

Collaboration

A guide for working together better in academia

LAURA COX | LUND'S DOCTORAL STUDENT UNION | LUND UNIVERSITY



Collaboration

A guide for working together better in academia

Dr Laura Cox



LUND
UNIVERSITY

Coverphoto by Laura Cox


Copyright pp 1-28 Laura Cox

Printed in Sweden by Media-Tryck, Lund University

Lund 2025



Media-Tryck is a Nordic Swan Ecolabel certified provider of printed material. Read more about our environmental work at www.mediatryck.lu.se

MADE IN SWEDEN 

Disclaimer: This booklet is for informational purposes only and is not a substitute for professional medical advice, diagnosis, or treatment

Table of Contents

Introduction.....	4
Why collaboration?.....	5
Forms of collaboration in academia	5
PhD Supervision.....	5
Research teams.....	6
Grant applications	7
Boards and positions of responsibility	7
Foundations of positive collaborations.....	8
Respect	8
Clear communication	8
Shared vision and responsibility	9
Knowledge and awareness of what to do when things go awry	10
Useful concepts for collaboration.....	10
Small interactions and big impressions.....	10
Navigating international workplaces.....	12
Cultural clashes.....	12
Bridging gaps.....	13
The PhD Supervision Relationship.....	13
Understanding each other	14
Setting a good foundation.....	15
Troubleshooting.....	19
There's a block in the work.....	19
There's been a lack of important communication.....	19
There's tension in the air	20
Co-authorship	20
Final note	22
Appendix 1: Roles in academia	23
Appendix 2: Example of how supervision can break down	26
Collaboration Checklist.....	27

Introduction

Welcome to this booklet on **Collaboration: A guide for working together better in academia**. This resource is intended as a quick and accessible introduction to some key concepts and themes in effective working relationships. It is focused on the academic context, and at times is specific to Sweden and Lund University.

My name is Laura Cox, and I am a recent PhD graduate from the Department of Psychology at Lund University, having defended in September 2024. In addition to my PhD, I hold qualifications as a Psychological Wellbeing Practitioner and Transformational Coach, both of which include skills in addressing interpersonal relationships, managing common challenges, and improving communication. I have also gained extensive experience as a representative at faculty, university-wide, and national levels which has brought me into contact with senior leadership, supervisors and a variety of staff members across faculties. Since December 2024, I have had the honour of working in the new role of **PhD Wellbeing and Career Mentor** in Lund's Doctoral Student Union. Although the role initially and primarily focused on the PhD experience, there has also been great interest in advice and workshops for supervisors.

This booklet is connected to a variety of other resources that may be useful for different readers. For researchers at LU, the **Wellbeing in Academia Canvas** portal is a comprehensive and living resource for exploring the academic context in more depth and considering the role of one's own wellbeing in academic work. For PhD students, there are two other booklets that focus on the doctoral experience specifically. These are the **PhD Wellbeing booklet** and the **Careers booklet**. Finally, I offer **individual support** for personalising these tools and tips to specific situations. For LU PhD students, this is included in the Wellbeing and Career Mentor service funded by Lund's Doctoral Student Union. For supervisors, other types of researchers, and PhD students outside of LU, please visit my website for options and more information: www.drlauracox.com. You can find all resources mentioned in the Resources tab on the website and all booking calendars in the Contact tab.

Please also feel free to contact me via email (support@ldk.lu.se) or connect on LinkedIn.

Wishing you positive and productive collaborations,

Laura Cox, September 2025



Why collaboration?

Although the research process can at times be very solitary, the world of academia depends heavily on shared efforts and communication. This takes a wide variety of forms, for example combining expertise in applying for grant funding, working together within a research team, having spontaneous discussions in the lunchroom that spark new ideas, peer-reviewing articles for publication, and so much more. Without these connections and processes, it would be very difficult to move forward with producing and distributing new and developing knowledge. In other words, *we need each other*.

As I also mention in the Wellbeing resources, research has some fantastic ingredients for being a highly enjoyable and stimulating career. The freedom, intellectual depth, creativity, and being surrounded by interesting colleagues sound like a perfect mix. Yet, in reality, academia can also be rife with clashes, over-competitiveness, poor work environments and abusive behaviour. Feedback can be incredibly and unnecessarily harsh, and there are a number of power dynamics that can hinder bringing out the best in people. I would argue that these aspects are wholly unnecessary and actively disadvantage both academics themselves and the fields we work in. This booklet is all about breaking down what is really needed for collaborating with one another, what is not helpful and why, and some tools for how to work more effectively with one another.

Forms of collaboration in academia

PhD Supervision

One of the main forms of collaboration in academia is the PhD supervision relationship. It can be a particularly important form of collaboration to focus on improving, especially due to the time commitment, the close level of coordination and the depth of the work together. The main PhD supervision relationship will generally be between the PhD student and the main supervisor, however there will likely be surrounding relationships that also require attention, for example between the PhD student and any co-supervisors, between the main supervisor and co-supervisor(s), and between PhD students who have the same supervisor(s).

As mentioned in other sections, the PhD supervision relationship is also likely to change over time, both as the work deepens and as the supervisor and supervisee get to know each other better. It is helpful to mindfully set a good foundation from the start (see the later section on this) in order to prepare for the challenges that are inherent in learning to become a researcher and in producing original work. It may also be helpful to consider the role that each of you has for each other, and remember that the value-giving is not one-way, even if it may seem like it. Figure 1 below captures just a few ways that the PhD-supervisor relationship is a symbiotic one, and both parties can stand to benefit or lose depending on how the collaboration is approached.

