

Supervisor's Role

What

The role of the supervisor is important to support the professional and personal development of the PhD student. The role played by the supervisor in the professional and personal growth of the PhD student may influence future choices of the student.

Why? – Gender perspective

The supervisor and the support that he/she provides PhD students assumes considerable importance especially for female PhD students who work in environments totally dominated by men, as is the case of the scientific and technological fields.

Evidence / background - Gender perspective

The role of the supervisor is important for PhD students, especially for female students, who find themselves in an environment dominated by men. In some fields, such as mathematics, physics, computer science, and engineering, women are underrepresented at all levels. In all fields, the confidence of female students may be low, especially where they are isolated and have few female role models.

Literature shows that the role of female supervisors is important when it comes to supporting the academic and research careers of female PhD students. Some research studies show that gender matters when supervisory relationships are established. Data from a survey among all regular faculty members at Norwegian universities (Smeby, 2000) show that there is a significant same-gender tendency in graduate supervisory relationships and this trend is stronger among women than men. The tendency varies based on the fields of learning and on the different proportions of female faculty members in the departments.

One role of the supervisor is to give advice on career development and on the ability to undertake future academic endeavours. A study by De Welde and Laursen (2008) shows that a high number of women do not receive any advice on career development and are not "sponsored" by their supervisor. The absence of this sponsorship disadvantages women, while their male counterparts are supported to make a smooth transition from the doctoral school to the job market.

From contexts and experiences in the FESTA-project

Interviews with PhD students showed that the supervisor figure assumes an important role during the doctoral program:

“She helped me a lot, both in terms of professional and personal growth. She helped me find the right questions for my research project. She was very useful also when I had personal problems. She was always understanding and helped me with the language, as early on I did not know English well” (male PhD student).

In the study circle, some supervisors highlighted the factors which lead to quality supervision and student support:

"I think supervisors get the best results with their student when they manage to provide the student both with personal support, when they have personal problems, and professional advice. This also presupposes being straightforward and sometimes "brutal" with their students" (Female supervisor).

"The supervisor must be a guide, a reference figure for students. His/her role is to give advice and help the student grow, so that he/she becomes an independent researcher. In order for this to happen, the first element that must be taken into account is time. We have to have an appropriate amount of time to follow the PhD student and give them feedback to help them" (male supervisor).

Recommendations for good practice

Anne Lee's model: scientific guide, mentor, sponsor, career advisor

Supervisors should carry out multiple tasks such as the ones of scientific guide, mentor, sponsor, and career advisor. It is important that they embody all these roles as the right blend of all of them will provide the maximum support to the PhD student.

SCIENTIFIC GUIDE:

A common practice in almost all FBK's research units is to organize weekly seminars in which the entire unit, including doctoral candidates, present their work. This has proved to be a very important practice for the professional development of the student as both the student's supervisor and the other researchers assume the role of constructive critics. They seek to guide the PhD student in their work by offering feedback to conduct their research but allowing maximum freedom to the student so that he/she can determine the most beneficial ways for achieving his/her research goals.

MENTOR

At FBK, the role of mentor is played by junior researchers or post-docs, most of the time, these colleagues have proven to be even closer to the student, and are able to better understand the issues they may encounter. The function of the mentor, as mentioned earlier, is to give support, both professional and - above all - personal to the student. A fruitful way to establish good supervisor-PhD student relationships is to organize activities outside the work environment. FBK students are often well integrated into their research groups and, together with supervisors, organize outdoor activities like mountaineering or international dinners where everyone takes traditional dishes from their home countries.

It was noted that those students who have more opportunities to socialize and participate in informal activities, establish a deeper relationship with his/her supervisor.

SPONSOR

It is important, to further the goal of supporting their student, that supervisors present the work of the PhD student to their network and colleagues during conferences and meetings with the members of the scientific community. This way they can introduce the PhD student to the key people of their community.

