

Participant Consent Form

Title: Situation Awareness in Road Design: Application of Distributed Situation Awareness Model to Understand Road Infrastructure and Environment.

Investigator: Miss Ipshita Chowdhury

What is the purpose of this research?

It seeks to determine the sources of information and form of feedback required by the driver whilst driving in naturalistic conditions. The study will help to gain an in-depth understanding of interaction of social elements (humans) of roads with that of technical elements (infrastructure). The end result of this PhD aims to formulate design guidelines to design roads for human-users. The first part of the study identified that there is a mismatch which exists between the technical elements of roads with that of the expectations of human drivers. The results obtained from your participation will help to fill that gap with human factor input.

Participation

Q1. What should I know before deciding to take part in the study?

1. You are required to drive your own vehicle in the study. If you do not own or lease the vehicle to be used in the study, you will have to obtain the owner's written permission to use the vehicle before you enrol in the study.
2. You will be required to produce a valid MOT certificate of the vehicle which you will be driving and your driving licence as your age proof before you commence the study.
3. You are providing permission for Miss Ipshita Chowdhury to collect data including audio recording of your voice. You will be accompanied by the experimenter while you drive on the selected course of road. You need to drive from Heriot-Watt

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University to A71 and back to Heriot-Watt through M8. When you finish driving on A71 you will be given a small questionnaire to fill.

4. **You will be solely responsible for you own safety, safety of other road users and as well as for the safety of your vehicle. Neither Heriot-Watt University nor any member of staff not student can be held responsible on any event of traffic violation or accident whatsoever.**
5. You may withdraw from the study at any time without any penalty. Your participation in this project is absolutely voluntary.
6. The data collected from you will be confidential and will be used for future research in transportation ergonomics only.

Q2. What do I have to do if I choose to participate?

1. Drive as you normally would.
2. Have the vehicle equipped with a data logger and a voice recorder. A data logger is an electronic device that plugs into your car and records items such as speed, throttle position and other vehicle parameters (rather like the diagnostic equipment that garages use). It has no effect whatsoever on the performance of behaviour of your vehicle.) that records data over time via sensors. Data-loggers generally are small, portable, battery powered equipped with a micro-processor and internal memory for data storage.
3. You are required to speak as you traverse the road. You need to speak about your view of the road you are driving on, in terms of infrastructure and various design elements of road. Ideally you should speak out the features which are helping you to drive on the road and the ones which are causing hindrance. In a nutshell, you need to just speak out loud about what you are doing, seeing, feeling, planning etc. The important thing is to keep talking even if it doesn't seem to make any sense.
4. Have a 'safety first' attitude. You need to be extremely careful of your own safety and safety of other road users. Please bear in mind at all times that only you are

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responsible for safety of yourself and those around you. Heriot-Watt university and its student and staff are liable for any violation or accident.

Q3. What happens when the study is over?

1. After the study is over, you will be asked if you will be available for the next phase of the thesis which is validation studies. If you are you will be given a DVD in addition to the £20 which you receive from your participation in this study. Your participation in future studies is totally optional. If you are not willing to participate in future studies then your personal details will be deleted from the record, your choice to participate in the validation studies won't have any impact on the on-road study you are participating in.
2. Once all data is collected, analysis and reporting stage will commence. The results obtained from you **might** appear in published sources which are academic in nature. However, these sources will not identify you or any other participant by neither name, nor the audio recording will be used for any other purposes other than academia.

Q4. Are there any risks?

The data collection device or devices which will be installed in the system will not have any effect; neither negative nor positive on drivability or on the operator. This means your participation in this experiment will carry a similar risk to when you operate your vehicle while you drive on any road. The data logger is a simple 'read only' device, and has no effect on the behaviour or performance of your vehicle. Providing a verbal protocol is a technique used in police and advance driver training, and you will be providing it as the road conditions dictate: there is minimal risk. Thus, data logger and providing a concurrent verbal protocol will not pose as an additional threat to driving.

Q5. What are the benefits of participating in this study?

There are no direct benefits to you from this research, but you may find this experiment interesting. No promise or guarantee of benefits is being made to encourage your participation. It is believed that your participation will help to design safer roadways and vehicles in future years. It is also believed that your participation will help to improve the

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body of knowledge regarding driving behaviour and safety. On a more overt side, you will receive copies of your vehicle telemetry and a very own driving profile!!

Q6. Has this research been approved?

Yes! This study has been approved by the ethics committee of Heriot-Watt University, Edinburgh. Moreover, it has also cleared the risk assessment and is found to comply with the health and safety norms of the university.

Consent to Participate in On-Road Study

I _____ (participant) have read and understood this consent form and conditions of participation. I understand what is being asked of me. My questions have been answered. I freely agree to participate and have not been forced into participation. I understand that the participation is voluntary and that I may withdraw at any time without penalty.

I certify that I am the owner of the lessee of the vehicle that will be used in the study or have the permission from the owner or lessee of the vehicle, and that I am permitting the data logger to be installed in the vehicle. I certify that I hold a valid UK driving licence, above 18 years of age and have a valid MOT certificate.

_____ by initialising here, I acknowledge that my participation in this study will result in audio recording of my voice whilst I drive.

_____	_____	_____
Participant	Signature	Date

_____	_____	_____
Experimenter	Signature	Date

Should I have any questions about this research or its conduct, I may contact:

Miss Ipshita Chowdhury

ic58@hw.ac.uk

01314518369

I have read, agreed and understood the statements in this form.

The participant must be provided with a copy of this consent form