



- TO LEAD THE WAY

INSPIRATION FOR PHD STUDENTS AND THEIR SUPERVISORS,
BASED ON INTERVIEWS WITH SUPERVISORS AND PHD STUDENTS
IN THE EIGHT FACULTIES AT THE UNIVERSITY OF COPENHAGEN

“All supervision is individual. It consists of two people meeting in the middle – both personally and academically.” – PhD graduate

CONTENTS:

THE RELATIONSHIP	4-5
ACADEMIC AND SOCIAL NETWORKS.....	6-7
ALIGNING EXPECTATIONS	8-9
CLARITY	10-11
PUNCTUALITY	12-13
OWNERSHIP.....	14-15

CONSTRUCTIVE CRITICISM	16-17
THE UNIVERSITY TRADITION	18-19
BECOMING A RESEARCHER.....	20-21
THE PERSONAL EDUCATIONAL JOURNEY.....	22-23
CAREER DEVELOPMENT	24-25
TIMELINE.....	26
FURTHER READING.....	27

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ALL SUPERVISION IS UNIQUE

Good supervision revolves around the relationship between the supervisor and the PhD student, and the nature of that relationship is determined by specific circumstances, environment, conditions, the supervisor's and PhD student's previous experience, personalities, etc. For the same reasons, this booklet makes no attempt to provide a formula for any given situation. Rather, it is meant to serve as inspiration for reflection and discussion about the act of supervision. It aims to provide inspiration for the individual supervisor and PhD student in order to help them develop and improve the supervision process by reflecting on their own practice in the light of other people's experiences.

When something goes wrong, it is often the case that the matter should have been addressed about three months earlier. This suggests that supervisors and PhD students should incorporate regular routines into the supervision that make it possible, especially in the beginning, to clarify expectations, resolve misunderstandings, present and evaluate plans, etc. Good communication often prevents problems, so a key piece of general advice for good supervision is: Talk things through.

The booklet is based on interviews with 15 current and former PhD students, as well as seven heads of PhD schools and three PhD supervisors at the University of Copenhagen. PhD students and supervisors at all eight faculties were interviewed.

Our hypothesis from the outset was that common denominators would emerge that transcend all supervision, in addition to more subject- or faculty-specific distinctive features. This turned out only to be partially true. We have not been able to identify

distinctive discipline- or faculty-specific features. Indeed, the differences we found within individual faculties and disciplines were as large as those that exist between them.

Our interviews identified 11 themes. These are treated separately, but each theme also forms part of a whole, so issues covered in one theme may also emerge in others. Each theme is presented on a chart. The PhD student's perspective is presented on the left, the supervisor's on the right.

As a general observation, the aspects that our supervisor informants describe as important tend to be the same things requested by the PhD students. A certain kind of inherent paradox is at play here: the supervisors may know what is demanded of them but apparently, this is not what the PhD students find they receive. We hope that this brochure will help to bridge the gap between the supervisors' good intentions and the PhD students' experience of the process.

Have a good read!

THE RELATIONSHIP

The relationship is about respect, trust, praise and reaching out during a lonely process

PHD STUDENTS

For PhD students, *the relationship* is about loneliness, respect and dignity, about the fact that a PhD project is sometimes associated with a bad conscience, with a lack of faith in your own academic ability, and with data not behaving properly. At times, writing a PhD thesis can be a lonely process. It is precisely in situations like these that the supervisor has a social commitment to reach out, to engage the student in dialogue and offer praise. Basically, praise and recognition emerged from the interviews as recurring sources of motivation.

PhD students often experience growing loneliness in the final stage, when it becomes clear that the project is exclusively YOUR OWN – that only YOU are in a position to bring it to a conclusion, both by writing the thesis and mounting an oral defence. At this stage, it is impossible to put any responsibility on the supervisor's shoulders.

As PhD student, it is crucial that you feel part of the team in the department, centre or company to which you are affiliated. You must be seen not only as an individual involved in a learning process, but also as an equal partner in an ongoing dialogue. For PhD students from abroad, it is important that the supervisor shows respect for the students' cultural backgrounds, and does not behave in an arrogant or superior fashion with regard to their country and culture of origin.

“At this stage, in the last part of the process, you realise that it is YOUR OWN project. Loneliness creeps in as you realise nobody but you can finish this. The supervisor’s role is to support you during that period of loneliness.” – PhD student

“When I really had problems with my data, I reached out less. It was psychologically hard, I knew what I had was rubbish – I wasn’t good enough at seeking help at that point.” – Postdoc



SUPERVISORS

For supervisors, it is important to build up a relationship based on mutual respect and trust, so PhD students feel free to address issues with them. It is important to invest adequately in the relationship, to make it robust enough to survive crises. Factors such as poor chemistry, distance (for external PhD students) and cultural differences (for international PhD students) can make it difficult to build up a good relationship. Communication is the answer to many of these problems, but poor communication can also exacerbate the situation.

A confident and robust relationship is built on the basis of demonstrable interest in both the project and the individual. You must concern yourself with how the student is feeling. You must reach out and ask how the project is coming along. You have to be honest, both in your praise and in your criticism, and sticking to agreements is a given. Small things like passing on references and invitations help build relationships based on trust - i.e. the sort of snippets you would also pass on to fellow supervisors.