From supervisor to PhD student, there is the important guidance from years of experience and scientific expertise, including the network of connections the supervisor has likely already built. From PhD student to supervisor, there is the connection with the upcoming generation of researchers and updated in-depth exploration of the field in a way that the supervisor likely no longer has time for. Each can benefit from thinking about the topic in different ways, and each contribute in some way to the career of the other – the supervisor as a senior academic who can provide direction and references for the PhD student, and the PhD student who will contribute to publications and the supervisor’s track record of seeing PhD students to completion.

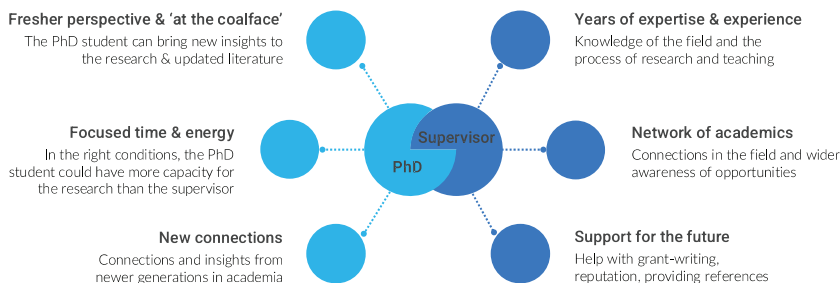


Figure 1. The symbiotic PhD-supervisor relationship

Research teams

Beyond the PhD supervision relationship, there are likely several others in the research team or surrounding environment that are contributing to the collaboration. This may

include research assistants, bachelor or master's students completing their theses within the project, post-doctoral researchers, colleagues who have expertise relevant to the topic, and external collaborators. While these collaborations may be more short-term and/or less intense, they are still important components of the research process, for example in producing data and working towards a publication. Sections of this booklet that may be particularly relevant include the **Foundations of positive collaborations**, **Useful concepts**, and **Co-authorship** sections.

Grant applications

One of the best parts of academia is coming together to form a new idea and get excited about the possibilities. Although somewhat less exciting, writing grant applications is generally part of this process if the researchers want to actually embark on making the idea happen. This will also likely be an important step for PhD students and post-doctoral researchers who want to continue in academia, as securing funding is often essential.

Working on a grant application together can be really fun and engaging, but there can also be a lot of other things in the mix as well. The chances of securing funding from major bodies is quite small and the waiting times can be very long. Often, researchers will pour hours, days, and weeks, of work into a grant application only for it to be rejected months later, without even getting any feedback. Having a good collaborative relationship is important for enjoying the process and bouncing back from the challenges that will arise (and celebrating together when the grant does come!).

Boards and positions of responsibility

Beyond research itself, there are a variety of other tasks and collaborations within academia. You might find yourself on a department or faculty board, or taking on a leadership role of some kind. Much of the content of this booklet will likely be of use, both in navigating the relationships in these context themselves, but also knowing what sorts of issues are likely to come up in this type of work. For example, being on the Research Education Council both requires good communication and collaboration with others on the council, but also awareness of what sorts of topics are relevant in Research Education (e.g. supervision relationships, co-authorship).

Foundations of positive collaborations

Respect

It may seem rather obvious, but mutual respect goes a long way. For that reason, I'd say this is the most important foundation of good collaboration, especially in the field of academia where unfortunately there can be plenty of communications that lack fundamental respect. This may be a result of the hierarchical nature of academia, and the competitiveness inherent in working at the cutting-edge of knowledge, but it's not good for any of us nor the research we are doing.

We can get so wrapped up in the research that we forget basic human needs: things that apply to all of us, all the time. We can show respect to one another just by acknowledging that we aren't machines; we need breaks, we need food, we need warmth, we need recognition. See the later section on **Strokes** to read more about how essential even just responding to someone's presence or returning a 'hello' can be.

In the context of the supervision relationship, acknowledging the magnitude of the investment on both sides is important. While the hierarchy of academia might promote senior academics as more worthy of respect than PhD students, I'd like to suggest that this contributes to an unhealthy power imbalance that doesn't serve collaborations (at least, not long-term). I've already covered the different pieces that are mutually beneficial for both supervisors and supervisees in the section above, but when it comes to respect, the overall relationship can be built on letting each other know that you appreciate what the other is putting in. The PhD student is committing to a huge time investment at a critical point in their career development and in their personal life. Some have moved country and uprooted their entire life to come and work with you. For the supervisor, it is a time investment among other responsibilities and potentially a critical step in their own career.

Clear communication

A lot of problems can be prevented by making sure expectations, timelines and responsibilities are properly clarified. Different forms of communication have different effects, and it's worth keeping that in mind when you need to make a point. If you're dissatisfied with something or you want to draw a hard line, it's often best to meet in person rather than writing an email, so that the other party can get all aspects of your

communication – not only your words, but your tone, your facial expression, and your overall demeanour. Only processing things when they are written can lead to conveying something you don't mean to, or misinterpreting responses. However, keep in mind that it's understandable to find raising issues in person difficult, especially if there is a strong power dynamic. It may be the case that an email feels safer for initially bringing something up, that can then be discussed further in person. From my work as a mentor, it appears that PhD students often read more into written communication from their supervisor than vice versa, so a good way around this may be for the PhD student to write initially and the supervisor to simply acknowledge receipt, thank them for bringing it up and suggest a meeting. Another idea that has come up in mentor work is thinking of a 'codeword' in advance, that each of you can use to simply indicate that something feels off, even if you don't quite know what it is or how to bring it up.

