

CTHCI Lab

Final Exam Preparation

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.

