

# Moderating Usability Tests

Principles & Practices for Interacting

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## Introduction

- Getting Started
- 10 Golden Rules
- Initial Contacts
- Interacting During the Session
- Interacting During Post-test Activities

## Getting Started

- Usability testing is a systematic way of observing actual and potential users of a product as they work with it under controlled conditions
  - In this context we move from paper prototyping to working with the actual product or a prototype of the product
- To a large extent successful usability testing depends on the skills of the person moderating the test
  - Easy to do, hard to do well
  - Impacts success of test, validity of data, reputation of moderator's organization

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## Getting Started

- What makes a great moderator?
  - Understanding the basics of usability testing
  - Interacting well with participants
  - Ability to establish and maintain rapport with participants
  - Lots of practice



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## Getting Started

- Understanding usability testing
  - The purpose of the test you are moderating → Determines how much and when to interact with participants
  - How usability testing differs from other evaluation methods → Need valid data from a small sample of users
  - How tests are designed → Design may be important, as well as the context of intended use
  - How tests are planned → Every task has a purpose, and the order of tasks may be important
  - How and why data is being collected → Is the emphasis on quantitative or qualitative measures?

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## Getting Started

- Interacting well with participants
  - Selecting them for the study
  - Greeting them when they arrive
  - Providing an introduction to the test
  - Interacting during the post-test debriefing
  - Thanking them and giving them their compensation
- Ability to establish and maintain rapport with participants
  - Most moderators are “people people”, difficult cases may still arise
- Lots of practice
  - Be able to handle any situation calmly and effectively



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## Getting Started - Roles of a Moderator

- The Gracious Host
  - Make participant feel welcome the moment they arrive
  - Attending to physical comfort, ensuring session goes smoothly, and they have a positive experience overall
  
- The Leader
  - Participants expect us to know what we're doing and take the lead
  - Control the pace of the session
  - Project confidence in the testing processing
  - Take charge when bugs appears or product crashes
  - Know what to do when participants need encouragement, prompting, or assistance
  
- The Neutral Observer
  - Your goal is to collect accurate data while playing the other roles
  - Let participant speak
  - Ask unbiased questions
  - Neither encourage or discourage emotion comments
  - Avoid defending product design



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## 10 Golden Rules

1. Decide how to interact based on the purpose of the test
2. Protect participants' rights
3. Remember your responsibility to future users
4. Respect the participants as experts, but remain in charge
5. Be professional, which includes being genuine
6. Let the participant speak
7. Remember that your intuition can hurt and help you
8. Be unbiased
9. Don't give away information inadvertently
10. Watch yourself to keep sharp



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## 10 Golden Rules

### #1 - Decide how to interact based on the purpose of the test

- Type of test
  - Measure or benchmark the usability of a product
  - Compare the usability of two or more products
  - Diagnosis (uncovering design issues)
- The product's stage of development
  - Purpose of test usually correlated with stage of product
  - Earlier stages, interact with participants (try design ideas, bugs, static sections)
  - Later stages, less moderator intervention
- Relationship with developers
  - When problem identified, team agrees to fix it
  - Problem must be documented with many participants to "prove" its existence



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## 10 Golden Rules

### #2 - Protect Participants' Rights

- Compensation
  - Reasonable compensation for their time and effort
  - What if they stop early? What if the product crashes?
- Informed Consent
  - Session should start with both explanation of the form and time for the participant to read and sign it
- Confidentiality
  - Responsible to safeguard identities of testing participants and to avoid mapping their identities to their data
  - Restrict use of the data to the purpose described in the consent form
- Balance of Purpose and Risk
  - Purpose of the study justifies risk to participants
- Priorities
  - Order of protection should be participant first, organization second, and the integrity of the data third



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## 10 Golden Rules

### #3 – Remember Your Responsibility to Future Users

- **Letting Participants Struggle**
  - Every time usability problem is fixed, future users are spared from same experience
  - You can't protect users from all unpleasantness, it may provide valuable data
  - In baseline or comparison tests, you can't intervene and everyone may fail a task
- **Conflicting Responsibilities**
  - Future users matter, but keep ethical responsibilities to the participant
  - Negative experience may be counterproductive



