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COURSE NAME : 19CSE315 - UI/UX Design

III YEAR/ VI SEMESTER

UNIT – IV UX DESIGN PROCESS

Topic: Research in User Experience Design
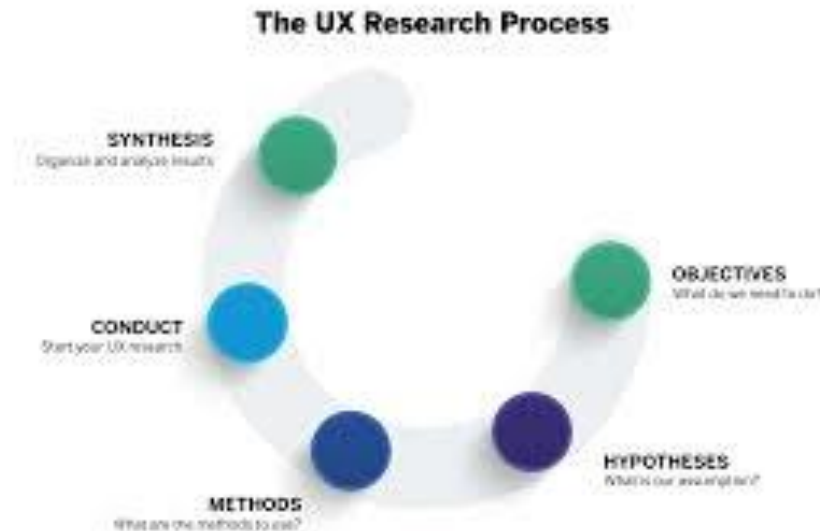
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What is UX Research?

UX (user experience) research is the systematic study of target users and their requirements, to add realistic contexts and insights to design processes. UX researchers adopt various methods to uncover problems and design opportunities. Doing so, they reveal valuable information which can be fed into the design process.

The UX Research Process

UX research into two subsets:

1.Qualitative research – Using methods such as interviews and ethnographic field studies, you work to get an in-depth understanding of why users do what they do (e.g., why they missed a call to action, why they feel how they do about a website). For example, you can do user interviews with a small number of users and ask open-ended questions to get personal insights into their exercise habits. Another aspect of qualitative research is usability testing, to monitor (e.g.) users' stress responses. You should do qualitative research carefully. As it involves collecting non-numerical data (e.g., opinions, motivations), there's a risk that your personal opinions will influence findings.

2. Quantitative research – Using more-structured methods (e.g., surveys, analytics), you gather measurable data about what users do and test assumptions you drew from qualitative research. For example, you can give users an online survey to answer questions about their exercise habits (e.g., "How many hours do you work out per week?"). With this data, you can discover patterns among a large user group. If you have a large enough sample of representative test users, you'll have a more statistically reliable way of assessing the population of target users. Whatever the method, with careful research design you can gather objective data that's unbiased by your presence, personality or assumptions. However, quantitative data alone can't reveal deeper human insights.

UX Research Methods *throughout* Development:

The Nielsen Norman Group—an industry-leading UX consulting organization—identifies appropriate UX research methods which you can use during a project's four stages. Key methods are:

1.Discover – Determine what is relevant for users.
->Contextual inquiries – Interview suitable users in their own environment to see how they perform the task/s in question.

->Diary studies – Have users record their daily interactions with a design or log their performance of activities.

2.Explore – Examine how to address all users' needs.

->Card sorting – Write words and phrases on cards; then let participants organize them in the most meaningful way and label categories to ensure that your design is structured in a logical way.

->Customer journey maps – Create user journeys to expose potential pitfalls and crucial moments.

prominent forms of UX research :

- **Card sorting.** A technique that assesses and designs the navigation and structure of an application or website by giving individuals a list of related items (for example, a sample inventory listing for an online supermarket) and asking them to group the items in a way that makes the most logical sense to them.
- **Contextual interviews.** Monitored sessions where UX researchers observe users in their natural environments and ask questions to gain firsthand accounts of their experiences.
- **Focus groups.** A moderated feedback approach where a panel of users are asked to discuss their experiences among themselves, either in moderated or open formats, to help researchers learn more about the group's attitudes, ideas and wants.
- **Expert reviews.** Accredited and verified evaluations of a website against a list of established industry standards or other governing guidelines.
- **Surveys.** A selected series of questions posed to a number of users that help researchers learn about the individuals who use the end product.
- **Usability testing.** An evaluation technique that attempts to uncover the problems and frustrations users have with a site through one-on-one sessions where users perform tasks using a particular software application or other product.
- **A/B testing.** An assessment technique where users take part in blind studies that randomly assign those users to different versions of a website, application or other software product.

What are the benefits of UX research?

UX research helps organizations in many ways, but the following are some of the oft-cited benefits of performing UX research on a regular basis:

•Understand how users experience websites, mobile applications, products and prototypes.

•Evaluate and improve ideas and prototypes based on the findings of the UX research, enabling organizations to make the right design decisions early in the development process.

•Discover new customer needs and business opportunities.

•Find and fix flaws in products and services.

•Provide better user experiences than competitors.

•Understand every user interaction across the entire customer journey.

•Develop a more useful picture of the target audience for better advertising and marketing.

UX researcher role and responsibilities

The role of a UX researcher is to uncover user behaviors, needs and motivations to make products, services and websites more intuitive and enjoyable for users. Using qualitative and quantitative methods, they conduct comprehensive research and share the insights from research with the UX designers. The goal of the UX researcher is to make the overall design process smoother and more productive.