



ESIP Usability Cluster Monthly Meeting:

Brief Overview of Usability and Introduction to Usability Testing

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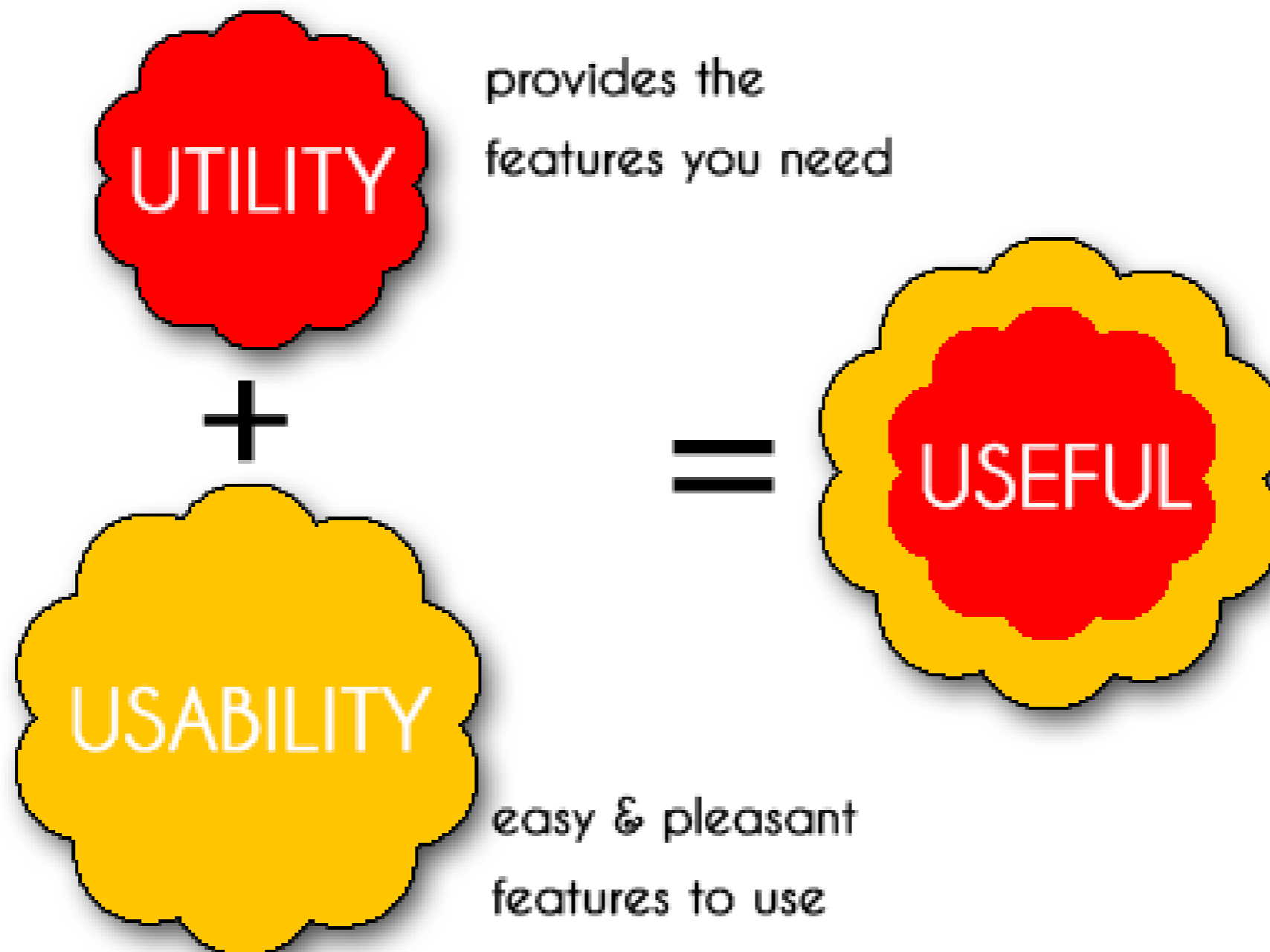
Brief Overview of Usability



Usability Concepts

- **Definition of Usability:**
 - “Quality attribute that assesses how easy user interfaces are to use.”
 - “Methods for improving ease-of-use during the design process.”
- **5 Quality Components:**
 - **Learnability** - How easy is it for users to accomplish basic tasks the first time they encounter the design?
 - **Efficiency** - Once users have learned the design, how quickly can they perform tasks?
 - **Memorability** - When users return to the design after a period of not using it, how easily can they reestablish proficiency?
 - **Errors** - How many errors do users make, how severe are these errors, and how easily can they recover from the errors?
 - **Satisfaction** - How pleasant is it to use the design?

Usability Concepts - Continued





Introduction to Usability Testing

Nielsen, J. (1993). *Usability Engineering*. San Francisco, CA: Morgan Kaufmann.



Introduction to Usability Testing

- Testing the interfaces with real users.
- A Usability Test has four stages:
 - Preparation
 - Introduction
 - The test itself
 - Debriefing
- Testing should be performed with at least 5 users.
- “Discount usability” variation.

Preparation

- Planning for the test goals and plans.
- Understanding the test budget.
- Selecting the test tasks.
- Acquiring test users.
- Complying with ethical/legal requirements.
- Performing pilot testing/rehearsals with the intended test administrators.
- Setting up the test environment.



Introduction

- Welcome.
- Purpose of the test.
- Disclosure of related policies / terms and conditions.
- Confirmation of agreement to participate in the test.
- Explanation of test process, including the usage of equipment involved.
- Invitation to the user to ask questions to ensure user's comfort and confidence.



The Test Itself

- Remind user to think aloud.
- Resist the urge to help/bias the user.
- Avoid factors that might distract the user.
- Maintain the same test administrator during the same test session.



Debriefing

- Give the user the opportunity to ask questions and provide additional feedback.
- If an additional survey/questionnaire will be given to the user, the survey/questionnaire should be administered before the discussion of the test process.
- Compile the summary report for each test as soon as possible



Comparison to Focus Group / Interview

Focus Groups / Interviews

- Both are considered as indirect methods to study user interactions.
- The results might reflect users' opinions (i.e. what they think they do) instead of what they actually do.
 - However, focus groups can help in assessing user needs and attitudes and interviews can help in determining user satisfaction.
- It is helpful to leverage different evaluation techniques as different methods have their own strengths and weaknesses.