

Cycling Acceptability Investigation among University Students in Athens, Greece



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Introduction

Cycling is continuously expanding in medium-sized cities of Greece. In Athens the degree of **cycling acceptance** in terms of transport mean is relatively **low** compared to other European cities and safety considerations, imposed due to **limited cycling infrastructures**, are definitely among the top reasons.

Moreover, bicycle expansion in Athens is constrained by two **additional reasons**. On one hand, the **topography** in most areas is rather hilly and thus the mid-aged and aged public are discouraged from incorporating bicycle for their transport needs on a daily basis. On the other, in the Summer time, and especially during the peak period months, the **high temperatures** prevent cycling, at least during the working hours.

The objective of this research is to **investigate** the current trend of **bicycle acceptability** as the main access transport mean through a case study among the university students population. On that purpose a **questionnaire** based stated behavior survey was developed in order to identify the students' willingness to use bicycle as their main transport mean during their access at the University from the metro station. Subsequently, a proposal for a rider friendly **bicycle path** was developed.

Case Study Area

The case study took place at the Technological Educational Institute (TEI) of Athens, which is located at the municipality of Egaleo, 10km distance west of Athens downtown. The TEI is positioned 15 minutes by foot, or 5minutes by bus from the closest metro station, which is the second most popular transport mean for the students access, following the car access.

