

# Evaluation in Interaction Design

# Empirical Research

- Research done through direct or indirect observation, which can be measured either qualitatively or quantitatively
- **Qualitative:** Ethnographic research focused on observation, note taking, interviews and small group analysis (e.g. Why)
- **Quantitative:** Investigation based upon mathematical, statistical, or computational techniques (e.g. What or How Many)

# Steps in the Research Process

Definition	Developing the research question
Planning	Identifying the methodology and the design of the research
Operation	Running the research: participants, instruments, execution
Analysis	Checking the validity, and putting the data in usable forms
Interpretation	Contextualizing the data
Conclusion	Analyzing the data
Presentation	Writing up the research
Packaging	Submitting the paper

# 4 Types of Investigations

Experiment	Environment where a researcher tests a variable (or multiple variables) by controlling the environment, stimuli, and other factors; quantitative in experience
Case Study	“In the wild” where the researcher tracks an experience in the natural environment, generally looking for connections and patterns; observational study oftentimes qualitative in nature
Survey	Interviews, questionnaires, and surveys delivered to gather qualitative and quantitative information on elements in the past
Post-Mortem Analysis	A survey and case study analysis meant to understand how a system performed in the past