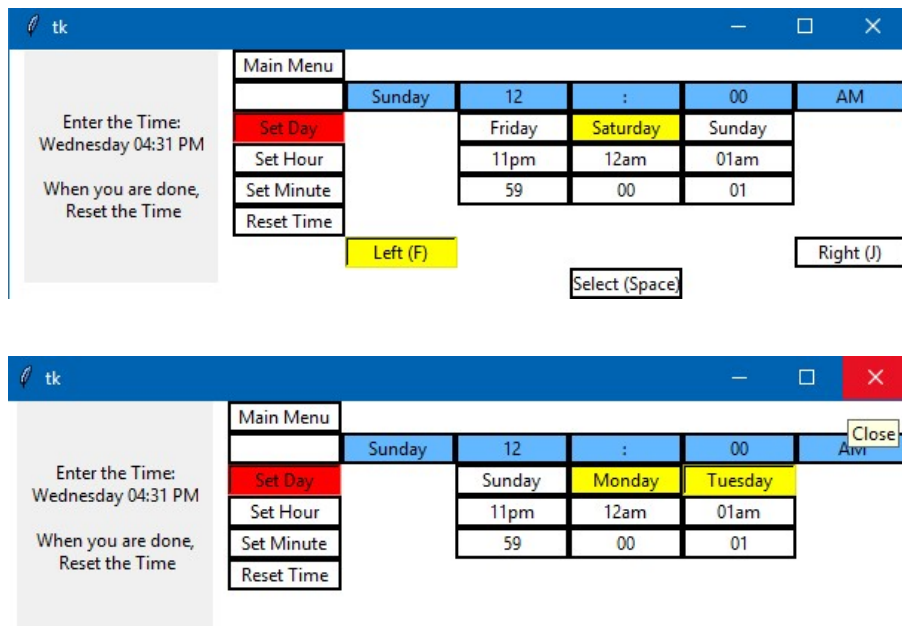# User Observation Study

Troi Chua

The Interfaces

- Hypothesis: The integrated feedback system (bottom) provides better feedback and makes it more usable than the dedicated feedback system (top).

- Conclusion: There was no statically significant difference between the two.

- $\mu_i = \mu_d$;

Setting and Participants

Setting: The Allan Price Science Commons and Research Library (PSC) B004.

Participants: 5 UO Science and Engineering students whom could spare 10 minutes to participate in the study.

- Demographics:
- 18-22 years old (Undergraduate Students)
- All male.
- All had experience with computers.
- The first 4 subjects were pseudo-randomly assigned to their first version from a decreasing pool and the 5th was assigned randomly.

The Setup
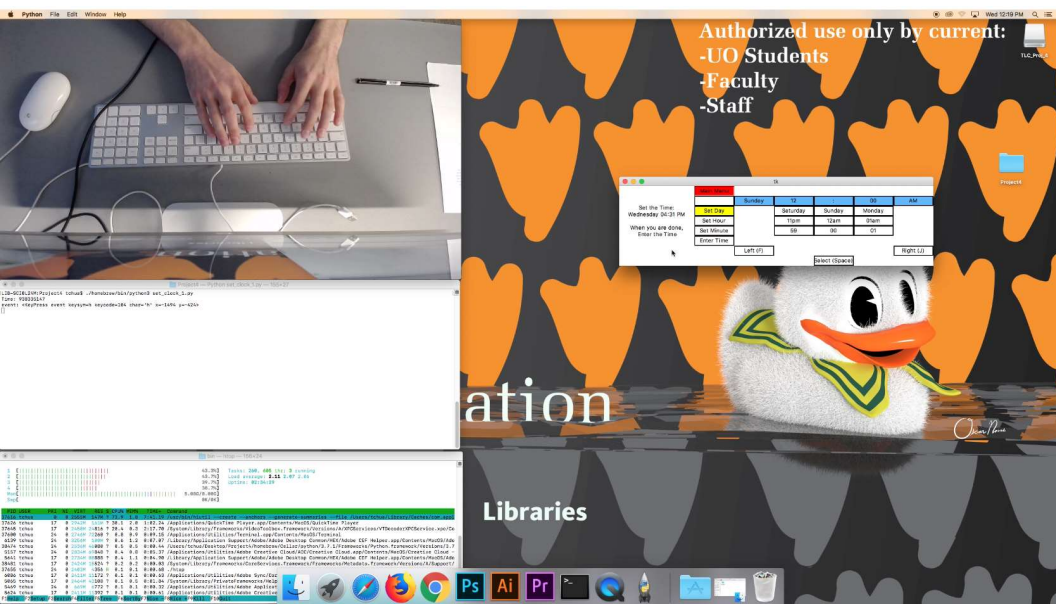
- Each participant was instructed to try and set the time in as few keystrokes as possible.