More than **5000 students/faculty/staff** arrive at TEI on a daily basis from which over 4000 on foot or using public transit. Based on observations, the current figure of bicycle usage as an access transport mean at TEI is less than 30 (<1%).

Cycle Path Design

The analysis of the questionnaire revealed a strong necessity of designing a functional cycle path, where safety should be easily perceived. Therefore, by addressing several traffic calming measures, a bicycle path was drafted which is fairly safe as well as rider friendly. The general layout of the cycle path has a total length of approximately 1.6km.



The most part of the cycling route, over 900m, bypasses a peaceful and beautiful park, the rest of the route consists of low-volume streets and only a distance of less than 70m is close to a busy street,

The Stated Behaviour Survey

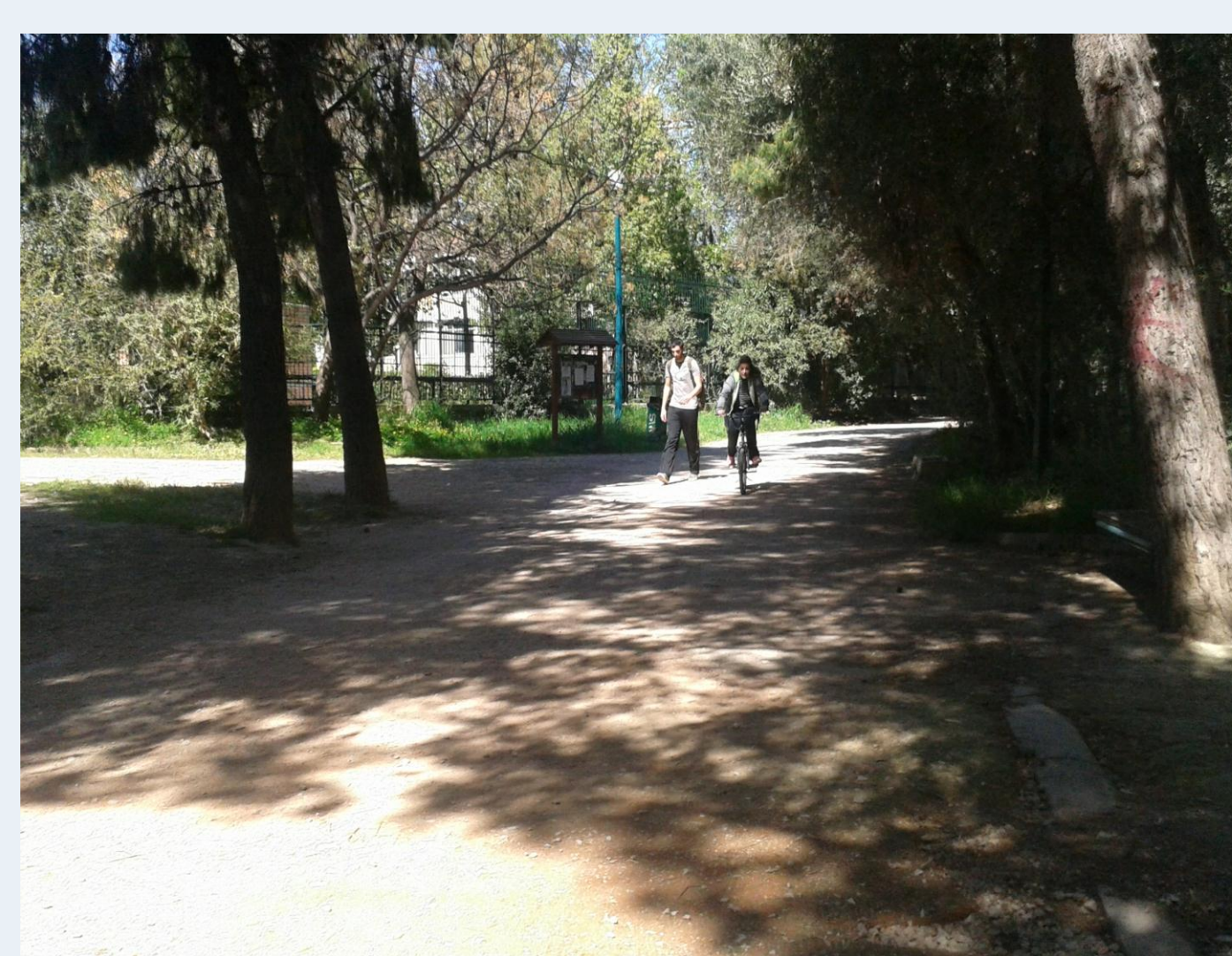
A **questionnaire** was developed in order to identify the **students' willingness** to use bicycle as their main transport mean during their access at the TEI from the metro station. An effort was made the questionnaire to be concise, but at the same time address the students' attitudes towards bicycle use as well as identify potential barriers. The survey took place during the spring period of 2013. **200 students** was randomly selected at the entrances of TEI, from which 40 car drivers and 160 pedestrians (from the metro station), all evenly distributed in terms of sex. The questionnaire included 4 sets of questions.

