



**BLG374E**

# **Technical Communications for Engineers**

## **Week 5: Usability & proposal**

### **Lecture Contents:**

What is usability testing?

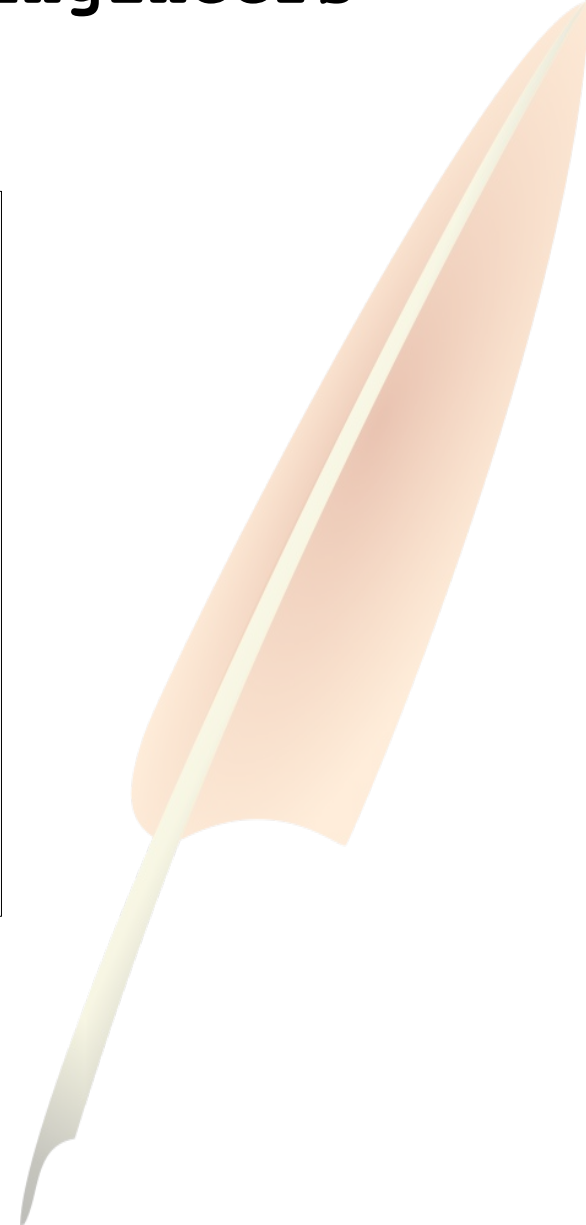
Three kinds of usability test:

- Experiment.
- ABA.
- Observational.

Advice: usability topic.

Advice: other topics.

|                     |   |
|---------------------|---|
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# What is usability testing?

*Systematic investigation of how a software product is used for the purpose of improving it.*

Involves:

- Careful observation.
- Experimentation.

# What is usability testing?

Suggested experiments:

- Compare 2 different pieces of software on some tasks.