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## 10 Golden Rules

### #4 – Respect the Participants as Experts, But Remain in Charge

- **Controlling logistics and pacing**
- **Stopping unacceptable behavior**
- **Dealing with uncertainty**
  - Participant may take an action and the product reacts in a way you didn't expect
  - User may recover by themselves
  - You can stop the test and consult the development team
- **Projecting authority**
- **Dispelling negativity**
  - Effective moderator does not carry negative emotions into a testing situation
  - You must make a connection with users and make them feel appreciated
- **Managing visitors**
  - Managers and developers may want to come see the test
  - Instruct them of their roles



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## 10 Golden Rules

### #5 – Be Professional, Which Includes Being Genuine

- Dos for making and maintaining a connection
  - Greet them warmly
  - Look them in the eyes
  - Smile
  - Sit at the same height as participants
  - Hold relaxed posture
  - Listen attentively
  - Use “acknowledgement tokens” periodically
  - Use their names occasionally and correctly
  - Use a modulated tone of voice
  - Speak slowly
  - Adapt to the participant’s interaction style



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## 10 Golden Rules

### #5 – Be Professional, Which Includes Being Genuine

- Don'ts for making and maintaining a connection
  - Don't act distracted
  - Don't use unmodulated, flat tone of voice
  - Don't exhibit nervous or repetitive behaviors
  - Don't overuse acknowledgement tokens or names
  - Don't rush participants or cut them off
  - Don't show annoyance with participants
  - Don't yawn
  - Don't touch the participant, other than a handshake



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## 10 Golden Rules

### #6 – Let the Participant Speak

- **Speakership**
  - Who has control of the conversation?
  - Participants should maintain speakership ~80% of the time
  - Want them to keep talking
- **Appropriate Interruptions**
  - Allow users to work on their own, more natural interaction
  - May need to ask participant to think aloud
  - Depends on type of testing/stage of product
- **Judicious Speaking**
  - Participants often ask questions they don't expect you to answer
  - Wait to see if they figure out the answer on their own
- **Silent Communication**
  - If you don't answer they are free to interpret your silence



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## 10 Golden Rules

### #7 – Remember that your Intuition Can Hurt and Help You

- **Your intuition can hurt you**
  - You may have a natural tendency to wanting to please people and make sure they feel comfortable
  - You may say too much, try to explain or elaborate
- **Your intuition can help you**
  - After practice you will know what to do next
  - When to violate to a rule vs. listen to it
  - Know when you've said something awkward or biasing



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## 10 Golden Rules

### #8 – Be Unbiased

- Use an unbiased test script
- Use unbiased questions
  - “Did you like that or not?”, user hears “Did you like that?”
  - Try “Did you like that, or did you not like that?”
- Keeps answers unbiased
  - Information about current task can impact future task, try replying with a question instead of affirmation
  - Give similar feedback for both positive and negative comments about the product
- Watch nonverbal cues
  - Body language and facial expressions
  - If you are taking notes, take lots of notes throughout instead of just when a problem arises



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## 10 Golden Rules

### #9 – Don't Give Away Information Inadvertently

- Giving an assist
  - An “assist” is an intervention on our part to move participants towards task completion
  - Participant stuck, but you believe there is more to be learned if they continue
  - Participants unknowingly go too far down wrong path
  - You want to move to next task because you already know problem they are having and/or time is limited
- Explaining the designer's intent or being defensive
  - Participants will stop being honest if they feel you are defending the existing design rather than being open to feedback and suggestions
  - Avoiding explaining underlying concept, you may sound defensive or committed to that design
- Recording all suggestions
  - Write down all suggestions without comment or critiques, thank participants for their ideas
  - Testing is for evaluating products not design

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## 10 Golden Rules

### #10 – Watch Yourself to Keep Sharp

- We all develop bad habits
- While most hate to watch themselves, gives insights into your moderating habits



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## Initial Contact

- What happens in the critical time before the test starts?
  - During recruiting
  - When they arrive
  - During the pretest briefing



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## Initial Contact - Recruiting

- Contacting
  - Need to reach out to the target population
  - Internet, phone, email, database, third party
- Advertising
  - Who your ideal participant is
  - When and where the study will be
  - What you will require of participants
  - What you will give them in return (e.g. an appreciation gift)
  - whom to contact if interested

**Do you use an online pharmacy?**

*Seeking 25- to 64-year-old women and men for web site study*

Bentley College is recruiting individuals who use online pharmacies to participate in a web site usability test at its campus in Waltham, MA, on April 18, 19, or 20. Participants in this 2-hour study will receive \$100 cash for taking part.

