**Page ID**:**2.1 User Experience Process**

**Primary Content**

**UX Process (Overview Page)**

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The user experience (UX) process progresses through phases that have unique goals. The phases are also associated with activities that serve correspondingly unique sets of objectives.

In short, a phase is a collection of objectives.

The term, phase, suggests a steady movement forward in time. This is mostly true, but there are exceptions. Sometimes an objective of an early phase cannot be adequately achieved without some progress toward an objective associated with a phase that usually comes later. In some cases, the development team learns something in one phase that requires reconsideration of the outcomes of an earlier phase.

[INSERT FIGURE]

**Plan (Detail Page)**

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**The Plan phase establishes clear direction for the project and ensures everyone is on the same page.**

As in any other context, planning entails a desired outcome and the selection of activities that pave the way for achieving that outcome.

A crucial aspect of the Plan phase is ensuring the stakeholders needs and expectations are understood. Aligning with the stakeholders should be considered an element of all Plan phase objectives. This includes negotiating a timeline for project completion and ensuring the design solution satisfies a prioritized set of business goals.

The Plan phase has the following objectives:

* **Define the problem. The UX process is about cultivating design solutions. Useful design solutions are not possible if the problem is ill-defined. Low satisfaction ratings may alert to the existence of a problem, but the root of the problem must be identified and articulated. Defining the problem may require research. Identify what is known (and not known) about the problem to fill the knowledge gaps.**
* **Define the scope of project and the measures of success. What features will be included in the design solution? What needs will the design solution aim to fulfill? How will stakeholder know the project was a success? Measures of success can include** business quality objectives (e.g., leaders are able to mine needed data) and human-centered quality objectives (e.g., end users complete their tasks efficiently and effectively). Completing this objective may be supported by the drafting of a value proposition.
* **Identify research and design activities and resources needed. What is the overall approach for the project? What steps are anticipated in the iterative design cycle — e.g., prototyping and evaluation methods? What personnel will be needed, and how will their roles and responsibilities be defined?**

Common methods and activities employed in this phase are: Problem Statement and Stakeholder Interview.

To browse a complete listing of methods, please see our Methods page.

**Understand (Detail Page)**

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**The Understand phase determines the users and the context of use before investing in a design solution.**

Products are generally developed with a particular user (or groups of users) in mind, and they are generally intended to fulfill a need in a particular setting. Building a full description of the problem space is key to the design of a solution.

The Understand phase has the following objectives:

* **Understand the user.** There are many ways that users of the product might be characterized. What is the user’s role and/or professional background? What skills and training would be expected of a typical user? Are there a variety of user types or do they all belong in the same group?
* **Understand the task.** Products generally support completion of a task.What is the goal that the user is aiming to accomplish in the task? What are the steps? What are the cognitive and perceptual demands that the task imposes on a user? Are there physical requirements, such as lifting or fine motor control?
* **Understand the workflow.** What is the overall process that the task rests within? How does task completion depend on interactions with other users and other systems?
* **Understand the use environment.** What is the setting for task completion? For example, is it in a clinic, in an office, or in a home? Are there time pressures? What are potential distractions?
* **Understand the technology.** What hardware, software, and/or devices are included in the task, workflow, or environment? What level of training or experience is required for end users to make effective use of the technology?

Common methods and activities employed in support of these objectives are: User Interview, Observation, and Clinical Workflow Modeling.

To browse a complete listing of methods, please see our Methods page.

When an existing and/or competing design solution(s) are available, the above objectives can be augmented by their evaluation. What usability issues are present in the existing systems? To what degree are existing systems able to meet user needs? Are there performance metrics that can collected to benchmark anticipated design solutions?

Common methods and activities employed in support of these objectives are: Heuristic Evaluation and Usability Walkthrough.

To browse a complete listing of methods, please see our Methods page.

