

# A Mirror for Postgraduate Students 2003

**Summary in English**

# Preface

The circumstances in which postgraduate programmes are offered and the way in which they are organised have a major impact on their quality. Gathering information from those directly concerned is one way of casting light on this quality. For that reason, it is important to study the experiences of postgraduate students themselves, not least in view of the improvements that the new regulations introduced in 1998 were intended to achieve. A great deal of the research that takes place in Sweden is the work of postgraduate students. However, the underlying premise of *A Mirror for Postgraduate Students* (Doktorandspegeln) is that the primary purpose of postgraduate programmes is educational.

*A Mirror for Postgraduate Students* is the largest and most comprehensive study made up to now of postgraduate programmes from the perspective of the students. It forms part of the range of measures adopted by the National Agency specifically to shed light on various aspects of postgraduate education, one of the three thematic areas on which the Agency is currently focusing.

*A Mirror for Postgraduate Students* can also be seen as a supplement to the evaluations of all subjects and programmes to be undertaken by the National Agency during a six-year period at the behest of the Government and the Riksdag. In its adoption of a student perspective and its specific focus, *A Mirror for Postgraduate Students* broadens the scrutiny of higher education.

The National Agency for Higher Education hopes that *A Mirror for Postgraduate Students* will stimulate discussion and debate of both what postgraduate education is and of what it could and should be.

Those responsible for programmes – teachers, supervisors, postgraduate students and other stakeholders – have now been provided with material on which they can base their discussions and reflections about ways in which postgraduate programmes can be amended and improved.

It should also be pointed out that it is intended to conduct a similar study of undergraduate and postgraduate programmes (after 2-3 years) to monitor changes over time in the various disciplines and at the different higher education institutions.

# Summary

## **A Mirror for Postgraduate Students – postgraduate programmes from the student perspective**

A Mirror for Postgraduate Students is a survey of various aspects of postgraduate education. It endeavours to cast light on higher education from the postgraduate student's point of view. It is also intended to supplement the evaluations that the National Agency for Higher Education has been carrying out at the behest of the Government since 2001. The survey took the form of a questionnaire that was sent to 9,816 postgraduate students at all the universities and higher education institutions that offer postgraduate programmes.

### **Reliable results**

The results are based on a statistical analysis of the responses to the questionnaire using exploratory factorial analysis. This analysis has yielded seven different dimensions that encapsulate the issues raised by the survey. These dimensions have been entitled *Introduction to postgraduate education*, *Professional development*, *Dialogue with supervisors*, *Supervision in action*, *Taught courses*, *Reflection and values* and *Study environment*.

The results of the factorial analysis indicate that the postgraduate students have provided consistent and considered responses. This together with the relatively high response frequency of 72 per cent (7,074 responses) vouches for reliable results.

### **Overall assessment**

By and large, the postgraduate students rate their programmes highly even though there a number of critical responses to questions about how they function. Almost 80 per cent would opt to begin postgraduate education if they were to make the choice today and roughly the same proportion would choose the same higher education institution. This can be interpreted as indicating that postgraduate students are highly attracted by the role of researcher or researcher *in spe*. At the same time their programmes do not always offer complete support as they strive towards their goals.

### **Introduction rated worst**

The *Introduction to postgraduate education* does not function satisfactorily in any discipline according to the responses of the students. As many as three-quarters of the postgraduate students are dissatisfied with their departmental introductions for newly-enrolled students, information on the rights and obligations of postgraduate students and advance information on the programmes. Advance information could, for instance, provide more explicit information to postgraduate students of what their programmes will involve. At the moment a great deal of energy is wasted and quality suffers when these students begin their studies.

### **Research ethics an overlooked aspect of professionalism**

Knowledge about research methodology and scientific theories constitute core elements in postgraduate programmes. These issues are dealt with in the dimension entitled *Professional development*. This dimension also includes the knowledge required to carry out independent research and insights into

research ethics. Professional development is considered to be satisfactory by most postgraduate students in all disciplines. Almost a fifth of the students report, however, that they have only acquired limited knowledge of scientific methodologies and theories or received little instruction on how to conduct independent research.

The majority of students state that their postgraduate programmes have not provided deeper insight into research ethics to any great extent. In view of the importance of research and research findings for many socially important decisions, discussion is justified of whether or not postgraduate programmes should include more focus on research ethics. It could be highly desirable to encourage future researchers to adopt approaches that involve respect and empathy for individuals

### **Supervision for good or ill**

A more complex picture is provided by the responses to questions about supervision. The majority of postgraduate students describe their supervision as satisfactory. But responses in the dimension entitled *Dialogue with supervisors* reveal that a large proportion of postgraduate students report only limited interest from their supervisors in their studies, and the same applies to constructive criticism of their research activities or discussion of methodological or theoretical issues.

In *Supervision in action* the responses show that a very large proportion, 40 per cent, have not received supervision to the extent that they desired and that more than one out of every four students has felt that inadequate supervision has posed obstacles to their research work.

The fact that one out of every four postgraduate students has either switched supervisor or seriously considered doing so provides food for thought. Postgraduate students are in a situation in which they are dependent on one or two supervisors and the closeness of these relationships adds to their vulnerability.

### **Praise and criticism for taught courses**

Taught courses work satisfactorily for many postgraduate students. However, almost half report that the courses offered do not match their desires and needs. And one-third of the postgraduate students do not consider that the courses are relevant to their work with their theses.

### **Involvement with the community is not self-evident**

Many postgraduate students state that their programmes provide them with an opportunity to reflect about their own values and that they contribute to their general education. According to the majority of these students, however, the programmes do not encourage involvement with the community, increase understanding of social or cultural gender differences or lead to greater understanding of people from other cultural backgrounds.