If you are interested in participating, please email [recruiting agency] with the following information:

- Names of online pharmacies you use
- Your name
- Age
- Gender
- Occupation
- Marital status
- Daytime phone number

Because of the overwhelming response we sometimes get from online postings such as this, we may not be able to contact everyone. We are looking for specific user profiles, so be sure to include all of the information requested here.

Figure 5.1 Sample Internet recruiting poster

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### Participate in a usability study and earn a \$20 gift certificate!

We are recruiting [company] employees to participate in a usability test of your company's intranet. We need 18 people—mix of clinicians, managers, and administrative staff—to participate in the study. During the week of August 7–11, you must be able to give us 2 hours of your time and come to the Smith building.

You will receive a \$20 online gift certificate for taking part in the usability test. If you are interested in participating, please reply to this message with the following information:

- Name
- Job title
- Phone number
- Email address

When your message of interest is received, we will be in touch to ask you some additional questions to see if you qualify for the study. Thank you for helping with this important project!

Figure 5.2 A recruiting email sent to company employees

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## Initial Contact - Recruiting

- Explaining the Test
  - Who you are and the company that you are representing
  - A clear statement that you are not selling anything; you are looking for people to participate in a one-on-one product study
  - The time, dates, and location of the study
  - Any incentive you are offering
  - Assurance that their identity will be protected and the data you collect will remain confidential
  - Disclosure that the session will be recorded
  - Necessity to sign a nondisclosure agreement
  - A question asking if he or she is interested, and if so, does he or she have time to answer a few screening questions

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### Recruiting College Students and Their Parents for Web Site Study

I am calling today because we are looking for people who might be interested in participating in a usability project. The Bentley Design and Usability Center is conducting a study for a company that provides financial services to college students. This business wants to make its web site more user friendly and is looking for feedback from current college students and their parents. As a token of appreciation, each participant will receive \$75 in cash.

We are specifically looking for pairs consisting of an undergraduate college student and one of his or her parents. Is this something you *[and your parent/son/daughter]* would be interested in?

*If the answer is yes, continue with this:*

Let me tell you a little more about the study. The interview will take about an hour and a half and will be held at Bentley College in Waltham, MA. Your participation will be scheduled for a specific time between September 7 and September 14. During the interview, we'll ask you to try using the company's web site and to provide feedback on it. You will be in a room with a Bentley moderator who will lead you through the session. Your *[parent/child]* may be in the same room with you or may be in a separate room.

If you have a few minutes, I'd like to ask you some questions to determine whether your background matches the study.

Do you have time right now to answer a few questions?

Your answers are confidential and will be used only to determine whether you're eligible to participate in this study.

*If no, arrange a time to call back.*

Figure 5.3 A telephone recruiting script

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## Initial Contact - Recruiting

- Screening Candidates
  - Use a list of questions to ensure that candidates represent the target population accurately
  - Test the screening questions ahead of time to make sure they are clear
  - Be sensitive about the wording (some people don't like giving an exact age)
  - Tell the person the truth – background may not match the study
- Confirming Appointments
  - Follow up with a phone call, letter, or email
  - Stress how important participants are to your study

See Figure 5.4 -Screening Questions  
(at end of slides)

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## Initial Contact – When Participants Arrive

- Greeting Participants
  - Look the person in the eyes, smile, exchange names, thank them, offer a handshake
  - Get a sense of the participant's mood
  - Confirm participant's identity
- Creating Comfort
  - One of your roles is the “Gracious Host”
- Obtaining Informed Consent
  - What will happen during the session
  - Participants right to stop
  - Right to take a break
  - Disclosure that you will be videotaping/recording
  - The ways data and recordings will be used
  - Assurance of confidentiality



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**Understanding Your Participation  
in This Study**

