

Introduction to

# Design

## Research & Writing Methods

Develop successful solutions  
with research-driven design.

# Research & Writing Methods for Designers

- The Design Process
- Where Research Fits In
- How Research Benefits You
  
- Types of Research
- Research Strategies
- Research Tactics
  
- Mapping a Strategic Direction
- The Big6: A Problem Solving Model
- Tips

# The Design Process

Step 1:  
**Task Definition**

Step 2:  
**Research**

*the process of  
gathering, sorting,  
and processing  
information*

Step 3:  
**Ideation**

*the formation  
of ideas or  
concepts*

*Brainstorming*

*Sketching*

*Mock-ups*

Step 4:  
**Refinement**

Step 5:  
**Solution**

# Defining the Task

## Task Definition

*What are we doing?*

*What should the finished project be?*

*Why is this needed?*

*Project goals?*

*Who are we doing it for?*

*Target audience?*

*Materials?  
Deadline?  
Budget?  
other Limitations?*

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# Research

**Helps You  
Understand**

**Context**

- client needs
- preferences
- market

- It can support a concept
- Advocate for an aesthetic
- Measure the effectiveness of a solution

# Research

## **Adds Value to Design Solutions by helping you to:**

- Craft more effective messages
- Improve communication with target audience
  
- Assess project development
- Justify design decisions

### **It also helps to:**

- Position the designer in the role of a strategic consultant
- Increase value of and compensation for work

# Research Types

- **Quantitative + Qualitative Research**  
think Quantities and Qualities

**Quantitative** - measures objective, logical and numerical data

**Qualitative** - measures subjective data such as feelings and opinions



- **Primary + Secondary Research**  
refer to proximity and specificity of source

**Primary** - original research for project

**Secondary** - potentially relevant research completed for a different project

- **Formative + Summative Research**  
is categorized based on when and how it is used

**Formative** - exploratory research done at the beginning of a project

**Summative** - conclusive research done at the end of project



# Research Tactics

actions or strategies carefully planned to achieve a specific end

- **Photo and Visual Ethnography** - research gathered by daily photo or video documentation
- **Observational Research** - gathered by observing human behavior without interacting with the group being studied
- **Demographics** - statistical data used to identify quantifiable group characteristics
- **Psychographics** - quantitative tactic used to measure subjective characteristics
- **Focus Groups** - small organized discussions led by a moderator
- **Surveys & Questionnaires** - the collection of data by asking questions in a specific order
- **Web Analytics** - web statistics collected by tracking user behavior online
- **Iterative Design** - a cycle of prototyping, testing, and refining
- **Personas** - fictional end users profiles developed to help identify user motivations, expectations, and goals
- **Visualization** - rapid prototyping for communicating concepts
- **Color Theory / Color Predictions** - studying basic color psychology and color trends to aid color decisions



# Research Strategies

employ one or more research tactics for data collection and evaluation

- **Competitor Analysis** - process of evaluating the strengths and weaknesses of an organization's competitors
- **Literature Review** - a comprehensive investigation of all documents, publications, articles, and books regarding a specific area of study
- **Ethnographic Research** - research focused on the link between human behaviors and culture
- **Marketing Research** - a form of sociology that focuses on the understanding of human behavior as it applies to a market-based economy
- **User Testing** - employs a variety of techniques designed to measure a product's ability to satisfy the needs of the end user
- **Visual Exploration** - primary research used to solve problems of form and communication that usually includes multiple variations of color, imagery, typography, and structure



# Mapping a Strategic Direction

you won't arrive at your destination if you don't know how to get there

Graphic design researchers gather and use information to solve specific visual communication problems

Developing a research strategy creates a roadmap for gathering, applying, and assessing design decisions

## Where to start?

Review the task definition for clues

- Who is your client?
- How are their competitors solving similar problems?
- Who is the target audience?
- What is the project goal?
- Ask yourself what other information you need.

All of these questions provide clues to the types of research you require.

Where to start?

## 1. Task Definition

- Define the information problem
- Identify information needed

## 2. Information Seeking Strategies

- Determine all possible sources
- Select the best sources

## 3. Location and Access

- Locate sources (intellectually and physically)
- Find information within sources

## 4. Use of Information

- Engage (e.g., read, hear, view, touch)
- Extract relevant information

## 5. Synthesis

- Organize from multiple sources
- Present the information

## 6. Evaluation

- Judge the product (effectiveness)
- Judge the process (efficiency)



# Tips

## **Remember**

- Research is essential for successful design problem solving and writing.
- Research can be light or heavy depending on the scope of your work.

## **Learn How**

- to capture the information you need
  - read slowly, take good notes, and include citations
  - read in a comfortable space free of distractions
- Carefully consider sources and determine what information to accept as legitimate.
- Chart out a Research Strategy
- Find the information you need
  - Databases such as WorldCat.org
  - Libraries and Museums - for hands on access to a variety of materials, and librarians