**Page ID**: **#.# Usability Test - Formative**

# Primary Content

**Title**

Enter the **Title** of the **Method** here (REQUIRED).

**Usability Test - Formative**

**Description -- i.e., What it is:**

Enter the **Description** here (REQUIRED).

An assessment test that compares the usability of a design against specific measurable performance and/or satisfaction goals.

Usability testing is performed iteratively throughout the design and development process. Key goals of testing are to inform design decisions with targeted user data and estimate user performance within a particular system design.

An evaluation involves developing a test plan, recruiting representative users to participate, conducting test sessions, analyzing results, and disseminating findings. Testing may occur in the field, in a simulated environment, or remotely/virtually.

An essential distinguishing factor of usability testing, compared to other usability inspection methods, is the inclusion of representative end users attempting realistic tasks with the system or a representation of the system.

Usability testing is commonly described as either formative or summative in style. Because it is meant to help “form” the design of a product, a formative usability test can be performed earlier in development than a summative evaluation and typically requires a lower level of effort.

Formative usability testing can leverage one or more techniques. When used with more exploratory testing, the facilitator may employ the “**think aloud**” technique, in which participants verbally report their experiences and thought processes while completing the tasks during testing. When two potential design solutions are under consideration, an **A/B test** places each in front of the participants (one at a time). Based on a selection of metrics, this type of testing can provide empirical evidence in favor of one design over the other.

Results of a formative usability test can be less formal than in a summative evaluation, as suits the needs of designers, developers, project managers, and other project participants.

**Recommended Uses**

Enter the **Recommended Use** here. If there are no details, insert N/A or TBD.

* To understand the task environment using a pre-existing design solution.
* To refine development specifications and user interaction expectations.
* To identify areas for improvement throughout the iterative design cycle.

**Limitations**

Enter the **Limitations** here. If there are no details, insert N/A or TBD.

* Requires a solid foundation of quality research aimed to understand the context of use, realistic use scenarios, and user needs early in the design process.
* Runs the risk of focusing on ease of use without proper evaluation of the system’s usefulness to end users.
* More time-consuming and resource intensive than other methods, such as heuristic evaluation or cognitive walkthrough.
* Artificial or contrived environments may produce results that do not generalize to actual work conditions (Rubin & Chisnell, 2008).
* Not all problems will be found with small samples of users (Faulkner, 2012).

**Outcomes**

Enter the **Outcomes** here. If there are no details, insert N/A or TBD.

* A summary of measures for efficiency, effectiveness, and satisfaction. Examples include task time, the number of steps participants took to complete the tasks, accuracy, completeness, and the results of a satisfaction questionnaire.
* A list of usability problems categorized by severity and frequency. The rankings can be determined by the impact and persistence of the problem.

**Required Skills and Expertise**

Enter the **Required Skills** **and Expertise** here. If there are no details, insert N/A or TBD.

* Training in experimental design and research methods is highly recommended.
* Testing sessions should be conducted by an experienced facilitator/moderator.

**How to Proceed**

If there are no details, insert TBD.

* **How-To Guide.** Review step-by-step instructions on how to conduct a formative usability test and access tools and instruments to support your evaluation.
* **Schedule a Consult.** Connect with a usability specialist for support on your project.

[BEGIN: How to Do It]

**Introduction**

Enter the **Introduction** here (REQUIRED).

N/A

**Procedure**

Enter the **Steps** here. (Required).

N/A

**Tools**

If there are no details, insert N/A or TBD.

* N/A

[END: How to Do It]

**Author**

Enter the **REFERENCES** here. If there are no details, insert N/A or TBD.

* Human Factors Engineering (HFE), Office of Health Informatics, Veterans Health Administration

**Sources**

Enter the **REFERENCES** here. If there are no details, insert N/A or TBD.

* N/A

**References**

Enter the **REFERENCES** here. If there are no details, insert N/A or TBD.

* Faulkner, L. (2003). Beyond the five-user assumption: Benefits of increased sample sizes in usability testing. *Behavior Research Methods, Instruments, & Computers, 35*, 379-383.
* Rubin, J., & Chisnell, D. (2008). Handbook of Usability Testing. Indianapolis, IN: Wiley Publishing, Inc.