RECOMMENDATIONS

- Spend time at the first meeting on a wider-ranging discussion about different experiences of supervision
- Take the time at the start to build a trusting relationship
- Poor chemistry must be addressed. Find a common framework within which to act. Involve another supervisor or change supervisor
- The supervisor has a responsibility to reach out during difficult periods.

“It’s easier for PhD students to approach you if you show that you care, if they know their progress is important to you.”

– Supervisor

“Personally, I think that the confirmation that their work is both good enough and can be even better – that duality – is critically important.”

– Supervisor

“They’re all different after all. If they’re a little reluctant, tell them ‘It doesn’t matter that it’s not perfect yet. I’ll just take a look at the ideas so we can talk about them.’ Some PhD students are afraid to show their stuff too early.”

– Supervisor

ACADEMIC AND SOCIAL NETWORKS

Academic and social networks are about day-to-day working conditions

PHD STUDENTS

For PhD students, academic and social networks are basically about the need to be seen and heard during their work. They are about sensing that there are expectations of your research and feeling that your research is in demand, applicable and has a perspective.

PhD students who are part of a major research project tend to feel part of a greater whole. They have strictly defined guidelines or frameworks for their projects. PhD students with an individual, independently formulated project have great freedom in terms of research and methodology, but do not as a rule have an established academic network in their everyday work.

Academic and social networks are a matter of establishing relationships that are capable of providing academic support and complementing supervisors if and when they are unavailable. If yours is an individual PhD project, it is even more crucial for the process that the supervisor, through his or her knowledge of the department and academic groupings, actively helps you to build up academic and social networks right from the start.

“When I moved from the company to the University, the project moved and something in me moved with it. Suddenly, I had daily sparring partners, and there were synergy effects – instead of being left to do everything myself. It’s good when PhD students are able to ask each other for help on a purely practical level, so they don’t have to re-invent the wheel. A group like that might also include postdocs, which would be great because they’ve just been through the process.”

– PhD graduate

“My project was an EU one involving 11 countries and 13 laboratories, so it was predetermined and strictly defined. That was very good though because it gave me a fixed framework. It’s rewarding to feel that your research will be used. I never felt lonely – if my supervisor had no time, I always had other sparring partners. It was just a matter of opening my mouth and talking to other professors.” – Postdoc

SUPERVISORS

Supervisors consider integrating their PhD students into the research community and social environment in the workplace to be one of their important responsibilities. Some supervisors think a research environment of a certain size and weight is a prerequisite for having PhD students at all. They also consider it their duty to accept other supervisors' PhD students into the group. They see taking care of PhD students from abroad as a special obligation. We want strong research environments capable of attracting PhD students from abroad, but this also leads to certain obligations, particularly in the social sphere. The supervisors have identified particular problems in relation to integrating external PhD students. It is important that PhD students have a network to draw upon during the writing phase, when they often feel isolated, but it is also important that external PhD students are exposed to research at the university.

RECOMMENDATIONS

- Consider whether shared offices, which allow for networking and integration for PhD students, would be advantageous
- Create a space for PhD students to share and swap experiences
- Implement mentoring schemes, which will help new PhD students integrate more quickly into the research environment
- Ensure that external PhD students spend significant and continuous periods of time at the University.

“Being part of a research team that’s bigger than just an individual supervisor, more than just a one-on-one relationship – I think that’s important.” – Supervisor



ALIGNING EXPECTATIONS

Aligning expectations is about creating an open dialogue about mutual obligations, rights and duties during a PhD programme

PHD STUDENTS

For PhD students, this is all about clarifying rights and duties during the PhD programme.

The students are often uncertain about the degree of supervision that the supervisors are required to provide. Students may find it difficult to make demands on their supervisors' time when it is obvious that they are busy. However, once they know their rights and are aware of the supervisors' formal commitments, it becomes easier to seek them out. PhD students would also like the formal requirements that they must meet within the three years to be made clear at an early stage in the project.

"My supervisor has been very informal. We've only had two or three formal meetings throughout the whole process, and those were pre-arranged. Apart from that, I've received academic coaching on an ad hoc basis. It would be really good if a fixed number of hours were allotted so everybody knows how much supervision they are entitled to. That way, the supervisors would also know whether they've provided the support they're supposed to." – PhD student

Aligning expectations is about the importance of the initial meeting between students and their supervisors, at which the level of ambition is determined and a plan is drawn up for how often they will meet, and whether these meetings will be formal or informal. On a purely practical level, the expectations are also aligned in terms of whether students are only entitled to contact their supervisors within agreed times or whether, for example, impromptu contact by mobile phone is permissible should the need arise. Similarly, it is useful to reach a joint understanding of what the actual supervision session will involve in terms of preparation and output.