Shared vision and responsibility

It is worth taking some time early on to thoroughly make sure you are on the same page about what you're working towards, and what you expect of each other. This is important for everything, from major collaborations like completing a PhD to doing a project with another colleague on the side. There are many tasks and responsibilities within the academic environment, and a lot of creative and intellectual energy. We can often get excited about working on something new, but not properly factor in the time and energy it will take and having a shared vision and defining your boundaries can help a lot.

For example, when I was working on a grant idea, I approached a senior academic who was very interested in the topic but also very clear that she would only have time to take one proper read-through of the proposal. That alone helped so much in deciding when to send it over to her and how to use her feedback most effectively. We'd talked through the main ideas in an initial meeting and this was enough to create a shared vision for the project and collaborate effectively even with just one round of feedback and some tweaks before submitting the (pretty extensive) grant proposal. I had a similar process of meeting with two others to talk about the ideas and create a shared vision, and this was not only practical, but incredibly enjoyable and productive.

Knowledge and awareness of what to do when things go awry

It's not unusual for things to go awry sometimes, and that's actually part of building strong relationships. The concept of 'Rupture and Repair' posits that good relationships are not about things always being smooth-sailing, but rather how we respond to difficulty and conflict when problems arise. We can navigate this in academic collaborations by thinking ahead about what roadblocks might come up, and how to deal with them together. It is also wise for each of you to be aware of the support systems available to you: for example, knowing when and how to turn to the prefect or director of studies for help, knowing that the doctoral ombud might be a helpful mediator, and knowing when and how to use external help (such as trade unions and confederations if necessary).

Useful concepts for collaboration

Collaboration is made up of many small behaviours, decisions, and attitudes towards one another. In this section, I introduce two concepts that could be useful in reflecting on how interpersonal dynamics are shaped on a day-to-day basis and their larger impact on how we view each other. These ideas come from Transactional Analysis, an approach to interpersonal relationships developed by Eric Berne in the 1950s. There are other components to this approach, so please get in touch if you would like to know more.

Small interactions and big impressions

The concept of 'strokes' can be particularly powerful in thinking about how small everyday interactions impact our wider relationships. The central idea with strokes is that humans give and receive signals all the time, and these indicate **positive** or **negative** feelings to one another, as well as communicating more about where they come from. Strokes can be **verbal** (e.g. giving someone a compliment or making a snide remark) or **non-verbal** (e.g. returning a smile/nod or completely ignoring someone as they enter a room). They can be **conditional** (focused on a specific skill or topic) or **unconditional** (general communication about the way someone is). Figure 5 shows the different variations and bases.

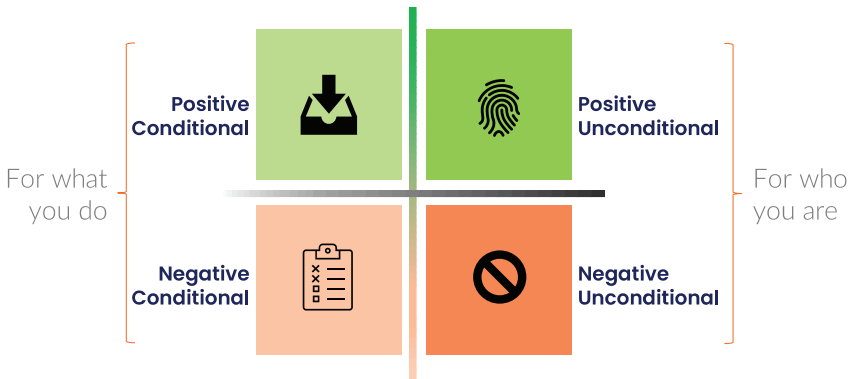


Figure 5. Small Interactions and Strokes

Although small, these compound and provide an overall sense of where we stand with others. For example, if someone were to go through the day only giving out positive strokes to others and only receiving positive strokes back (consistently), they would probably be having a pretty great day. On the other hand, if they were to be giving positive strokes out all day and either not having those responded to at all, or receiving negative strokes, they might end the day feeling extremely rejected and hopeless. Similarly, if they were mostly giving out negative strokes, they likely aren't feeling great in the first place: positive strokes from others might help them get to a better place, but if they ignore these and/or consistently respond poorly to others, it's likely that they'll start receiving more negative or non-responses.

We all have off days and periods of stress, so it's understandable if there are days that vary. Being preoccupied with a project and forgetting to say hello one time won't have major consequences, especially if it's remedied another time. It is more initial experiences or a prolonged pattern of misfiring communications that lead to this overall sense of whether someone is friendly or threatening.

This is captured in the 'OK Matrix' which defines four main categories of how we might feel towards another person. These include both how someone feels about their own part in the dynamic (I'm OK/Not OK) and how they feel about the other (You're OK/Not OK), as shown in Figure 6.



