



Work Based Project

Research Proposal

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Research Proposal

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Name of Award: HND Civil Engineering

Mode: Part-Time

1. Research Proposal Title

What impacts do Active Travel Routes have on the existing environment?

2. Summary

This research aims to develop an understanding of how Active Travel routes in Wales, under the Wales Transport Strategy, are impacting existing travel networks, and the natural environment on which new routes are built.

3. Background

The incentive for research on this topic arises from a recent adaptation to planned travel networks in Wales, with Active Travel being a priority. The act aligns with numerous principles to be considered set out in the Well-being of Future Generations (Wales) Act 2015.

Sustainability, efficiency and accessibility (*Active Travel Act Guidance 2021*) are the focal points of the Wales Transport Strategy 2021. This research will analyse these objectives against existing Active Travel developments, to assure the provisions built within Active Travel align with the goals of the WFG Act.

Primarily the goal “A Resilient Wales” that addresses biodiversity and economic, ecological and social resilience, as well as “The capacity to adapt to change”. (*Well-being of Future Generations (Wales) Act 2015*).

The researcher has a year of design experience working on Active Travel schemes through local authority, and worked alongside Transport for Wales, Sustrans and Mott MacDonald carrying out audits on existing Active travel routes around South Wales using the Active travel walking and cycling audit tools. (*Active Travel Act guidance: walking and cycling route audit tools (appendix H) 2021*).

4. Objectives of This Research

The focus of this research will be to gather both quantitative and qualitative data surrounding existing and proposed Active Travel developments in Wales.

The research will aim to reveal the most impactful aspects of the developments, and to question the sustainability of such.

4.1 Impact on Natural Resources

Gathering data from local authorities carrying out the schemes will provide an understanding into their physical changes to the environment.

Researching public feedback will show qualitative data on how the developments are currently affecting the environment, and how often the developments are used, addressing how the public are using the routes, and how often.

The significance of local authority data will show what materials, and quantities of which are integrated into the natural environment, and provide quantitative information on the use of natural resources, and the effects of such, including animals, plants, soil and water. Natural Resources Wales consider these resources important for our society and economy through air quality, construction materials and tourism considerations -Natural Resources Wales (2016).

4.2 Impact on Existing Infrastructure

Researching data from existing and proposed Active Travel networks, will provide insight into to how they will integrate with existing infrastructure. The aim being to establish whether connections with new construction, and shared use of existing transport routes will present issues surrounding its current use.

Research will include:

- The safety of users, particularly where Active Travel routes merge with areas of high traffic volume.
- The impact on the existing travel network users, with an increase of active travel user provisions.
- How construction of routes bisecting green spaces may impose issues for properties surrounding, such as drainage, cooling, noise pollution and mental well-being – Natural Resources Wales (2023).
- The effects of the encouraged use of compulsory purchase orders for acquiring private land.

This research will evaluate the impacts of additional pedestrian and cycle provisions, carriageway crossing areas, path / carriageway realignments and road signs. The installation of additional signage instructing cyclists to dismount or rejoin carriageway will be investigated, specifically amidst the existing sign clutter on busy junctions, where information overload for drivers can dilute important communication - Department for Transport (2013) and divert attention from the road, increasing potential for hazard.

5. Methodology

Both secondary and primary data will be collected using an appropriate data pool reflecting the time allocated toward the project.

5.1 Secondary Data

Given the scale of the area in which this research will be conducted, and the availability of public record, secondary data will be collected. Secondary data of Active Travel routes will be collected through desk studies on information released by local authorities regarding locations of such developments, ecological data, road traffic collisions data at relevant locations and the maintenance of the routes.

A presentation of results based on government issued secondary data alone, considering the proposed positive results of the Active Travel developments, may result in statistics that do not align with the overarching answers that this research aims to present.

5.2 Primary Data

The time constraint of this research project will allow enough time for recording primary data.

Measurements of natural and private land acquired will be collected to present the impact Active Travel routes physically affect the environment. This can be measured using digital map databases and scheme drawings.

Researching the use of the routes and seeking data on any potential conflicts with existing travel will be conducted through field research. The researcher frequents site visits to Active Travel schemes, and will make use of interviews and questionnaires directed at users of Active Travel routes and residents surrounding the developments.

6. Research Significance

The research on the environmental impacts of Active Travel developments through objective measuring, the independent accounts from the public, and secondary data from professionals in the industry, aims to establish if any detrimental results appear, and what the most significant impacts are.

Establishing such will provide local authorities and the Welsh government with feedback on the covered changes of environment, of which can be considered in the development of the Active Travel guidelines and its contribution to the well-being goals of the WFG Act.

7. Literature Review

A research article by Andrew Minnis from the National Assembly for Wales Research Service, addresses the effects that the Active Travel Act has had on the public in regards to how often non-motorised methods of transport are used.

The research paper presents quantitative data from the Welsh Government's annual statistical bulletin of January 2018, showing proportions of how many adults and children walk and cycle for active travel purposes.