"I know my supervisor is stressed, so I almost feel guilty that he has to spend time on me." – PhD graduate

SUPERVISORS

For the supervisors, aligning expectations is about finding a common framework for the supervision. Both supervisors and PhD students need room to manoeuvre, so they have to agree on a framework by *aligning expectations*. Approaches to structured alignment of expectations vary greatly, from a dedicated meeting at the start to something done 'as you go along'. Supervisors feel

“It’s important to be aware that there are very big differences in the ways PhD students work. I think the most important thing is some kind of consensus between supervisors and students about the form the supervision should take. You have to be careful not to make it too formal but I think more can and should be done.” – Supervisor

that new PhD students are generally unsure of what to expect from supervision. Differences sometimes surface between PhD students from abroad and those from Denmark, often because those from abroad expect that the supervisor will want to see everything they write, while the Danes have looser expectations. Supervisors can play different roles depending on the student and what stage has been reached in the project, but in general, it is particularly important that there is plenty of supervision at the beginning of the process. Supervisors generally distinguish between two kinds of meetings: informal chats over coffee, and pre-arranged supervision meetings that involve preparation by both parties. At the formal meetings, feedback is given and stock taken, and it is important to end each meeting by looking forward: what next? Informal meetings are used to solve day-to-day problems and to get a feel for how the students are getting

on. Both kinds of meeting are important, so it is a challenge to find a form of supervision for external PhD students that compensates for the lack of communal coffee breaks.

RECOMMENDATIONS

- Hold a kick-off meeting to discuss and align expectations
- Be aware that needs may change during the PhD programme. It may be necessary to realign expectations after years one and two
- The homepage <http://phd.ku.dk> features inspiration for aligning expectations
- Formalise supervision meetings – agree fixed times for meetings and agree their form and content
- Evaluate the supervision on a regular basis – what is needed and when? Pre-arrange the evaluations – do not wait until problems arise.

“PhD students are, actually incredibly modest and undemanding – they’re on shaky ground because they don’t really know what to expect. As a PhD student, what can you expect to receive in terms of help and support, and what are you expected to deliver in return? These are relatively simple questions but might be overlooked by the University.”
– Supervisor

CLARITY

Clarity is about clear communication.

PHD STUDENTS

For PhD students, *clarity* is about being aware, right from the start, of the expectations placed on your specific area of research – whether it is a temporary or long-term research initiative. They may find it difficult to navigate and prioritise the extra assignments and courses if they do not know, right from the start, what is really wanted and expected of them, e.g., by the department.

Clarity is also about the supervisor demonstrating academic rigour in the supervision. PhD students will occasionally feel unsure of their own abilities, suffer loneliness and sense a lack of momentum. At times like these, they may uncritically grasp at any ideas and input their supervisors suggest. It is essential that supervisors keep their wealth of ideas under control, *i.e.* do not launch more ships than it will be realistic to steer in to dock again.

“Sometimes, I was desperate for help, so I went off in every direction the supervisors mentioned. Or I sought help from other people who thought this or that. I’d try one way for a month and a half and then another for the next month.”

– PhD graduate



“I need to know what the department is thinking, what it wants of me. Of course, it’s difficult for the supervisor to provide supervision on such things if there’s no clear strategy, but for me, a bit of clarity would help me understand how I’m supposed to act as non-permanent member of staff. [...] This has been a big thing lately, because I could do with a clear statement about what the point of the programme actually is – besides, of course, producing a good thesis. It’s 1.5 million kroner. What do they want for the money? I really don’t know what they expect.” – PhD student

SUPERVISORS

The vast majority of supervisors feel it is perfectly obvious that few PhD students will have the opportunity to pursue a career at the University, so it is not an issue that they tackle up front. Research strategies are dynamic, and it is difficult to know exactly which areas of research will be prioritised in the future. When asked directly, supervisors say that they see this as something students should take up in the performance and development reviews (MUS) that have become a regular fixture of PhD programmes in most parts of the University.

Some supervisors find it difficult to keep their own wealth of ideas under control but do think it is necessary to stop coming up with new ideas at some point in the process.

“One of the things that has overwhelmed some PhD students is that I constantly refer to things they could ALSO be reading.” – Supervisor

RECOMMENDATIONS

- When one of the parties feels a need, address the issue, even if exact answers are not forthcoming. Is the focus on a short-term priority, or does this project have long-term objectives?
- The wealth of ideas should be given free rein or held in check according to the phase of the project, the PhD student’s progress and the nature of the project
- Talk about how ideas will be implemented – are they meant to provide inspiration or does the supervisor expect them to be followed to the letter?
- The Department must make clear whether it is interested in retaining a PhD student at the end of the project, so that the student concerned is aware of his or her options.

“I think I’ve improved in recent years, and always take into account that the student’s objective is to finish the PhD, not to read piles of new material. But it’s still one of my weak points – although, having said that, I also consider it a bit of a strong point.” – Supervisor

PUNCTUALITY

Punctuality is about the PhD project being completed on time.

PHD STUDENTS

For PhD students, *punctuality* is about steering clear of the trap of thinking that a PhD project, by its very nature, cannot be completed within the stipulated time frame – *i.e.* it is about respecting the three-year deadline.

PhD students do not yet have a sense of how much research is feasible in three years. It is also tempting to be seduced by a project, to immerse yourself more and more and go off on tangents. For PhD students, it is therefore important that the supervisors, based on their experience of research processes, help to curtail the collection of material and take the lead in making both academic and structural decisions so that the PhD project is completed on time.

In practical terms, punctuality also involves supervisors providing feedback on the sections of the thesis submitted fast enough not to impede the writing process.

