

Focus Group Moderator's Guide

Driver Alcohol Detection System for Safety (DADSS)

Focus Group Goals (for moderator)

- Gauge public perception of advanced in-vehicle alcohol detection technology
- Provide input to technology design (two approaches)
- Seek guidance on technology introduction strategy

Introduction

Please tell us your first name, what type of car you drive and what you like most about your car.

Public Perception (reaction to the technology)

- Are you all familiar with the seatbelt reminder system in many vehicles (graphic and audible signal to buckle up)? If participants are unfamiliar with terminology, explain. How do you feel about the seatbelt warning system in your car? What do you like? What do you dislike? What is the benefit to having this in all new cars?
- New vehicles have more and more safety technology (to help you drive safely). For example, one technology you may have heard about is known as Adaptive cruise control. It is similar to conventional cruise control in that it maintains the vehicle's pre-set speed. However, unlike conventional cruise control, this new system can automatically adjust speed in order to maintain a proper distance between vehicles in the same lane. Another technology that some vehicles have is Electronic Stability Control. ESC is a vehicle control system that continuously monitors how well a vehicle responds to a driver's steering input and selectively applies the vehicle brakes and adjusts engine power to keep the vehicle traveling along the path indicated by the steering wheel position. This technology helps prevent the sideways skidding and loss of control that can lead to rollovers. It can help drivers maintain control during emergency maneuvers when their vehicles otherwise might spin out. Do any of you have these technologies in your car? What do you like about these technologies? To what extent do they add to your overall safety? What concerns do you have about them? What has been your experience with them?

Alcohol-Impaired Driving Technology

Last year 13,000 people died in car crashes due to alcohol. While this number has declined over the years, a third of all fatal crashes still involve drunk drivers. Both the auto industry and the US

government are looking for ways to further reduce highway fatalities and accidents that involve drunk drivers.

- What do you know about vehicle-based technologies to prevent drunk driving?
- Add missing facts about breath-based interlocks. Explain how they are used if participants are not familiar (i.e., must blow into a tube). Maybe explain that they are a part of the state's way of controlling drivers who are convicted of driving while intoxicated.
- Have any of you had any experience with one of these systems? If so, can you share it?
- What opinions do you have about these systems? probe: effectiveness, intrusiveness, reliability

Alternatives to Current Technology

The existing technology has helped, but the alcohol-impaired driving problem remains so both the government and the auto industry worldwide are looking for new more effective in-vehicle technological solutions.

Specifically, we are looking for ways to measure blood alcohol level that doesn't inconvenience the driver.

These advanced technologies measure only the alcohol concentration within the human body. They are not sensitive to other substances that might contain alcohol such as mouth wash, hand sanitizer, window washer fluid, and rubbing alcohol.

The first system is breath-based. After you get into your car and before your vehicle can move, the system will quickly and accurately measure the alcohol content in the driver's breath without the need to breathe into a tube. Use graphics to illustrate.

- What is your overall impression of this technology?
- Do you have concerns about this technology and if so, what are they?
- To what extent would this inconvenience you?
- Suppose you rent a car or use a friend's car. How important is it for you to know that the system is in the car? Poll participants: Not important, somewhat important, very important. Why do you feel this way?
- If safety systems in today's cars are functioning properly, the driver doesn't even know they exist. However, if there is a problem, a warning light appears on the dash.
 - Should alcohol detection technology work in the same way? Comments?
- How would you feel if the system detected that you had been drinking and asked you to provide a short breath sample targeted at a nearby sensor?

The second system is touch-based. It measures the alcohol content in your finger tissue. It cannot sense through a glove so it requires that the driver remove a glove, if he or she is wearing one. This sensor could be placed at various locations in the vehicle such as the steering wheel, a start/stop ignition button, or a gear lever.

- What is your overall impression of this technology?

- Do you have concerns about this technology and if so, what are they?
- To what extent would this inconvenience you? Probe – removing glove
- Suppose you rent a car or use a friend’s car. How important is it for you to know that the system is in the car? Poll participants: Not important, somewhat important, very important. Why do you feel this way?
- If safety systems in today’s cars are functioning properly, the driver doesn’t even know they exist. However, if there is a problem, a warning light appears on the dash.
- It is possible to add a biometric security system to this type of technology that would know the driver or others who have been approved to drive the vehicle and prevent theft of the vehicle. Would the addition of this feature make it more acceptable?

General Questions

- How long do you think such a system should take to measure a driver’s alcohol concentration? What would be an acceptable amount of time that should lapse before the vehicle can be driven?
- One option would be to use a two-tiered system whereby an initial system very quickly detects whether alcohol is present. If no alcohol is detected, the driver will be able to operate the vehicle just like you do now. There is no change in the manner of operating the car. If alcohol is detected an additional sample may be required, such as briefly exhaling toward a sensor that could be in the steering wheel or pressing a button. This could take an additional 10-15 sec to register an accurate alcohol reading. This system is more convenient for the sober or non-drinking driver but will require additional action and/or time only for the drinking driver. How do you feel about this system?
- How would you feel if an alcohol detection system in your vehicle prevented you from driving if you registered over the legal limit?
- What concerns do you have about having a system in your vehicle that measures alcohol level? Probe – privacy, reliability, cost, maintenance/servicing requirements
- How would you feel if this system were required equipment, just like seatbelts, in every car?
- Would you want this in your car?
- What benefit is there to having this type of system in every car?
- What do you see as the obstacles to having this system in every vehicle?