

# Participatory Design Sessions

This document outlines the steps for participatory design sessions. The purpose of each session should be to understand usability issues with the current prototype and to receive feedback on suggested user interface changes. Particular attention should also be paid to ensure the design meets the users' needs.

## ***Participation***

Schedule 10 participants external to Microsoft

Participant requirements:

- ⇒ Women of any age, with at least one child over the age of 4
- ⇒ At least one from each of these categories:
  - Has at least one child between the ages 5 and 12
  - Has at least one child between the ages of 13 and 18
  - Has at least two children between the ages of 5 and 12
  - Has at least two children between the ages of 13 and 18
- ⇒ At least one from each of these categories:
  - Working
  - Stay-at-home Mom
- ⇒ At least one from each of these categories:
  - Single parent
  - Married / domestic partner

Time for each session:

- ⇒ 1.5 hours

Preferred dates:

- ⇒ Friday, June 24, 9 am to 5 pm -- 2 sessions
- ⇒ Monday, June 27, 9 am to 12 pm, 3-9 pm -- 2 or 3 sessions, prefer before 5 pm
- ⇒ Tuesday, June 28, 9 am to 9 pm – 2 or 3 sessions, prefer before 5 pm
- ⇒ Wednesday, June 29, 9 am to 9 pm – 2 or 3 sessions, prefer before 5 pm

## ***Materials***

- ⇒ Consent Form
- ⇒ Pre-study Questionnaire

## ***Preparation***

Ask participants to bring a copy of their own family calendar and any electronic devices they use to schedule events. This may involve bringing in electronic calendar data for a particular time period (e.g., next month).

## **Introduction**

*The following description should be read to each participant at the beginning of the study to inform participants of the procedures prior to giving consent. Italicized text is instructions to the investigator.*

*Introduce yourself and show them the Control Room (e.g., nothing funny is going on and an entire room of people aren't watching you).*

- My name is \_\_\_\_\_, and I will be giving you instructions on what to do and will answer your questions.
- We're studying how people currently use calendars to plan and schedule family activities. Our goal is to understand how a family calendar for the home should be designed.

*Tell them about the experiment.*

- The study will first involve us asking you about your own calendar usage and experiences.
- Next, we'll show you a paper prototype of a possible design that we have made for an electronic family calendar. We will ask you questions about our design and are really looking for areas where you feel the design could be improved. Throughout the study we will be recording your comments providing that this is fine with you.
- If it is fine with you, we'll be video taping the session in case there is anything we don't have a chance to write down.

*Tell the participant that it's OK to quit at any time.*

- If you feel uncomfortable, you are free to quit at any time. Do you have any questions at this point?

**Consent Form:** *Give them the consent form to sign. If it is not signed, do not proceed.*

**Pre-Study Questionnaire:** *Ask the participant to fill out the pre-study questionnaire.*

## **Step 1: Participants' Calendar (< 15 minutes)**

*Proceed with discussion about the participant's calendar.*

- We would now like you to describe to us how you use the calendar(s) that you have brought in. Please tell us what you use the calendar for, when you use it, and who uses it.
- Do you have any other calendars at home that you could not bring but routinely use?

*Follow-up with questions about the participant's calendar usage and needs.*

## **Step 2: Tasks (< 30 minutes)**

*A subset of the following tasks should be completed with each paper prototype. The participant should play the role of the user in each scenario.*

*Tasks are ordered as follows:*

- *Simple introductory tasks (1,2)*
  - *Important tasks (3,4,5)*
  - *Less-important tasks (6-to end)*
- We're now going to have you go through a series of tasks with a paper prototype. The idea is to try and uncover any usability problems that we may have with the interface.

*Talk about the paper prototype a bit.*

- Here's the prototype. You will see it is made entirely of paper and < person > will play the role of the computer and update the screen as needed. < person > will be taking notes and will provide you with any help along the way. Because the interface is made of paper, things may be slow or we may mess up. If certain parts of the system are not designed yet or unavailable, < person > will just say "System down."
- Please be patient with us and remember that we are evaluating the system and not you. If you uncover any problems, it is the fault of the system and not your own.
- The system is designed to run on a display hanging on your kitchen wall (like a Tablet PC). You can interact with the calendar using a stylus / pen by clicking, dragging items, writing, etc. Here's your stylus.

*Describe Think Aloud procedure.*

- While you are performing the tasks we are going to ask you to think aloud. This just means actually saying out loud what you are doing and why you are doing it. It helps us to better understand what you are doing. Would you like an example?
- If you forget to think aloud, we may prod you during the tasks by saying something like, "and what are you doing now?"

*Describe the family scenario to them.*

- I'm now going to describe to you a family for whom you will play the role of the mom when you go through the tasks. While this may not reflect your current

lifestyle, we hope that the tasks you will perform do in fact reflect things that would actually occur for you.

- However, please tell us if any of the tasks that we have you perform are different than what you and your family would really do in the given situation.

*The Usable Family:*

Marge and Phil Usable are parents of two children, Dawn aged 7 and Lacey aged 15. Both Marge and Phil work outside of the home. They have one car that is typically used by Marge during the day to commute to work and in the evenings by either parent to take the children to various extracurricular activities. Phil typically takes public transit to and from work. Dawn and Lacey are both generally involved in a variety of extracurricular activities outside of school.

