



Usability and Human Interaction

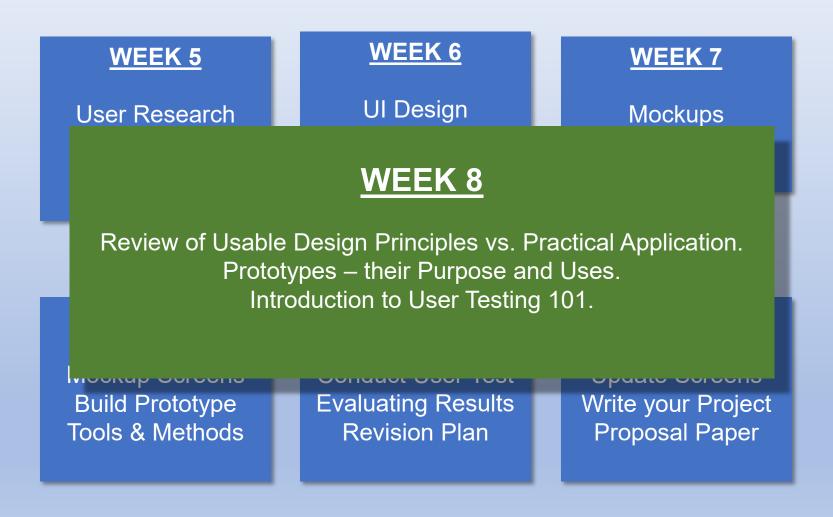
Week 8 — Lecture

Usability & UX Methods Revisited

Theory vs. Practical Implementation,
Prototype Purpose and Uses, User Testing 101

Weekly Topics and Assignments

Each weekly activity steps you through the process of building a Usable Design project



Review of Principles vs. Real World Practice

Northeastern University - Experiential Learning

https://admissions.northeastern.edu/academics/experiential-learning/

Learning that integrates the classroom and the real world.

Experiential learning, anchored by our signature cooperative education program, lies at the heart of academic life at Northeastern. The integration of study and professional experience enables students to put ideas into action through work, research, international study, and service in 148 countries around the world.



REVIEW OF USABLE DESIGN PRINCIPLES

The next few slides recap current Usability and UX Design principles, methods, processes and best practices. But in real world practice, projects are often constrained by limited resources, time, personnel and budgets.

Prioritize, execute, test and revise!

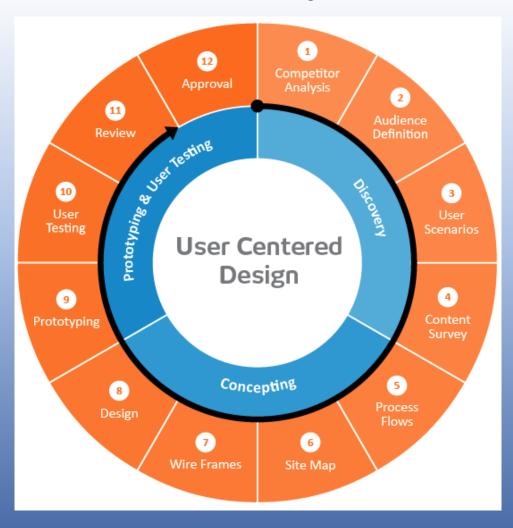
Practical

(image) STEM Learning – Theory vs. Theory + Practical

https://stemlearning.in/practical-learning-knowledge/

Usable Design Process

Key development tasks covered during this course.



The Do's and Don'ts of User-Centered Design

https://medium.com/@Vincentxia77/the-dos-and-don-ts-of-user-centered-design-4e1cde38e3c7

UX ACTIVITIES IN THE PRODUCT & SERVICE DESIGN CYCLE



EXPLORE

TEST

LISTEN

METHODS

Field studies/user interviews

Diary studies
Stakeholder interviews
Requirements & constraints
Sales & support interviews
Support call monitoring
Competitive testing

Find allies Talk with experts Follow ethical guidelines Involve stakeholders Hunt for data sources Determine UX metrics

METHODS

ACTIVITIES

ACTIVITIES



Follow Tog's principles of IXD
Use evidence-based guidelines
Design for universal access
Give users control
Prevent errors
Improve error messages
Provide helpful defaults
Check for inconsistencies
Map features to needs
Make software updating easy
Plan for repair and recycling
Avoid waste
Consider diverse contexts
Look for perverse incentives
Consider social implications

