UNIVERSITI TEKNOLOGI MARA

DRIVING SIMULATION DESIGN BASED ON USER PERSONA

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ABSTRACT

Nowadays earning a driving licence has become a necessity for most teenagers that has reached the age of 18 years old. Driving schools are offering interesting package to attract these youngsters to join their school to gain their licence. Nevertheless, the increase of drivers on Malaysian road come the worry of an increase of road accidents. Most road accidents usually involve young drivers with new driving licence. This has somehow spark a question whether driving lesson conducted in these schools are sufficient enough to ensure that the new drivers have enough skills to be a good drivers. Previous studies showed that drivers behaviour and their readiness has been the main factor that contribute to the rise in road accident statistics. This project describes a study with the objectives to identify the new driver persona related to their driving behaviour and to develop a driving simulation model and interface prototype in order to overcome driving behaviour problems. Interviews had been done with three driving school instructors and 15 new driving lesson candidates to identify the real problems faced by them while conducting and attending the driving lesson. A list of user persona had been identified and by using thematic analysis, it had been categorises into four different themes; traffic rules, environment factor, road condition and human behaviour. Based on the identified themes of user persona, a driving simulation model had been design and an interface prototype had been develop. New driving candidates could engage in the driving simulation system to experience a real life driving situation that is most problematic for them. From this study, more research can be done on readiness of the young driver to drive in the real driving environment. The simulation can be improved by upgrading the multimedia simulation to the real driving simulation system which can provide more experience to the user. The heuristic evaluation can be done to evaluate in getting feedback from the user. It will help in improving the simulation design.

Keywords: Driving, driving behaviour, accident, driving school, user persona, driving simulation

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