



Evaluation Manual  
Prototype Testing

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# 1 Introduction

This manual should help the pilot partners to perform the evaluation sessions on the interactive SALSA wireframes. It contains basic information on the evaluation techniques used as well as the tasks, which the end users should perform with the application.

The evaluation consists of three parts:

- 1) Short **personal background questionnaire**.
- 2) **Thinking aloud sessions** with target users observed by researchers from the pilot partners
- 3) **User experience questionnaires** filled out by end users at the ends of the evaluation session

Our goal is to gather as much feedback as possible, which helps to identify any design issues before the development gets to the expensive part of the process. The UEQ provides a first rating and a benchmark (compared to about 450 other tested products). The personal background questions help us to assess the digital literacy of the test users.

Running user tests will help us to:

- Identify if users are able to complete specific tasks successfully
- Establish how efficiently users can undertake predetermined tasks
- Pinpoint changes to the design that might need to be made to address any shortcomings
- Make subjective findings: Do users enjoy using the application?

These findings and results provide valuable feedback that help shape and improve the user experience of the SALSA application.

**The interactive prototype evaluation should be conducted with 3-5 end users per target group (people 55+ and trainers) per pilot site.**

The identified issues from the evaluations are documented in Trello<sup>1</sup>, where boards for each user group and experts per partner are installed. Individual invitations are sent out to each partner to access the boards. **All issues shall be reported in Trello.** It is likely that the same issues are reported several times, but the frequency of issues is also a valuable information for us in this phase.

- Trello board for evaluation with people in 3rd age (55+): <https://bit.ly/32gntET>
- Trello board for evaluation with trainers: <https://bit.ly/3gUrWB8>



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<sup>1</sup> <https://trello.com/>

Picture from: <http://bit.ly/373gf5N>

## 2 Thinking Aloud

Developed by Judy Ramey, University of Washington, with additions by Usability Analysis & Design, Xerox Corporation<sup>2</sup>

### 2.1 In General

Think-aloud user tests involve participants thinking aloud as they are performing a set of specified tasks. Participants are asked to say whatever comes into their mind as they complete the task. This might include what they are looking at, thinking, doing, and feeling. This gives observers insight into the participant's cognitive processes (rather than only the tested prototype). Think-aloud sessions are best done with two observers, one is guiding the test, explaining things, asking questions, ... the other observer is primarily taking notes of what participants say and do, without attempting to interpret their actions and words, and especially noting places where they encounter difficulty.



### 2.2 Guidelines for the observers

- **Be careful of the social dynamics you set up with the participant**
  - Don't joke, indulge in sarcasm, flirt or betray your own nervousness
  - Maintain a professional, neutral persona
  - Keep yourself "small" in relationship to the participant. Sit slightly back from the participant, in a chair that is lower.

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<sup>2</sup> <http://bit.ly/397tFiO>

Picture from: <http://bit.ly/2S6YVJd>

- Avoid wearing heavy perfume or aftershave. The participant may have allergies to the odor or find it distracting.
- Don't wear suggestive, revealing or tight, uncomfortable clothes.
- **Don't bias the participant**
  - Don't betray your own views or opinions of either the participant's level of skill
  - Don't let the participant become aware of any bias you may have about the product.
- **Avoid interactions with the user that can shift the focus from the user's domain to the designer's**
  - Don't expect the user to tell you how to fix problems
  - Don't expect the user to answer other design questions
  - Always keep the focus of attention on the user, not yourself. Avoid "I" statements and long explanations of how the system works.
  - Stay in the relationship with the participant. Don't worry about the next question you are going to ask.
  - Write down design ideas so that you don't need to worry about forgetting them after the test.
  - Don't let yourself get impatient!
  - When the participant seems to have a problem, they can often unravel it without your help.
  - When you feel you should jump in, count to ten first.
  - If you jump in too soon, you lose valuable data and they become dependent on your help.
- **Learn to probe in a neutral way to get information on which to base your design improvements**

## 2.3 Techniques that encourage thinking out loud

### 2.3.1 Prompting

- **Focus on tasks, not features**

Don't ask "Do you like that dialog box?" but "Did that dialog box help you reach your goal?"
- **Focus on questions, not answers**
- **Explore user thinking in a neutral way**
  - Don't be too quick to assume that the user is lost or having a problem.
  - Don't say, "What is your problem here?" but ask, "What is your goal?" or "What are you thinking you should do here?"
  - Don't betray your own interests or point of view by your comments, emphasis, "waking up" and getting interested, showing in facial expression or vocal tones that you disagree
- **Good user-focused questions:**
  - What is your goal?

- What did you expect when you did that?
- How did you expect that to work?
- Can you tell me what you were thinking?
- What do you want to accomplish here?
- Describe the steps you are going through here.
- How did you feel about that process?
- Tell me about your thinking here.
- What did you expect to happen when you ...?

