Life of a PhD student: When the going gets tough, the tough get going

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Abstract. Being a PhD student can be tough at times, but it is also very rewarding. Learning how to work through the tough times will be key to a prosperous PhD process. There are many things to keep track of, balance, learn, and remember. PhD students are knowledge creators, but at the same time also need to acquire knowledge. This paper walks through some aspects of the PhD process, with the intent to support the PhD student to better cope with potential obstacles ahead.

Keywords: PhD student process, Knowledge creation, Motivation, Supervision.

1 Introduction

Everyone who has gone through the agonies and joys of being a PhD student know that this is not an easy process. There are bumps along the way, your self esteem may crumble at times, and you have to deal with a lot of things just to make progress. But hold on, there *is* light at the end of the tunnel. This paper is not your regular research paper, but rather the opinions and experiences of the author, written as an attempt to encourage, educate and support PhD students through their process. You may not feel very strong when the going gets tough, but you are certainly tougher than you think. I will have two main ingrediencses in this work, knowledge creation, and PhD student motivation. These will be spiced and flavoured with my own observations and experiences, and hopefully the resulting meal with be digestible and useful to nourish your path as a PhD student.

The remaining part of the paper is structured as follows: Section 2 describes characteristics of the knowledge creators that PhD students are. Section 3 proceeds with the importance of communication as part of driving the PhD process forward, while section 4 looks at PhD motivation phases. Chapter 5 concludes with some advice to help overcome obstacles and moods that may be discouraging.

2 Knowledge creation

Developing new knowledge is something all researchers strive to do. For this to happen, Goldkuhl (2011) identified a set of characteristics that the knowledge creator should let guide his/her actions: Curiosity, Openness, Clarity, Honesty, Accuracy, Responsibility, Innovation, Cumulativity, Rationality, Reflection, Relevance, Context awareness, and Make available. Let us look at a few of these (Goldkuhl, 2011).

- *Curiosity*: The knowledge creator's strive to examine must build on a genuine interest for the area, and a desire to create knowledge about it.
- *Openness*: Being open to new discoveries is key, which also includes the openness to changing one's mind and move from previous hypotheses and assumptions to new ones.
- *Clarity*: One of the most important criteria for high quality knowledge development is to make interpretations, considerations, decisions and results explicit during the process. But it also opens you up to critical review from others, which is necessary in knowledge creation.
- *Honesty*: In addition to not cheating with results, honesty also concerns presenting results as correctly and assumption-free as possible to avoid misleading the reader, as well as not "promoting" you own preferred hypotheses when presenting results and interpretations.
- *Accuracy*: Being accurate means performing knowledge creation in a careful way, including systematicity and precision where different relevant factors are considered.
- *Responsibility*: All human action has consequences for other people, and knowledge creation is no different. If others are going to be able to use your work, you need to be able to vouch for them, and therefore also make sure they are properly grounded.
- *Innovation*: Creating knowledge means moving on and seeking new paths and perspectives.
- *Cumulativity*: Closely related to innovation is building on, extending, and relating to existing knowledge.
- *Rationality*: All decisions, considerations and interpretations must be based on clear, concise reasons, and the reasonability of those aspects should be presented as transparent as possible.
- *Reflection*: High quality knowledge means staying critical, not taking results for granted but review them carefully.
- *Relevance*: Not all knowledge is relevant, and the knowledge to be developed should be relevant and meaningful given the needs and purposes.
- *Context*: Phenomena must be viewed in the context they reside, since nothing exists in isolation.
- *Make available*: Knowledge should be communicated and presented to other people, which often requires "local" concepts to be abstracted to general categories.

In summary, knowledge creation is not a simple process, but fairly complicated and consisting of many different components and perspectives. The knowledge they create should be solid and come others to use.

3 Communication is essential

PhD students should reflect on the way they seek, develop, analyse and present knowledge. The key tool for this purpose is communication, and there are several arenas for PhD students to use: Supervisors, Academics, Society, and other PhD students, to mention a few. Firstly, PhD students should discuss with their *supervisor(s)*. They are the experts and will guide you in scientific theory, scientific methods, in writing and presenting your work coherently and consistently, as well as in how to navigate in and around the academic world. At the same time, they have been through what you are going through. After all, they were once PhD students themselves. Some longer ago than others. Secondly, other *academics* will provide you with another arena for discussing knowledge creation. Regardless of whether they are in your exact field or not, they have experienced questions and situations similar to yours. They may be able to provide you with new input and new angles. Attending seminars arranged at the university in which you are active is one way to start, coffee and lunch rooms are another. Do not hesitate to ask for help, in a respectful way of course. Thirdly, if you are conducting research relevant for enhancing some aspect of *society*, make time for communicating and discussing your research and results with those it will affect. Learning how to communicate with different stakeholder groups is important to ensure that your research gets out there. Lastly, it is rare that PhD students work in isolation, and make therefore use of the network you have in terms of others like you. They are there, have been there, and can give you not only good advice, but also moral support to help you cope.

