



Travel competence: Empowering travellers



Rosemary Sharples

Faculty of Engineering and Information Technology, University of Technology, Sydney, PO Box 123, Broadway, NSW 2007, Australia

ARTICLE INFO

Article history:

Received 14 July 2015

Received in revised form 12 September 2016

Accepted 18 September 2016

Available online 16 November 2016

Keywords:

Travel competence

Travel behaviour change

Transport culture

Transport metrics

Travel training

Common knowledge

ABSTRACT

In order to make better use of the available transport options, travel behaviour change programmes have been introduced to educate travellers about non-car modes. They aim to encourage people to use public transport, cycling and walking more often, in order to produce a better balanced transport system.

Nevertheless, the private motor vehicle is here to stay. It is the most appropriate mode for some trips, albeit not necessarily all those for which it is currently used. However, research shows that motorists who have their erroneous expectations of public transport corrected are more likely to use it thereafter, than those who do not. This suggests that to maximise the use of modes other than the car, motorists need up to date knowledge and experience of them. Travel behaviour change programmes encourage people to expand their experience of the non-car modes but are designed to correct the overuse of cars rather than prevent it.

In this paper, the phrase 'travel competence' is used to describe the abilities which will allow travellers to make informed choices amongst all the available modes. This will discourage initial excessive use of the car. The paper then discusses the advantages of travel competence, the role that government and transport operators have in enhancing travel competence and minimising the skills required to use any mode. The possibility of utilising the level of travel competence required to use a transport system as a measure of its quality is discussed.

© 2016 Published by Elsevier Ltd.

1. Introduction

It is widely accepted that the current level of use of the private motor vehicle (PMV¹) is environmentally unsustainable (e.g. Han, 2010; Millard-Ball & Schipper, 2011; Moriarty & Honnery, 2007; Tight, Vicat, Bristow, Pridmore, & May, 2007). In built-up areas there are problems of pollution and congestion which have arisen as a result of overuse of cars. In addition, there are difficulties associated with resource depletion, which are independent of the location in which the vehicles are used (Sharples, 2014). Many authorities want people to make greater use of public transport and active transport such as cycling and walking (e.g. City of Sydney, 2016) instead of the PMV in order to alleviate some of these problems. Some authorities have developed programmes to introduce people to modes with which they are unfamiliar (e.g. TravelSmart Australia, 2009). These programmes can vary from self-help (e.g. brochures) to organised tuition. Sometimes this is done on a one to one basis (TravelSmart Australia, 2009).

Nevertheless, in spite of the desire of so many authorities to move travellers away from the car, significant barriers to creating environmentally sustainable transportation systems exist. Low (2005) discusses some of the institutional barriers

E-mail address: 10664340@uts.edu.au

¹ Private motor vehicles include passenger cars, motorcycles and light goods vehicles.

to a more sustainable transport system in Australia. Cole, Burke, Leslie, Donald, and Owen (2010) discuss their survey of the opinions of public, private and community administrators as to the barriers to the greater use of active transport in one area of Australia. Mägerle and Maggi (1999) credit the excellence of Zurich's transportation system to the nature of the political structure, which enabled the city to restrict car commuter traffic to the centre by providing high performance public transport access to the rest of the conurbation. One of the reasons it was able to do this was because it is a rich city, able to make the investment required. Clearly, this will not apply in every case. Maat and Louw (1999) discuss some of the unintended side effects which may occur in programmes designed to reduce the distance travelled by PMV. These side effects may thwart the desired outcomes. They include the example of the introduction of park and ride facilities which led people who might have once travelled all the way by bus, driving instead as far as the park and ride bus site (Mathers, 1999; Simpson, 1998).

Other researchers have also found that some people feel that they cannot operate without a car whether because of the lack of alternatives (forced car ownership) (Currie & Delbose, 2013) or the development of a lifestyle which demands a car in spite of the provision of public transport (Cullinane & Cullinane, 2003). Johansson, Haldt, and Johansson (2006) found that personality has an effect on mode choice. Others have found that driving a car is a very attractive mode, for reasons which include the control and independence that it offers (Handy, Weston, & Mokhtarian, 2005; Stradling, 2002). Otlet (2001) investigated the barriers to change as they are perceived by car commuters, using interviews complemented by self-completion surveys. The answers were condensed to 18 reasons, which ranged from 'too far to walk or cycle' through lack of knowledge required to use other modes and lack of facilities, to having a company car.

Building on previous work (Sharples, 2010), this paper discusses one of the fundamental barriers to the use of any mode – the knowledge of how to use it and the physical resources that are needed in order to utilise those skills. The paper uses the term 'travel competence' to encompass the possession of both these personal capabilities.

This paper is set out as follows: Section 2 discusses some of the barriers to greater use of the more sustainable modes. Section 3 discuss some ways in which the barrier of inexperience in the use of the modes is being overcome. Section 4 discusses the concept of travel competence. Section 5 gives an example of how increased travel competence helped to minimise congestion and delay in a case of unexpected reduction in road capacity. Section 6 identifies some of the further work that must be done to develop the concept of travel competence. Section 7 offers some conclusions.

2. Some barriers to individuals' greater use of non-PMV modes

2.1. The personal costs of travel

It has been observed that when people feel the need to make changes to their travel behaviour, they make small changes in preference to bigger ones (Cairns, Hass-Klau, & Goodwin, 1998, p. 31; Mokhtarian, Raney, & Salomon, 1997). This implies that travel is not an effortless activity; rather, undertaking even the most routine journey involves a cost for the traveller. At a minimum it requires the traveller to expend energy. Often it requires travellers to spend money. Costs, such as the expenditure of energy and money, are incurred as a result of using resources. Those resources can be divided into two types: physical and mental (Stradling, 2002).

Physical resources required by a traveller in order to carry out a journey include one or more of the following:

- appropriate physical abilities (e.g. health, strength, use of faculties) for the chosen mode;
- personal equipment, including appropriate clothing;
- access to a (functional) vehicle;
- time; and
- money.

Costs incurred as a result of the need for physical resources include the physical effort expended in undertaking the journey, which may include, for example, walking and maintaining posture (e.g. balance) (Stradling, 2002). Cycling requires the physical effort of pedalling.

Mental resources required to undertake a trip include cognitive skills and affective effort. The cognitive skills include one or more of the following:

- the ability to plan the trip (e.g. route, time of travel, choice of mode);
- the ability to navigate;
- knowledge of the use of the vehicle (if applicable); and
- the ability to deal with emergencies or devise ways of overcoming obstacles to the satisfactory completion of the trip.

Cognitive effort is expended in using these skills (Stradling, 2002). It should be noted that although not essential, there are physical resources available, such as on-board navigation equipment, which can obviate the need for some of these skills.

Download English Version:

<https://daneshyari.com/en/article/5037455>

Download Persian Version:

<https://daneshyari.com/article/5037455>

[Daneshyari.com](https://daneshyari.com)