“There are the half-yearly reports, but they’re not used. I think there is a tendency to believe that they restrict your freedom – but that’s nonsense because necessity can also be the mother of productivity. Actually, it’s a relief not to have to manage it all yourself.” – PhD graduate

“My big problem is that my project keeps on seducing me time after time. There are so many fascinating aspects to consider. It’s because it’s so exciting that it’s taking so long.”

– PhD student

“The supervisor mustn’t tell you at the last minute that you should have chosen a different path. Supervisors need to provide academic and structural criticism at exactly the right time so their supervision actually shows the students the way.”

– PhD student



SUPERVISORS

For supervisors, *punctuality* is about using meetings to take stock and reassess targets. The PhD plan, supplemented by working plans and objectives, can be used to monitor progress, dividing the project into manageable chunks and making the supervisor a consultant timekeeper. From their helicopter perspective, supervisors are able to spot any lack of progress, address the issue, amend the plans and get the project back on track within the deadline.

One way of ensuring peace of mind for the PhD student is to design the project so that some “low-hanging fruits” are harvested within the first six months. Achieving outcomes like this within a reasonably short time frame provides students with a sense of achievement.

RECOMMENDATIONS

- Use the half-year reports to look at the project as a whole, rather than just as half a year out of three years
- Use the PhD plan as a project-management tool, and use the supervision to adjust the plan
- Know the rules, so that both parties’ formal obligations are met with on time
- PhD students could take a project-management course at the start of their programme, providing them with tools to manage their time, e.g. milestones, stakeholders, targets and provisional targets.

“I think it’s important to try and break it down into manageable chunks, i.e. sub-surveys or provisional results. You might present parts of your thesis as stand-alone conference papers, or as part of a book. I often talk through strategies for this with my PhD students so they see things like that as kinds of building blocks.” – Supervisor

“Lack of progress often has to do with putting things off – I just can’t hand this in, or I don’t think I’ll make that seminar. Attitudes like those may be indicative of other concerns that need to be resolved by different means.” – Supervisor

“I also think it’s important that the supervisor is aware of the need for a plan B. Some projects won’t be the expected success, so you’ll need an idea about whether to change direction. It’s good to have thought that out in advance.” – Supervisor

OWNERSHIP OF THE PROJECT

Ownership of the project is about creating both joint understanding and individual ownership of the PhD project.

PHD STUDENTS

For PhD students this theme is about creating ownership of the project. It is about establishing a balance in which the supervisor does not dictate the nature of the project, but rather *leads the way*.

From the students' perspective, the supervisor's interest is visible in the time spent presenting specific proposals for corrections and adjustments, e.g. to draft articles or to the final monograph. However, it is also a matter of achieving a balance in which the feedback is not so exhaustive and indisputable that the writing no longer reflects the PhD student's own style. In the long term, it may be difficult for PhD students to establish themselves as independent researchers if the styles of the publications released during and after their PhD programmes are not consistent.



“Supervisors should feel they have a joint responsibility. A lot of students do not get enough of their supervisors’ interest and unsolicited time.” – PhD student

“I think you get better projects if supervisors have a stake in them, e.g. if they sense that one of their own publications might benefit they would be far more motivated. They can really help to raise the standard if they’re committed. The more supervisors have at stake the better – it’s too easy to just accept a supervisor role.” – PhD graduate

“I’m a bit of a control freak, so I’ve had to learn that it’s important to let students assume responsibility. It’s not my job to wade in and take over the project. It’s important that students feel it’s their own project, not something they’re doing for my sake – the students must assume and maintain ownership.” – Postdoc

SUPERVISORS

Ownership of the project depends on the discipline and the type of scholarship. Predefined projects in experimental sciences can be formulated at the outset by supervisors but it is important that the PhD students concerned exert their influence at that point. It is also vital that the project changes as it progresses, allowing the students to take ownership of it bit by bit. For PhD students with individually formulated projects, the challenge is to get the supervisor to commit to the project.

Supervisors must expect that their PhD students will, in a sense, overtake them – after all the objective is to train independent researchers. Supervisors may have all the answers at the start, but it is only natural that a point will be reached at which they no longer have ready answers to hand and are better equipped to pose critical and clarifying questions. One of the points of the PhD project is eventually to make students capable of formulating criticism of their supervisors, who may find that difficult to cope with.

RECOMMENDATIONS

- At one of their first meetings, the supervisor and PhD student could both identify what they consider particularly interesting about the project so they know where to focus their energies
- For individually formulated projects, the supervisor and PhD student should establish a common interest in generating new knowledge
- For predefined projects, the PhD students should assert ownership of the project
- Never be a supervisor in name only. Do the job properly.

“At first, the supervisor tells you what to do, and the student asks ‘Why?’ This is supposed to change along the way until it’s the student saying ‘I want to do this’ and the supervisor is asking ‘Why?’ In other words, the role of helmsman, or leader, switches from the supervisor to the PhD student.” – Supervisor

“My status stands and falls with the student’s progress – I lose a great deal of prestige if it doesn’t all go well.” – Supervisor

“One way in which I as a supervisor gain recognition and respect is by youngsters coming in and realising, bit for bit, how great my research is. But if it’s subjected to criticism instead, well hey – maybe it’s not that great after all!” – Supervisor

CONSTRUCTIVE CRITICISM

Constructive criticism is about precise and forward-looking feedback

PHD STUDENTS

For the PhD student, “constructive criticism” means both verbal and written feedback. Feedback without structure is frustrating. Phrases like “pare to the bone” or “focus” are difficult to interpret – focus and pare what and how?