### 2.3.2 Echoing

- **Repeat their own word or phrase back to them as a question: “That message is confusing?”**

Echoing sets up a social dialog and reinforces social conversation expectations: they say something, you repeat it, they say the next thing because that is what is expected in conversation.

- **Don't put words in their mouth, or offer interpretations**
  - If they say, “I'm not sure what to do here,” don't say, “So you are confused because the menu bar is unclear?”
  - If they say, “That didn't happen like I expected, don't ask, “So you thought that the task menu would be displayed here?”
- **Signal that you're listening (Mmm hmm ...)**

### 2.4 Conversational disequilibrium

- **Let your statements trail off and end in an upswing, as if you were asking a question. The participant will usually complete your statement.**
  - “And you were expecting. . .?”
  - “And your goal is . . .?”
- **Signal that you are there, you are interested, but that it is still their turn to talk (Mmm hmm)**
- **Speak softly**

### 2.5 Summarizing at key junctions

- When you have learned something new that is key to understanding, summarize the event and the thinking that the user explored, very briefly. Users may offer more detail about their thought process.
- Keep the recorder on or keep taking notes after you think that the test session is finished. Users will often make interesting reflections about their processes during the casual remarks at the end of the session.

### 3 Personal Background Questionnaire

In a short questionnaire we ask the test users to provide information about

- Gender
- Age
- Computer usage
- Mobile devices usage
- Experience with social platforms

And additionally from trainers:

- Kind of sport, they are active as trainer
- Whether they have an education as sports trainer

These question will mainly help us to assess, how experienced the test users are with digital devices, which is sometimes helpful for interpretation of the data obtained from the observations.

### 4 User Experience Questionnaire

For testing the user experience, we make use of the validated User Experience Questionnaire by Laugwitz, Held and Schrepp<sup>3</sup>, which allows a quick and simple assessment and comes with a tool for evaluating the results. Besides it is available in all pilot site languages: <https://www.ueq-online.org/>. (Please download your version of questionnaire and use the provided excel sheets.)

The User Experience Questionnaire allows a quick assessment of the user experience of interactive products. The format of the questionnaire supports users to immediately express feelings, impressions, and attitudes that arise when they use a product. The scales of the questionnaire cover a comprehensive impression of classical usability aspects and user experience aspects:



#### Attractiveness

Overall impression of the product. Do users like or dislike it?



#### Perspicuity

Is it easy to get familiar with the product?



#### Efficiency

Can users solve their tasks with the product without unnecessary effort?



#### Dependability

Does the user feel in control of the interaction?



#### Stimulation

Is it exciting and motivating to use the product?



#### Novelty

Is the product innovative and creative?

<sup>3</sup> <https://goo.gl/a5iVtC>

The questionnaire consists of pairs of contrasting attributes that may apply to the product. The circles between the attributes represent gradations between the opposites. The agreement can be expressed with the attributes by ticking the circle that most closely reflects the impression about the product. The user should decide as spontaneously as possible in order to make sure that the original impression is conveyed. In order to analyse the results of the questionnaire an MS Excel tool is available where you can fill in the data.

### Questionnaire in English

For the assessment of the product, please fill out the following questionnaire. The questionnaire consists of pairs of contrasting attributes that may apply to the product. The circles between the attributes represent gradations between the opposites. You can express your agreement with the attributes by ticking the circle that most closely reflects your impression.

Example: 

attractive	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	unattractive
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This response would mean that you rate the application as more attractive than unattractive.

Please decide spontaneously. Don't think too long about your decision to make sure that you convey your original impression. Sometimes you may not be completely sure about your agreement with a particular attribute or you may find that the attribute does not apply completely to the particular product. Nevertheless, please tick a circle in every line. It is your personal opinion that counts. Please remember: there is no wrong or right answer! Please assess the product now by ticking one circle per line.

	1	2	3	4	5	6	7		
annoying	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	enjoyable	1
not understandable	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	understandable	2
creative	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	dull	3
easy to learn	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	difficult to learn	4
valuable	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	inferior	5
boring	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	exciting	6
not interesting	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	interesting	7
unpredictable	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	predictable	8
fast	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	slow	9
inventive	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	conventional	10
obstructive	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	supportive	11
good	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	bad	12
complicated	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	easy	13
unlikable	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	pleasing	14
usual	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	leading edge	15



unpleasant	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	pleasant	16
secure	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	not secure	17
motivating	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	demotivating	18
meets expectations	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	does not meet expectations	19
inefficient	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	efficient	20
clear	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	confusing	21
impractical	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	practical	22
organized	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	cluttered	23
attractive	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	unattractive	24
friendly	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	unfriendly	25
conservative	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	innovative	26

## 5 Tasks for Thinking Aloud sessions

The tasks below are given to the participants to perform on the interactive wireframes.

### 5.1 Tasks for participants 55+

1. *Task – Fill in task*
2. *Task – Fill in task*
3. ...

### 5.2 Tasks for trainers

1. *Task – Fill in task*
2. *Task – Fill in task*
3. ...