- They were informed that there would be two versions of the interface, and that the experimenter would have them start on the second one right after the first.
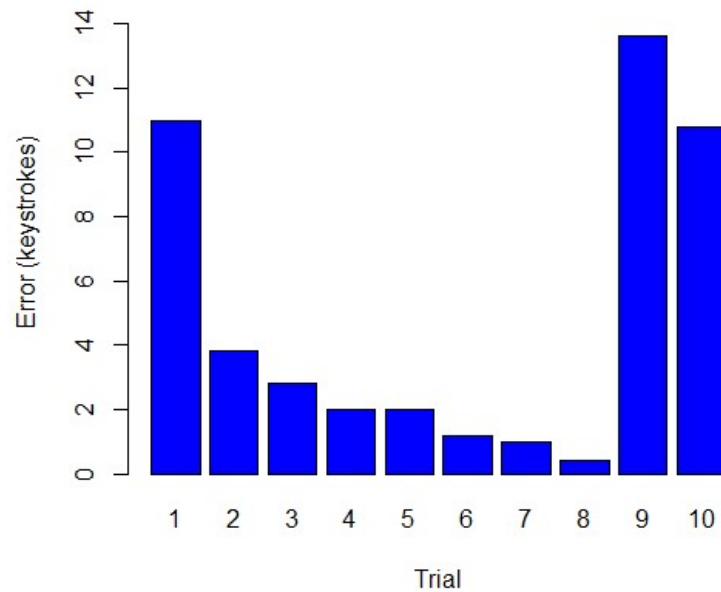
Within Groups Error Progression
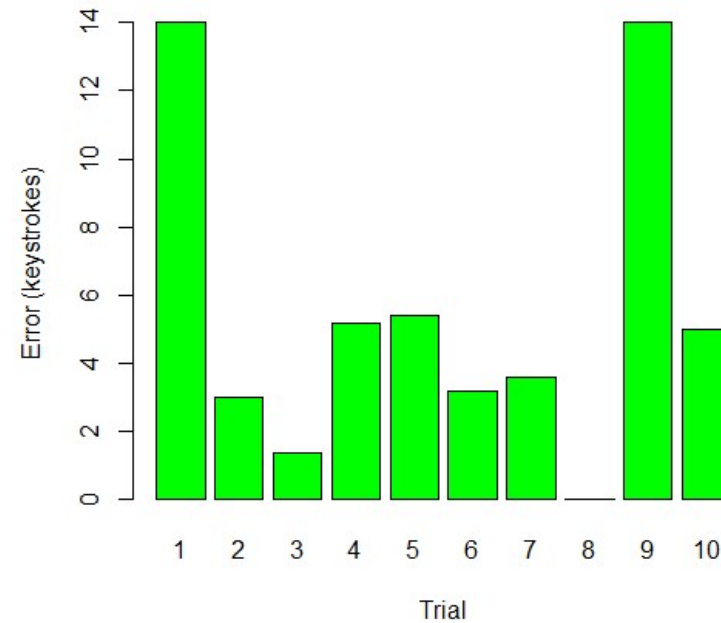
Keystroke Error Over Both versions
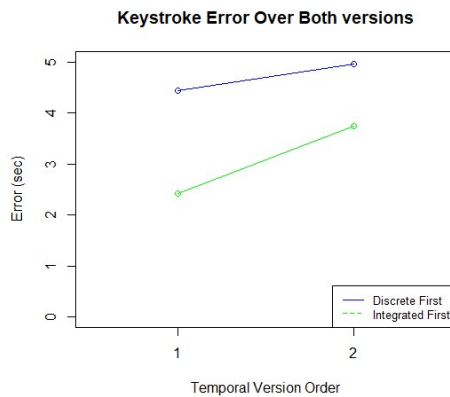
- Participants produced more keystroke errors as during their second set of trials.

