

# Design Research In Sweden: Findings From a National Survey.

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First, there is evidence supporting the statements that design is a young research area. Within the design schools there are few doctoral students at present time and their supervisors are often found outside their own department. Some schools are just starting-up their doctoral education and have only one or very few students.

Second, due to the eclectic nature of the design area there are great varieties in topics, methods used, as well as structures of the different doctoral programs throughout the country.

Third, the balance between active senior researchers and doctoral students are skew at present time. Findings show that there are almost a 50/50 relationship between active researchers/supervisors and doctoral students at present time. Together with the second statement, this means that there is also a severe lack of competent supervisors within the field at present time.

Conclusions point toward a situation where a rather large part of the Swedish design research that is carried out is done through doctoral student projects. It is also evident that there are a number of professors that has just, or not yet, started their own research projects, often lacking the tradition of doing research. Senior researchers within the field are mostly found at engineering- and business-schools at present time.

The survey also covered questions about planned future research projects within the design field. The paper ends with a discussion about research trends in the area and how they connect to the current research.

# **DESIGN RESEARCH IN SWEDEN: Findings from a National Survey**

**by**

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## **Abstract**

This paper presents findings from a national survey carried out in Sweden during the fall of 2003. At the time, no systematic study had been made in order to gather information about current design research among the Swedish academic society as a whole. A survey was sent out by e-mail in September 2003 via the newly formed network named Swedish Industrial Design Research and Education Agenda (SWIDREA). Due to the dynamic growth of the network additional responses will be added until the end of the year, which means that it is not possible to present the findings at present time. Still, preliminary findings show some interesting points.

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## **Introduction**

Compared to many other academic fields the design area is still perceived as young and highly dynamic. This means that the actors within the field of design cannot rely on long traditions that usually help forming a common theoretical foundation, terminology, definitions etc.

In Sweden, as in many other nations, there is a growing interest in design and what design can generate in terms of competitive advantage and economic growth for both companies and nations. Sweden is the country that invest most on R&D in the world seen as GNP/ capita (Proposition 2000/01:3) Year 2005 is declared to be the “Design Year” in Sweden, and there was even plans to label 2006 as “Export Design Year.”

Nevertheless, the reality is that the academic research within this field is still in its bud. There are few researchers and doctoral students actively pursuing projects within the field. The present situation consists of a number of design schools that has developed good programs on their bachelor and master level, but are still lacking similar focus on the doctoral program. The small number of students, and the fact that they are spread all over the country, creates a situation that could be improved.

In order to form a support structure that will help developing the field in these issues the Swedish Industrial Design Foundation started the *Swedish Industrial Design Research and Education Agenda* (SWIDREA) in 2002. One of the key projects was the formation of a national doctoral program/school that could help and support the present and future doctoral students within the design field. The project’s aim is to be open to all universities and colleges affiliated to the design area in Sweden and act as a useful network for all parts.

## **Aim & Scope**

This study is aiming to explore the current situation of design research in Sweden. By mapping out the present situation it is possible to develop a suitable support structure in order to better expand the academic research within the field.

## **Motivation & Contribution**

Within the area of doctoral education in design there are certain areas that have not received the same attention as others. In their guest editorial, Durling and Friedman (Durling and Friedman 2003) presents a good foundation of how the field of doctoral education in design has evolved the last couple of years. They also note that “*the form and structure for the doctorate in design has not received the same amount or quality of attention*” (Durling and Friedman 2003:134). Artistic-based doctoral programs have been investigated in Sweden (Karlsson 2002), but no similar study has been made within the design area.

As was discussed at the 3<sup>rd</sup> Doctoral Education in Design conference in October 2003, the field of design also experiences the dichotomy of being either scientific or art based. (Or trying to cover both.) Since this is a research field that is still in its youth, it is

important to share the collective trends and findings in order to improve the outcome of the doctoral programs in design in Sweden, as well as all around the world.

The structure of traditional doctoral programs places a strong emphasis on the individual. Studies have been done focusing on different aspects of the program like highly structures versus more flexible programs (see for example Pizzocaro 2003, Poggenpohl and Sato 2003, and Durling and Friedman 2003), or the degree of practical versus theoretical basis (Malfroy and Yates 2003).

Malfroy & Yates distinguishes in their study of two PhD-programs that there is a need to consider doctoral research as a group activity. The group was important *“both in the sense of the joint student/staff group that made up the blocks and seminars and the new knowledge that was seen by all as developing in this context, and in the sense of the overall profession or community group”* (Malfroy and Yates 2003:128).

