

How to NOT do a Qual exam

1. How to NOT give your Qual presentation

- Try to explain everything in the paper
- Try to go fast so you finish your presentation
 - Try to answer questions quickly. Even when you feel that your answer did not hit the point, just ignore and continue to talk because the professor has to be polite and let you continue.
- Don't give your opinions, or give too few
- Write a word that you cannot explain
- Write a complete sentence
- Write something that you will not talk about
- Write too many stuffs
- Block the view
- Turn your back on the committee
- Look at your computers most of the time
- Don't practice your talks

Why?

- Professors care about your opinions regarding the papers. As long as you can give good opinions and be able to defend them, they know that you have read and understood the details of the paper.
- Professors probably would not have read your assigns paper, unless they have worked on the same topic. They would not understand all the details that you present and feel that it is your fault that
 - you said something that you are not able to explain it clearly.
 - you did not explain the problem well enough so that someone unfamiliar with your topics, like them, just waste time attending your presentation.
- Professors may not pay attention to your presentation, they look up and see a familiar word, they will ask you about it.

Suggestions:

- Each presentation is a story. Have a slide, short summary of your story at the beginning of each presentation. So that if a professor fell asleep during your talk, they still get something from your presentation.
 - Think: how disappointed your are going to a presentation and gain nothing out of it?
- Motivate the problem clearly. Spend 2-3 slides on it if necessary, only you have to (example: 1 slide to prove that the web has evolved a lot, another to prove browsers not able to cope up). You should mention other approaches, not necessary in the first slides. If they are **simple** and

intuitive, put them first. Otherwise delay till you approach your comments section. You don't want professors to be distracted and start asking about other approaches and tell them to make comparisons before they have an idea about this new system.

- Think of real life examples. If there is a young and friendly professor in your committee, use his name. I found this to be very effective for catching attention of the other committee members :D They immediately look up and listen to what you say next.
- At the beginning of each slide. Think: if I am listening from the beginning up to this point, what would I expect next?
- Think really hard about the pros / cons, especially the cons. Try to have 10 of them at least.
 - o You might want to distribute them along your talk. Put them in a different color and talk about them as describe the system. I heard different people having different opinion about this, but I myself found it is better to distribute your comments.
 - o Send email to the authors, ask them about your comments, make sure the cons are correct. There is a (big) chance that they won't reply, but you might get lucky sometimes. I got answers from one of the authors, and they were very helpful.
- If you have someone who is critical about slide making (such as in my case), your better pay attention to the details of the slide (no . at the end, no spelling error, no more than 3 colors in 1 slide, no complete sentences...)
- Try to give 3 or more practice talks, and have some people from different backgrounds.
- Bring a recorder to record your practice talk, listen to it again without looking at your slide. You should be able to understand the points using just the audio. This is also a great way to check if the talk will flow fluently or not.

2. How to NOT answer the general questions:

- Talk about something you did not read
- Don't look at the professor who asked the question to see his reaction
- Don't ask if you answered the question if he doesn't seem really happy about it

Why?

- There is a criteria in the evaluation form about your honesty (I did not see the form but a friend told me so and I think this is reasonable)
- What important is that professor who asked you agree with your answer, they might be wrong but if that is the case, you have to prove you are right. You don't want to be in a state when you think you are correct but he doesn't and you move on to the next question.

Suggestions:

- A long answer would be a good indication that you need a confirmation
- If there is a question about a detail that you don't really remember, but you understand the approach, tell it to your committee.

Example: How does TCP congestion window work? The general idea is that you increase slowly but decrease very quick. But you might waste bandwidth if you are too slow, so initially you increase quickly, then after a threshold you do it slowly.

- Don't skip any paper in the general list. At least try to get the general approach. It is very bad to say "I have not read that paper".
- In general, if you do your presentation well. I think you would have much easier time with the general questions.