- They performed much faster and closer to the baseline in their second trial.

Trial Time Error Over Both versions

Average Keystroke Version Error per trial
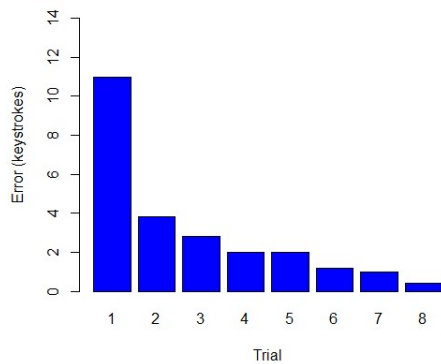
Average Adjusted Error per trial

Average V1 Error Adjusted

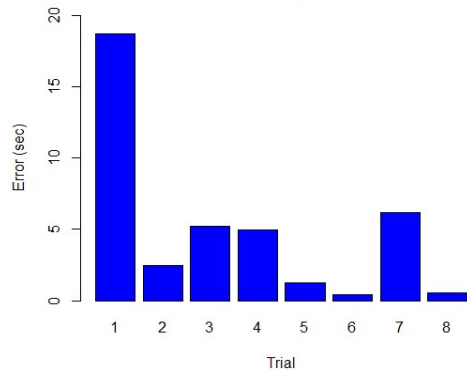**Average V2 Error Adjusted**

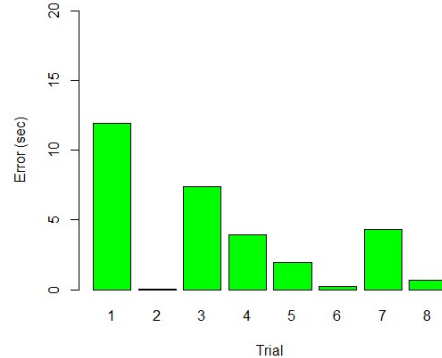**Average V1 Speed Error**

Average V2 Speed Error
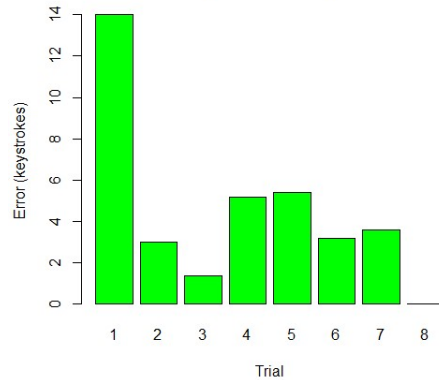
- Keystroke error (top) and Trial Time Time error (bottom).

- The participants averaged improvement, but showed better performance improvement when using the discrete system.

Stat Averages

Discrete
- Keystrokes = 38.675 strokes
- Trial Time = 20.933 sec
- Key Error = 3.025 strokes
- Time Error = 4.969 sec

Integrated
- Keystrokes = 40.225 strokes
- Trial Time = 19.637 sec
- Key Error = 4.475 strokes
- Time Error = 3.809 sec

Stat Averages Unadjusted

Discrete

- Keystrokes = 38.58 stokes
- Trial Time = 20.172 sec
- Key Error = 4.860 strokes
- Time Error = 5.697 sec

Integrated

- Keystrokes = 38.28 strokes
- Trial Time = 18.996 sec
- Key Error = 5.48 strokes
- Time Error = 4.667 sec