Female Empowerment in Science and Technology Academia

Support a good start

What

A PhD is very different from Bachelor and Master Programs. Many PhD students work in isolation for much of the time. Departments are responsible for ensuring candidates make a good start, by providing good working conditions in an attractive and inclusive environment, both academically and socially. Supervision should be seen as the total oversight by the institution of a PhD student's progress and broad academic development.

Why? – Gender perspective

The supervisor offers advice, and guides the student to successful and timely completion of the thesis. This is likely to be more prescriptive and directive in the early part of the PhD career.

A good working relationship should exist between supervisor and student, with the supervisor providing encouragement, personal support and guidance at all stages and for all different PhD students (male, female, foreign PhD students and other forms of diversity).

Recommendations for good practice

Examples from different national practices

To support new PhD students at their arrival, one FESTA partner organizes "welcome days" during which a third-year PHD student explains to the newcomers the activities that must be performed during the program. A lot of support is offered by the welcome office which helps new PhD students with bureaucratic procedures (visa, permit), and to find an accommodation for the first year.

Providing useful information (as link to B4: Clear information about rights and routines)

Interviews with PHD students conducted by one FESTA partner showed that an important aspect is to provide useful information to PhD students when they start the doctorate. This is important because PhD students are frequently coming to an organization which is different from the University where they got their master's degree and many details which they previously took for granted are no longer relevant.

This information may be provided by various actors involved in the doctorate, who can be grouped at two levels: The Supervisory Level and the Institutional Level.

Supervisory level: the supervisor is the person with whom the PhD student interacts most frequently during the doctorate period. The information may be concerned with:

- o Expectations of the supervisor about the PhD student's achievements;
- o The way the supervisor would like the PhD student to carry out the assigned activities;
- o The goals that the PhD student should aim to achieve, by specifying the period of time (e.g.: writing their first article within six months from the start of doctorate).

Several supervisors suggest that it would be helpful to collect this information in an official document that both the supervisors and the PhD students would sign before the doctorate starts. This document will protect both the student and the supervisor, if the agreed rules will be not respected.

Institutional level: by the administration, because they can provide information on administrative and organizational aspects of the organization hosting the student/offering the grant. The information may include:

- o Introduction about the PHD programme structure and list the main milestones
- o Information about department / lab/ research unit the PHD student will work at
- o Rights and duties, responsibilities
- o PhD school management roles (e.g. director, committee of professors)

A request that emerged from some interviews with PhD students in one FESTA partner is the set-up of a support office where students can go to ask different kinds of information about the doctorate (a sort of mentoring service). The people offering this "service" should have contacts and know the PhD students and the supervisors as well. In this way they can give accurate information, according to past experiences, about what the supervisors expect from the students, how it would be better to deal with them, and to have timely and accurate information about the PhD program. One example might be support structures to facilitate a PhD student when motherhood and PhD studies need to be reconciled.

Allowing a transitional period

For most PhD students, the employment for PhD is their first "regular" employment, so they need support in becoming a professional researcher. Supervisors should keep in mind that PhD students have to learn what working as a professional researcher means. Stating clearly that this is one of the learning targets for the first phase, makes expectations clear for both the supervisor and the student. Examples are:

- Management of literature
- Working in laboratory, including preparation and follow-up work
- Scientific writing
- Team work and independent working
- Other aspects you will find within this online-tool

Sometimes potential PhD students work as undergraduate student assistants on topics that might serve as a basis for a PhD. For a smooth transition it is necessary to clarify explicitly what PhD supervisors expect from a student assistant who wants to do a PhD to avoid frustrations on both sides.

The transition from being a student assistant to PhD student changes roles for both sides. This should be explicitly talked about in the beginning and the roles of PhD student and PhD supervisor should be clarified.

Addressing students' specific needs

Each PhD student has individual needs. They derive from individual circumstances such as culture, age, lifestyle, and family status, physical or psychological limitations. Some may affect the organization of work. Supervisors should explicitly ask about students' needs and take them into account. Examples are:

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- Do PhD students have parental duties or responsibility to take care of the elderly?
- Is there a need for flexibility in time or location? How can this be arranged?
- Is there a need for assistance, e.g. in the case of disabilities?

Unwritten rules on behavior or scientific ethics can differ between countries or even universities within one country. New PhD students may not be familiar with these rules and ethics and may need some explanation.

PhD students who differ in some respect/have a minority status within the department/team may benefit from contact with other researchers who can serve as role models. Inform the PhD student about existing supportive networks like mentorship programmes.

Examples from different national practices
One institute cluster at another FESTA partner has designed a PhD process with a one year starting phase. In the first year, PhD students "familiarize themselves with the research at the institute and are integrated into teaching, ongoing project work and acquisition of external funding. At the end of this phase they settle for a topic area close to research projects, which they are working on, and know the relevant scientific "state of the art". The final confirmation of academic supervision is coupled with a contract extension for two more years and is given after [a 2.5 days] dissertation tour." (https://www.ima-zlw-ifu.rwth-aachen.de/en/careers/doctorate_process.html).

From literature and other sources
From the beginning of a project, a supervisor can help a student to understand the significance of what she or he is doing - and frequently reaffirm that significance as the work progresses (Baldwin, 1999).

James, R. & Baldwin, G. 1999, Eleven practices of effective postgraduate supervisors, University of Melbourne, Victoria.

Other useful resources
Brown, J. S., Collins, A., & Duguid, P. (1989). Situated cognition and the culture of learning. Educational Researcher, 18, Cryer, P. (1996). The research student's guide to success. Buckingham: Open University Press.

Yeatman, A. (1995). Making supervision relationships accountable. In: A. Lee. A & B. Grenn (Eds.) Postgraduate studies postgraduate pedagogy. The University of Sydney, Centre for Language and literacy.

Moses, Ingrid (1989): Barriers to Women's Participation as Postgraduate Students. (AGPS, Canberra).

https://www.youtube.com/watch?v=E-1IJJ6qJOg

https://www.youtube.com/watch?v=G3SPukI41bQ