Figure 6. Attitudes to one another aka. 'The OK Matrix'

In this context, 'OK' can refer to a general sense of worth within the dynamic. Within academic environments, it can be a good idea to consider existing power dynamics that can be at play, in addition to the personalities and the behaviours of the people involved. For example, a PhD student may have a strong sense of self-worth in general, but in the context of a supervisor-supervisee dynamic, they may feel that the supervisor is in a 'one-up' position and that they need to prove themselves worthy constantly. Unsurprisingly, the healthiest and most productive position is I'm OK, You're OK, so it is worth thinking about how each of you can rebalance the dynamic until you get to this point. Please feel free to get in touch for help, as it can be difficult to know how to navigate this within the relationship.

Navigating international workplaces

Cultural clashes

Academia is a highly international arena. From an education perspective, universities need and generally welcome international students, especially at master's and doctoral level. Research also doesn't take place in a national vacuum – there are others working on the very same topics in many other countries, whose findings inform, contradict, confirm, and question our own.

Publication and research collaborations can and should cross international boundaries and make the most of different perspectives and pools of knowledge. With this intellectual diversity also comes diversity in norms, expectations and behaviour. It is inevitable that some ways of communicating and working will be anything from slightly different to totally opposite, and we need to consider what this means in terms of effective working relationships and respecting one another.

Bridging gaps

The Local (<https://www.thelocal.se>) is a great resource for both Swedish and international staff alike to learn more about each other. For Swedish staff, it can help you understand common themes that your international colleagues may be facing (e.g. current migration complexities and cultural idiosyncrasies that seem totally normal to you but may be confusing to someone who isn't Swedish). For international staff, there are helpful little pieces (such as the 'word of the day' and 'today in Sweden') that can help you learn about wider context and current events in an easily accessible way. There is also a full 'Learn more about Sweden' section, and seasonal articles might also help you engage more with Swedish traditions (e.g. crayfish parties and midsommar). It's also worth checking out programmes on SVT to see what your colleagues might be interested in.

The International Citizen's Hub in Lund runs a variety of workshops that can help internationals understand and navigate Swedish culture (see this link for the schedule: <https://internationalcitizenhub.com/upcoming-events>).

The PhD Supervision Relationship

The centrality of supervision in the PhD process can create a very small work environment, which can mean that issues are amplified. The PhD student is new to being a professional within research and is looking to the supervisor to understand the culture of academia, the expectations on them, and the ways of actually doing research. In other words, supervision is not about the task of being a researcher, but also *how to act* as a researcher – how to approach the tasks of writing, how we give and take criticism, how we approach ethics and collegiality in actual practice.

Supervision is an exercise in leadership and mentoring, which can be immensely complex yet rewarding endeavours, yet many supervisors don't necessarily view it this way. There is also a lack of ongoing support for supervision training and troubleshooting – and perhaps those who most need changes in their supervision are the least likely to access any available support. As long as this prevails, it is up to other staff in the same environment to convey what appropriate behaviour is and intervene when something is not right.

Personal qualities can be far more important in the supervision relationship than technical knowledge/more formal aspects. A supervisor might be an impressive role model intellectually but have severe problems in their interpersonal abilities that make them a formidable colleague and very difficult to actually work with. For positive collaboration, it's important that these more subtle aspects of setting appropriate goals and expectations, cultivating independence and creativity and providing encouragement and inspiration are not overlooked. Developing the quality of perseverance is indeed an important component in academia, but this should be in relation to the research itself, not in tolerating a poor work environment and persevering through bad supervision. In other words, it is the supervisor's task to help the PhD student navigate and persevere in the research process, not to make them tolerate the supervisor themselves. See Appendix 2 for an example of how poor dynamics can lead to poor outcomes, and what impact different actions could have along the way.

Understanding each other

Although the PhD student and supervisor are connected through the PhD project, it is worth keeping in mind that each have other activities, responsibilities and elements of their life stage to consider. While these may look similar, for example the task of teaching, they can be very different experiences. A PhD student might be navigating teaching for the first time, which involves different intellectual and emotional demands to a supervisor having a high teaching load (which also has its own challenges that are different to that of the PhD student). To help you reflect on these nuances and understand each other better, Figures 3 and 4 capture a few elements that might be overlapping or distinct in each position.



Figure 3. The Supervisor's Position



Figure 4. The Doctoral Student's Position

Setting a good foundation

The supervision relationship can and will change throughout the course of completing the PhD and of course is highly dependent on the individuals involved. There are however several common challenges that most PhD students and supervisors will need to navigate, and many problems can be prevented by actively setting a good foundation in the early days. Some of these things are very **practical**, for example coming up with a joint system for keeping track of work and decisions, even though there is a long road ahead and many other things to keep track of. Others are more **relational**, for example figuring out personal preferences, boundaries and creating space for continually learning about each other, the work and the process as you go. I have created a Supervision Notes Template which may help you both guide early conversations (see the Resources tab on my website for a link). This document could also be used at any

other point in the journey, with any changes in supervision and for other types of academic collaboration.

Getting on the same page: Expectations, behaviour and procedures

The previous section on ‘Understanding each other’ covered this element more deeply in terms of your roles in the work environment. However, there are factors beyond this that might influence what each of you bring to the table. It can be helpful to have a conversation early on about what this collaboration and project means for each of you: Is it a particularly crucial point in one or each of your careers? Is it your first proper supervisee/supervisor relationship? Do either of you have small children or caring responsibilities that will likely take precedence at times?