*Summary:*

Marge – mother

Phil – father

Lacey – daughter, age 15

Dawn – daughter, age 7

### **Step 3: Prototype Usage (< 15 minutes)**

*Perform the following steps for the paper prototype.*

1. **Conceptual model generation:** ask the person how they feel the user interface works and what functions it performs.

How do you think you *add* an event / appointment?

How do you think you *move* an event / appointment?

How do you think you *remove* an event / appointment?

How do you think you *add people* to an event / appointment?

How do you think you add a *tentative* event / appointment?

How do you think you make an event / appointment *no longer tentative*?

What different time periods do you think you can view the calendar with?

2. **Tutorial:** explain how the user interface works and the functions it performs.
3. **Feedback:** ask the participant what they would change and why.

Today: June 15, 2005

Lacey usually arrives home after school around 4 pm. You arrive home from work at 5 o'clock and can't find Lacey anywhere.

*Find out where Lacey is currently.*

Where is Lacey? \_\_\_\_\_

Today: June 20, 2005

You are at work and realize you will have to stay late tonight past your usual 5:30 pm. You need to check the home calendar to see if you have any commitments for tonight. Luckily, you can view your home calendar through a web page at work.

*Check the home calendar and see if you are free tonight.*

Are you free tonight?

- a. Yes
- b. No



Today: June 20, 2005

**Part I:**

You receive a call from your friend, Susan, who wonders if the family is available to come to her house for dinner on Friday around 6. You check your schedule.

*Check the calendar to see if anyone in your family is busy.*

Is anyone in your family busy?

- a. Yes
- b. No

**Part II:**

You tell Susan that Friday is fine, but that you have to check with Phil.

*Schedule the event as 'tentative' (requiring Phil's approval).*

Do you see a 'tentative' event with Susan's family on your calendar for Friday?

- a. Yes
- b. No

**Part III:**

When Phil arrives home that night you tell him about the get-together. Phil says that it is fine so you confirm the event.

*Confirm that the time is fine.*

Do you see an event on your calendar with Susan's family for Friday that is no longer tentative?

- a. Yes
- b. No

Today: June 20, 2005

**Part I:**

Susan discovers that her family can no longer meet on Friday with your family. Susan calls you to explain the situation and asks if Saturday is fine. You check your family calendar.

*Check if Saturday is free.*

Is Saturday free?

- a. Yes
- b. No

**Part II:**

You see that your family has no plans for that evening. You change the date of the event.

*Change the date of the event.*

Do you now see an event with the new date?

- a. Yes
- b. No

**Part III:**

When Phil arrives home that night he sees that the event has changed but he remembers he had not yet put in the calendar that he bought tickets for the family to see the circus that night. Phil tells you about the circus tickets. You remove the get-together with Susan from the calendar, and then enter the family event for the circus. The circus runs from 6:30 – 8 pm.

*Remove dinner event with Susan.*

*Add a family event for next Saturday.*

The next day, you call Susan to discuss a new date for their families to get together.

Do you now see the circus event scheduled for Saturday?

- c. Yes
- d. No

Today: June 21, 2005

**Part I:**

You receive a phone call from an old friend, Kimberley. Kimberley is in from out of town and wants to get together with you tomorrow night (Wednesday) around 7. You check the calendar to see if you are responsible for any of the childrens' activities tomorrow.

*Check the calendar to see if you are responsible for any of the childrens' activities tomorrow.*

Are you responsible for any of the childrens' activities tomorrow?

- a. Yes
- b. No

**Part II:**

You realize that you and Phil only have one car so you tell Kimberley that it is probably fine as long as Kimberley picks you up. You'll have to confirm with Phil though and then get back to her. You add the event to the calendar.

*Schedule the event with Kimberley tentatively until you can check with Larry.*

Do you now see the tentative event on your calendar?

- a. Yes
- b. No

Today: June 21, 2005

Lacey arrives home one day from school and tell you that she just heard from her band teacher that they may be going on a band trip in the fall for a week starting September 13th. The date is not yet confirmed but you add this trip to the family calendar as a tentative event so your family knows Lacey may be away that week.

*Schedule a tentative event for the trip.*

Do you see a tentative event for the trip now?

- a. Yes
- b. No

Today: June 21, 2005

**Part I:**

Dawn is involved with music recitals every week. You need to resolve any conflicts between her schedule and the recitals for the remainder of this week. You view everyone's events to see if there are any conflicts.

*Check for conflicts.*

Are there any appointments that conflict with Dawn's recitals?

- a. Yes
- b. No

If so, which day? \_\_\_\_\_

**Part II:**

You see that Lacey's gymnastics appointment on Thursday conflicts with Dawn's recital. You need to tell Lacey that she will have to get a ride with a friend. You set the appointment as a 'to do' item until you can talk to Lacey.

*Make the appointment a 'to do' item.*

Today: June 21, 2005

You've just found out that Phil's soccer practices will be Tuesday nights from 7 to 8 pm starting next Tuesday until the end of July. You schedule a recurring event for the practices.

*Schedule a recurring event for the soccer practices.*

Do you see a recurring event for the practices?

- c. Yes
- d. No

Today: June 21, 2005

Lacey has decided to join field hockey with her school. She has told you that practices will be next Wednesday, the following Tuesday, and then the following Monday. Each runs from 7-8 pm.

*Schedule a recurring event for the practices.*

Do you see a recurring event for the practices?

- e. Yes
- f. No