At FBK, supervisors often sponsor their students in several ways:

- Trying to get them to attend conferences or meetings where the participants are part of their consolidated networks
- Presenting the work of PhD students to colleagues during informal meetings
- Writing letters of reference for stays abroad

CAREER ADVISER

The supervisor is invaluable in helping students develop professional networks as they progress through their PhD program. One of the most important resources that supervisors can offer to their students during this period is their academic capital by introducing and recommending students for positions. Another important area is mentoring for different career goals both in academia and in industry. Supervisors serve as trusted advisors for students in their transitions to scholar roles where students can have misperceptions about the academic profession, and the job market.

There are many ways in which the supervisor can provide PhD students with help as far as careers are concerned, from encouragement and advice to direct recommendations:

- When possible, arrange a telephone call or face-to-face meeting, which can be far more persuasive than a letter
- Introduce students to members of your own network of contacts and urge them to extend that network themselves
- Recommend other search aids, including Internet sources, professional societies, and ads in major newspapers. Keep handy your own list of telephone numbers and addresses, especially of former students, that might be helpful

After spending years in graduate school, some PhD students might devalue their own abilities or feel that they are too specialized for many employment positions. Remind them that they have acquired not only a series of credentials and a vocation, but a range of transferable skills-including analytical reasoning, program design and management, communication, evaluation, integration, and objectivity-that can be applied in many occupations.

Nature of relationship (personal and professional)

There are many ways to facilitate students' professional and personal growth in addition to one-to-one counselling. The different strategies are:

- To create informal cross-disciplinary groups (such as women in mathematics and science)
- To use monthly meetings (with incentives like free pizza) as forums for discussing such topics as interview strategies, coping with negative reviews, and giving good presentations

- To organize interdisciplinary seminars with other departments to introduce students to new avenues of enquiry and to colleagues in related disciplines
- To make use of the supervisor's network of contacts to suggest internships and summer schools;
- To propose an active role in student chapters of professional societies, where students can strengthen their interpersonal skills, learn about career possibilities, and make valuable contacts among both peers and professors.

This type of aid in the professional field, creates a comfortable and informal climate, and helps PhD students to establish a trusting relationship with the supervisor at personal level.

Power differential

Many PhD students are profoundly dependent on their supervisor — often for a combination of financial, educational, and emotional support. This dependence makes it easy for the supervisor to abuse their power (sometimes unintentionally) and it can be difficult for students to contest an abuse. Supervisors might give inadequate credit for students' research or assign work of little or no educational value. They might impair a student's confidence by too much criticism, too little support, or emotional indifference.

An effective method to ensure that PhD students are not inhibited by the unequal distribution of power in relation to their supervisor would be to make them feel like colleagues, giving importance to their opinions and giving them trust in what they do. An important action would be to give them the responsibility of a task and let them operate independently. This way, the PhD students will be more motivated to do a good job and will not be discouraged by the inequality of power between them and their supervisors.

Advice for supervisors:

For most people, good supervision is a skill developed over time. Here are few tips:

- **Listen patiently:** give the student time to get to issues they find sensitive or embarrassing
- **Build a relationship:** simple joint activities – walk across campus, informal conversation over coffee, attending a lecture together – will help to develop rapport. Take cues from the student as to how close they wish this relationship to be
- **Don't abuse your authority:** don't ask students to do personal work, such as, baby-sitting and correction work of the students
- **Nurture self-sufficiency:** your goal is not to “clone” yourself but to encourage confidence and independent thinking
- **Establish “protected time together”:** Try to minimize interruption by telephone calls or visitors;
- **Share yourself:** invite students to see what you do, both on and off the job. Tell of your human side and encourage the student to reciprocate
- **Provide introductions:** help the student develop a professional network and build a community of mentors
- **Be constructive:** critical feedback is essential to spur improvement, but do it kindly and temper criticism with praise when deserved
- **Don't be overbearing:** avoid dictating choices or controlling a student's behaviour

- **Find your own mentors:** New advisers, like new students, benefit from guidance by those with more experience

Adviser, Teacher, Role Model, Friend: On Being a Mentor to Students in Science and Engineering

<http://www.grad.jhu.edu/downloads/Adviser,%20Teacher,%20Role%20Model,%20Friend%20NAS.pdf>

Advice for PhD students:

Which of the following resonate with you? Which do you have, and which do you need? You may use the checklist below to mark whether you currently "Have" or "Need" each item in the list, as well as to rate each item as "Important" or "Not Important" to you.