It is worth scheduling this initial conversation in ahead of time, and each considering your own position independently first. It’s understandable that it might feel somewhat vulnerable to mention certain things, and of course you can choose what to include and what to keep to yourself. However, building trust is an important element of the supervision relationship and you’re about to embark on a long and challenging journey together, that likely has implications for both of you. If you each decide to take that step and properly involve each other in the wider picture, you build a better foundation for understanding and working together more smoothly. When we don’t know the reasons behind things, it’s much more likely that we’ll jump to conclusions, set unreasonable expectations or get upset when things don’t go according to plan.

Finally, there is a very practical component to this which is ensuring you are both on the same page about your **formal responsibilities and tasks**. These will generally be laid out in your department or faculty handbook, and you can always check with the prefekt, director of studies and internal examiners within the department if either of you are unsure. The most important document for both of you will be the **Individual Study Plan (ISP)** that all PhD students across Sweden must use and update each year. It is developed collaboratively between you both, and it’s crucial that you both know what it means, what you’ll need to fill out, and why. Please get in touch if you would like more information and my best advice on how to make the ISP process smoother and more beneficial for your development.

Meetings

The frequency, style and location of meetings will contribute a lot to the type of collaboration relationship you have. A lack of meetings can result in either confusion

and difficulty making progress in the work, or over-reliance on written communication where a lot of important tone and context can be lost. However, meetings that are too frequent may not give enough space and time for the work to develop and create anxiety around not making enough progress between sessions.

Meeting frequency does tend to vary over the course of the PhD journey, which can be an important thing to keep in mind: there tend to be a lot of meetings in the first and final years, and fewer in the middle parts, but this is often when much of the work and development actually takes place. Furthermore, the supervisor might be aware of and expecting, or even making this change, but the PhD student might not be aware. It's also the time when the work becomes less clear and tensions can arise, and not meeting can compound these feelings.

It is also important to consider where meetings are taking place, how long for, and what conditions there are around the meeting. Often meetings take place in the main supervisor's office as senior academics are provided with more private and larger spaces. However, there is often already a power dynamic at play, and it may help the collaboration to have meetings in a more neutral space, such a booked room, or a co-supervisor's office. This could also help ensure that meetings don't go on for an unreasonable and unhealthy amount of time (on the more severe end, power dynamics can result in PhD students feeling like they cannot ask for a break or go to the bathroom until the meeting is over). As with any leadership role, supervisors should keep these aspects in mind and ensure they are suggesting breaks at least on the hour.

Finally, the tone of meetings is important: in some cases, the mere prospect of meeting can be incredibly anxiety-provoking if the sole purpose of them is to check up on the PhD student's work. There is of course the element of progressing in the work itself, but it may be counterproductive for it to be the first, or only, component of the meeting. This is particularly the case when there isn't a clear-cut answer or step forward, and when the collaboration and learning from more senior expertise actually needs to be the focus in order to move forward.

In general, I recommend starting with a schedule of having 1–2-hour meetings every 2 weeks, in a relatively neutral space, and beginning with asking each other how things are going in general, focusing first on *process rather than just progress*. It helps to define a particular day in advance (e.g. Thursdays 10am) and to try to have them in person if possible, taking into account what works for everyone involved. This was the format for my own best supervision relationships, and it had a dramatically different effect to scheduling meetings on the go, having phone calls here and there, and meeting in a

supervisor's office for an undetermined length of time. You can of course adjust to your own preferences and the needs of the project at different times, but the 2-week intervals appear to be particularly good for allowing frequent contact with enough time to make progress in between meetings.

Shared notes and progress management

It can be incredibly helpful to have a shared, digital document that each of you can go back to months and even years from the time you have the conversation. This can also help avoid misunderstandings or crossed tasks, because you'll both have access to the same records. In my own case, this was a Google doc, but you might prefer Teams, Box or other platforms. As with the previous point, you can and should adapt to whatever works for you, but the important thing is that it's shared, and not each of you taking your own conclusions away from meetings. As a bonus, having a document where you can have headlines (with the meeting date and initials of attendees) can help so much when it comes to filling out the meeting section of the ISP, and going back over your progress. In my own case, this helped make things extremely smooth and was even very fun and inspiring to see how far we had come in just a few months.

Growing together over the journey

Given the length of research projects, and particularly PhDs, it's likely that each of you will personally develop quite a lot in the time you are working together. If things haven't been so good at times, you'll likely learn a lot about coping with stress, miscommunication and what *not* to do. If you have a good collaboration, you can benefit from learning a lot directly from each other and building a stronger bond the longer you know each other. The latter is far more pleasant and productive long-term, particularly if you would like to continue collaborating on future projects. You can set a foundation for this by revisiting the earlier sections on respect, communication and adaptation, as well as the above points within this section. If you set the tone for *growth*, not just the research product, you'll get both results and a variety of other positive outcomes. Finally, the level of development might be most noticeable in more junior colleagues because PhDs and postdoctoral projects represent crucial junctures in their career trajectories, but this doesn't mean that senior researchers are not developing themselves. There is room for growth and learning in terms of leadership, mentoring, personal development and welcoming new insights on your field.