The data ranging from 2013 to 2017 shows that there has been a decline in active travel use over these years despite the implementation of infrastructure that would make such methods of travel more accessible. – Minnis (2018).

The findings of Minnis' research showed that consultation and engagement needed improving to assure that developments within Active Travel met the needs of the community – Minnis (2018).

Minnis' research aligns with the Act's impacts on existing infrastructure through the financial factors. The findings suggest that there is potential that funds may have been spent ineffectively, without addressing the needs of the community directly, and that funds may have been better allocated improving and maintaining existing routes on the travel network.

The funding for Active Travel schemes received an additional £266 million – Minnis (2018) in response to the undesirable results of the objectives set out by the act. Additionally, to present day, the Local Transport Fund continues to focus funding to Active Travel schemes allowing for new routes to be developed, however as shown in 2018, doing so may not necessarily influence use of such developments. Where Minnis' report addresses the financial response from the Welsh Government, it does not focus on the impacts of the continuation of funding the scheme, despite the report centring around the consequences of the drawn-out progression of the Act.

Minnis' report addresses the problems with the use of Active Travel between the years of 2013 and 2018 using reliable quantitative data from official government sources, and critiques a number of the responses laid out in the scrutiny inquiry at length. Despite this, there are issues raised in the inquiry sourced in Minnis' report that go unmentioned that may have helped support its aims. One being the concern of route maintenance.

Only four years following the introduction of Active Travel, a survey concluded that 63% of Active Travel users believed that the condition of cycle routes were either poor or very poor. - NAW (2018) The Welsh Government had concluded that maintenance of routes would be crucial to the Active Travel developments.

The integration of research from primary and secondary sources surrounding impacts of Active Travel, and desk studies on topics highlighted in Minnis' report surrounding the financial concerns will be beneficial to the aims of this research.

The issue surrounding the lack of maintenance for Active Travel schemes should be further researched using quantitative data from local authorities, crucially with more up to date sources reflecting the current state of Active Travel routes.

An approach involving research from the community through qualitative data gathering would be beneficial to the aims of this report.

Surveys from Active Travel users, similar to those conducted by National Assembly for Wales in 2018, can assist in discovering if maintenance issues still exist within the developments, and whether the responses from the Welsh Government have remedied concerns raised in the scrutiny inquiry.

Following this research, data will be available for decisions to be made into what factors are most significant to the impacts of Active Travel developments to the existing environment.

An approach with research more focused on a single aspect of the existing environment and how it is impacted will ensure that valuable qualitative and quantitative data is not diluted, and that the objectives of the report can be backed up by multiple sources.

With the current level of understanding of the topic and concluding a literature review, a focus on maintenance and the funding of such appears to be a significant concern that may compound into an issue in the future. This being a major deviation from what is expected through the goals of the Wellbeing of Future Generation Act.

Following the proposed research and gathering of qualitative data, a final consideration will be made into what the greatest impacts of Active Travel developments are, and what will be presented in the final report.

Data presented can be used by the Welsh Government and local authorities to better improve the Active Travel network and assure it aligns with the Wellbeing of Future Generations Act's objectives.

8. Bibliography

Active Travel Act Guidance 2021, c. 3.3.1. Available at:

<https://www.gov.wales/sites/default/files/publications/2022-01/active-travel-act-guidance.pdf> (Accessed: 24/11/23).

Active Travel Act guidance 2021. Walking and cycling route audit tools (appendix H) 2021. Available at:

<https://www.gov.wales/active-travel-act-guidance-walking-and-cycling-route-audit-tools-appendix-h> (Accessed 25/11/23).

Department for Transport (2013) *Traffic Advisory Leaflet 01/13, Reducing Sign Clutter*. Available at:

<https://assets.publishing.service.gov.uk/media/5a78c043ed915d04220650db/tal-reducing-sign-clutter.pdf> (Accessed 26/11/23).

Natural Resources Wales (2016). Available at:

<https://naturalresources.wales/evidence-and-data/research-and-reports/the-state-of-natural-resources-report-assessment-of-the-sustainable-management-of-natural-resources/?lang=en> (Accessed 25/11/23).

Natural Resources Wales (2023) *Local green spaces*. Available at:

<https://naturalresources.wales/about-us/what-we-do/our-roles-and-responsibilities/green-spaces/local-green-spaces/?lang=en> (Accessed: 25/11/23).

Well-being of Future Generations (Wales) Act 2015, A Resilient Wales.

Available at: <https://www.futuregenerations.wales/a-resilient-wales/> (Accessed: 24/11/23).

Andrew Minnis (2018) *Active Travel Act Five Years On – short cut or long road?*

Available at:

<https://research.senedd.wales/research-articles/active-travel-act-five-years-on-short-cut-or-long-road/>
(Accessed: 02/03/2024)

National Assembly for Wales (2018) *Post Legislative Scrutiny of the Active Travel (Wales) Act 2013*.

Available at:

<https://senedd.wales/laid%20documents/cr-ld11566-r/cr-ld11566-r-e.pdf>
(Accessed 02/03/2024)