Another interesting aspect is the debate concerning the issue of awarding professor titles to individuals based on their artistic competence. The problem occurs when they are expected to supervise doctoral students without having done the proper training themselves. (See for example Durling and Friedman 2003).

Considering these trends and concerns in today’s research community this study has the possibility to make a contribution to the knowledge base in this field.

### ***The Study***

During the second half of 2003 an e-mail survey was sent out via the SWIDREA network (approx. 120 names at the time). Respondents were also asked to pass the survey along to colleges at their department that might not be on the list. The objective was to map out who were active within the field of design in Sweden, what research they were doing, and if they were interested in acting as supervisor in the future. A distinction was also made between doctoral students and professors (researchers/supervisors).

The survey was structured into four parts. The first part asked for general information like affiliation, contact data etc. The second part asked for their field of interest, current research projects, and planned/future projects. The third part covered if they were active as supervisors, how many they tutored, and/or if they were willing to act as supervisors in the future. The last part (not covered in this paper) asked both PhD-students and professors to state three different PhD-courses/topics that would add most value to their doctoral program in design.

By the end of 2003, 60 respondents had answered the survey resulting in a response-rate of approximately 50% based on the original list. Due to the fact that respondents have forwarded the survey to colleagues etc., the actual response-rate is lower, but also impossible to calculate. Since the survey is an attempt to find all involved in design research in Sweden, the response rate is of less importance compared to a normal survey, but nevertheless something to consider.

## Findings

The design researchers in Sweden are in this study divided into three categories. First there are the professors. In this category you will find PhDs, and the equivalent to assistant, associate, and full professors. It is important to note that this category also includes professors without an academic doctorate degree. The second category is the doctoral students presently involved in a doctoral program. The third category is others. In this category you will find researchers currently employed at design departments that are neither PhDs (or equivalent), nor doctoral students.

As can be seen in figure 1, the spread among the 60 respondents were as follows. 49% (29 respondents) were professors, 41% (24 respondents) were doctoral students, and 10% (6 respondents) were labeled as others.

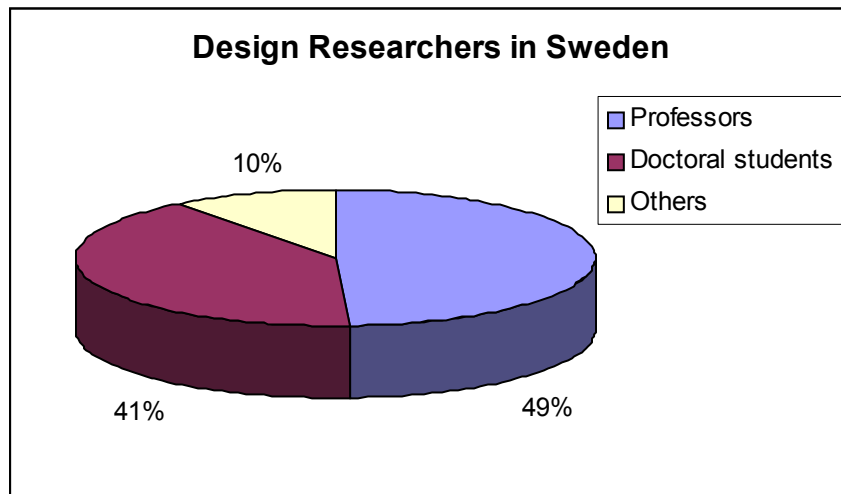


Figure 1.

### The Professors

The respondents cover a vast and diverse field of expertise. They were asked to list a maximum of three different keywords as their field of expertise. As can be seen in appendix 1, the area of expertise covers a broad range of competences. It is also evident that not all respondents are researchers *in* design, but also researching *about* design, e.g., design management. There are also a competences closely related to the engineering area like polymer materials.

Of the 29 respondents categorized as professors, six were not involved in any research project at present time. All of them are either newly graduated PhDs, or as in one case a newly appointed full professor. Among the ones currently involved in research, 17 could list two research projects and 11 could list at least three different research projects.

