What is good supervision?

A PhD candidates' perspective.

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Disclaimer

DION is a contact point for PhD candidates that have problems in their education, including issues with their supervisor. Based on the experience DION has gathered regarding the PhD candidate – supervisor relationship, we have written down a few guidelines. The following resource is meant as a guideline for supervisors of PhD candidates and includes something like a wish list from the PhD perspective. The authors do not claim that this list is covering every topic and are neither claiming all points to be true for everyone. Indeed, some things might be spot on and some far off; DION is merely trying to give some general guidelines. It is important to keep in mind that everyone is an individual that should be respected and treated as such. Therefore, the most important key ingredient to success in this type of relationship – as in any relationship – is open communication.

When we put this list together, we noticed that we unconsciously put our main focus on the personal relationship between supervisor and the candidate over the scientific aspects. We do not dispute that the scientific part of the supervision process is important, however, many problems that arise in the scientific part, have their roots in a misfunctioning relationship and communication between supervisor and the PhD candidate.

The guidelines

If you are a supervisor, please stop here for a minute and reflect on your time as a PhD candidate. You can ask yourself: Which were the things that went well? What, instead, could have been better? How can you improve these things?

When you do this exercise, you may notice that you can mainly recall good things. This is what most supervisors experience when they look back into their own past as a PhD. And this is great. If your time as a PhD had been horrible you probably would not be where you are today. You potentially would have dropped out of academia once you were finished. So, if you had a good supervisor, we encourage you to live up to their example and implement things in your supervision process that you remember positively. There is a small pitfall here however, that some people romanticize their time as a PhD candidate. Therefore, we encourage you to really take your time and dig deep into your memory of unpleasant experiences as well. If there were bad things, think about how you could do them better. It is also important to keep in mind that your candidate may differ from you and needs different things from you, their supervisor, than you did from your supervisor. In practice, this can mean working towards establishing and maintaining good communication with your candidates and giving them room to express what could work better for them. If your PhD candidates feel comfortable talking to you, it will be much easier for you to help them.

What makes a good supervisor?

Open door policy – be welcoming to your student

Let us begin with what the supervisors think good supervision is. One recurring theme is an "open door policy". When asked, many supervisors remembered that their own supervisor was very warm and welcoming to them: they felt safe to tell their supervisor when they struggled with something in their research and that they could always just drop by their office. This is indeed an important baseline to all communication.

Do not underestimate the fear or awe supervisors inspire in PhD candidates. Depending on the cultural background, PhD candidates may see their supervisor as idols, who may not be bothered with their trivial questions. From the work with DION we also know about candidates who have a bad personal relationship with their supervisor, so that they try to avoid talking to them whenever possible, including taking a detour to not walk past their office. Quite obviously, these two examples are prone to cause trouble when the candidate struggles in their research. The candidate then may not tell their supervisor either to not bother them, or because it does not feel safe for them to talk about it. In this way, problems can go unnoticed for long periods of time, building up to ever increasing troubles.

These two examples may seem like extreme cases, but unfortunately, they are not that uncommon. What can you do as a supervisor to make sure your student feels comfortable to talk to you? This is not any easy question to answer since this differs from person to person, but we will give it a try. First of all: invest time. Talk to your student in a casual manner, try to get to know them properly, show interest in them. Some PhD candidates come from a country where it is common to have steep and strict hierarchical structures; let them know how things work in Norway. Try to make them comfortable with idea of using your first name (this is not common practice outside of Scandinavia!) and similar things.

Secondly, have regular scientific meetings scheduled. Try to create a less formal working environment. Maybe discuss things over a cup of coffee and let the candidate tell you for 5-10 minutes what they have done in the past week/past 2 weeks/etc. This is a great mechanism for you as a supervisor to prevent things from dragging on for too long. For the candidate it is a good exercise to summarize what they have done, what has worked out and what has not, and what they should do the coming week(s). It also gives them an indirect confirmation from you that things go more or less according to plan. Moreover, after a while it will become a routine and gives the candidate the confidence to talk about the areas where they need your advice. If a one-on-one session seems too intimidating, you can have these types of check-in meetings also with several people at the same time. Like that, it will also be good for the candidates to hear that things sometimes also do not work out for other people and that it is fine and even encouraged to talk about it. As one more step, to make the candidate more comfortable, make them feel part of the team. Tell them when and where people meet for lunch, take them with you, introduce them to the people at the department. This shows them that you think they belong here.

Lastly, ask for feedback from the PhD candidates. What would they need from you right now? Be open to what they suggest, it could be something that you did not even think about, but which is important for your candidate.

Clear expectations – and communicating them

Many problems arise from supervisors and candidates not communicating clearly what they expect from each other. This results in work not being done or done differently than one of the parties expected them to happen. Therefore, the first thing to do is: knowing yourself, your wishes and expectations. The second step is to put you and the PhD candidate on the same page of things, because something that is obvious to you may not be obvious to your student. Make sure that you tug in the same direction.

Some example guiding questions that PhD candidates ask themselves:

What is the role of my supervisor? What can I expect from them?

This question is important to clarify. Make sure you yourself know what you think your role is and talk it through with the candidate. How much help can they expect from you? Do you want them to show you every scientific poster or presentation they make or should they act independently? How many cycles of manuscript corrections are you willing to go through? Will you involve them in grant writing processes? How much are you doing, how much the co-supervisor? How will co-authorship look like on scientific publications? Who will do how much and what? How are your response times for emails, what should the candidate do when something urgent is happening?