Troubleshooting

There's a block in the work

Research is complex and can take a while, and it can be hard to draw the line between allowing something the space and time to develop and just being completely stuck. This is particularly the case in a PhD project, when there is a larger task at hand, and it's a learning and training process as well as production of an outcome. It can be very difficult as the PhD student to know when the work has actually crossed that line into being stuck, and to know what to ask for help with. See the **Careers booklet** for a learning process model that can help to show changing dynamics between consciousness and competence.

This is why having regular meetings that aren't only focused on updates can be so important – it's actually in these discussions that things become clearer – both the problem itself and the possible solutions. Without such meetings and support, the PhD student may be stuck for longer time, not knowing quite how to move forward but also not getting any new input from their supervisor unless they have something to show for the time. Taking a step back, allowing for uncertainty, and talking through it can do wonders.

There's been a lack of important communication

This could be around deadlines or authorship for example. As mentioned in the previous section, it may be that different members of the research team have different ideas about who should be included as a co-author and in what order, and if open conversations about these aspects haven't taken place and things go ahead anyway, it can result in a sense of broken trust and injustice. These things can be easily avoided by communicating early and often about all aspects of the work that have long-term implications for each of the team, and coming to a joint agreement. Similarly, communicating personal deadlines can be very important for making sure everyone is on the same page. See the next section for specific points and resources regarding co-authorship.

There's tension in the air

We're all human and it's normal to have emotional reactions to things that happen. Academia can be a particularly harsh environment with a lot of criticism, and as mentioned previously, there are power dynamics and hierarchies at play. When this is combined with other life events and/or goes on for a long time, it can result in general tension in relationships that won't improve unless it's addressed. If anyone is feeling less than satisfied with the current dynamic, it's worth having an open conversation as an opportunity to clear up any misunderstandings, provide much-needed encouragement and recognition, and plan for how to do things differently. If things have already escalated quite a lot, consider involving a third party such as the doctoral ombud or the head of department. This doesn't need to be a further escalation or a siren that something is terribly wrong – it can actually be an indication that you are both aiming to resolve the tension in a mature and productive way.

Co-authorship

All the foundations I mentioned previously come into the equation when it comes to co-authoring a piece of work:

Respect: Does the inclusion and position of the authors accurately reflect and respect the work they have contributed?

Clear communication: Have you actually talked about it beforehand and decided together, or is someone assuming the inclusion and order?

Shared vision: Have you each got the same idea about where the piece of work is going, what it's trying to communicate, and how?

Awareness of options: Finally, do you know where to find information and who to approach if there is unfairness in the authorship and attribution process?

There is plenty of guidance on navigating co-authorship and this section will not go into huge depth about this multifaceted topic. However I would like to note three main resources that will likely be useful in navigating co-authorship in your collaborations:

Firstly, you may have heard of the 'Vancouver Recommendations' for co-authorship. This refers to the document written by the ICMJE (the International Committee of Medical Journal Editors): <https://www.icmje.org/icmje-recommendations.pdf>. The

recommendations have been applied across multiple fields beyond medicine though, and they involve 4 major criteria – **all** of which need to be met in order to be an author:

1. ‘Substantial contributions to the conception or design of the work, or the acquisition, analysis or interpretation of the data for the work AND
2. Drafting the work or reviewing it critically for important intellectual content, AND
3. Final approval of the version to be published AND
4. Agreement to be accountable for all aspects of the work in ensuring that questions related to the accuracy or integrity of any part of the work are appropriately investigated and resolved.’

Notes: If someone working on the project or text does not meet all criteria but has contributed substantially to part or all of the work, they should be **acknowledged** in the publication (ICJME advise that the corresponding author seeks consent from them first as it may imply they agree with the published work).

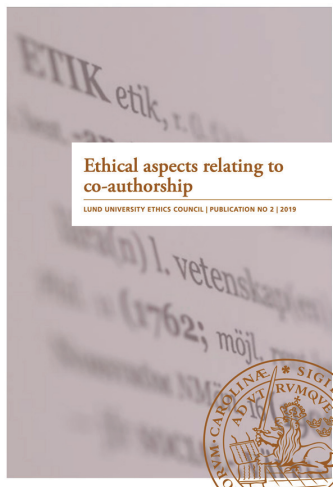
ICJME also specify that use of AI should be **acknowledged** and AI cannot be included as a co-author as the programs cannot take accountability.

Secondly, Lund University has a Council for Ethics and Academic Freedom, with a guidance document about navigating co-authorship, available via their blog: <https://etikradet.blogg.lu.se/>

The 8-page pamphlet explicitly says that Lund University supports the Vancouver rules and recommends that all researchers in all fields follow them.

It also goes into more depth about what accountability means in co-authorship, and includes a co-authorship quiz/flowchart to help with decision-making.

The Council also runs seminars that may be particularly helpful, for example following changes in the Ethics Review Act, Academic Freedom and use of AI.



Finally, COPE is a global organization dedicated to promoting integrity in scholarly research publication. You can find excellent guidance and tools on COPE's website (<https://publicationethics.org>), for example flowcharts and cases.