Feedback has to be based on a practical and useful starting point that helps the student. It must be precise and forward-looking. It is also important to be aware of the fact that a PhD project takes up so much of the student’s life that it can be difficult to accept feedback – sometimes it is taken not only as academic critique but also as personal criticism. The ability to distinguish between the personal and what it says on the page is crucial.

“Luckily, I’m the type who wants it like that – no holds barred. It is not me personally being criticised on paper [...] The straight-shooting style is important, and good for me. It’s about honesty, so your response can be honest as well. The project is such a big part of your life that it’s a question of being able to distinguish it from yourself, from your person. For me, it’s been liberating to distinguish the process from me the person.”

– PhD graduate

“You’re made to feel mediocre, a bit of an idiot, and it’s frustrating. It’s as if there are no discernible criteria for when you’re doing well. I think that was the biggest challenge in the supervision. To put it bluntly, not knowing whether your work is good or bad is almost worse than knowing that it’s bad.”

– PhD graduate

“The biggest problem for me was the lack of any discernible criteria for when I was doing well. There aren’t many places where you can go for three and a half years and not know how you are getting on. It didn’t help that the criteria for success were not visible. It’s been extremely frustrating, a source of considerable discomfort. The advice proffered wasn’t clear. It consisted of general instructions to ‘try to pare to the bone’ or ‘make the links more obvious’. That’s too vague.”

– PhD graduate

SUPERVISORS

For supervisors, feedback consists of written comments discussed at meetings. It may also consist of feedback on presentations, e.g. when preparing for a conference or a thesis defence. The form of the criticism depends on the student and on how raw or polished the text happens to be. Some supervisors stress the importance of them reading a very rough draft so they are able to lead the way in the research process and overall project rather than just comment on an almost finished version. Some supervisors ask their students to stipulate the kind of feedback they want on a particular text. This helps adapt the supervision to students' needs and allows them to set the agenda. It is only natural that you will identify other issues and point them out. Feedback is about both being critical and identifying interesting sources of further work.



RECOMMENDATIONS

- The 4 Cs: Feedback should be caring, concrete, constructive and critical. The booklet on writing groups contains sound advice about feedback: <http://samf.ku.dk/pcs/specialeskrivere/>
- Supervisors could write synopses for their feedback in order to highlight the most important areas in need of follow-up work. The PhD students should follow up on the feedback
- Organise the supervision so that the students have something tangible to work on
- Distinguish academic criticism from personal
- PhD students can ask for specific feedback on their work, e.g., what is good or could be improved upon
- Work with a range of different feedback techniques.

“As a supervisor, you owe it to your PhD students to be honest about how you assess the quality of their work.” – Supervisor

“Your supervisor isn’t God, your supervisor is your supervisor. You should ask your supervisor for what you want. You sometimes get what you ask for – you just have to remember to ask for it.” – Supervisor

TRADITION

The university tradition is about the culture and hierarchy you enter as a PhD student.

PHD STUDENTS

For PhD students, the *university tradition* is about a culture they enter. It is a culture in which PhD students are perceived as sufficiently independent that, e.g., the department refrains from stipulating formal requirements with which they have to comply. Paradoxically, despite the fact that central initiatives contravene the very notion of a PhD as a free process, the desire for more structure is strongly expressed by several PhD students.

The university tradition also entails listening to pearls of professorial wisdom about how a PhD should be difficult. For PhD students, a good end product has more to do with dialogue and a shared interest on the part of their supervisors, rather than an expectation on the part of the supervisors that their students should undergo a three-year ordeal.

PhD students also experience entering a hierarchy from the bottom. You do not “dare” oppose your supervisor, co-supervisor or others who share ownership of the project, because, as PhD students, you are dependent upon these individuals and do not know when you will need them – including later on in your career.

“It’s ridiculous that when I finally aired my frustrations about the PhD world, I had to listen to people say that it’s supposed to be hard and that it had been hard for them. What a load of rubbish! Does it have to be tough? Do you have to suffer to be a good PhD?” – PhD graduate

“A supervisor’s most important roles are to provide inspiration and furnish praise. But, of course, you don’t do that in the academic world – so the question is whether we can demand it. My supervisor said that my methodology chapter is really good – does that mean the other 12 are bad?” – PhD student

“I was in the middle of my project and it was all going awry, but you just can’t get angry at your supervisors because you’re dependent on them. You’ve got no sanctions or alternative options for help when things go wrong.” – PhD graduate

SUPERVISORS

Supervisors think great strides have been taken in breaking with the university tradition, but that there is still room for improvement. The lack of transparency and supervision in previous eras has been replaced by structure and professionalism in PhD programmes. This has improved completion rates, sped up completion times and generated more satisfied PhD students and graduates. The old idea that “we do this work because it is our passion” persists, but it is also recognised that things are different for PhD students on fixed-term contracts with no prospect of a permanent post. Simple things such as looking after the staff, expectations and productivity targets are not things to which University academics are used to devoting time. PhD students from abroad need particular help in terms of getting to grips with Danish culture and social conventions, including the culture of meetings and the work culture at the University.

