer

whilst cycling along Oxford Road. However, this improvement in perceived safety did not lead to a huge increase in uptake in cycling, with only 20% of cyclists surveyed having started cycling since the introduction of the new cycle lanes along Oxford Road. This highlights how, although perceived safety increased, it did not translate, at least immediately into increased cycling uptake and that infrastructure cannot exist without a change in mentality (Wardlaw, 2013).

4.1.2 Infrastructural Flaws

As will be discussed in the following sections of these findings, not all of this can be attributed to the cycling infrastructure itself, but there are a few key faults with the infrastructure that cyclists thought was causing problems. The biggest complaint was that the cycle lanes themselves were too narrow which made it difficult and dangerous to overtake slower cyclists and created a skill gradient. Those cyclists who were less confident avoided cycling more, whilst experienced cyclists often ignored the cycle lanes altogether.

Another issue brought up, was the difficulty in finding spaces to lock bikes within university spaces, highlighting how increased efficiency and safety means little if at the end of the journey there are still inefficiencies prevalent. The need for increased communication and planning between the different actors involved may resolve this issue. To this end, the local council should identify suitable locations with the university to develop secure spaces to lock bikes.

4.1.3 Problems Adapting to the New Infrastructure.

The final point made was that pedestrians and car drivers had not adapted to the new infrastructure, often pulling out or walking into the cycle lanes without looking, especially along the Curry Mile or at bus stops. The difficulties in changing social perceptions of cycling as well as actual infrastructure itself are apparent here. These difficulties in implementing Amsterdam's cycling infrastructure may be due to the difference in attitudes towards cycling in Manchester compared to Amsterdam (Pucher and Buehler, 2008). As an issue, this may be reduced over time as people become familiarized with the new infrastructure, but is currently one of the biggest barriers to uptake in cycling.

4.2 Barriers to Uptake

4.2.1 Alternative modes

The survey revealed that half of the respondents did not cycle and hence preferred alternative methods. These current alternative methods include motorized technologies which are highly reliant on fossil fuels and jeopardize the sustainability of cities (Whalen et al., 2013). Buses were found to be a key transportation method which competed against cycling. Many students exclaimed how they were financially committed to using buses in the city after purchasing an annual bus pass. Hence many students are committed to using buses, reducing the attractiveness and incentives to cycling compared to other, more familiar transportation modes. In this respect, the council may find a wealth of benefits from changing public perceptions on the alternative modes of transport to cycling, dissuading people from committing to annual passes and using busses. Paez and Whalen (2010) state how this can be achieved by policy makers who aim to demonstrate the positive effects of certain transport methods against others, such as the health benefits. Pointing to the multitude of benefits of cycling can change the values and perceptions that people have on cycling and increase its uptake with enjoyment. While the new bus priority package has been developed in the city, increased focus needs to be applied in promoting the priority cycle lanes which coincided with this. Increased funds should be invested in these cycle lanes at a time when millions are being invested into bus infrastructure (TFGM, 2017).

4.2.2 Cycling Proficiency

Many of the main challenges involved in cycling along Oxford Road included that of cycling confidence and disparities in the proficiency amongst many cyclists. In order for a large uptake of cycling within the student population, cyclists of all abilities need to be considered so that they may find cycling an easily accessible mode of transport. A majority of respondents stated that given perfect conditions they would opt for cycling more, hinting at how many do not feel

confident with current conditions. Hindrances stated by many to cycling along the new infrastructure also included that of a lack of ability to overtake slower, less proficient cyclists. Addressing this issue, by widening cycle lanes for example, could encourage the use of such lanes from an array of cyclists of mixed ability (Winters and Teschke, 2010). The implementation of cycling proficiency training programs has been found to be instrumental in encouraging the uptake and safe use of cycling (Telfer et al., 2006). As recognized in the Greater Manchester Cycling Strategy (TGFM, 2014) such programs, implemented at school levels, will be a vital avenue for the local government to follow in order to increase cycling confidence and uptake across the population in the long term.