<b>Purpose</b>	Bentley College and (vendor) are asking you to participate in a study of the _____ web site and its ease of use. By participating in this study, you will help us improve the site's design, making it easier to use.
<b>Procedure</b>	In this study, we will ask you to perform a series of tasks using the _____ web site. Afterward, we will ask about your impressions of the site. The session will take approximately 60 minutes. We will use the information you give us, along with information from other people, to make recommendations for improving the web site.
<b>Recording</b>	We will be recording where you go on the web site (video) and the comments you make (audio). The recording will be seen by only the Bentley team that analyzes the data and members of the _____ web site development team. After the data analysis is done, we will send the tapes to the client's design team. The videos will be used to improve the usability of the web site, not for any other purpose.
<b>Confidentiality</b>	Your name will not be identified with the data in any way. In addition, only Bentley College employees who are working on the project will have access to the data we collect.
<b>Risks</b>	There are no foreseeable risks associated with this study.
<b>Breaks</b>	If you need a break at any time, just let us know.
<b>Withdrawal</b>	Your participation in this study is completely voluntary. You may withdraw from it at any time without penalty.
<b>Questions</b>	If you have questions, you may ask them now or at any time during the study. If you have questions after the study, you may call us at 781-891-2500 or email us at usability@bentley.edu.

*By signing this form, you are indicating that you agree to the terms stated here and that you give Bentley College permission to use your voice, verbal statements, and videotaped image for the purpose of evaluating and improving the company's web site.*

Signature: \_\_\_\_\_  
Printed name: \_\_\_\_\_  
Date: \_\_\_\_\_

**Figure 5.6 Sample informed consent form**

## Initial Contact – The Pretest Briefing

- Preparing yourself
  - Make sure you understand the purpose of the test and each task
  - Arrive early and make sure the equipment and materials are ready
- Preparing participants
  - Try to keep this part of the session to 10 minutes
  - Tell participants the purpose of the study
  - Tell participants what they will be doing
- Using a script or checklist
  - Use a script or checklist to make sure you cover everything in the pretest briefing
- Practicing the think-aloud technique
- Confirming that participants are ready



**Video 1 & 2**

### Checklist for Pretest Briefing

- Say "Welcome" and introduce yourself.
  - I did not design the product, so you won't hurt my feelings with any comments you make.
- Describe parts of the session: how long it will last; you can take breaks at any time.
- Review Informed Consent
  - We will be recording the session, so others may review it later.
  - Recordings are used for research purposes only.
  - Other people may be watching.
  - Your name will not be connected with any data collected.
  - You have the right to stop at any time without penalty.
- Most important: It is the software we are testing, not you. Any difficulties you may have are because it wasn't designed in a way that makes sense to you.
- My role:
  - Neutral Observer who will be taking notes.
  - Clarification of the tasks themselves; otherwise, I will remain silent.
- Your role:
  - Be yourself, have fun—you can't do anything wrong!
  - Be candid—you are helping others shape the product at an early stage.
- The tasks:
  - Read each one aloud.
  - Ask for clarification if needed.
  - Try to complete them as if you were doing this at home.
    - Spend as little or as much time as you normally would doing similar tasks.
  - Let me know when you have completed each task or gone as far as you can.
  - It is OK if you cannot complete each task; there may not be enough time to do every task.
  - Repeat: It is the software we are testing, not you.
- Ask participants to think aloud.
  - Describe your steps: What are you looking for? Give a "narration" and so on.
  - Your comments are very important—we are interested in both what you like and what you don't like about the product.
  - Demonstrate think-aloud. [This can be done later, before the tasks, if you prefer.]
- Are there any questions before we begin?

**Figure 5.7 Sample checklist for pretest briefing** 29

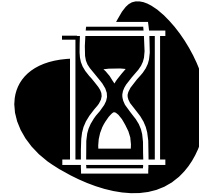
## Initial Contact – Transitioning to the Tasks

- After the briefing you are ready to start collecting data
- Provide users with tasks or giving them a pretest questionnaire
- Switch to the role of neutral observer

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## Interacting During the Session

- What are the issues during the 60 to 90 minutes when participants are working on the tasks?
  - How much to interact
  - Keeping them talking
  - Probing for more information
  - Providing encouragement
  - Dealing with failure
  - Providing assistance



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## Interacting During the Session

- How much to interact
  - Previously discussed that amount of interaction depends on the test
- Keeping them talking
  - Verbalize their experiences as they're interacting with the product
  - Describe their expectations regarding various features or the product
  - Share personal preferences and any other comments they may have



### Prompting as a reminder

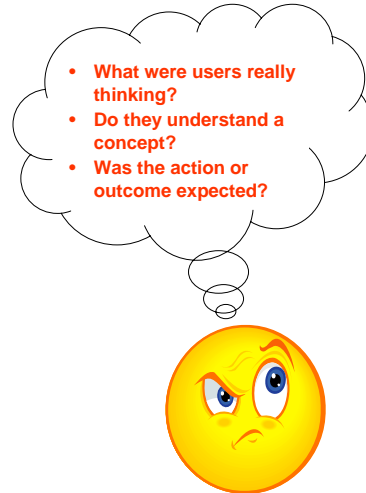
- So ...?
- So, you're thinking?
- What are you seeing here?
- Tell me what happened?