The first question intended to investigate whether the students are familiar with **cycling**, by asking if they own a bicycle. 3 questions followed next in order to evaluate the cycling frequency, the purpose of cycling, the cycling environment and average cycling time per week. The most important finding was that nearly 75% of the questioned students did not own a bicycle. None was found to use bicycle as his/her main transport mean. This finding is very important and at first glance can be interpreted as determinant in terms of cycling acceptability.

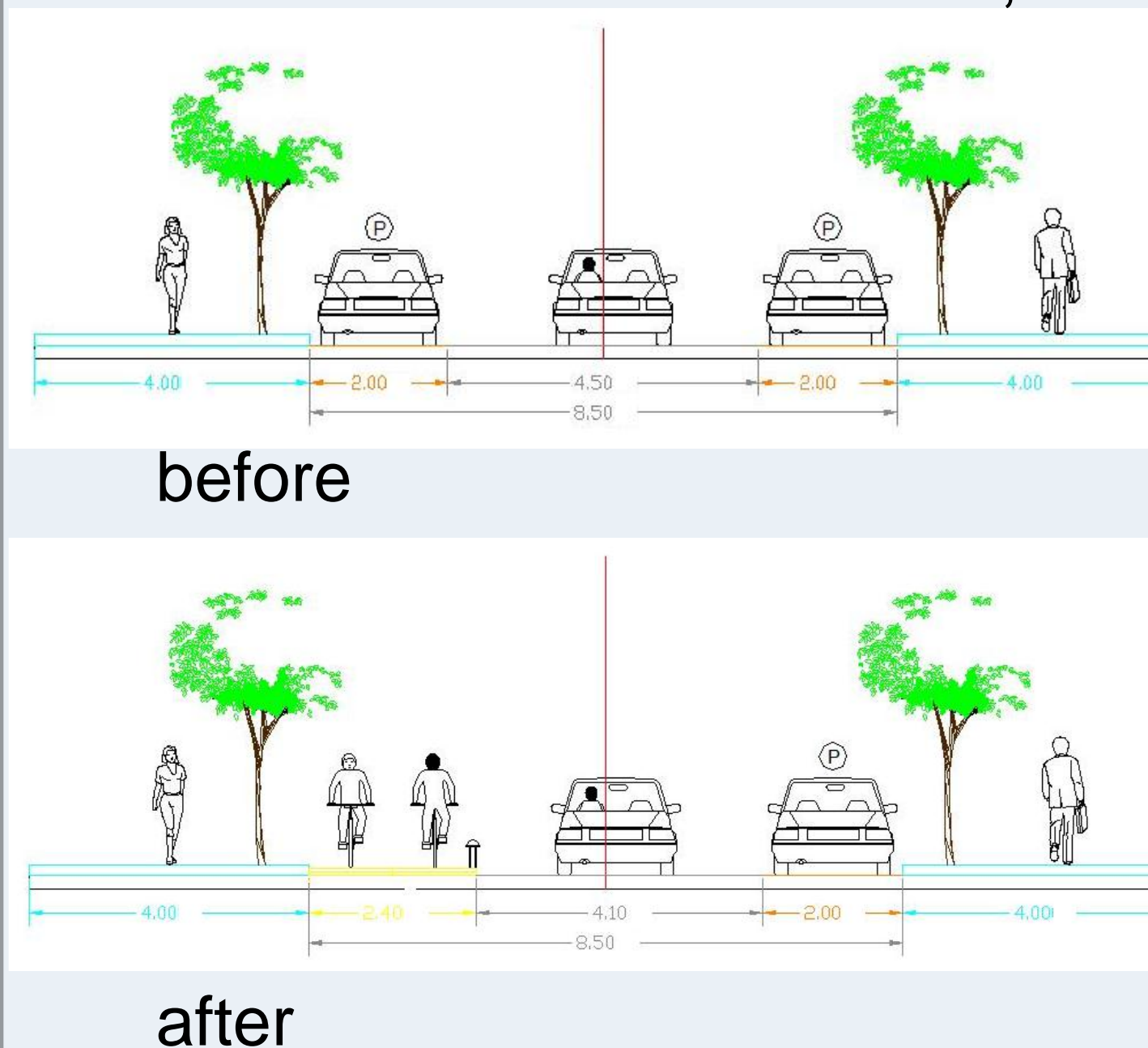


The second question was addressed to the above 75% by asking them the reason. Approximately **85% were feeling unsafe due to lack of bicycle infrastructure**, and cycling policy in general. This finding was not surprising and rather expected, since both issues stated above are widely acknowledged among the inhabitants of most districts in Athens.

The third question was focused in the present case study and explored their willingness to use bicycle as their main transport mean during their access at the TEI from the metro station. They were also asked to estimate their intention in terms of days per week as well as point out the most important requirement. The results revealed a remarkable enthusiasm, since **over 65% of the students using the metro and over 30% of the student car users were expressed positively in such a perspective, at least 3 times per week**. Regarding the requirement almost all converged towards the design of a safe and user friendly bicycle infrastructure as well as cycling promotion activities. The final question addressed on one hand the bike share prospect and on the other a potential fair charge. Once again over 80% of the students were positive in such a prospective, where approximately 2.5€ per route was defined as the mean fare.



For every street before vs after cross sections were provided. The proposed route is in line with the approved street plan of the city, and will improve significantly the quality of movements around the area of the metro station,



Conclusions

Bicycle use as the main transport mean on a daily basis is random in Athens and further methodical actions from broader involved authorities seem necessary in order to promote cycling. Within the framework of the assessed case study, this issue was pointed out by the students.

However, based on the questionnaire, **cyclists' safety** was found to be the most **critical prerequisite**. In other words, the cyclists at all times should feel safe, protected and not exposed to their vulnerability.

Through the assessed study the authors intend to point out the **cycling acceptability degree** among the young population, although there is no evidence that finally the students (potential cyclists) shall embrace the proposed cycling path as their main access mean.

There is no doubt that, the students' willingness to adopt cycling at least as a partial transport mean is revealed. This finding is very important in terms of **motivating** the stakeholders to launch similar initiatives in a more broad and methodical process and forcing them to realise the necessity of improving their citizen's quality of life.

Such a preliminary approach is very guiding to municipalities or local communities aiming to introduce proposed design interventions through cycling acceptability.

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