The screenshot shows the COPE website's 'Guidance' page. The header includes the COPE logo and navigation links: 'Guidance and tools', 'COPE Focus', 'Discussion', 'Membership', and 'About'. A search bar is located at the top right. The main content area is titled 'Guidance' and features a search bar with the text 'Search guidance...'. Below the search bar, it indicates 'Showing 1-10 of 72 results found' and a 'Sort by' dropdown menu set to 'Relevance'. On the left side, there are two filter sections: 'Current filters' and 'Topics'. The 'Current filters' section shows 'Reset all filters' and 'X Flowchart', 'X COPE position'. The 'Topics' section lists various topics with their respective counts: Authorship and contributorship (16), Publication practices (13), Journal management (12), Data (10), Post-publication review (8), Peer review (7), Plagiarism (5), Research ethics (5), Conflicts of interest (4), and Diversity (DETA) (2). The main content area displays three articles, each with a 'COPE position' button and a brief description. The first article is 'Publishing material from theses', the second is 'Handling requests for author name changes', and the third is 'Authorship and AI tools'.

Final note

I hope this booklet has provided food for thought for researchers at all levels, and especially for PhD students and supervisors. Collaboration in academia can be a truly wonderful thing, if we are mindful of respectful dynamics, our energy and time, and our expectations of each other and ourselves. In this final note, I would just like to emphasise that research is a culture like any other, and it is made up of individuals and norms. That means that we get to decide and shape what is desirable and what is crossing the line. It is up to every one of us to take some responsibility for building a better research environment in the places we have influence over.

Appendix 1: Roles in academia

Although this booklet was primarily written with PhD students and supervisors in mind, there are a variety of forms of collaboration in academia and academic roles. This appendix outlines the variety of roles in academia and how they intersect. This may be helpful for understanding other positions and acknowledging the responsibilities of your own.

Departmental leadership (for example directors of studies, prefekts, deputy prefekts and doctoral examiners)

Whilst these roles undoubtedly have a range of other responsibilities and concerns and their own forms of collaboration, they are likely to come into contact with researchers who are collaborating or supervising and are likely in a position of decision-making power. It may be particularly difficult for prefekts and directors of studies to know how to navigate issues in academic relationships, as it is likely that there are friendships with others in the department as well. Keep in mind that from the perspective of a PhD student, it can feel risky to approach leadership if it seems like they will be at a relational disadvantage. You can remind them that this should not be the case and that they can bring along an advocate if that would help them feel more comfortable.

Principal Investigator

The principal investigator is the lead researcher in a group, and oftentimes acts as a manager, even if the official employer is the head of department. PIs are often – but not necessarily – supervisors of PhD students as well. This can introduce a challenging dimension in collaboration, as PIs need to keep in mind a variety of other components e.g. budget management and reporting back to funding bodies. These can technically be outside of the supervision relationship but start to affect it due to stress and expectations. The underlying reason for this is often not clearly communicated and can result in junior colleagues feeling inadequate and criticised, even if that is not the intent of the PI/supervisor.

Main Supervisor

As mentioned above, the main supervisor is often also the principal investigator for a research project, but not always. With PhD projects that are faculty-funded, the financial side of the equation can be relaxed somewhat, as the money is not coming from external grants, but rather within the university itself. In these cases, supervision is likely assigned depending on expertise and availability. The main supervisor is usually

the primary contact for the doctoral student and the role includes responsibilities such as formulating the individual study plan (ISP) together with the PhD student, jointly determining and preparing for major milestones such as seminars and the defence, reading drafts of written work and guiding the development of the eventual dissertation, and much more. The main supervisor is also often crucial for connecting and socialising PhD students with the wider academic culture, e.g. introducing the PhD student to relevant contacts within their network and supporting them in contributing to conferences. These are important components of developing the next generation of researchers; however supervisors can vary widely in taking responsibility.

Co-supervisor

Similar to the main supervisor, the co-supervisor's responsibility is to support and guide the PhD student. While their involvement can vary widely – with some very active co-supervisors involved in the majority of communications and others only very minimally, a main difference is that the co-supervisor is not responsible for the formal components of the PhD. This includes making contact with external figures (e.g. opponent and examining committees) and organising milestones such as the halftime seminar. They may also be in a different overall position to the main supervisor, for example the main supervisor must be at least an associate professor (docent), while co-supervisors can be less senior.

Postdoctoral researcher

Postdoctoral researchers are early career researchers who have completed their PhD and are now working more independently on research projects – either with their own funding or via a position in a wider research project. For the latter, this may be quite similar to project-funded PhD students, but without the educational component of completing the PhD. Post-docs face similar challenges to PhD students and often experience career uncertainty.

PhD student

PhD students – generally referred to as doctoral student(s) or doktorand(er) – are both employees and students. Their primary task is to complete a research thesis (either a monograph or through a collection of publishable articles with an introduction), course credits, and a public defence. PhD students are often responsible for the 'groundwork' of data collection, initial analyses, and initial drafting of research outputs. The PhD student mainly has direct contact with their main supervisor and co-supervisor,

however they are generally formally employed by the head of department (prefekt) and supported by someone else in the department responsible for PhD studies specifically.

In Sweden, PhD studies can take between 4 years (full time) and 8 years (part-time), and it is possible to work on other tasks. For departmental duties such as teaching, this type of work is capped at 20% of the overall time. Other types of roles such as being a representative are separate and not explicitly limited. PhD students receive *prolongation* for these types of activities outside their doctoral work, which essentially means time added on to the end of the PhD contract. In this way, PhD students can be involved in multiple areas of university life as well as being a core member of research teams, yet these activities need not take away anything from the research itself.

