

2019-04-01

## **SLUTRAPPORT**

### **Uppföljning av den interna utvärderingen av forskarskolorna 2018**

### **Sammanfattande analys av doktorandinlagor och doktorandsektionens (DS) rekommendationer**

The doctoral inserts contained in the self-evaluation reports of graduate schools show how differently graduate schools and PhD studies are perceived from the doctoral students throughout Chalmers, as a result of specific departmental/graduate school characteristics. However, some similarities can be highlighted and will be summarized in this report.

The topics will be presented through three main areas: strengths, good examples and weaknesses/challenges. By working on the weaknesses/challenges and taking as a model the good examples, Chalmers has the possibility to further improve the PhD studies process and create an harmonized environment with minor departmental differences.

### **STRENGTHS**

This section contains what are the strengths of Chalmers doctoral programs by the opinions of the majority of the reports.

- **PhD studies program**

The combination of research, teaching and education is considered very valuable, as it fosters the development as researchers, teachers and in general as professional experts. Typically, the program allows for a relatively open and flexible process in which PhD students wishes are taken into consideration. In terms of research, the possibility to conduct independent research with specific objectives, influenced by the student, is highly valued. Teaching assistance is appreciated as it gives students the opportunity to revisit fundamental concepts and practice on how to transfer knowledge, useful for future career perspective. Especially acknowledged is the possibility to actively influence the teaching content. Finally, the research education completes in terms of specialized and generally flexible education. The possibility to take courses outside of Chalmers, like the Nordic Five Tech program, and the professional education of GTS courses, which broadens the perspective, are good.

- **Flexibility**

PhD students are very satisfied with the flexibility to independently allocate time between education and research. Non-regulated working hours is consider as the right format for PhD studies as it allows to distribute workload effectively.

- **Work-environment**

PhD students are satisfied about the sense of community typically established in Chalmers divisions. The fika concept helps in sharing knowledge and create valuable personal bonds,

positively affecting the individual performance. The highly international environment as well as the variety of knowledge among faculty members are seen as a great potential. Physical work environments are generally perceived as ergonomic, and a general satisfaction, except in a few cases, is expressed regard facilities and equipment. Discrimination/harassment is not clearly evident nor extended patterns are seen. The work environment is experienced as a big promoter for constructing a solid career network.

- **Admission process**

The process is generally considered transparent and fair. However, doubts are expressed regarding the diligence of the decisional process. The PhD students give good feedback about the internal (Chalmers website) and external advertisement.

- **Seminars, conferences, and summer schools**

The students perceive a big stimulus to participate in seminars, conferences, summer schools in Sweden and abroad. This possibility is considered as fundamental for the progression of research, growth as a researcher and network building. Financial resources seem to be generally available, but this is not fully independent on the research group. A good offer of seminars both on a graduate school and departmental level is established, and consequently there are good opportunities to present ones research.

- **Collaborations**

Chalmers offers a very good possibility to collaborate both within academia and with industry partners. It seems to be easy to collaborate on a departmental level and between departments. The encouragement to network with renowned research institutes through study visits or research exchanges is much appreciated. To further increase the support for research stays and foster industry collaborations, more strategic initiatives are desired.

- **Possibility to supervise bachelor and master students**

The possibility to supervise bachelor and master students during thesis work is much appreciated. It is considered as good leadership training and highly motivating. However, it is important to have a well-structured plan and the right compensation to avoid negative effects on the fulfillment of the doctoral studies objectives.

- **Basic Swedish courses**

The basic Swedish courses offered by Chalmers can be a good way to motivate PhD students in learning the language. The courses cover the basic of the language and it is not meant as a course for research professionals/teachers who wants to work in Swedish.

- **Support for doctoral representation (Local PhD councils and central DS)**

Highly appreciated that PhD students can express their opinion and that they are typically heard. The management seem generally positive and willing to exploit the PhD opinions.

## GOOD EXAMPLES

This section reports a short list of good examples. Those are not centrally applied, but instead coming mostly from local initiatives.

- Graduate school days, seminars, seminar nights with industry
- Use of the personal development tool for follow up, PhD student/supervisor expectations document
- 15 minutes discussion with the Director of Studies before the follow up meeting to discuss supervision problems without presence of supervisor
- Internal quality control before disputation
- Tailored courses at departmental level
- Handbook for new PhD students at departmental level
- Helpful to have technical support staff

## WEAKNESSES AND CHALLENGES (problems and suggestions for improvement)

This section reports problems and challenges that would need to be addressed to improve the PhD education. There is no unique answer for some of these topics and consequently finding a common way can be one of the challenges to be addressed from Chalmers as a whole. In general, improvement of the communication between the different parts involved in the PhD process is supposed to have a very beneficial effect.

