Exam Scope (1/2)

• Lectures
  • S01 Research Approaches in HCI
  • S02 Experimental Research
  • S03 Statistical Analysis in HCI Research
  • HCI Design Patterns
  • Interactive Museum Guide Systems
  • Touch and Tangibles on Large Interactive Surfaces

• Reading assignment (in depth)
  • (Wobbrock, 2014) 7 Research Contribution Types in HCI
  • (McGrath, 1995) Methodology matters
  • Required reading of the above lectures
Question Types

- **Memory**: recall facts
  - Name, describe, explain, sketch

- **Convergent**: Integration of memorized information
  - Compare and contrast concepts
  - Analyze the given examples

- **Divergent**: Encourage free generation of ideas
  - Agree/disagree and justify your answer
  - Give an example of concepts

- **Application**: Apply knowledge/skill to a new situation
  - Extracting contribution, experimental design, criticizing validity
Terminologies

- Research approaches:
  - Empirical science, ethnography, engineering & design
- Research contributions
  - Empirical, artifact, methodological, theoretical, dataset, survey, and opinion
- Empirical research strategies
  - Descriptive, relational, experimental
- Experimental design
  - Within-subjects, between-subjects
Statistics: Knowing what’s missing & how to fix

Chat conducted an experimental study comparing task completion time between two keyboard layouts. Chat presented the following results and conclude that users were faster with layout A than with layout B. Identify flaws in his conclusion and suggest improvements.

- What central tendency is used?
- Missing spread (CI, SD, variance)
- Missing unit
- Standardized effect size