Project details
Grading Recap

• Project (50 points)
  – Project pitch on Jan 17 (10 points, group)
  – Project update on Feb 9 (5 points, group)
  – Final movie (10 points, group)
  – Four page write-up (25 points, individual)
  – Best project by class vote (extra credit, 5 points, group)
Groups

• Groups of 3 (49 students =>16 groups, one group has four)
• Make your own groups
• Find people you can work with: they will impact your grade!
• Reminder: You are adults. I will not mediate difficult group dynamics.
Topics

• Two choices
  – Topic related to your thesis research (you need to tell me how it fits in with your thesis, and that you have the resources to complete the project)
  – Select a study from a paper published in the last three years of ACM Transactions on Applied Perception (http://tap.acm.org/), or CHI (http://dl.acm.org/citation.cfm?id=2470654)
  – Find something you can reasonably implement/extend
  – The idea is to take an experiment from beginning to end, hence, we decide topics early
Constraints

• Remember: you only have a portion of 1 semester to do this
• One independent variable, with a maximum of 3 conditions
• Minimum one dependent variable, maximum 3 dependent variables (the more you have the more work you have to do to interpret the results)
• Minimum #subjects = 15(16 projects => 240 subjects needed => each person should get ~5 opportunities to earn extra credit)
• If you are doing the project related to your thesis work, you may need to run more for it to be publishable – that’s okay to do as part of class.
• There will be one class week set aside to run subjects (so if you need ~30 minutes for a subject, you should be done in 7.5 hours plus a couple of hours for setup/take down...that’s a typical hourly load for a 3 credit class)
Example Project Pitch (5 mins/group)

• Topic: Study eye movement variability for comic book art
• Group members: Eakta Jain, John Smith, Jane Smith
Hypothesis

• Eye movements in comic art are more highly correlated among people when compared to amateur photographs.
How will you test it

• I will eyetrack people looking at both categories of pictures.
• I own 20 comic books. I will scan them using the department scanner.
• I have a Flickr account. I will download pictures from there.
• I have access to an eyetracker in my adviser’s lab, and I have my adviser’s permission to use it for this class.
Project pitch logistics

- 16 groups => 8 groups per class period on Jan 17
- Need to keep to 5 mins!
- I will cut you off at 5 minutes
- If your group would like to line up while the previous one is on its last slide, that’s fine. If not, your 5 minutes will include set up time.
Mid-term presentation

• Lightning update (Feb 9 is a single period => 2 minutes per group)
• I want to know: what is the progress towards your goal (Defined variables? Designed experiment? Collected stimuli materials?)
• No slides
• If you ran into a problem, what is it? What is your solution to this problem?
Final movie

- Two minute movie (see previous year projects or SIGGRAPH or CHI videos as models for what to do)
- Contains your hypothesis, methods, and citations for 2-3 most related background papers (easy)
- Show an example of your test conditions / stimuli
- Results and conclusions (aha! This is the hard bit!)
- Should contain voiceover and captions if needed (because you will not “present”)
- Remember: Your audience is going to vote for you right after this, so make sure the video is understandable (e.g. having slides whizz past every 2 seconds does not achieve this goal)
Write-up (to be updated)

• Four pages, 12 point, Times/Times New Roman, ETRA format
• Bring to class in printed format
• Single sided printed
• Expectations on next slide …
Write-up: Sections (to be updated)

– Abstract
– Introduction (Motivation + Hypothesis + Result)
– Background (6-8 papers related to your project, justify how they are related to your project, including any citations for the data analysis)
– Experiment (describe your design, justify your choices, compulsory Figure 1 showing examples of your test condition)
– Data collection (describe the details such as what apparatus was used, #subjects, any issues, any data that was excluded from subsequent analysis, an optional figure with your apparatus)
– Data analysis (describe what was logged, any preprocessing to clean up / reorganize data, what test(s) did you use, justify in your own words why this test is applicable, cite appropriate source in addition to justification, compulsory table showing means and standard deviations of different conditions, compulsory Figure 2 with bar chart of means and standard deviation, compulsory Figure 3 showing the results of any subsequent tests that you ran)
– Conclusion (what is your interpretation of Figures 2 and 3, what are threats to internal and external validity, how would you redesign if needed)
What am I looking for (to be updated)

- Good writing: clear, no spelling errors, axes are labeled etc.
- Figure 1, Figure 2, Figure 3
- Did you UNDERSTAND what you did, and can you JUSTIFY this to your reader
- There is no right answer: Do not worry if you don’t get statistically significant results
- You do not get points for having more graphs – you get points for having the right graphs and for how you communicate the data in those graphs
- Backup plan: If you find yourself getting confused, my suggestion is to pick one independent variable and one dependent variable and analyze that, rather than trying to stuff more graphs / more analysis into your writeup.