

Some Comments on the Candidacy Exam

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For Ph.D. students, nothing looms larger than the Candidacy Exam in the first couple of years of their programs. Some think it's an archaic waste of time, but I disagree. I think it's the only real test contained in a Ph.D.; the rest can ride on persistence alone. I also think this exam provides an opportunity, which few people get in their professional lives, to identify, develop, and display the unique intellectual mosaic that makes you yourself. The following stream-of-consciousness tips are intended to help you make this exam the rewarding rite of passage it can be. They're arranged in roughly chronological order of enactment.

1. **Establish a healthy attitude.** Whether the exam turns out to be scarring or scintillating depends mainly – in my view – on attitude. Those who enjoy studying for the exam tend to enjoy taking it and do well. Those who resent the distraction from thesis work, fear the stern judgment of committee members, and lack genuine confidence in their abilities tend to falter. You will benefit from making a commitment to yourself early in the process that you will prepare carefully, trust yourself, and control performance anxiety.
2. **Strive for breadth.** Breadth comes from being genuinely interested in a diversity of topics. You can start building breadth as soon as you arrive by attending seminars, asking others about their research, spending time browsing (not just searching) the primary literature. It's a good idea to review classic text books and papers, and follow up on everything suggested by your examiners. Apply similar breadth to your thesis topic. You should know the natural history, phylogeny, and morphology of your study organism, something about the geography and geology of your study area, and have thought about the societal context of your work.
3. **Study actively.** Whatever your study sources, you should engage actively. Try to synthesize and summarize the topic as you learn about it and ask yourself questions of the sort an examining committee might later do. Ask as many people as possible what questions they were asked and actively translate those questions into plausible forms for your own committee and topic. Then actively work on some answers to them! Many people find it helpful to intersperse studying with some physical activity (running, swimming, showering, cooking) that curtails that pesky inhibitory part of the brain. Try to digest what you've been reading while doing something else and to think about it in broad synthetic and innovative ways. For many people, studying in a group can be a great way to prepare actively. For others, it is too distracting and inefficient. Trust yourself to identify what works best for you.
4. **Leave sufficient time.** People vary wildly in the amount of time needed to prepare adequately for the exam. Much depends on the breadth and activity they have brought to previous pursuits, the ease with which they remember information, and the additional work and personal loads they are carrying. Some prefer to immerse themselves in studying and do little else for a few weeks before the exam. Others prefer to devote a few hours a week to the exam over months or even years. Think carefully about your style of preparation in other capacities and plan a schedule that is likely to work for you. Whatever the schedule, it's important that you set aside enough time to prepare thoroughly.

5. **Organize your information.** Many people find it overwhelming to accumulate, synthesize, store, and recall as much information as they assume to be necessary for the Candidacy. Again, you can rely on your previous experience to identify a system that is likely to work for you. Just thinking about this system will help you to achieve this objective. You might make notes of the things you read for review later. You might create word processor files organized by subject and tuck salient pieces of information into them. You might anticipate a series of question types and search for bullets of information and ideas that could address them. Whatever system you employ, try to make it satisfy the principles of active learning, efficient storage, and accurate recall.
6. **Write a good Candidacy report.** The Candidacy report suggests the depth of your preparedness and is, thus, an honest signal of a good student and good project. It should be appropriately braced in theory, contain innovative ideas, display sound logic, and describe a tractable plan. If you design your thesis work from the beginning with this defense of it in mind, you will find it much easier to write the Candidacy report. Begin that process really early, follow instructions, get good feedback, and polish carefully. Know the extent to which your committee expects adherence to the departmental standard of an NSERC proposal.
7. **Acknowledge committee members' perspectives and agendas.** You are not the only one being evaluated in a Candidacy Exam. Each of your examiners is aware of the judgment of his peers as well. Everyone wants to ask questions that will make him appear scholarly and possessed of some unique knowledge. Part of your preparation should involve finding out the likely biases, question types, and mannerisms of your examiners. You can ask fellow students as well as your supervisor for information of this sort.
8. **Practice good mental and physical health.** It's essential that you eat well, sleep well, exercise, and recreate in the weeks prior to the exam date if you are going to access your full faculties at the exam. One night of this won't do it; good mental and physical health practices are lifestyles, not quick fixes. If you think you don't have time to do this, consider carefully the success and cost of the alternatives now and in the future. At the very least, acknowledge the critical importance of blood flow and light to brain function: get up to move around frequently when you are studying and ensure that your study space is well lit.
9. **Conduct a dress rehearsal.** The best way to reveal your Achilles' heel, overcome stage fright, and lock in place some appropriate responses is to subject yourself to some role-playing practice. Get some lab members and friends who have taken the exam to play each of the members of your examining committee and set a mock exam (no less than two weeks before the real one). You might include your supervisor for reality checks. Leave time for quality feedback and take it seriously. Follow up on the things that you didn't know as well as you should have.
10. **Craft an excellent presentation.** Just as the Candidacy report sets the tone for your abilities, the presentation sets the tone for your performance. Make sure the presentation is carefully constructed, practiced and timed. Ideally, it should set a broad context for your work, present some preliminary data, and reveal how you are addressing the unresolved parts of your thesis plan. By enjoying a confident, capable style in the presentation, which is mainly a function of

