

# CIS 543

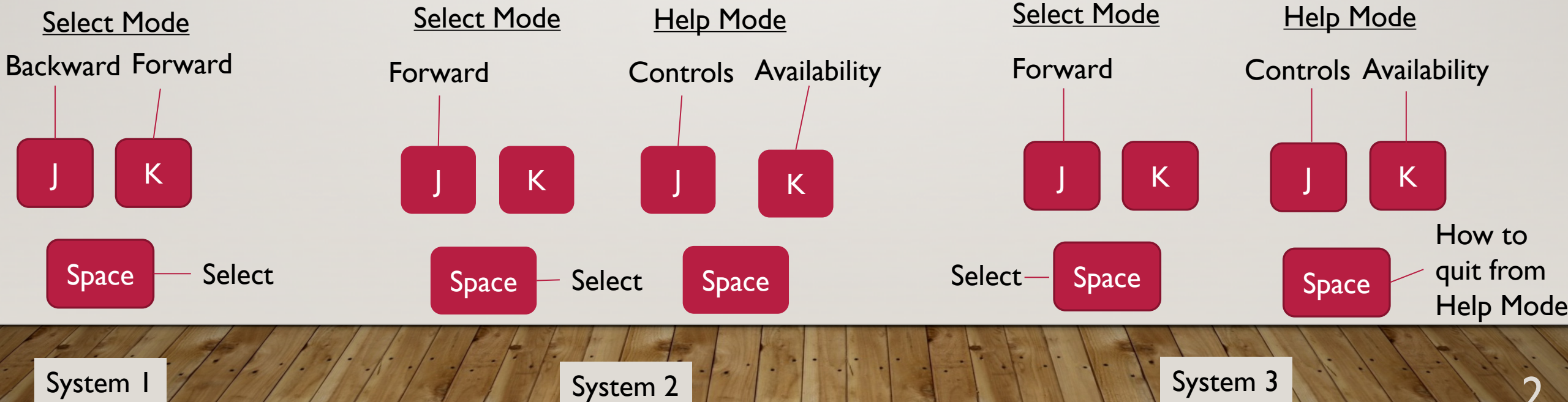
# USER OBSERVATION STUDY

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# SUMMARY

- Systems with a simple and straightforward design are desirable. **Better instructions/feedback**, to let user know how he or she is moving through the menus and modes, **leads to better productivity and user satisfaction**.
- In this observation study, I observed which of the following **pushbutton input- auditory output systems** have the highest usability. *The first one won, both in user performance and preference.*



# EXPERIMENTAL DESIGN

- Used a within-subjects design.
- The independent variables being tested:
  - “Presence of Enough Auditory Feedback”
  - “Simplicity and Straightforwardness”
- Order of the systems exposed to each user alternated:
- Each participant group had 3 users.
- Each Trial includes the following tasks:
  - scroll through the available book titles
  - select the book titled “The Design of Everyday Things”
  - scroll through the chapter names of that book
  - select chapter two “The Psychology of Everyday Things”
  - play the content of chapter two
  - Finally, exit from the program

Participant Group	Trial 1	Trial 2	Trial 3	Trial 4	Trial 5	Trial 6
1	System 1	System 2	System 1	System 2	System 1	System 2
2	System 2	System 1	System 2	System 1	System 2	System 1
3	System 1	System 3	System 1	System 3	System 1	System 3
4	System 3	System 1	System 3	System 1	System 3	System 1

