

Using a Mobile App to Foster Children Active Travel to School in Spain

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Abstract : In recent decades, family habits related to children's displacements to school have changed, increasing motorized travels against active modes. This entails a major negative impact on the urban environment, road safety in cities and the physical and psychological development of children. One of the more common actions used to reverse this trend is Walking School Bus (WSB), which consists of a predefined adult-sorted pedestrian route to school with several stops along the path where schoolchildren are collected. At Tirso de Molina School in Cordoba (Spain), a new ICT-based methodology to deploy WSB has been tested. A mobile app that allows the geoposition of the group, the notification of the arrival and real-time communication between the WSB participants have been presented to the families in order to organize and register the daily participation. After an initial survey to know the travel mode and the spatial distribution of the interested families, three WSB routes have been established and the families have been trained in the app usage. During nine weeks, 33 children have joined the WSB and their parents have accompanied the groups in turns. A high recurrence in the attendance has been registered. Through a final survey, participants have valued highly the tool and the methodology designed, emphasizing as most useful features of the mobile app: notifications system, chat and real-time monitoring. It has also been found that the tool has had a major impact on the degree of confidence of parents regarding the autonomous on foot displacement of their children to school. Moreover, 37,9% of the participant families have reported a total or partial modal shift from car to walking, and the benefits more reported are an increment of the parents available time and less problems in the travel to school daily organization. As a consequence, It has been proved the effectiveness of this user-centric innovative ICT-based methodology to reduce the levels of private car drop offs, minimize barriers of time constraints, volunteer recruitment, and parents' safety concerns, while, at the same time, increase convenience and time savings for families. This pilot study can offer guidance for community coordinated actions and local authority interventions to support sustainable school travel outcomes.

Keywords : active travel, mobile app, sustainable mobility, urban transportation planning, walking school bus

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