Evaluation of Speak

Project 2b
Due November 4th

Overview
- Experiments to evaluate performance of your VoIP application (Project 2)
- Focus not only on how your software performs, but also
  - design, implementation of experiments
  - analysis
  - writeup

Details
- Two parts
  - in-depth user study with friend (called “group”)
    - More forgiving users, less objective
  - brief user study outside group
- For both parts, evaluate by user perception
  - Brief, 1-2 minute conversation
  - Record user opinions (1-10, or similar)
  - Pencil and paper, software, ...

In Group
- Baseline case: 0% loss, UDP, no speech detection, 40ms
- Compare versus:
  - Loss: 0%, 1%, 5%, 10%, 20%
  - Latency (by increasing the sample interval): 40ms, 100ms, 250ms, 500ms, 1000ms
  - Connection type: TCP, UDP
  - Speech detection: on, off
- Pick (and justify) Perceptual Quality measure

Outside Group
- 1-3 people outside of your group
- Record some basic information
  - age, gender, profession, VoIP use…
- Loss rates of 0%, 5%, 20%
- Latencies of 40ms, 500ms, 1000ms
- Record
  - Quality score (scale 1-10, or similar)
  - Subjective comments (“sounded good”, “was hard to talk”, etc).
  - Ask to compare with land-line phone call

Report
- Introduction (brief)
  - Motivation and Hypotheses
  - Background on your software (as needed)
- Design of your experiments (brief, since given)
  - Details on above
- Analysis (detailed)
- Conclusions (brief)
  - Summarize findings
- Abstract
  - 1 paragraph
  - Write last, goes first