METHODS

ACTIVITIES

Qualitative usability testing Training research

User group outreach Social media monitoring Forum post analysis Benchmark testing Accessibility evaluation Test instructions & help Protect personal information Keep data safe Deliver both good and bad news Track usability over time Include diverse users Track usability bugs Make training information

METHODS

ACTIVITIES

Surveys
Analytics review
Search-log analysis
Usability bug review
Feedback review
FAQ review
Conference outreach
Q&A at talks and demos

Pay attention to user sentiment Reduce the need for training Communicate future directions Recruit people for future research

Bold methods are some of the most commonly used.

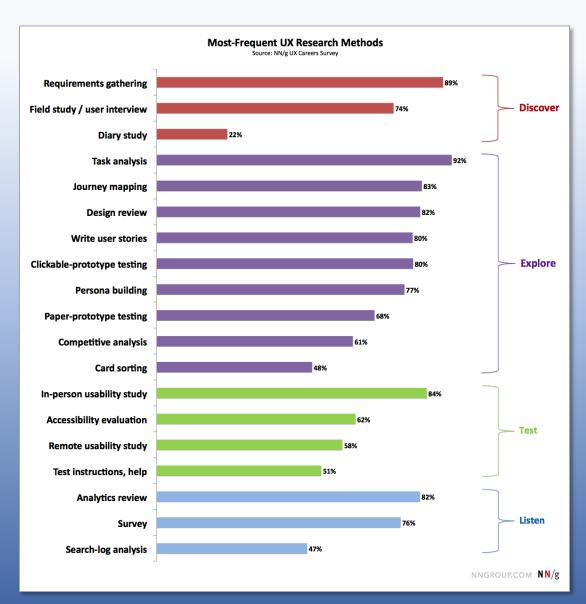
NNGROUP.COM NN/g

Nielson Norman Group – UX Research Cheat Sheet

https://www.nngroup.com/articles/ux-research-cheat-sheet/

The chart describes UX methods and activities available in various project stages.

(Visit the website for a larger view of infographic.)



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It's a good idea to use different or alternating methods each product cycle because they are aimed at different goals and types of insight. The chart below shows how often UX practitioners reported engaging in these methods in our survey on UX careers.

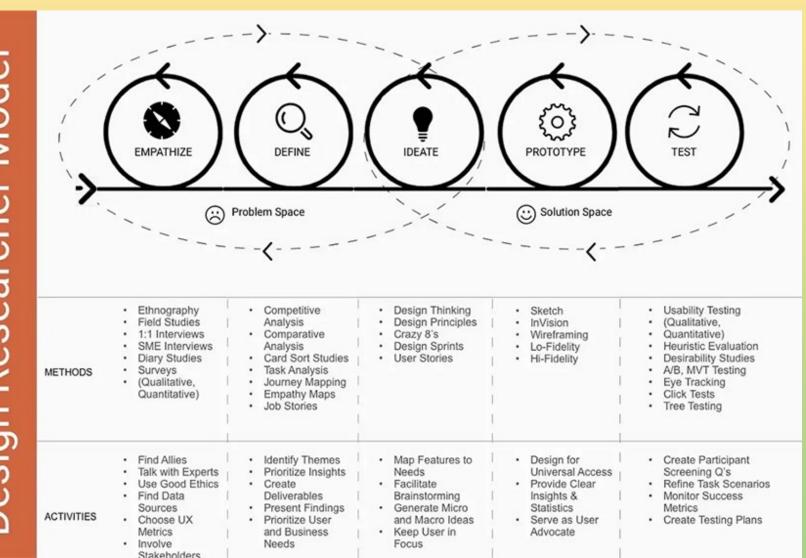
(Visit the website for a larger view of infographic.)

Design Research Model

Doing the Right Things and Doing Things Right: A Design Researcher's Process Model

https://uxdesign.cc/doing-the-right-things-and-doing-things-right-a-design-researchers-process-model-abd222699bbf
This Design Researcher Model includes activities and methods for UX research directly within the main design thinking process.