Supervisors need to be aware of the inherent imbalance in the students’ dependency relationship. However, this asymmetry is not always a given. Supervisors must accept being challenged and their work being called into question. There is a dichotomy between treating PhD students as less experienced colleagues and acknowledging that it would be problematic to treat them like undergraduates.



RECOMMENDATIONS

- Talk openly about the need for structure in the PhD process, and about the fact that the need for structure varies
- Think of the PhD students/yourselves as young researchers, not as students
- Think of the PhD students/yourselves as members of staff with rights and duties in the workplace
- Supervisors should remember to provide acknowledgement and praise.

“I personally believe that professionalisation is a major source of strength. Unlike in the private sector, the aim of professionalisation here is not necessarily to achieve greater productivity, but to provide clear frameworks.” – Supervisor

“The humanities have moved very strongly towards the sciences since I wrote my thesis, when my very old-fashioned supervisor actually thought that supervision itself was suspect because it helped the student.” – Supervisor

BECOMING A RESEARCHER

Becoming a researcher is about learning to think academically in your field and being able to manage research processes.

PHD STUDENTS

For PhD students, this involves progressing from being a student to becoming a researcher and learning to produce new knowledge. Conducting quality research requires much more than simply reading – it encompasses many more aspects than you imagine. For PhD students to become researchers, it is important that their supervisors do not just provide answers or results, but introduce them to and teach them about the research process itself. This training can take the form of the students gaining insight into their supervisors' own research processes through unselfish sharing of knowledge. Supervisor support is essential if PhD students are to cope with the uncertainty associated with high-level research. It helps PhD students – even in their darkest hours – to know that they will reach their goals.

Specifically, it is important that the supervisors are able to draw on their academic experience in order to outline the big picture. This allows them, intuitively and quickly, to sense whether a project is on track, and helps to get it back on course if it is not. The experienced eyes of their supervisors save PhD students' time.

“You can tell supervisors are experienced when they come up with new ideas and frameworks to help you learn. I wanted answers, but my supervisor wanted to teach me to learn. It may have been frustrating at first but it’s a sensible approach.”

– PhD graduate

“You’re green when you start, of course. It’s a new way of thinking. To boldly go where nobody has studied before requires a different kind of thinking. It’s a far greater level of abstraction than you’re used to, and the supervisor needs to help you tackle that. You’re constantly aware of the uncertainty and insecurity that needs to be tackled – you have to learn to keep calm.” – PhD student

SUPERVISORS

Supervisors need to build up their PhD students' academic confidence.

PhD students have to develop a critical attitude to what they and others, including the supervisor, are doing. Supervisors are able to support this process, e.g., by taking examples from theses, articles or anonymous reviews, and discussing quality criteria. Supervisors often fail to make the quality criteria clear. They possess a wealth of tacit knowledge that can be made explicit through dialogue with the PhD students.

PhD students also need to dare expose themselves to criticism.

“It’s important for PhD students and researchers to recognise that there really are no correct solutions. There are different approaches to a problem – you have to decide which one to follow.” – Supervisor

“A process of cultivation is involved, during which the PhD students revise their view of the type of project that they are working on. Good supervision has to be able to keep up with that.” – Supervisor

RECOMMENDATIONS

- Adjust the balance between completing a product and achieving broader skills-enhancement targets as a trainee researcher
- Find ways to make explicit the tacit knowledge of what constitutes good research. Find examples and experiences to discuss, e.g. evaluate and review other theses.



THE PERSONAL EDUCATIONAL JOURNEY

The personal educational journey is about becoming part of the world of research.

PHD STUDENTS

For PhD students, the personal educational journey is about all that lies in extension of the writing and submitting of a PhD thesis – i.e. over and above what ministerial orders stipulate that they have to comply with and the formalised contexts that require their physical presence. It is about the networks they build up, the national and international research contexts in which they operate, conferences attended, well-regarded researchers encountered, foreign universities visited. In other words, it is about becoming a part of the research community. This does not happen by itself. Supervisors need to actively use their networks for the benefit of their PhD students – e.g. make sure their students visit a recognised university abroad and are taken under the wing of an appropriate supervisor there. In other words, supervisors must serve as a source of recognition for their PhD students – in Denmark and beyond.

