The effects of focused attention training on the duration of novice drivers’ glances inside the vehicle

F.D. Thomas*, I. Reagan*, M. Knodler*, A. Pollatsek* and D.L. Fisher*

*University of Massachusetts, Amherst, MA 01003, USA  
* Dunlap and Associates, Inc., Stamford, CT 06906, USA

(Received 7 January 2011; final version received 10 June 2011)

Several studies have documented that the failure of drivers to attend to the forward roadway for a period lasting longer than 2–3 s is a major cause of highway crashes. Moreover, several studies have demonstrated that novice drivers are more likely to glance away from the roadway than the experienced drivers for extended periods when attempting to do a task inside the vehicle. The present study examines the efficacy of a PC-based training programme (FOtward Concentration and Attention Learning, FOCAL) designed to teach novice drivers not to glance away for these extended periods of time. A FOCAL-trained group was compared with a placebo-trained group in an on-road test, and the FOCAL-trained group made significantly fewer glances away from the roadway that were more than 2 s than the placebo-trained group. Other measures indicated an advantage for the FOCAL-trained group as well.

Statement of relevance: Distracted driving is increasingly a problem, as cell phones, navigation systems, and other in-vehicle devices are introduced into the cabin of the automobile. A training programme is described that has been tested on the open road and can reduce the behaviours that lead to crashes caused by the distracted driving.

Keywords: novice drivers; attention; training; distraction; eye movements; field driving study

DOI: 10.1080/00140139.2011.607245