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Cyclists in Urban Parks



A study carried out at the UFRGS (the Federal University of Rio Grande do Sul) analyzes the relationship between the Farroupilha Park – popularly known as Redenção Park -, Moinhos de Vento Park, Marinha do Brazil Park and the presence of cyclists in these parks. Poor infrastructure and insecurity were the negative aspects pointed out, being health and welfare the main reasons that bring cyclists to these places

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The feeling of freedom: this is the sensation of lennifer Domeneghini, a graduate student, when getting on her bicycle and travelling the one-mile route between her home, in the Santana neighborhood, and the Faculty of Education (FACED). Jennifer's choice of using a bike was not random, as several factors were taken into account to define how she would travel to the university.

Two years ago, Jennifer left Marau, a city with just over 44 thousand inhabitants, to enter the daily life of the 1,483,771 inhabitants of Porto Alegre and become a member of the Graduate Program in Urban and Regional Planning (Propur/UFRGS).

Considering the city's public transport options, it was on the bicycle that she found a means of locomotion that was fast, cheap, efficient and autonomous, exactly the way she was looking for.

It was from her experience on top of "magrela" (name given to a bike to highlight its slim shape and low weight) that the research theme for the master's degree came up: Understanding the relationships between urban parks that have adjacent bicycle paths and the cyclists who attend them.



Acesso à Informacá

Based on her experience as a cyclist, Jennifer went to parks and talked to other users of the bicycle paths. Photo by: Gustavo Diehl/UFRGS

Combining her perception as a cyclist and her two years of study, the researcher went to the oldest urban parks in the city, talked to other users of the bicycle paths and identified relevant data for the improvement of the Porto Alegre Bicycle Network. The research findings are available at the dissertation thesis "The relations between urban parks that have adjacent bicycle paths and cyclists who attend them: case studies in the city of Porto Alegre/RS". Jennifer's thesis defense was in September 26th, 2019, under the supervision of André Luiz Lopes da Silveira (P.h.D.).

About cycling, Jenniffer rode for 13,4 miles in 1 hour and 44 minutes between Farroupilha Park (Redencão Park, inaugurated in 1935, the first urban park of the city), Moinhos de Vento Park (inaugurated in 1972) and Marinha do Brazil Park (inaugurated in 1978) to identify, by herself, how cyclists feel when pedaling this route.

To prove her hypothesis, the researcher applied a questionnaire to 304 cyclists, in which she identified that men are more frequent users of the parks than women and that most of them have their own bicycle and are used to going to the parks 2 to 3 times a week. Other findings were that users prefer cycling in the morning or in the afternoon, as they consider the parks to be unsafe in the evening, that the participants have been cyclists for at least 3 years, that climatic conditions influence the decision to cycle and that cyclists frequent the parks alone or in pairs.

"We have identified cyclists from 34 neighborhoods and three nearby cities (Gravataí, Alvorada and Canoas) as our, park users - with Moinhos de Vento Park having the greatest range of neighborhoods and the longest distances (approximately 5,5 miles) to be ridden and Marinha do Brazil Park being the one with the lowest range, both in terms of neighborhood users and ridden distances (about 3 miles). Thus, it is clear that cyclists are willing to ride long distances to get to an urban park," says Domeneghini.

Leisure is the main benefit that urban parks provide for the city and its population, followed by welfare (interaction and green area) and life quality (health). These factors are in line with what the use of bicycles and the bicycle network provide to the citizens of Porto Alegre: health (life quality and less air pollution), urban mobility, sustainability, connection with the neighborhood and leisure. "We are talking about physical and mental health. Cyclists, when in contact with nature, have a high sense of welfare"

In this context, the cycling can be thought of as something which goes beyond a leisure activity. The use of bicycles benefits health, but also reduces pollution and traffic congestion. It is an alternative means of transport that improves mobility, that is cheap, accessible and easy, but which requires a change in society's behavior and culture. "Using the 'bike' can become a habit, but investments from the government as well as respect from the drivers are needed. Nowadays, it is essential to change culture and think about cities beyond motorized transport," emphasizes the researcher.

Lack of infrastructure and security

The lack of infrastructure and security on the bicycle paths and in the parks and their surroundings were the negative points mentioned by the interviewees. "In the comments, the main point was the lack of bicycle infrastructure; everyone said that there's a lack of bicycle paths in the city. When we talk about this point, it is possible to analyze that the construction of these spaces did not take into account the public that rides a bicycle. Subsequent adaptations were made with the insertion of adjacent bike parking facilities and bicycle paths, but there is no bicycle path infrastructure inside the parks," emphasizes the researcher.