4.2.3 Arduousness of Cycling and Fitness Concerns

Student perceptions on the level of physical effort required for cycling was found to be a considerable limitation to uptake. While many believed the new infrastructure improved the efficiency of cycling, key themes such as fitness requirements still dissuaded students from cycling. The health benefits of cycling may therefore not be fully appreciated in the student population, as being sweaty and aching from cycling is often a major inconvenience reported by people (Christmas et al., 2010). As students become more aware of the health benefits from cycling they may increasingly use it as a mode of transport and begin to appreciate the physical demands for health benefits. The many health benefits associated with cycling can encourage its uptake while also providing one of the cheapest ways to reduce obesity (Pucher and Dijkstra, 2003). In this regard, cycling within Manchester needs to be promoted as a less daunting challenge, and instead an opportunity to encourage many to cycle in order to get fit. As cycling commuters increasingly enjoy the benefits of cycling they will encourage further policy and developments for active transport methods (Paez and Whalen, 2010). Importantly, 20% of students in the survey are taking up cycling since the implementation of the new infrastructure as cycling is made easier. The use of dedicated cycling lanes which allow a safe and clear passage decreases the physical demands for cyclist, promoting cycling as an accessible mode of transport. Further implementation of such lanes as stated in the GMCC's agenda (GMCC, 2017) should be rolled out across other spaces of Manchester to encourage wider use, however as

discussed previously, creating slightly wider lanes would allow for both novice and advanced cyclists to use the same lanes.

4.3 Communication

4.3.1 Informing the Student Population

Engaging the local population with urban developments can engender a more supportive social landscape for innovation (Yu and Gibbs, 2017). However, in this respect much potential has been lost as over 60% of respondents said they felt they knew very little about the developments along the Oxford Road corridor. Furthermore, a similar number of students claimed they did not think enough was being done to inform students on the changes and benefits that they have produced. One student said “I know it’s meant to be better, but as a non-cyclist I don’t know why it’s better,” highlighting how this lack of communication is stopping non-cyclists from either taking up cycling or taking the beginner steps to start thinking about taking up cycling. People are much more likely to feel confident cycling in a city when information on cycling infrastructure and services is available in the area (Bonham and Koth, 2010). Importantly, as communication and knowledge sharing increases on cycling issues and infrastructure, the cycling culture of the city can change to support cycling more as a mode of transport (Pucher and Buehler, 2010). Local government and universities have been proven to be vital in producing such knowledge (Bonham and Koth, 2010). Therefore, the local government and Universities in Manchester should look to increase awareness on cycling developments in the city by supporting awareness campaigns for example. Informing the student population of the many benefits and ways of using the new developments can produce a more visible and intelligent cycling population in Manchester.

5.Conclusion

As has been discussed throughout the academic context and findings, increasing cycling rates has the potential to be a huge boon for the city of Manchester, both in terms of environmental and economic benefits to the city. Cycling can also act as a tool for Manchester to market itself

as a modern innovative city, paving the way to a more sustainable future. The infrastructure implemented to achieve this within Manchester is a step in the right direction, however, the utilization of Amsterdam styled cycle paths outside of the Dutch context and mentality, has meant that the current state of cycling in Manchester is not all that it could be. A main reason for this is that cycling infrastructure is not yet fully accepted, in part due to a lack of communication regarding the benefits of the new infrastructure, which in turn isn't encouraging students to cycle. Secondly, factors beyond the control of the infrastructure itself, like the prevalence of bus transportation, and lack of facilities to lock bikes up at university is making cycling less practical than other transport modes. This is an issue that will have to be addressed in the near future. Finally further investment towards education, infrastructure and sustained co-operation and communication between the council, university and the general public will need to occur. Informing the student population on the many benefits of cycling as opposed to other modes of transport is vital to increase its uptake. This will make sure that the cycling infrastructure does not become a placeholder for a city planning ideal, but a beneficial development reaching its full potential. As these issues become addressed, Manchester will find itself on track to reap the benefits of a more sustainable, cycle friendly city.

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10. Do you think the student population is more open to cycling after infrastructural work on Oxford Road? 1 being not at all, 5 being much more open.
1 2 3 4 5

11. Do you think there has been enough communication regarding the changes, and the benefits of those changes to get people into cycling? 1 no, 5 yes.
③ 2 3 4 5

12. Do you think the university has capitalized on the increased infrastructure, to try and increase cycling participation?

No, university could do much more. Need places to lock bike needed. Also tell more people what's been done.