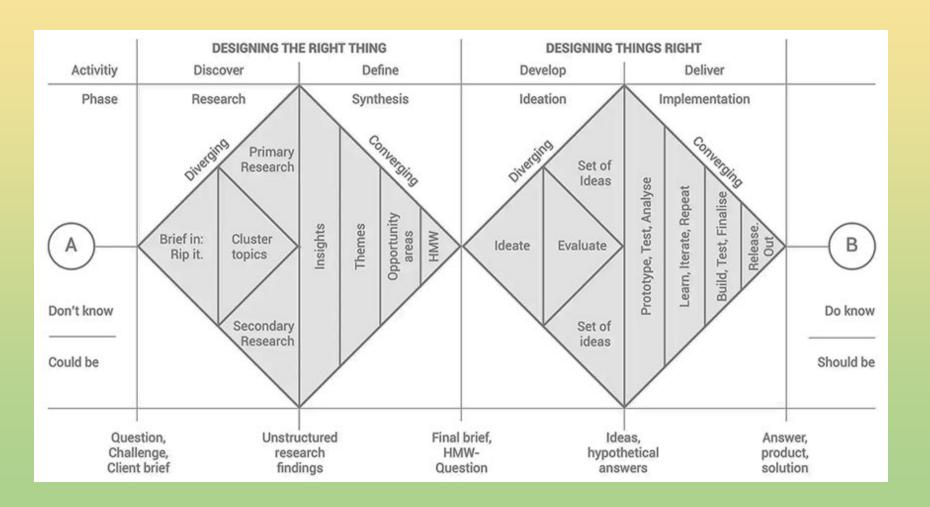
Design Researcher Model



The Double Diamond – Dan Nessler

Doing the Right Things and Doing Things Right: A Design Researcher's Process Model

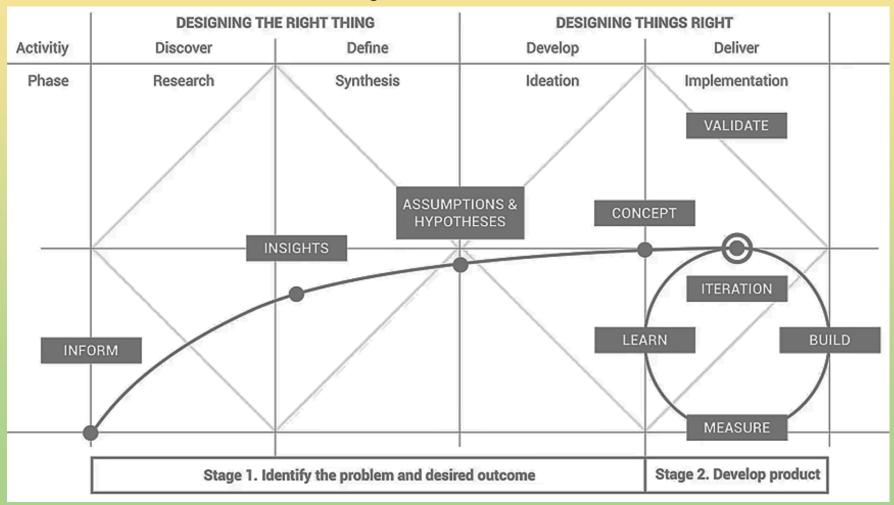
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The Revamped Double Diamond

https://uxdesign.cc/how-to-fuck-up-the-design-thinking-process-and-make-it-right-dc2cb7a00dca

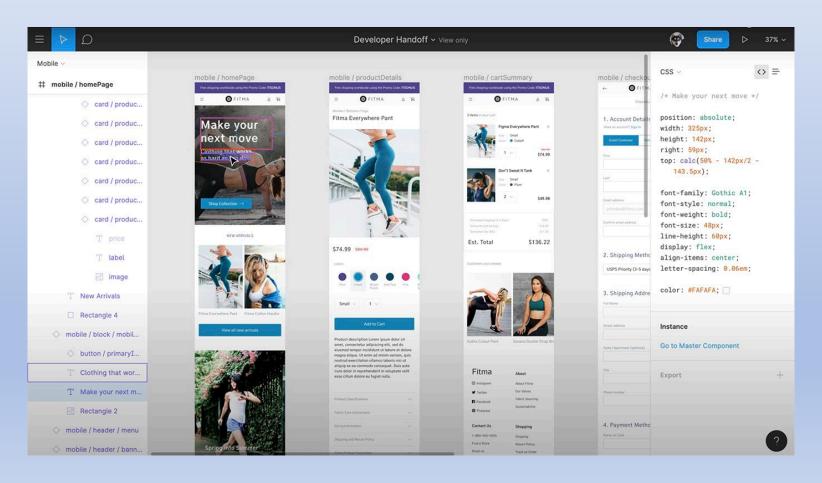
The Revamped Double Diamond should be considered as an overarching framework. Design frameworks provide a structure to justify the process and build trust and confidence among stakeholders.