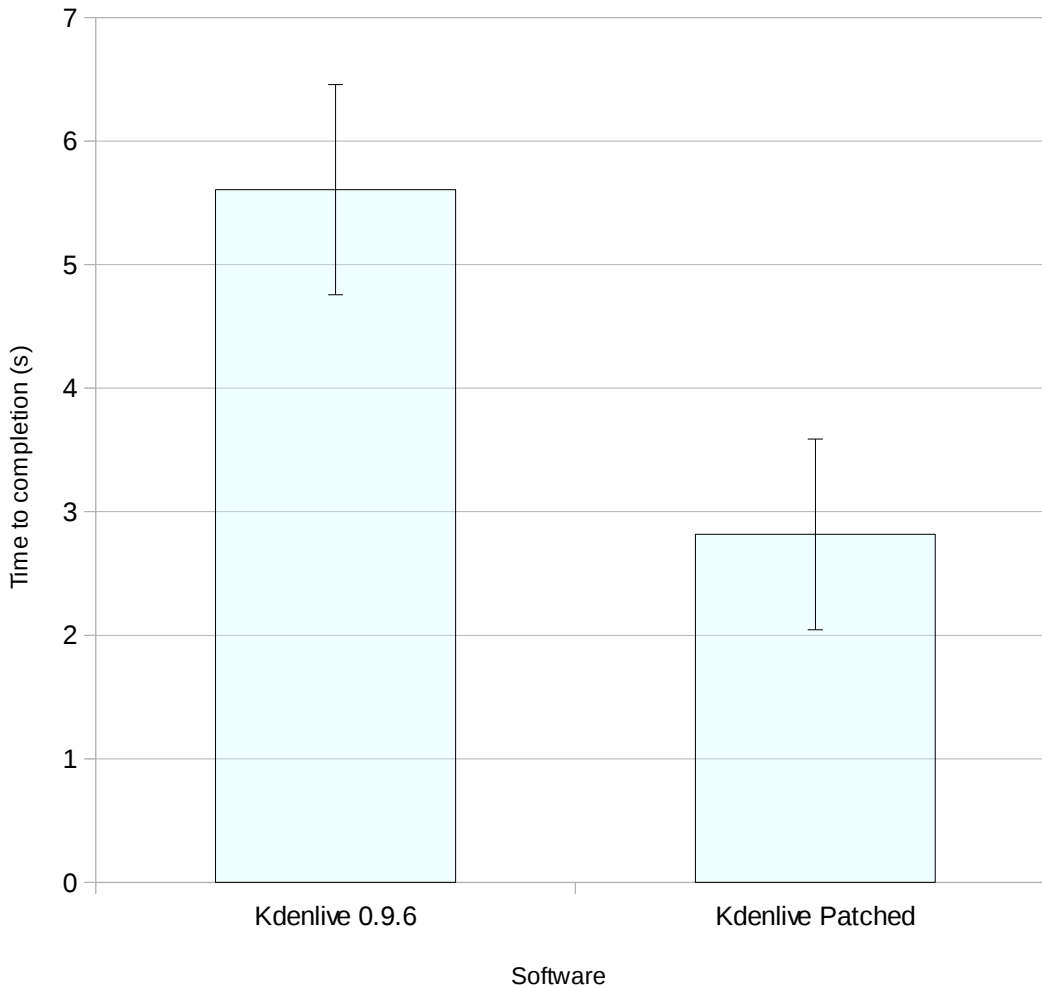
e.g. Kdenlive vs Cinelarra:

- Adding subtitles.
- Cutting and combining two clips.
- Matching clips with audio.
- Study learnability using observation.