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## Interacting During the Session

- Probing for more information
  - Intervention by a moderator that asks participants for additional information or clarification
- Probing Questions
  - Tell me more about...
  - Describe a little more about...
  - Help me to understand a little about...
  - What would you do next?
  - I noticed you paused before clicking, what were you thinking at that point?
- Probes to avoid (biases!)
  - Don't talk over participants or interrupt them
  - Avoid using a probe to indirectly talk to developers through participants



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## Interacting During the Session

- Providing encouragement
  - Testing of poorly designed products leads to errors, need for assistance, or failure of tasks
  - Ease burden by encouraging participants
  - Encourage participants to continue
- How?
  - Pick a task early and provide encouragement after that task
  - Don't forget role as neutral observer
  - Don't reinforce positive or negative behaviors



Your thinking aloud is very clear.  
You're being very helpful.

You're doing fine

You're really helping us

You're giving us the kinds of  
information we need to make  
this product better

~~Good work on that one!~~

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## Interacting During the Session

- Dealing with failure
  - Usability testing should uncover flaws
  - Users will feel they have failed if they can't complete a task
    - Explain that you are not testing them, but testing the product
    - Do not make the product better by taking failure away or minimizing its impact



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## Interacting During the Session

- Dealing with failure
  - Cues that participant's emotions may have become too intense
    - Sweating, especially around the face and neck
    - Looking intensely at the product and nowhere else
    - Tension in voice, or sighs, or huffs
    - Obvious anger
    - Silence for long periods of time
    - Tunnel vision
    - Tears or rapid blinking
  - Responses to a participant's distress
    - "How are you doing" to assess their state
    - Take a break
    - Have participant stand up, walk around, get water
    - Stop the test
  - Ways not to respond to a participant's distress
    - Commiserate
    - Tell a white lie

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## Interacting During the Session

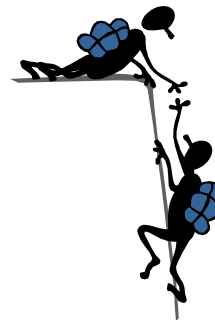
- Providing assistance
  - Problems revealed sequentially
  - An early problem can prevent uncovering later problems
  - Provide assistance to move past hurdle
  - Avoid giving them information that will help with later tasks
- What is an assist?
- Giving assistance
  - Repeated pattern of unproductive behavior
  - Tried several alternatives and asks for help
  - Heading towards a sequence that will cause product failure
  - Time limit near, or won't have time for other tasks
  - Thinks the task is complete, but it's not



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## Interacting During the Session

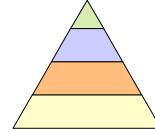
- Intervention versus assists
  - Clarification of a task is not an assist
  - Prompting participants to think aloud is not an assist
  - Help participants recover from a bug or redirect them when they choose a correct but unanticipated path
- Not giving assistance
  - Going down the wrong path, give them time to recover
  - Type of testing does not allow for help (competitive test between products)
  - Type of product your are testing, is it self service or will training be required?



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## Interacting During the Session

- Levels of assistance
  - Level 1 – Breaking a repeating sequence
    - “Try reading the task again”
  - Level 2 – Providing a general hint
    - “Remember how you started this start, you were getting close”
    - “You actually went by the option you needed”
  - Level 3 – Providing a specific hint
    - “The option is in the Edit menu”
  - Level 4 – Telling participants how to do the next step
    - “Open the Edit menu and select Preferences”



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## Interacting During the Session

- Completing a task for a participant
  - Contingent task is one that must be completed before attempting later tasks
  - Try to avoid these, not always possible
  - Let user know why you are completing task
  - Ask them to look away so you don't give information away
- Measuring assists
  - Does providing assist mean failure?
  - How many assists mean failure?

