Female Empowerment in Science and Technology Academia

Facilitate enculturalization into academia

What
Supervisors have a significant role to play in facilitating the PhD student's induction into the academic environment and becoming an independent researcher.

Why? – Gender perspective
A welcome and induction into the academic environment is essential if the student is to successfully progress through the PhD journey.

There is factual data the student needs to know about regulations and procedures, however, becoming familiar with the culture (i.e. the way we do things around here) is equally important. Given that scientific environments tend to be male dominated, such enculturalization is especially important for female students who may not have informal networks.

Evidence / background - Gender perspective
The first few days and weeks of a PhD programme can have a lasting effect on students' perceptions of their overall PhD experience. It is essential therefore that student undergo a very positive induction process. Aside from the factual data concerning regulations and supports, students need to understand the culture. The PhD supervisor is critical in facilitating such understanding, by explaining what constitutes a reasonable workload, standard attendance, basic work conditions and regulations and ways of communicating and behaving in the team and department. For the first few weeks the Supervisor should operate an 'open door' policy so that the student has the opportunity to ask questions regarding cultural and value information. Given that scientific environments tend to be male dominated, such enculturalization is especially important for female students.

From contexts and experiences in the FESTA-project
A (female) PhD Student noted: 'knowing that you can contact/meet your supervisor on ad-hoc basis/ outside scheduled meetings if necessary.

While the male dominated culture was also noted by a (male) PhD student: 'SET (Science, Engineering and Technology) is male dominated. And it's difficult for somebody who is not identified with that to broach it and pursue a career'.

Recommendations for good practice
Formal introduction:
- Arrange a local induction for the PhD student
- Explain standards of behaviour and means of communicating

Availability and support:
- Operate an 'open door' policy for the first few weeks
- Be alert to difficulties faced by female PhD students

Female Empowerment in Science and Technology Academia

- Assign a second or third year student to mentor the new PhD student
- Support PhD students in establishing networks among other PhD students and within the team to avoid social isolation. Group coffee breaks or lunches can help. Remember to include the female PhD students
- Support collaboration between PhD students and senior researchers where their contribution is acknowledged. This provides the sense of belonging to the scientific community
- Facilitate one-to-one meetings where you can also ask about how comfortable PhD students feel It is important to give emotional support through listening and encouraging when needed

Sense of belonging (incl. team meetings):
- Facilitate meetings on a regular basis, where current information on the department/institute and new colleagues can be shared. This ensures that PhD students are more embedded into communication processes.
- Explicitly ask for contributions of new and shy PhD students during the meetings and acknowledge their contributions
- Team events can enhance team spirit. Choose activities that do not excluding anyone

Scientific ethics:
- It is important that the supervisor clarifies his/her wishes and expectations concerning scientific ethics in respect to academic writing and writing formalities
- Further, since many PhD students also perceive problems with certain aspects of research such as data collection and analysis as well as publishing, the supervisor should approach the student about these topics so that there are no misunderstandings or obstacles to the student's progress
- Supervisors should check the students' work regularly, to identify ethically problematic behavior

From literature and other sources
Starting an academic career can be highly complex and demanding (Trowler and Knight, 2000). New starters do not fully understand what their new department or university expects of them and because it takes time to become familiar with departmental cultures, they do not know what is acceptable or permissible in their actions and work. Such cultures are 'created by the discourses and practices of the community in which one works' (Knight and Trowler, 1999: 23) and are therefore discipline and university specific, and probably unintelligible to an outsider.

The PhD supervisor has a critical role to play in facilitating the students' socialization into the department and university.

Creating a sense of belonging (to the research team, department, and university) is achieved through activities which foster inclusion and through communication with existing colleagues. PhD students should be given opportunities to present their work at departmental seminars, academic conferences, summer

Female Empowerment in Science and Technology Academia

schools. They should be included in team meetings, be introduced widely and encouraged to actively participate in the research team, department.

A mentor, in the form of a second or third year PhD student, should be established for the new PhD Student.

Knight, P.T. and Trowler, P.R. (1999) 'Organizational Socialization and Induction in Universities: Reconceptualizing Theory and Practice', *Higher Education* 37(2): 177–95.

Trowler, P.R. and Knight, P.T. (2000) 'Departmental-level Cultures and the Improvement of Teaching and Learning', *Studies in Higher Education* 25(1): 69–83.

Other useful resources
http://www.reading.ac.uk/web/FILES/graduateschool/pgrmonitoring.pdf
PhD Supervision: Good Practice Guide.