What is my role as a PhD? Which are the tasks that I have to do, that I can do, that I should do?

Many PhD candidates are very flexible and open to learn a lot of new and different skills. It is important to tell them the things they have to do so they do not get lost in side-tracks. But also, to show them what opportunities they have. Do they have to supervise a master student? Can/should they supervise a master student and if so, how many? How can they get involved at your department or university beyond pure science (tell them about PhD research schools). What are travel grants, can they stay abroad and for how long? What type of soft skill courses could they take to improve themselves as researchers, etc. It is also important to be clear about shifting expectations. The question "What is the candidate supposed to do *right now*" would warrant different answer depending on the stage they are in.

Who is responsible for what?

Do you expect your PhD candidates to make coffee for you and book rooms and schedule meetings and do paper reviews? Some tasks might not seem obvious to the candidate at all. Do not expect them to know all these small things. Can they order things themselves for their research or do they always have to check with you beforehand? Be clear about your expectations and you will find that your candidate will be happy to comply with a lot of things.

Freedom and guidance

During the PhD education a fine balance has to be strung between giving the candidate the freedom to become independent and guiding them along the way. Many supervisors do a little too much of one or the other. Some candidates experience absolute freedom to push their research into any direction they desire. However, that often goes along with the feeling of being left alone and not getting the support from their supervisor that they would need to excel at their research. Others have a supervisor that

tracks their every step and tells them exactly what to do. This unfortunately leads to candidates becoming dependent on their supervisor. In the long run this can have negative implications, especially if the candidate wants to pursue an academic career after they are finished with their PhD education. For an academic career people are required to work independently and they need to be able to come up with own research ideas. To develop your own ideas, it is important to be able to reflect on your work and to develop critical thinking, questioning yourself and your research.

Therefore, it is best to have a good mix of both freedom and guidance. Do not leave the candidate completely on their own. Give them a structure they can rely on, for example the regular short scientific meetings. In addition, let them develop ideas themselves. The candidate should be encouraged and even pushed to develop own ideas and dive into side-projects they are interested in, but they should also be made aware when they are off-track, wasting time, and when they need to prioritize different things. It can be helpful to support this by setting up milestones and deadlines together to work towards to, especially at the beginning. For some PhD candidates it is hard to get the transition phase right between the start-up phase when they are doing their literature research to get into the topic and to know when they should start their practical work. Part of becoming an independent researcher is also to build your own network. It will be helpful for the candidate if you kickstart their network by introducing them to other researchers in the field for example at conferences. However, it will also be important for them to make their own connections. You can also let them figure out which conferences they want to attend before you suggest a few.

Overview list

This list is a summary of what we have carried together in the main text. It can serve you as a quick overview.

Personal-relational side	Scientific side
Show interest in the candidates. Get to know them, their story and everything that goes along with it.	Schedule regular scientific meetings. This makes it much easier to spot when problems are dragging on, accumulating etc.
Talk on a regular basis. Make an effort to see them/talk to them/asking how things are going on a regular basis. Anything more than the absolutely necessary is great.	Good balance between freedom and guidance. The candidates should be able to dive into side-projects they are interested in, but should also be aware when they are off-track, wasting time, and what they should prioritize.
Show a positive and open attitude. You want the candidate to come to you with any problems. Realize how "scary supervisors are". (People taking a path so that they do not have to walk past the office of their supervisor (avoidance)). Have an «open door».	Don't take over your students' work. Don't make them do all the work and then take credit for it. Be clear since the very beginning who contributes to what, what you as a supervisor expect the PhD candidate to do and what your role will be in helping and potentially ending up on the publication.
Re-adjust your opinions about the students. This is only possible if you meet them regular enough. Did you give them feedback to improve on something? Be open to see if they actually did that.	Initiate their academic network. Give it a kickoff, but let the candidates build up their own network. Make it clear that time for networking is taken from the main project. Let them also figure out which conferences could be interesting before suggesting any yourself.

Make them feel part of the team. Make sure they join meeting/socials/lunch.	Set milestones and deadlines , especially at the beginning.
Ask for feedback from the PhD candidates. What would they need from you right now?	Challenge them to become independent. Gently push the candidates out of their comfort zone.
Take into account cultural differences with foreigners. 40 % of PhDs are foreigners: how to communicate, how freely one can talk to each other, how to behave.	Comparing doesn't work very well. NEVER compare PhD students' work and progress to each other. This type of competition is toxic work environment.
Be a leader they can trust. Remind them that you are not their boss who employed them, but that you are there to give guidance and help and supervise their work.	Make them used to question themselves. Let them develop critical thinking, so that they can come up with their own questions.

Take the time for them. You two are in this together. Avoid "Supervisor vs. student" situations.

Remember. Put yourself in their shoes. What did go really well for you as a PhD candidate, what really badly? Try to reflect on these things and implement things that were great and adjust things that did not go so well.

Conclusion

Summarizing, it can be said that we cannot provide you with a protocol to follow. People are different and so are their relationships. We encourage you to get to know your PhD candidate, establish an open-door policy and making them feel welcome. These measures can serve as a foundation to build up trust for honest and open communication between you and the person you are supervising. Good luck!