4 PhD motivation

During your PhD process, your level of motivation will definitely vary. You will encounter obstacles, albeit they will be of different magnitude and have different degrees of impact on you. Peironcely (2011) has expressed the PhD motivation shifts as a roller coaster curve, consisting of five phases:

1. *The uninformed optimism*: At the start of your PhD, everything is new and feels great. You have hopes to solve great problems, win the big awards, perhaps patents, and so on. It will take you a few months to realise that everything is not that peachy.
2. *Informed pessimism*: You have been working for some time and now understand your field better, but things still do not make complete sense. Those good results have not emerged yet, and you are starting to think that maybe you bit off a bit more than you can chew.
3. *Crisis of meaning*: This is pretty much mid-way through your PhD and can be seen as similar to a mid-life crisis. The project is no longer as wonderful as you thought it would be, but you are struggling to complete work to an acceptable quality and quantity. Your own experience is that you have wasted time and you cannot connect the dots of what you have done.
4. *Crash and burn (optional)*: If you fail to step aside from your negative feelings experienced in phase 3, you risk negativity taking you over and leading you to

a small depression. Many people give up here if they feel they have wasted time, and walk away. This is what we want to avoid, and later in this paper some minor strategies for this purpose will be discussed.

5. *Informed optimism*: Maybe your PhD was not going to be as awesome as you originally thought, but at least you will get some publication that will be sufficient to graduate. It is after all better to finalise a decent PhD thesis than not at all. You get your field now, you can at least contribute something to the state-of-the-art, and that should be enough.

Peironcely (2011) stresses that this curve will not be exact for everyone, and that deviations from it are certain to occur. Not everyone will experience the extremes, of course. Nevertheless, everyone will experience some hurdles during their PhD process and those hurdles need to be addressed and overcome. In the following section, we will address some ways in which to help you get through the dark times.

5 Keeping the light at the end of the tunnel in view

Given the hurdles a PhD student can encounter, and the different states of mind that can happen, it is advisable for PhD students to plan and prepare in order to go through these with their heads held high.

- Create a *sunshine folder*. Over time, you will get many appreciating words, encouragements, and positive reviews. When things get gloomy, it is very easy to forget about those. One tip I once got from a senior professor was to gather all these statements, in whatever form they appear, and save them to one folder, or print them out and put them in a tangible folder. If the comments were oral, write them down with who said it and when, as well as in what context. When times start to be tough, go into the folder and read. That is a way to encourage yourself that you are good enough, that your work is good enough, and that you can do this.
- Be *focused*. In the beginning of your PhD project, you will create the main aim/problem/question that you will spend the next years trying to answer or solve. Throughout the PhD process, it is natural to revise the aim somewhat, but nevertheless it should be in focus to keep you on track. It is common for PhD students to get distraction in their work as well, in terms of different research projects to work in and contribute to, or in teaching obligations, or other things. Therefore, a PhD student must learn to balance and dare to ask for help when the balance is tipped over to an extent that it becomes a hinder in the progress.
- Be *structured and systematic*. Keep structure and systematicity in the way you do things, and start doing so as early as possible. For your thesis, one way is to create a table of contents with some meta text in each chapter what you are going to have in there. Naturally, this should origin from the main question/problem/goals that you are researching. A well-planned thesis layout will help you to get going when one part is finished, and it will help you focus on your main goal, to complete the thesis.

- Keep *regular contact with your supervisor(s)*. You are responsible for your own project. You are the one who must do this work, and who is responsible for it progressing. That does *not* mean that you have to do the work alone! Regular contact with those who are to be closest to you during your process is essential. They will know the most about your project, and are those best qualified to help you. Do not be afraid to talk to your supervisor about what kind of help you want, and do not wait until they contact you. If you do not verbalise your expectations and your needs, your supervisor will not know how you are feeling and what they can do for you.
- Have a *life outside of academia*. A day has 24 hours, and you will need to do other things during these hours than merely doing research. Keep family and friends close, and do not forget to spend time with them and with doing things that are not related to research. “In what way could that possibly help you in your research?” you may ask. The answer is fairly simple. You need to get a break from research in order to be able to look at it with fresh eyes. You will be surprised at how often ideas for your PhD research will occur when you are doing completely different things.

Given the hurdles a PhD student can encounter, and the different states of mind that can happen, it is advisable for PhD students to plan and prepare in order to go through these with their heads held high. The message of this paper is that you *can* do it. If you keep to the advice given, you will be able to identify the hurdles better and therefore also to overcome them quicker. You may not be rescuing the world, but you will contribute. Believe in yourself.

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