The dimension *Reflection and values* yields the greatest variety of responses related to discipline. Postgraduate programmes in the disciplines of mathematics, the natural sciences, engineering and medicine are considered to contribute far less to the development of students' value systems than programmes in the other disciplines.

### **Stressful environment**

The results reveal that the majority of postgraduate students in Sweden experience their programmes as positive and stimulating and feel that they are accepted as members of the research community. However, 70 per cent feel that they have only limited influence in their departments and 50 per cent that the settings in which they work are not creative.

Stress is the one single factor, after supervision, that is referred to by most postgraduate students in the open-ended responses. This seems to be linked to the relationship with the supervisors. The worse the relationship, the greater the experience of stress and pressure. Many postgraduate students feel that their programmes are too demanding in relationship to the time available. And the recent reform of postgraduate education has introduced new and more stringent requirements.

Many students are uncertain about their funding or being able to support themselves and this is another factor that gives rise to stress.

### **Women students are more vulnerable**

Women taking postgraduate programmes feel that they are in a more vulnerable situation than male students do. The dialogue with their supervisors does not function as well, women feel less accepted as members of the research community and the study environment feels less attractive. They also claim to a greater extent that postgraduate programmes demand too much in relation to their length. Remarkably many women, 45 per cent, feel that they are discriminated to some extent because of their gender.

# Concluding comments

## **An important sphere of education**

The number of postgraduate students has risen considerably and today amounts to approximately 18,400. This is a major investment by the community and there are great expectations that it will help to contribute to innovation and growth. Postgraduate education also involves an individual *bildungsreise* or intellectual journey that demands a great deal of time and commitment from the students.

For many postgraduate students the programmes function well. The majority of the students are satisfied with the way in which their *Professional development* functions, and this also applies to *Dialogue with supervisors*, *Supervision in action* and *Taught courses*. Almost 80 per cent would opt to begin postgraduate education if they were to make the choice today and roughly the same proportion would choose the same higher education institution. On the whole, therefore, the overall grade awarded by the postgraduate students is good but there are also a number of critical responses to questions about how the programmes function. This can be interpreted as indicating that postgraduate students are highly attracted by the role of researcher or researcher *in spe*. There are, therefore, good reasons for attempting to rectify the “shortcomings” that *A Mirror for Postgraduate Students* brings to light. Discussion of the role of postgraduate education in today’s society may also provide a new perspective to the design of these programmes.

Not unexpectedly, many of the questions about supervision expose the problems. One omen is the response from so many students reporting that they are given no constructive criticism of their research activities. For what reasons? Is there too little supervision or is the current system with one, or at best two, supervisors contributing to this kind of outcome? Supervision is the stumbling block and the dependence of postgraduate students makes their situation a delicate one. The worse the relationship with the supervisor, the greater the feeling of stress and pressure experienced by the student. The time seems to have come to change the way in which supervision is organised.

If we consider the content of postgraduate programmes, it cannot be acceptable for research ethics to be distinguished by their absence. Nor would it appear reasonable for so many to declare that they have acquired no knowledge of research methodology or theory even at the end of their programmes. Does this reflect deficiencies in the supervision provided or shortcoming in the overall planning of the programmes?

In mathematics, the natural sciences, engineering and medicine, postgraduate programmes are said to make only a limited contribution to the development of the students’ own value systems. The hopes that postgraduate programmes will provide both professional development and personal growth may be doubly dashed. In a country that places so much reliance on the contribution that education can make both to increased competitiveness for Sweden and to safeguarding democracy, postgraduate education is faced here with a challenge.

Postgraduate students feel that they labour under heavy workloads while at the same time playing only marginal roles in departmental life. Their introductory programmes do not function well and they can exert little influence. Nor do they find the departmental environment a creative one. Many of them are teaching even though they have not been trained to do so. Teaching can provide a valuable experience, especially for those who intend to stay within higher education. This experience can become a qualification with teacher training. On the other hand there are disciplines in which postgraduate students do not receive this schooling. Little teaching is required of postgraduate students in the humanities and theology; these students are also less likely to have a workplace at their departments and they receive the

smallest volume of supervision. Perhaps departmental life should be revitalised so that postgraduate students are also involved.

Finally it feels depressing to have to point out that postgraduate programmes are led by men for men. Even though half the students are women. Supervisors are still most likely to be men. Many women describe dependency relationships with their supervisors that are troubling and they do not consider themselves to be accepted members of the research community to the same extent. The uncertainty and pressure is augmented by the discrimination because of their gender that many women testify to. A serious attempt to disseminate knowledge about the differences in the way women and men experience postgraduate studies is required to provide the basis for an active process of change.

Despite the overwhelmingly positive results, there are still grounds for discussing the following issues:

- Postgraduate students say that they have heavy workloads.
- Shadow postgraduate students seem still to be quite frequent in some subject areas.
- Introductory programmes to postgraduate studies do not function effectively.
- Research ethics do not play a prominent role in the programmes.
- Even towards the end of their programmes some postgraduate students say that they have only acquired limited knowledge of scientific theories and methodology.
- Many postgraduate students receive no constructive criticism.
- Postgraduate students want more and better supervision.
- Courses offered in many cases fail to match students' desires and needs.
- Postgraduate programmes do little to encourage student involvement in community developments.
- Students have little influence in their departments and the environments are not felt to be creative.
- Almost half of the postgraduate students experience negative stress/pressure.
- Many postgraduate students feel that the demands of their programmes are too high in relationship to the time available.
- Women in particular experience discrimination on the grounds of gender.