Completed	Completed with assistance	Not completed
	General assist —	
	Specific assist —	
	Number of assist —	



Video 3 & 4

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## Interacting During the Post-test Activities

- Maintaining your Roles
  - Feeling of relief after the last task, usually the most stressful part
  - Important information still needed
- Gracious Host
  - Ask participants if they want to take a break
- Neutral Observer
  - Don't bias participants' perceptions by talking about how hard or easy tasks were
  - Don't tell them the break is because the tasks were hard or failure of tasks
- Leader
  - Good time to talk to visitors, see if they have questions they want you to ask



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## Interacting During the Post-test Activities

- Determining the order of activities
  - Diagnostic test
    - Discuss key events
    - Move to subjective ratings and open-ended questions
    - Want to uncover usability issues that come from the participant's reactions to the product and their performance
  - Summative test
    - Administer questionnaires and ratings first
    - These measures are more reliable the closer they are to the events they refer to
  - Comparison test
    - You may ask which product they prefer first
    - Don't want discussion of open-ended questions and task performance to change rating answers

### Possible Activities

- Discussion about key events that happened while participants were working on tasks
- Set of open-ended questions about the product
- Set of questions about aspects of the product not covered by the test
- Self-administered questionnaire of closed-ended questions or ratings that ask about the usability of the product

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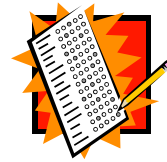
## Interacting During the Post-test Activities

- Clarifying things that occurred during the test
  - Diagnostic test is supposed to help uncover usability information
  - Don't want to interrupt participant for clarification during testing
  - Some issues are best discussed after participant has seen all of the product or worked through all of the tasks

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## Interacting During the Post-test Activities

- Administering ratings and questionnaires
  - Questionnaires
    - Product or company specific, or standardized questions from literature
    - Self-administered, read by moderator, or a combination of written and out loud
  - Ratings
    - Small group of participants (5-8) cannot provide reliable quantitative data
    - More important to know why participants choose their answers than the numeric value
  - Accuracy of ratings
    - Truthfulness and reliability of values provided by participants
    - The need to please, the need to be positive and not critical, the need to appear computer literate, really want the product/feature and don't want to delay release



Video 5

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Self-Administered Questionnaire Example

How was your overall experience with the product, on a scale from worst (1) to best (7)?

1      2      3      4      5      6      7

Why?

Did your impressions of the product change after using it?

Yes       No

If so, how and why?

How would you describe the differences and/or similarities between this product and other products you have used?

Please circle the two words that BEST describe the product:


Thorough	Confusing	Valuable	Difficult
Amateur	Unimpressive	Shoddy	Complete
Overwhelming	Efficient	Easy to use	Ineffective
Helpful	Professional	Deficient	Time-saver
Intuitive	Problematic	Sloppy	Expert
Fool-proof	Quirky	Rewarding	Unreliable
Reliable	Questionable	Trustworthy	High quality

**Figure 7.1 A post-test self-administered questionnaire**

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## Interacting During the Post-test Activities

- Asking open-ended questions
  - Wait until the end, more users feel this is an invitation to end the session
  - Example questions
    - "What are the three things you liked best and least about your experience with this product?"
    - "You have been working with this product for about an hour. Tell me about your impressions about its ease or difficulty of use."
    - "How does this [product] compare to other similar ones you have seen?"
    - "If you could make a significant change, what would it be and why?"
    - "Is there anything you would remove if you could?"
    - "Is there anything you would add if you could?"
    - "Is there anything more you have to add?"
    - "Anything else?"



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## Interacting During the Post-test Activities

- Allowing others to interact with participants
  - Ask if developers or managers want to speak with participants
  - May want to talk to participant about something they saw
  - May want to share other features
- Important to monitor conversation
  - Make sure interaction is professional
  - Don't let visitors make promises about the product they have no control over
  - Don't let visitors ask personal questions or get the participants to try more tasks



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## Interacting During the Post-test Activities

- Final activities – providing incentives
  - Cash - provide it in an envelope, have participant count it, then have them sign a receipt
  - Gift certificate - provide in an envelope, tell participant how to use/activate it, then have them sign a receipt
  - Check or merchandise - have participant sign for it
  - Mailed out later - have them complete a form with contact information, provide form indicating when they should receive incentive and who to contact if they don't
- Ending the session
  - Ask if they want to participate in future activities, added to database
  - Make sure they can get back to their cars or to local transportation
  - Thank them!



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