“Your supervisor’s networks – in Denmark and abroad – are important. My supervisor has a relatively good international background, and has been good at making recommendations for my studies abroad. It’s worked really well, and I’d put that down as an important aspect of supervision.” – PhD graduate

“It was through my supervisor that I got to know the other researchers abroad. My supervisor is well regarded, and that clearly opened doors for me. If you have a good supervisor, people think you must be a good student.” – Postdoc

“In addition to the academic aspects, supervisors have to be able to justify what they do. They do this indirectly by putting their name to your work. Mine acts as a source of recognition, not only for me personally, but also in relation to the outside world in my career progression. It is important to be recognised – but first you have to do something worthy of recognition.” – PhD graduate

“An important part of the supervisor’s role is to keep you in mind, think about what is going on, think about people you would benefit from meeting and think about how the supervisor’s own network can best be used to your advantage.” – PhD student

SUPERVISORS

For the supervisors, part of the process consists of them actively “opening up research environments” for their PhD students. This applies to attending international conferences, arranging changes of scene or stays abroad, and ensuring that students help submit external project applications. PhD students need to be exposed to other research within their discipline, they need to know about the major conferences in their field and they need to position themselves in the international research community. Supervisors can accompany their PhD students to conferences and introduce them to top experts. Supervisors can also generate the funding necessary to enable PhD students to invite international researchers to seminars and conferences that they are hosting.

RECOMMENDATIONS

- Supervisors should actively use their networks for the PhD students’ benefit
- Discuss conferences and relevant places to publish.

“You might say, for example, that if you submit this paper to that conference it will be rejected, but you’ll have a better chance if you submit it to this other conference. I think those kind of insider tips are important.” – Supervisor

“They will end up knowing their field much better than I do, so they should have the chance to invite some of the people who have been a major help to them along the way, who have written important articles or books, to Denmark.”
– Supervisor



CAREER DEVELOPMENT

Career development is about the fact that not all PhD graduates continue their careers in the academic world.

PHD STUDENTS

For PhD students, career development is about engaging in dialogue about what happens after the thesis is submitted and defended.

For some, a career within the University is the purpose of a PhD – but this is an uncertain career route given that there are fewer jobs than PhD graduates. Others do not intend to follow a career in research, but it is important for everyone to assess their priorities in terms of the courses and extra assignments that will further their career prospects. For example, should you try to make yourself attractive to the department, or promote yourself and your research in public debates or in the private sector? The actual project will often follow its own logic, but outreach and writing articles can usefully be targeted at life after the PhD. As a rule, supervisors exert little influence on who their departments appoint, but it is important for PhD students that supervisors initiate a dialogue about what will happen after they submit their theses.

“My supervisor asked if I was interested in staying on at the University after I finished my PhD. I thought it would be good to stay here for another year so that I didn’t also have to think about finding a job right in the middle of the final phase.”

– Postdoc

“I didn’t know what was expected of me, so the foundations for some of my decisions on priorities was a bit unclear. If I’d had a slightly clearer idea from the outset what options I might have in the Department, it would have been easier to prioritise my extra assignments so they made more sense in a longer-term perspective. As things stand now, you run the risk of ending up in a skills-enhancement and career-development rut.” – PhD student

“When I think in terms of career, there is little prospect of a job here. I think it’s a problem that the management don’t draw attention to the criteria for internal recruitment. This may fall slightly outside of actual supervision but it’s still a part of the PhD student’s education.” – PhD student

SUPERVISORS

For supervisors, *career development* is partly about determining how narrow or broad the PhD programme is – the project has to be focused, but the students also have to acquire skills that will serve them well in a wider perspective. The post-PhD career is also a valid subject for supervision. As a rule, planning a career is an issue raised at the PhD student's request, but supervisors are pleased to help with contacts and to act as a dialogue partner. At a time when few people will be able to continue within the University, it is increasingly important to offer PhD students help with their careers. Many supervisors see the performance and development review (MUS) as the natural forum for plotting careers but such deliberations may also be taken into account as part of the general supervision.

“Personally, I’m really interested in career development. You work with the person for at least three years, so it’s of tremendous interest to me where he or she ends up afterwards.”
– Supervisor

