

Usability Testing: Keys to Unlocking the Mystery

How do we determine whether or not something is usable? Interestingly, Jeffrey Rubin and Dana Chisnell define usability as the “absence of frustration” in using a product, website, or service.ⁱ Thus when a product, or website, is highly usable, “the user can do what he or she wants to do the way he or she expect to be able to do it, without hindrance, hesitation, or questions.” Though usage statistics can tell show whether a website “works,” these numbers are unable to distinguish how usable the site actually is for its users. Usability testing allows evaluators to discover how the users are interpreting the data on the website, and, thus, this behavioral data tells the evaluator why there is a problem, and how to fix it.

According to Rubin and Chisnell, in order to determine the goals and objectives of a usability test, typically one or more of the following are defined in measurable terms.

Usefulness concerns the degree to which a product enables a user to achieve his or her goals, and is an assessment of the user’s willingness to use the product at all.

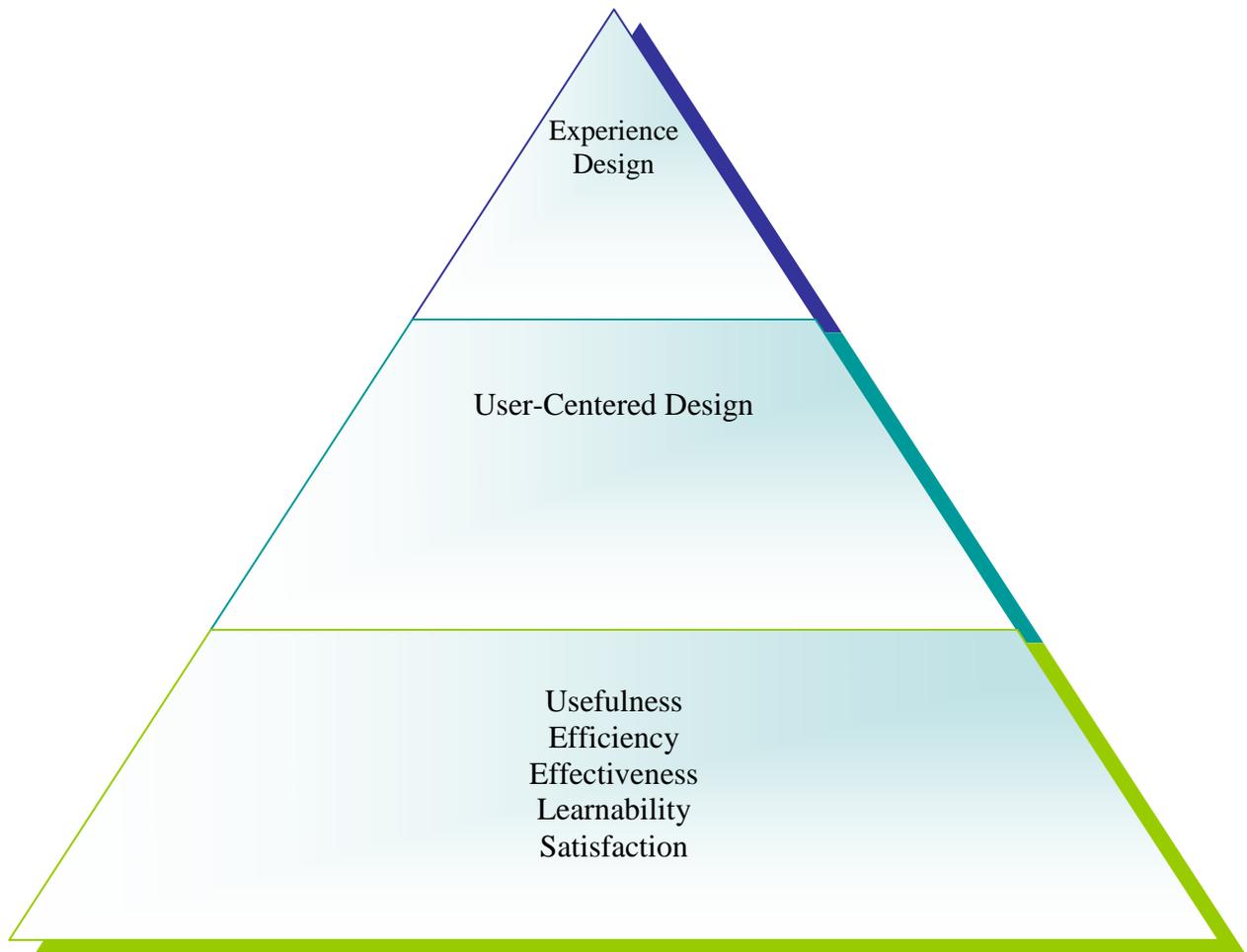
Efficiency is the quickness with which the user’s goal can be accomplished accurately and completely and is usually a measure of time.

Effectiveness refers to the extent to which the product behaves in the way that users expect it to and the ease with which users can use it to do what they intend.

Learnability is a part of effectiveness and has to do with the user’s ability to operate the ystm to some defined level of competence after some predetermined amount and period of training. This can also refer to the ability of infrequent users to relearn the system after periods of inactivity.

Satisfaction refers to the user’s perceptions, feelings, and opinions of the product, usually captured through both written and oral questioning. Thus, users are more likely to perform well on a product that meets their needs and provides satisfaction than one that does not.

When compiled together, these attributes equate to usability. Additionally, accessibility is akin to usability; however they are distinct concepts. Accessibility, briefly, is having the necessary access to the product, or website, in order to accomplish a goal. Bring accessibility and usability together allows for the larger discipline of user-centered design. The user-centered design approach flows upward into the even larger, more holistic concept, of experience design. Ultimately, the experience design concept is founded upon the traits of usability (usefulness, efficiency, effectiveness, learnability, and satisfaction).



So what is user-centered design (UCD)? Again according to Rubin and Chisnell, UCD “represents the techniques, processes, methods, and procedures for designing usable products and systems, but just as important, it is the philosophy that places the user at the center of the process.” Going further The International Organization for Standardization (ISO) in standard 13407 stipulates that user-centered design is “the active involvement of users and a clear understanding of user and task requirements; an appropriate allocation of function between users and technology; multidisciplinary design.”

Methods for Building Usability

Focus Group Research

Card Sorting

Usability Testing

Usability testing “employs techniques to collect empirical data while observing representative end users using the product to perform realistic tasks.”ⁱⁱ Another way to define usability testing is “a process that employs people as testing participants who are representative of a target audience to evaluate the degree to which a product meets specific usability criteria.”ⁱⁱⁱ

Basic elements of usability testing include... p. 25.

ⁱ Rubin, Jeffrey, and Dana Chisnell, *Handbook of Usability Testing: How to Plan, Design, and Conduct Effective Tests*, 4 (2nd ed. 2008).

ⁱⁱ Rubin at 19.

ⁱⁱⁱ Rubin at 21.