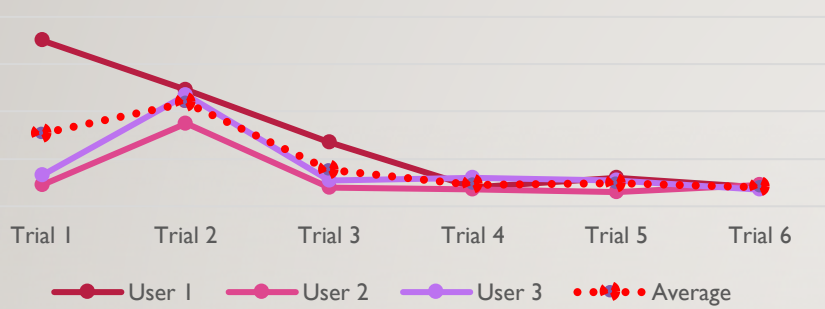


# RESULTS

Number of Keystrokes by The Participant Group 1 over Trials

**Trial 1, 3, 5: System 1**

**Trial 2, 4, 6: System 2**

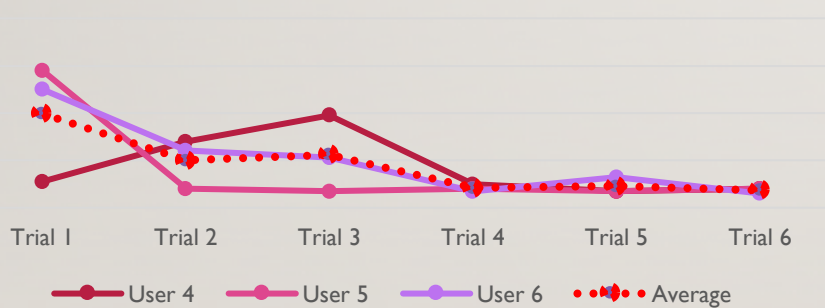


In Trial 2, there is no practice effect of System 1 on System 2

Number of Keystrokes by The Participant Group 2 over Trials

**Trial 1, 3, 5: System 2**

**Trial 2, 4, 6: System 1**

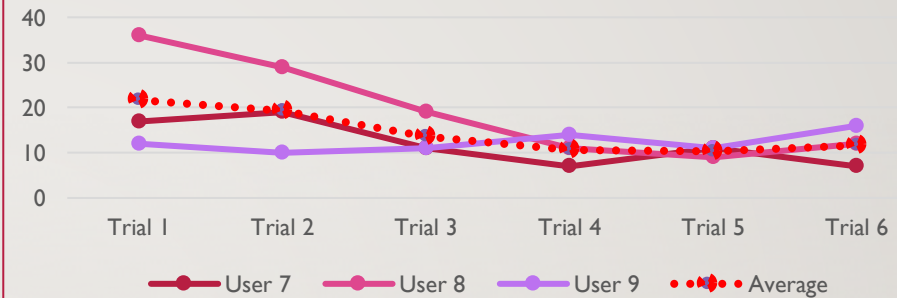


Even in Trial 3, having experience on System 1 and System 2 did not help to perform better with System 2

Number of Keystrokes by The Participant Group 3 over Trials

**Trial 1, 3, 5: System 1**

**Trial 2, 4, 6: System 3**

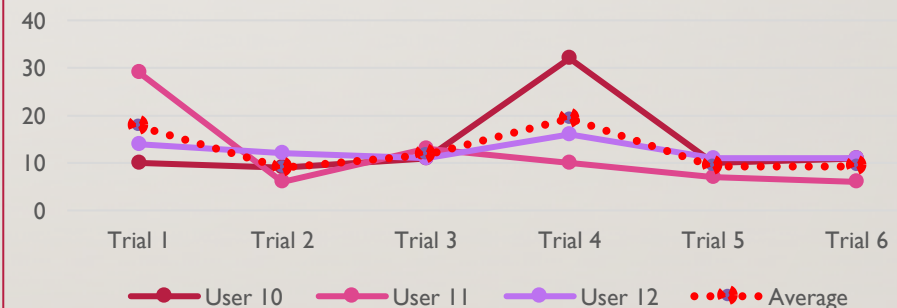


With number of trials, the number of Keystrokes reduced

Number of KeyStrokes by The Participant Group 4 over Trials

**Trial 1, 3, 5: System 3**

**Trial 2, 4, 6: System 1**



However, System 1 has a content not available mode, even having three trials, it did not help to perform better with system 1

System 1: Select Mode: <J> Scroll Backward, <K> Scroll Froward, <L> help, <;> quit <Space> Select.

(Lots of Auditory Instructions)

System 2: Select Mode: <J> Scroll Backward, <L> help, <;> quit <Space> Select

Help Mode: <J> controls, <K> Availability, <;> quit

System 3: Same as System 2 but with auditory instruction how to quit from help mode

(Straightforward Design. --- no need to scroll through chapter names)

# CONCLUSION

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- In general, users do not like learning interfaces.
- Keep the learning curve as small as possible. Users appreciate simple design.
- One design that's sensible for some users may not be to others.
- More Instructions/Feedback = Less Learning = Satisfied Users.