The City of Porto Alegre Cycling Master Plan (Plano Diretor Cicloviário Integrado de Porto Alegre - PDCI) outlined in 2009 the objective of implementing 307 miles of roads, which would make up the Structural Bicycle Network. Data collected by the researcher from the Public Transport and Circulation Company (Empresa Pública de Transporte e Circulação de Porto Alegre - EPTC) reveal that only 29 miles of bicycle paths were implemented by June 2019. According to the researcher, "from what I have been monitoring, we reached just over 37 miles in 2020, due to the new bicycle paths implemented. The strategies are focused on motorized transport, but we need to go further and reflect on the impacts of reducing traffic congestion, for example, on people's quality of life and on the city as a whole"

For the research respondents, the investment in infrastructure will provide users with more connection between the city's neighborhoods and a continuation of the route. Another fundamental point for the safety of cyclists is mass media campaigns to raise awareness about and respect for those who cycle. "The interviewees reported situations of insecurity when cycling along with cars or in areas without monitoring, and also the conflict with pedestrians when using sidewalks, or even their battle to overcome obstacles, such as bus stops on the route. I have been through similar situations myself. The places where I feel safer are bike paths or parks," says Jennifer.

Implanted late, the urban parks in the city of Porto Alegre are recent compared to the origin of the city (1772). In addition to the three locations studied, residents of the region also have five more urban parks: Maurício Sirotsky Sobrinho (1981), Marechal Mascarenhas de Moraes (1982), Chico Mendes (1992), Gabriel Knijnik (1997) and Germânia (2006). The research showed that Farroupilha and Marinha do Brazil parks are considered to have the best infrastructure for cyclists.

Open data

Jennifer insisted on making the questionnaire built and adopted in the research available. "I believe that, with open information and a very detailed methodological procedure, more audiences will have the opportunity to use and apply the instrument. Even people linked to the public authorities can use the methods of this research to apply it, in practice, to their cities," she claims.

The questionnaire applied in the survey has 32 questions, five of which are open, in the face-to-face and online formats. The data collection had 304 respondents, 114 in person and 190 online, for three weeks. The data were collected and analyzed by the mixed method (quantitative and gualitative).

This is a new subject addressed by the academy, which excelled in direct contact with research sources. "A lot of research is focused on staying in the laboratory, in theory, without investigating what is happening in the city. I preferred to study on scene, observing the local reality to, in some way, make positive interventions in people's lives and contribute to the city.

The method developed by Jennifer can be replicated in other cities so that the cyclists' perception of the parks can be taken into account by the city management divisions in the formation of a better understanding on how the relationships between cyclists and local bike paths evolve. "The study showed that there is a relationship between the parks and the bike paths, as they influence the cyclists' journey to the parks. However, the parks were not prepared to have a specific infrastructure to serve cyclists.

For the researcher, debates like this are essential for the university, as they prompt the academic research to meet the community's needs. "This allows the research to leave the academic walls and reach the people and the public bodies, however, it is necessary that the research reports are read by people, disseminated among those interested, and the methods, replicated / adapted by professionals. It is necessary that the whole community have reach of what is produced at the university, because the data are open and follow scientific rigor," says Domeneahini.

Benefits both for the city and the population

Jennifer's study points out that the benefits from to the use of bicycles form a cycle in which social, economic, environmental, safety and health issues are interrelated, resulting in an increase in the quality of urban life, a decrease in traffic congestion, an improvement in health for bicycle users, in addition to being a popular leisure and transportation alternative. "The use of bicycles is mainly suggested by their effectiveness in sustainable urban mobility," says the researcher.

The use of a bicycle provides:

- reduction of air and noise pollution;
- reduction of Traffic Congestion;
- reduction of dependence on renewable resources:
- health improvement of the bicycle user;
- guality-of-life improvement of the population;
- · awareness about environmental issues; and access to leisure opportunities.

Jennifer Domeneghini is a doctoral student in the Graduate Program in Urban and Regional Planning (Propur) at the Federal University of Rio Grande do Sul in the research line of Infrastructure and Urban and Environmental Planning, with admission in 2020. She got a Master's in the same research line from Propur in 2019. Graduated in Architecture and Urbanism from Faculdade Meridional (2015). She currently participates in the Group on Space Dynamics and Society. She has research interest in Urban and Regional Planning, with a focus on urban mobility, green areas, infrastructure and urban and environmental planning. For her doctorate, she will seek to investigate micromobility, with a focus on the use of shared bikes and scooters.

Dissertation thesis:

Title: "The relations between urban parks that have adjacent bicycle paths and their customary bike users: case studies in the city of Porto Alegre/RS'

Author: Jennifer Domeneghini

Supervisor: André Luiz Lopes da Silveira

Program: Graduate Program in Urban and Regional Planning (Propur)

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