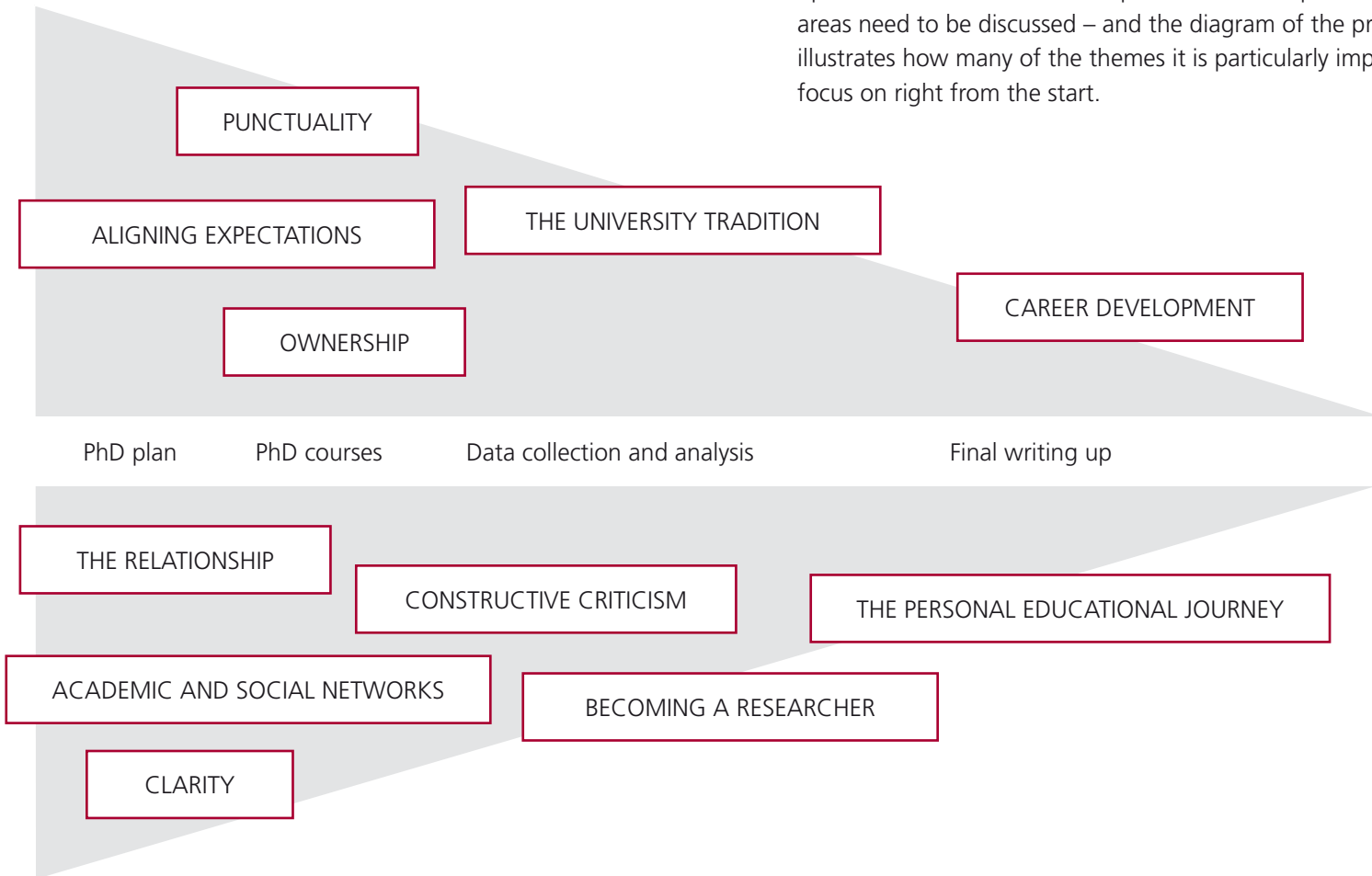
“It’s important to consider the status of the PhD thesis – is it the culmination of a process, the crowning glory, or the start of something new?” – Supervisor

RECOMMENDATIONS

- Have an open dialogue about careers. Talk about how aspects of theory and methodology relate to your career plans
- PhD students can enhance their skills by taking general PhD courses, which represent a good opportunity to make their profiles more attractive
- Consider the potential of the thesis to lead to further research at the end of the project, and consider the funding options
- Consider whether fieldwork or other forms of data collection can be usefully performed in a private company or in another research environment. This may provide insight into other areas/companies and help establish wider networks for career development outside the University
- Consider the status of the thesis: Is it your crowning glory? Or the start of something new?

“Ambitions, of course, also have something to do with career, with what you want to do afterwards. In that sense, perhaps it is best for the PhD project to be narrow and focused and to follow a strict path. But it might also be the case that the PhD students’ career prospects would be better served if they also try this or that technique, because it will give them a more attractive profile. I think there should be room for that.”
– Supervisor

It is our hope that this booklet will have inspired you to reflect upon and talk about various aspects of the PhD process. Plenty of areas need to be discussed – and the diagram of the process illustrates how many of the themes it is particularly important to focus on right from the start.



FURTHER READING

If you wish to further develop the supervision process, there are plenty of resources in articles, books and online. Here are some key points of reference:

Dysthe, O. and Samara, A. (2006) (ed.) *Forskningsveiledning på master- og doktorgradsnivå*. Abstrakt Forlag, Trondheim, p. 353.

Gurr, G. (2001) Negotiating the “Rackety Bridge”: A dynamic model for aligning supervisory style with research student development. *Higher Education Research and Development*, 20 (1), pp. 81–92.

Handal, G. and Lauvås, P. (2005) Optimal use of feedback in research supervision with master and doctoral students. *Nordic Pedagogy*, 2005 (3), pp. 177–189.

Pearson, M. and Kayrooz, C. (2004) Enabling critical reflection on research supervisory practice. *International Journal for Academic Development*, 9 (1), pp 99–116.

Wichmann-Hansen, G., Eika, B. and Mørck, A.M. (2007) Hvad findes der af litteratur om vejledning? Litteratursøgning med fokus på publicerede, evidensbaserede studier. *Dansk Universitetspædagogisk Tidsskrift*, 2007 (3), pp. 11–19.

The drop-out analysis by the Danish University and Property Agency (2007) concludes that good supervision and a strong academic research environment are the key to PhD students completing their studies. www.ubst.dk/publikationer

"I love being a PhD student. The combination of freedom and being taken seriously is just fantastic." – PhD student

"I am very keen on this area. I think it's impressive how people crawl over the doorstep on day one and leave as self-assured individuals three years later." – Supervisor

"It's good to write a PhD because it's just so exciting! Finding something out, discovering something important, the act of generating new knowledge that casts new light on your ideas... it's detective work. It's thrilling, exciting." – PhD student



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