Master's students

Master's students may become involved in research teams through completing their master's thesis. This often means that a subsection of the research efforts will be handled by master's students and written up as part of their examination. The master's students may be jointly supervised by a senior academic (e.g. PI/supervisor) and a postdoc or PhD student. Master's students' involvement in the research team is more transient than a PhD student, but they may contribute important developments in the research and consider applying for a PhD after their master's. PhD and master's students are likely to work closely together, and master's students may also become involved in developing publications (separate to their master's dissertation).

Research Assistants

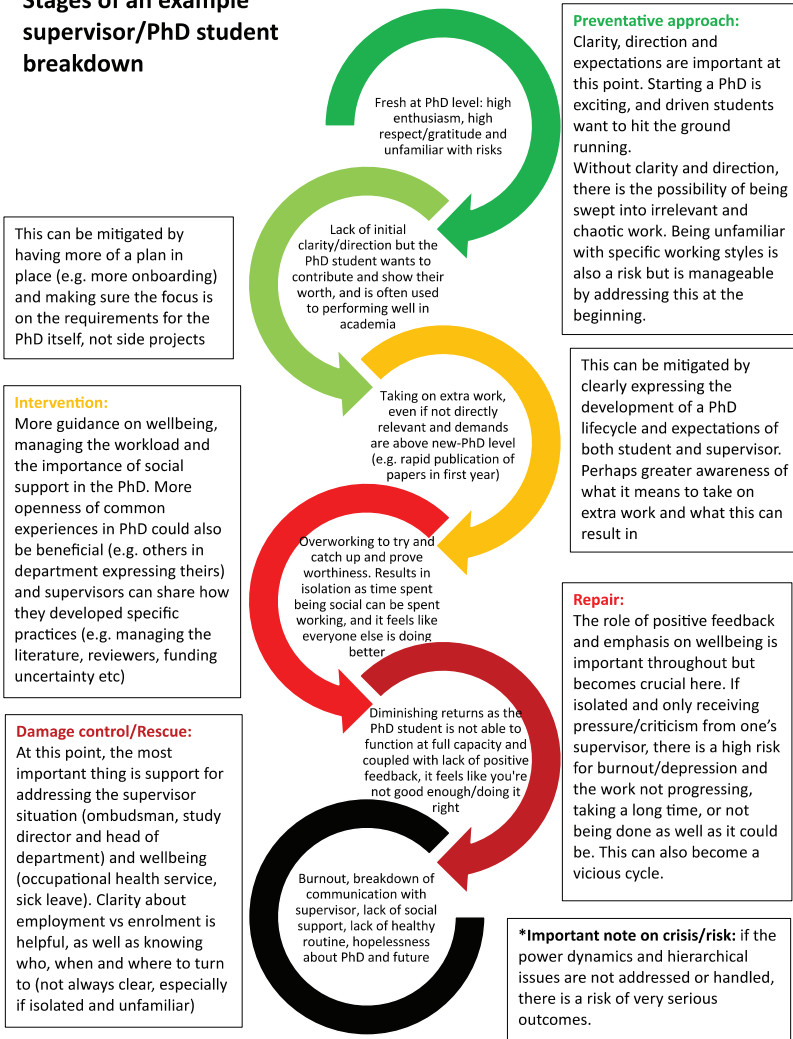
Similar to master's students, a research team may have assistants who are involved for a short period of the research journey. Research assistants (RAs) are generally employed on a short-term basis and focused on specific tasks rather than the wider development of the research. RAs contributions vary widely, but it is important to keep in mind that they also help move projects forward and may be involved in developing publications.

External collaborators

External collaborators are often more senior researchers within the field who have an interest and involvement in the project, but not on an everyday basis. They are often based at other universities and in other countries. They may become involved in the research either at the very beginning (idea and planning stages, grant applications) or at a later stage (e.g. developing publications).

Appendix 2: Example of how supervision can break down

Stages of an example supervisor/PhD student breakdown



Collaboration Checklist

Overall:

- I have **read the Collaboration booklet**
- I have found and signed up for the **Wellbeing in Academia Canvas**
- I know how to book an appointment with the PhD mentor or **get in touch with someone for personalised support**

General Collaboration Development:

- I understand the importance of small **day-to-day interactions**
- I have considered **power dynamics** in my current working relationships
- I have thought about **cultural considerations** in communications

Meetings:

- I have found and accessed the **meeting template document** and thought about if/how it could be used and adapted to our collaboration context
- I have **had an explicit discussion** with my colleague about schedules, expectations, preferences and developmental needs (using the guideline in the template)
- I have **scheduled follow-up meetings** to check in about how the collaboration relationship is going and any changes that may be needed

Coauthorship:

- I am familiar with the **ICJME ‘Vancouver Recommendations’**
- I have read the **Lund University guide on Ethical Aspects Relating to Coauthorship**
- I have visited the **COPE website** and identified guidance and cases that could be relevant for me

Further support:

- For all: I know about the **Occupational Health Service** and how to get my own support for work-related stress
- For all: I know about **trade unions and confederations**, and what they can do to help address workplace issues
- For PhD students: I know about the **doctoral ombud (DOMB)** and the types of support they can provide (e.g. mediation, meetings, ISP support)

