

Pedestrians perspectives on environmental problems, awareness and willingness in changing current mode to walking in a possible way to reduce exposure of o₃ concentrations to school children

ABSTRACT

Increasing ground level ozone has become an important issue because of its adverse effects on health and the environment. Increasing numbers of vehicles is known to be one of the sources of its precursors where gas emissions from vehicle exhausts lead to the production of ground level ozone. Active transports, mainly walking have been found to be the most effective way to reduce the use of private vehicles especially for short-distance travel. In this study, pedestrians' perspectives on the existence of environmental problems and awareness regarding negative effects of these issues and their perceptions towards changing the current mode to active mode were evaluated. According to the surveys conducted at the four selected schools, by referring to the gender, as compared to male respondents, female respondents mostly testified that there were local environmental problems occurred at their area and are aware of the adverse effects of air pollutants exposed to human. As for types of respondents, teachers were much concern with the environmental problems as they spent more time in schools compared than other types of respondents. In terms of race, Indian and Malay respondents were more aware of the negative effects of air pollutants and most willingly to change from current mode to walking. From the analysis of one-way ANOVA and independent t-test, respondents' level of agreement with environmental problems, awareness and potential in changing the current mode to walking were related to the gender, types of respondents and race. Nevertheless, factor of travel distance did not influence the given level of agreement by respondents.

Keyword: Traffic emissions; Traffic congestion; Active transport; One-way ANOVA; Independent t-test