preparation, you will do much to lessen exam anxiety and increase examiner confidence.

11. **Present thoughtfully.** Answering questions also contains an element of performance. Take a moment to gather your thoughts and respond succinctly and articulately. Display yourself as the capable junior colleague that you are, rather than a scared rabbit. Be mindful that each member has prepared five or so questions and would like to ask them; don't use their entire allotment of time on your first answer. If you are unsure how much development is desired, ask for feedback. Maintain eye contact with the questioner and use the cues that provides.
12. **Leave a little room for philosophy.** Don't limit your answers to robotic collections of facts. Instead, try to mesh these facts with innovative syntheses, thoughtful commentaries, and balanced critiques. A little of this goes a long way and will seem arrogant if overdone.
13. **Be wrong graciously and acknowledge limits overtly.** Part of the purpose of the exam is to determine the limits of your knowledge so you can be sure you'll be asked some things you can't quite answer. Be honest about what don't know and consider offering substitute information after asking permission. If you are corrected, think about the new information carefully and avoid reflexive apologies or disagreements.
14. **Briefly thank people for their time.** Every candidate is offered the opportunity to ask questions or make a comment at the end of the exam. Those who are composed enough to appreciate the time people have invested or offer an observation of their (positive) experience preparing for the exam start the deliberations on a positive and productive foot. Those who start to ramble about things they might have said or apologize for what they perceive to be a poor performance, predictably, do the opposite.
15. **Allow yourself room to grow.** If you follow these steps even approximately, the worst possible outcome is a conditional pass. If that's your outcome – as it has been for several of the exams I've attended – take it as the constructive effort to help you that it is. These conditions are likely to dramatically improve your dissertation and may also generate additional publications. I know that Cheryl Chetkiewicz would not mind me telling you that her first-authored paper this year in *Annual Review of Ecology, Evolution, and Systematics* resulted from a Candidacy condition. Feel pride and see the promise in what you've achieved, however described by this binary outcome.
16. **Let the Candidacy enhance your life.** Everyone has noticed others who have a knack for getting at the heart of an issue in critical discussion. It might be the journeyman professor who sits in the back of the lecture theatre, seemingly asleep, and then asks the most insightful question of the seminar speaker. It might be the deep-voiced CBC anchorwoman who asks the really incisive questions of the evasive politician. It might be the community league board member who gently demonstrates the overlap in apparently antagonistic views to make consensus possible. Generally, people are not born with these skills of synthesis and evaluation; they develop them from practice. The Candidacy provides a great opportunity for you to hone these skills in a way that you can use for the rest of your life in a huge variety of contexts. Apply what you've learned in the years to come and enjoy realizing how this unique experience, the Candidacy Exam, enhanced many subsequent experiences.