# Types of usability studies:

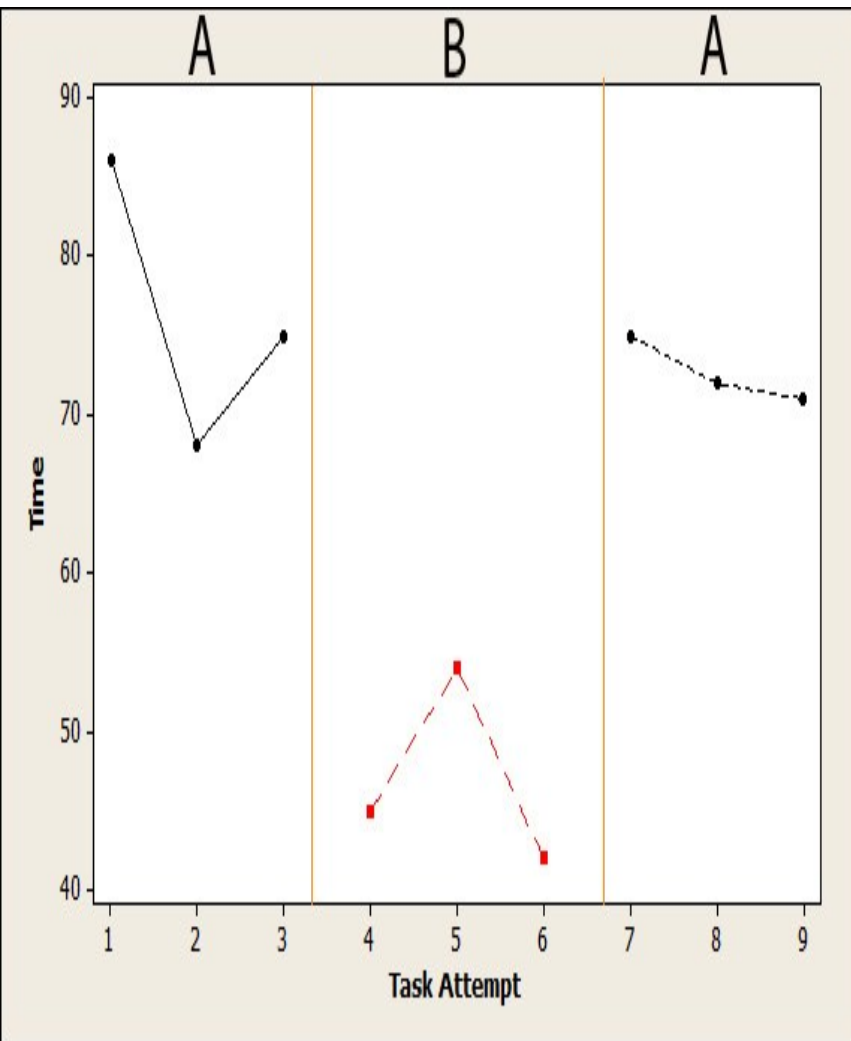
## Random assignment experiment

Time to splice and reverse video  
(10 participants)



- N participants.
- 2 software variations.
- Randomly assign participants to software.
- Measure how long to do a task or how many errors.

# Types of usability studies: ABA study



- 2 different software or variations (A & B) .

Users do task:

1. With **A** 3 times.
  2. With **B** 3 times.
  3. With **A** 3 times.
- As few as 1 user.

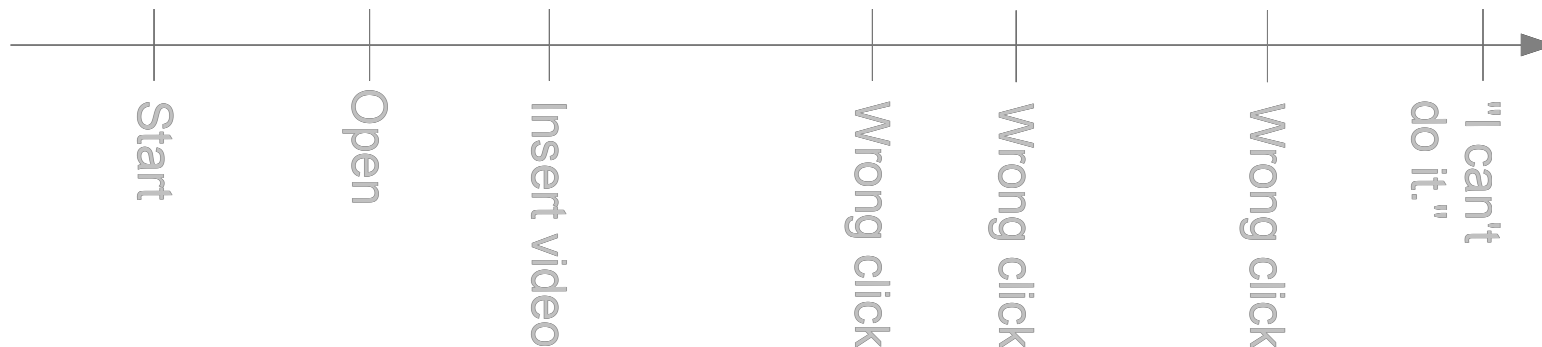
# Types of usability studies:

## Observational

- Watch someone using software.
- Keep notes.
  - Use a timer, keep a timeline.
- Ask questions after.
- Mostly qualitative.

"I couldn't find how to cut off the clip"

"I had to be very careful to click the border"



# Usability studies advice

- One software package, custom alterations:
  - less experimental complexity.
  - less variance.
- Multiple packages:
  - Find equivalent tasks.

# Usability studies advice

- Final report wants:
  - Quantitative results.
  - To make a conclusion.
- Do multiple experiments.



# More resources

- <http://www.measuringu.com/blog/experimenting-ux.php>
- [https://en.wikipedia.org/wiki/Usability\\_testing](https://en.wikipedia.org/wiki/Usability_testing)
- <http://www.cs.waikato.ac.nz/Teaching/COMP325B/lectures/Chapter14ID.pdf>
- <http://www.ccs.neu.edu/course/isu570/eval.ppt>
- <https://www.google.com.tr/search?q=usability+experimentation>