

## ABSTRACT

In traffic facilities, the users generally spend time waiting to receive the service. Such facilities are designed based on the observable time (clock time). The behaviour and satisfaction of the users inside the facility are primarily based on their perceived value of the time spent waiting, as they are typically unaware of the actual elapsed time. In this thesis, an attempt is made to study the user's perception of waiting time in a gap acceptance scenario, wherein pedestrians (users) await gaps in opposing streams before crossing them. Data is retrospectively collected on both the time scale and linguistic scale responses regarding waiting times. This thesis presents two methodologies for assessing the transformation of the actual waiting time into the perceived waiting time, contingent on the nature of the response data at hand (time scale or linguistic scale). The data suggests that the perceived waiting time serves as a mediator in the relationship between the actual waiting time and the linguistic response regarding waiting time. Both the method estimates and the data suggest an overestimation of the waiting time. The estimates for the methods are obtained and compared to study the similarities or dissimilarities.