**Specify (Detail Page)**

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**The Specify phase ensures that design solutions are mutually agreed upon and clearly articulated to the production team.**

A crucial aspect of the Specify phase is ensuring the stakeholders are involved in the reconciliation process. Requirements derived from the user, the stakeholder, and the limitations of technology can (and often do) conflict. In these cases, priorities must be assigned to the requirements with agreement from all parties.

The Specify phase has the following objectives:

* **Specify user needs.** These are features that can be stated independently of any particular design solution. For example, a healthcare provider needs lab results entered into their patients’ records, or data entry needs to occur while seeing patients in their homes.
* **Specify user requirements.** These include interaction requirements and use-related quality requirements. Interaction requirements are the choices and inputs that users must execute to achieve task goals. Use-related quality requirements are metrics tied to the human-centered quality objectives outlined in the Plan phase. These can be considered success criteria. Examples include measures of accuracy (error rates) and efficiency (task completion time).

Common methods and activities used in support of these objectives are: Cost-Benefit Analysis and Creation of a product requirements document.

To browse a complete listing of methods, please see our Methods page.

**Produce (Detail Page)**

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**The Produce phase creates design solutions that evolve through feedback and evaluation.**

The Produce phase is one element of the design cycle; the Evaluate phase is its compliment. The best results are achieved when design solutions are evaluated throughout development.

Early designs are used to solicit feedback, which in turn guides changes in the design, which is evaluated again, and so the cycle goes until a viable product is achieved.

The Produce phase has one overarching objective:

* **Create and refine the design solution**, iteratively, from rough concept to detailed implementation.

It should be noted that satisfactory completion of this objective will likely entail negotiating design trade-offs with stakeholders. Also, in most contexts design solutions can be checked for alignment with best practices and style guidelines.

Common methods and activities employed in support of these objectives are: Brainstorming, Paper Prototyping, and Visual Modeling.

To browse a complete listing of methods, please see our Methods page.

**Evaluate (Detail Page)**

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**The Evaluate phase gauges the design solution’s ability to meet user needs and quality objectives.**

As part of this phase the design solution should be reviewed by the appropriate project leaders to ensure that it meets the business quality objectives outlined in the Plan phase.

Evaluation methods focus most squarely on capturing the design solution’s ability to meet the human-centered quality objectives, such as efficiency, effectiveness, and user satisfaction.

The Evaluate phase has the following objectives:

* **Ensure design solution aligns with specifications. Review should consider whether design solution aligns with the stated business needs and interaction requirements.**
* **Evaluate usability of design solution.** Ideally, the design solution is evaluated at several points during evolution from rough concept to detailed implementation. The aim is to identify usability issues — observed or potential sources of errors, difficulties, task failures, and inefficiency.
* **Quantify performance of design solution. Depending on stage of development, it may be desired to measure performance of the design solution. Measures of efficiency, such as time on task and/or click counts, are commonly employed in late-stage usability tests.**
* **Validate information architecture. I**.e., application organization and flow, which can include categorization and priority/sequence of content.
* **Evaluate solution for alignment with best practices and style guidelines.**

Common methods and activities employed in support of these objectives are: Heuristic Evaluation, Usability Walkthrough, and Formative Usability Test.

To browse a complete listing of methods, please see our Methods page.

**Measure**

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**The Measure phase assesses whether the design solution achieves the desired value in the field.**

The Measure phase has one overarching objective:

* **Evaluate the deployed solution. The objective here does not substantially differ from that of the Evaluate phase, but the context and the approaches to measurement differ. The aim is to continuously monitor the design solution’s ability to meet the user needs and the quality objectives. In the operational environment, low frequency events are more likely to be observed and changes in the context of use may introduce factors that had not been previously considered.**

Common methods and activities employed in support of these objectives are: Diary Study, Focus Group, and Analytics.

To browse a complete listing of methods, please see our Methods page.

**Excerpt**

Summary text for WordPress.

Learn about phases of the user experience (UX) process and how each phase corresponds to objectives.