

Principal Investigator: Cynthia Owsley, PhD  
Guiding the Design of Reconfigurable Displays in Vehicles to Facilitate Use by Older Drivers

## **Vehicle Instrumentation Preferences Focus Group Protocol**

### **Date/Time:**

### **Moderator:**

### **Welcome, Intro:**

Thanks for coming today. I'm (NAME) and I'm going to be the moderator for this group. I'd also like to introduce (NAMES OF CO-MODERATOR, OTHERS).

### **Informed Consent, Oral Notification of Taping:**

Before we begin, I need to ask you to sign the informed consent document you have in front of you. Would anyone like me to read it out loud? Do you have any questions about it? READ IF NEEDED AND ANSWER QUESTIONS – ASK THEM TO SIGN THE FORMS AND COLLECT THEM.

We mentioned this before but just to remind you, this session is being audiotaped. We will be using these only for making the transcripts, which will not contain your last names. After that, the tapes will be destroyed. Does anyone have any questions or objections?

### **Ground Rules for Group:**

Let me give you a few quick ground rules for the group. First, everyone's opinion is valued and it's OK to disagree with each other or with me. We are very interested in hearing about all points of view. It's OK to talk to each other and not just to me. It's OK to get up for more coffee or to go to the restroom and since our time is limited I may need to ask you to stop and change topics from time to time. I'll give you the "Time out" sign if we need to do that.

### **Introduction of Participants:**

Now I'd like to go around the table so each person can give me their first name only and tell me in a few words something they did this week that was important or fun. Again, no last names or other information that would identify you and keep it short, please.

### **Introduction of Subject of Group:**

The primary reason we are here today is to talk about cars, specifically the instrument panels or dashboards. Some of the specific things about dashboards we would like you to talk about are the location of dials, switches and levers and how easy these are to use. We are also interested in dashboard lighting. We are not only interested in the dashboard

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of your car but also those you have seen perhaps in friends' cars or rental cars. You should also talk about things you would like to see in cars that you have never seen before. Things you would put in a car if you had to make one.

### **Involving Exercise:**

I want to start by asking each of you to tell me the first thing you think of when I mention "dashboard". I will start, "cluttered". **SKIP AROUND THE TABLE, WRITE WORDS ON FLIP CHART.**

### **General Discussion:**

**LOOK AT WORDS AND PICK A FREQUENT OR USEFUL WORD FOR A DISCUSSION STARTER AS WELL AS A PERSON WHO SEEMS READY TO TALK.**

ASK: (NAME), you've said (WORD or PHRASE). Please start up by telling me more about why you said that.

**NOTE FOR ANYTHING MENTIONED IT MAY NEED TO BE CLARIFIED AS TO WHETHER THE COMMENT IS POSITIVE OR NEGATIVE**

### **Gauges**

**EXPLAIN TO THE GROUP THAT BY "GAUGE" WE MEAN A FUEL INDICATOR, ENGINE TEMPERATURE, SPEEDOMETER, ET CETERA**

**NOTE THAT COLOR AND LIGHTING ISSUES APPEAR BELOW. THE INTENT HERE IS TO FOCUS THE DISCUSSION ON GAUGES IN TERMS OF THE INFORMATION THEY ARE MEANT TO PROVIDE.**

- Do you think there are too many gauges in vehicles? Why or why not?
- Do you have problems seeing the needle some on the speedometer or on other gauges?
- Do you limit driving in extreme brightness or at night because of the ability to see the speedometer or other gauges?
- Do you think there are too few gauges in vehicles? If so, which additional gauges would you like to see?
- Which gauges do you use most frequently?

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- What do you think are the most important gauges?
- Do you prefer gauges that use needles as indicators or do you prefer computerized/readouts?

### **Knobs & Switches**

**NOTE COLOR / LIGHTING/ PLACEMENT ISSUES APPEAR BELOW. THE INTENT HERE IS TO FOCUS THE DISCUSSION ON KNOBS & SWITCHES IN TERMS OF THE FUNCTION THEY ARE MEANT TO PERFORM.**

- Do you think there are too many knobs and switches vehicles?
- Do you find certain types of knobs and switches easier to use than others?
- Do you prefer large or small knobs? Why?
- Would it be a problem for you if the knobs were different sizes? Why?
- Should knobs and switches only do one thing or server multiple purposes?
- Do you know the function of each of the knobs and switches in your car?
- Do you have a hard time using the controls for your side-view mirrors? If so, why?
- Would you prefer to “tell” the car what to do instead of having to operate knobs and switches?

### **Lighting**

- When you drive at night is the dashboard too dark or too bright?
- Do you know how to adjust the brightness on your dash?
- If you have the gear shift on your steering wheel, do you have difficulty seeing the gear indicator?
- Is the color of the lighting on your dashboard distracting? If so, how?
- Does the color of the lighting on your dashboard make it harder to read the speedometer or other gauges? Do certain colors for the lighting cause a lot of

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glare problems?

- Does the lighting on the dashboard ever make it hard to drive your car at night?
- Would you like to be able to customize the color of the lighting on your dashboard for each driver's preferences?
- Are you bothered by reflections from the windshield or the side windows?

### **Color**

- Is it hard to locate things on the dashboard because everything is a similar color?
- Is the color of knobs and switches important to you? If so, why?
- Have you ever driven a car that uses 'fashionable' colors in the dashboard design (reds and blues)? What's your opinion of these designs?

### **Font/Lettering**

- Does the lettering on knobs and switches make them hard to read? If so, how?
- Does the lettering on the speedometer and other gauges make them hard to read? If so, how so?
- Are some of the abbreviations on the various knobs and gauges confusing? Can you tell what they mean right off the bat?

### **Words & Symbols**

- Do you find the symbols that appear on dashboards hard to understand?

### **Location/Placement**

- Do you have to sit too close (closer than you feel comfortable) to the dashboard to read and operate everything properly?
- Does the placement or location of knobs and switches make them hard to use? If so, in what ways?

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- What knobs and switches would you like to have closest to you the driver? Which ones could be further away with little or no inconvenience?
- Does the placement of gauges like the speedometer and gas gauge make them hard to read? If so, in what ways?
- How do you feel about placing buttons to operate things like the radio, cruise control, et cetera on the steering wheel?
- Would you like to be able to change the location of various knobs, switches and gauges are on the dashboard? If so, how?
- Would you like to see certain gauges projected (like a movie) on the windshield so that you would not have to look away to see them?

### **Entertainment/Navigation**

- Do you think vehicle navigation systems are useful? If so, why?
- Do you think vehicle navigation systems are distracting? If so, why?

### **Wrap-up**

Are there any areas we did not talk about that you think are important for us to know about dashboards?

### **Questions to Moderator**

Do you have any questions about this group or why we held it? Any comments you'd like to make?

### **Thank you**

Again, thank you for coming. We learned a lot and it was a pleasure talking with all of you. Thank you for sharing your thoughts.

### **Final Arrangements**

Parking deck stamps, payment arrangements, etc.