	HAVE	NEED	IMPORTANT	NOT IMPORTANT
Offers honest, frank, constructive feedback and guidance				
Provides encouragement and support				
Demystifies the graduate school experience				
Offers emotional support by relating to your experiences as a woman in a male-dominated field				
Engages you in ongoing conversations that are relevant to your life and work				
Serves as an advocate and ally in times of struggle				
Helps to foster networks of academic and professional support and opportunities				
Validates your experiences and feelings by providing a listening ear and respect				
Interacts with you on multiple levels (e.g., formally, socially)				

<https://careerwise.asu.edu/?q=identify-the-problem/understand-yourself/what-you-want-in-a-mentor>

From literature and other sources

A topic that very often emerges from the literature about supervision is the distinction between "supervisor" and "mentor", emphasizing the different aspects of the two roles. For example, Nettles and Millett (2006) explained that the term supervisor implies a formal conception of this figure, such as discussing course subjects or administrative matters, as opposed to the concept of mentor, which implies a more informal relationship between the two players, based on reassurance (both emotional and professional), encouragement and support.

Ideally, a supervisor is also a mentor, but the role of a mentor goes beyond that of a supervisor. Mentoring serves the main purpose of providing help to the PhD student and his/her development, whereas supervising is of mutual benefit to both PhD students and supervisors. In fact, a mentor is often described as playing the roles of an advisor, teacher, role model, and friend (National Academy of Sciences, 1997).

Much of the literature highlights that the supervisor has to perform two different, although complementary tasks. In addition to being a key figure for the student, he/she must also assume the role of constructive critic to ensure the student grows professionally (Knowles, 1999).

The supervisor should be:

- Critical Observer: questioning the certainties achieved by the student to "test" how he/she defends his/her project
- Constructive Observer: providing helpful feedback and guidance so that the PhD student will learn to present their work effectively, and convince the scientific community of their affiliation

The supervisor provides primary guidance on the academic requirements of the PhD program, the dissertation process, and is a vital source of academic and professional opportunities (e.g., publications and employment). He or she might also be the PhD students' boss and their viva sponsor.

It is important to separate the supervisor's official responsibilities from the PhD's own expectations. Official advisory roles will vary based on the different PhD programs, among them are:

- Official responsibilities:
 - Answering questions about academic and program requirements
 - Signing administrative paperwork
 - Serving on committee (usually as committee chair)
 - Advising on the dissertation process
- Unofficial advisory responsibilities:
 - Providing opportunities for co-authorship
 - Helping students find academic and professional opportunities
 - Helping students build a career network

Nettles, M. T., and Millett, C. M. (2006). Three magic letters: Getting to Ph. D. *JHU Press*.

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Barnes, B. J., and Austin, A. E. (2009). The role of doctoral advisors: A look at advising from the advisor's perspective. *Innovative Higher Education*, 33(5), 297-315.

Bøgelund, P. (2015). How supervisors perceive PhD supervision – And how they practice it. *International Journal of Doctoral Studies*, 10, 39-55. <http://ijds.org/Volume10/IJDSv10p039-055Bogelund0714.pdf>

Sugimoto, C. R. (2012). Are you my mentor? Identifying mentors and their roles in LIS doctoral education. *Journal of Education for Library and Information Science*, 53(1), 2-19.

Woolderink, M., Putnik, K., van der Boom, H., and Klabbers, G. (2015). The voice of PhD candidates and PhD supervisors. A qualitative exploratory study amongst PhD candidates and supervisors to evaluate the relational aspects of PhD supervision in the Netherlands. *International Journal of Doctoral Studies*, 10, 217-235. <http://ijds.org/Volume10/IJDSv10p217-235Woolderink0852.pdf>

Other useful resources

ASU CareerWISE – the anytime online coach for graduate women in science and engineering:

<https://careerwise.asu.edu/?q=home>

<https://careerwise.asu.edu/?q=identify-the-problem/understand-yourself/what-you-want-in-an-advisor>