The Prototype – Its Purpose and Uses

NN/g – Use Good Prototype Specifications to Empower Team Collaboration https://www.nngroup.com/articles/prototype-specifications/

Prototype specifications can disambiguate a design, save time, and serve as external memory for the team. But not every design needs detailed prototype specifications. Designers should evaluate their projects and team, then decide whether to write prototype specifications to make their work more efficient.



The Prototype – for Usability Testing

NN/g - Usability Testing 101

There are many variables in designing a modern user interface and there are even more variables in the human brain. The total number of combinations is huge. The only way to get UX design right is to test it.

https://www.nngroup.com/articles/usability-testing-101/

Types of Usability Testing Qualitative vs. Quantitative

Usability testing can be either qualitative or quantitative.

Qualitative usability testing focuses on collecting insights, findings, and anecdotes about how people use the product or service. Qualitative usability testing is best for discovering problems in the user experience. This form of usability testing is more common than quantitative usability testing.

Quantitative usability testing focuses on collecting metrics that describe the user experience. Two of the metrics most commonly collected in quantitative usability testing are task success and time on task. Quantitative usability testing is best for collecting <u>benchmarks</u>.

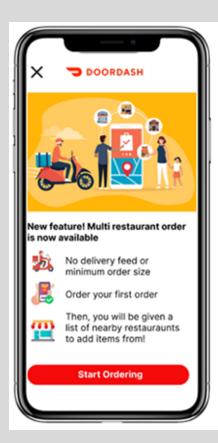
Theory into Practice – The Design Proposal

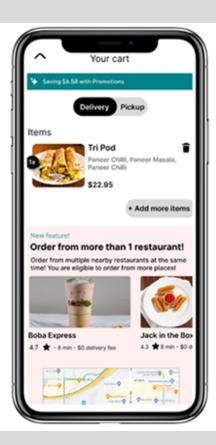
Behance: Multi-Restaurant Order on Doordash — A UX Case Study

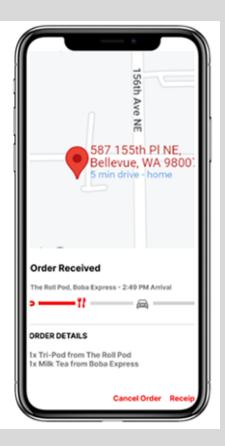
https://www.behance.net/gallery/146980575/Multi-Restaurant-Order-on-Doordash-UXUI-Case-Study?locale=en US

PureUX Creative - Project Overview:

I will be adding a feature to the Doordash app which can allow users to order from their favorite restaurants all at once. I believe this future will add value to the business and drive more revenue. Right now, on the major food delivery platforms, you cannot add items from multiple places in a cart.







What you need to do for Week 8

- View the <u>Lecture 1</u>, take notes and/or email me with your questions.
- For **Week 8 Assignment** you will develop mockup screens which will be used for building your app prototype. View the Week 8 Assignment PowerPoint or PDF for details and instructions.
- Complete and upload your <u>Week 8 Assignment</u> by <u>Sat. 11:59 PM</u>.
- <u>Discussion Board</u> post your answer and comment on classmate's post.
- Write an entry in your weekly <u>Usability Journal</u>.
- Check Canvas for any updated material or announcements.

Usability Design Links and Resources

NN/g – UX Research Cheat Sheet

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Doing the Right Things and Doing Things Right: A Design Researcher's Process Model

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https://www.nngroup.com/articles/prototype-specifications/

NNg - Usability Testing 101

https://www.nngroup.com/articles/usability-testing-101/

NNg- Parallel & Iterative Design + Competitive Testing = High Usability

https://www.nngroup.com/articles/parallel-and-iterative-design/

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