- **Courses (offer, information, quality)**

With very few exceptions, the offer of internal PhD courses is considered lacking in many ways, from the quantity of courses (there exists departments offering 1 or 2 courses) to the information about them (students, especially at the beginning of the studies, rarely know what courses are available, how to apply, etc.). Further, inadequate quality is reported in some cases and there is no decent process for improvement established, starting from the fact that courses are not evaluated by the students. The PhD students feel like the courses are not planned on the real need of PhD students. Master courses are not always of high enough quality and sometimes they are taken only to fill the required credits. More sadly, PhD students are also pushed to transfer credits instead of attending courses, to save time for research. Even if this is allowed and possibly a good alternative, it should come from a PhD student decision and not from a need. Moreover, the rules for the credits transfer are not clear. The course credits requirements for graduating are not always clear either and can even differ at a division level, which is contradicting common general study plans of the research schools. The GTS courses have a limited availability, and the mandatory ones have long queue times. PhD students would like to have more influence on the GTS courses offer. Unfortunately, the information that there is the possibility to attend courses from GU and Nordic Five Tech is not widely spread.

More resources are requested for PhD courses and/or more funding opportunities for attending courses outside of Chalmers.

- **Teaching**

The distributions of departmental duties are highly uneven at Chalmers and at departmental level. Some divisions have heavy teaching loads and consequently more work is required of the PhD students. A more even distribution of teaching is desired. However, the most important aspect is the rightful allocation of hours for the teaching duty. Some PhD students lament to work more hours than they get compensated for. This discrepancy is mostly deriving from a lack of communication between PhD students and course examiners on what are the requirements and goals of the teaching assistance. Furthermore, no real introduction to teaching is typically offered to the PhD students.

Swedish as the official language for bachelor courses is considered as a problem. The lack of Swedish speaking PhD students implies heavy burden on these PhD student category. They typically don't have the opportunity to teach at the master level.

- **Follow up and Individual Study Plan (ISP)**

Follow up meetings are considered very good, in order to evaluate the current progress and further set accurate milestones, through the use of the ISP. However this is true if they are done properly. Unfortunately, at the meetings there are often not all the responsible people for the PhD education (i.e. supervisor, examiner, director of studies) present. Also the ISP compilation is usually done with no defined quality requirements. Sometimes follow up meetings don't even take place. For the follow up meetings to work properly it is consider important that both supervisor, examiner and director of studies should be present and that the roles, especially the one of the examiner, are better defined. PhD students report being satisfied when the follow up meetings are held two times a year.

- **Mixed opinions regarding supervision:**

The fact that there are mixed opinions regarding supervision is not bad by itself. However, the negative comments given, typically indicate the lack of communication and lack of support. A better discussion on what the role of supervision entails would be appreciated. Similarly, the amount and scope of supervision should be better defined. Sometimes it feels like the belief is that the responsibility to request supervision foremost lies on the PhD student, however it should come from both sides to guarantee a rewarding interaction. PhD students might realize after several months or years how much and what type of supervision is needed for their project to proceed. Also, some more focus to long term planning should be given. The role of co-supervisors also is wished to be discussed and agreed on from the beginning.

- **Introduction to PhD studies**

The introduction to PhD studies is generally consider somehow weak. At the research level projects may take many months before agreeing on the topic and not many PhD students have clear discussion on research expectations. There is a lack in terms of information on formal and informal details about being a PhD student at Chalmers (courses, teaching, regulations and employment benefits), so that typically one receives information by asking colleagues instead of official sources. Administration seems to lack knowledge on PhD student relevant topics, too.

It is suggested to have some sort of starter package (as been done in some divisions), mentor system and improved communication. The general introduction day is considered to be inefficient. Unfortunately, a slow start often leads to stressful situations later on in the PhD studies.

- **Examination requirements**

The general study plans present major objectives (like credits requirements, different steps to achieve and so on) that are considered suitable. However, the project objectives are not always easy to quantify. PhD projects are by nature different so a flexible approach in deciding the quality/quantity of a PhD student contribution is recommended. The flexible approach is in contrast to the old departmental/division habits requiring a predetermined number of papers/manuscripts for achieving licentiate and doctoral degrees. A more individual approach to the definition of objectives is suggested.

The official value of the other activities that is not research is sometimes valued less important, while it could be beneficial to receive documentation that can show all the contribution of the student during the PhD studies in a comprehensive manner.

- **Graduate schools**

Graduate schools show different level of activity, visibility and goals. Graduate schools are appreciated when they are actively present through the PhD studies, offering seminars, graduate school days, interesting courses and defining clear aims on education.

- **Structure of PhD studies**

Many PhD students expressed their concerns with respect to finding time to dedicate to reading and writing. This time is often interrupted because of the necessity to deal with other tasks, which seems to derive mostly from the lack of a well-structured plan. For example, it is complicated to plan GTS courses when teaching duties are not known well in advance.

- **Male female ratio**

The percentage of women is low and they usually report higher level of discrimination. Especially the low level of female seniors is seen as detrimental and something to be changed.

- **Possibility to influence division, department, Chalmers**

It is not always clear how much a PhD can influence at a local and a central way. There is sometimes mistrust that PhD opinions are de facto considered from the management team.

- **Housing**

Göteborg housing problems are all well known. They can affect the PhD studies negatively. Support solutions are be appreciated.