Of the 29 individuals categorized as professors, 14 are presently involved in supervising doctoral students. 13 are not currently supervisors but responded that they were willing

to act as supervisors in the future. Among the ones currently involved in tutoring doctoral students a list of how many students they presently supervised are presented in figure 2 below. As can be seen, many supervisors only tutor a few students each. Beside two professors tutoring seven students each, most of them have four or less at present time. Among the ones currently tutoring students, 7 was willing to take on others in the future, 8 were not. Interesting to note is that the answers on that question had no correlation to the number of currently tutored students. One of the professors presently tutoring 7 students answered yes, the one tutoring only one was not interested in taking on more in the future. The rest were divided evenly among the two groups.

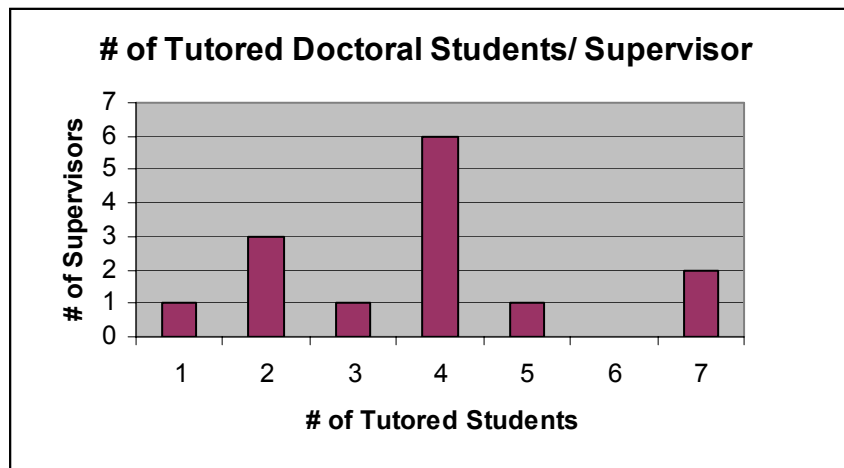


Figure 2.

### The Doctoral Students

As was already stated earlier, 24 respondents were doctoral students. They are spread among 11 different locations in Sweden, from Luleå in the north to Malmö in the very south. 22 of them had a working title on their dissertation project, two were in the starting phase and had not yet formulated one. (For a full list of the dissertation topics see appendix 2.)

Figure 3 below, presents the doctoral students' own prognosis of when they will finish their education. Due to the low number of students, the variation between 2004, 2005, and 2006 can be expected. More interesting is that there are doctoral students admitted in the system today that are not planning to complete their degree until the years 2009-2011. The Swedish doctoral program is formally four years long. Even if the Swedish system up to this day has been highly flexible on this point, the signals from policy-makers are changing. There is presently a debate if the doctoral programs in Sweden should be shortened to three years instead of four. This is a clear indication that the politicians want to speed up the process. Today's system is also built on the principle that each doctoral student needs to be fully financed – guaranteed by the department that admits him or here into the program. With these factors in mind, it is rather

surprising to see that there are doctoral students with a planning horizon of up to eight years.

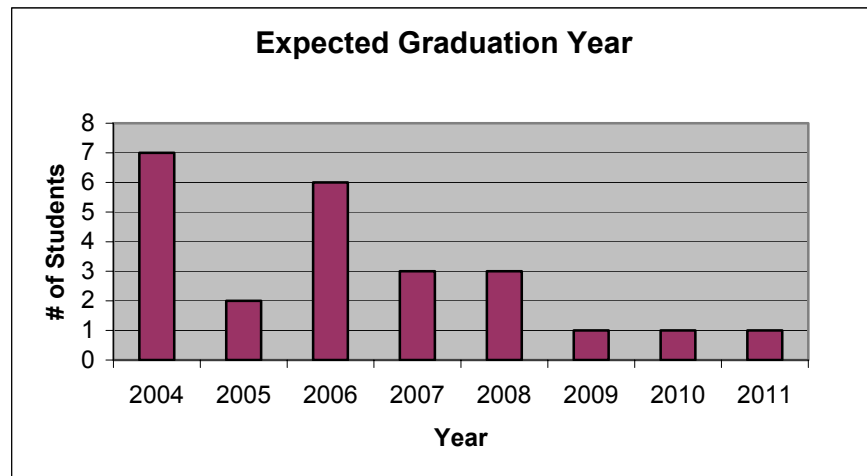


Figure 3.

### The Others

Six respondents could be categorized as neither professors nor doctoral students. Due to the small number of respondents and easy access to some of them, follow-up discussions were made. The typical respondent in this category has an MA in design, and is currently working on an applied research project financed by the industry. He or she is not interested in making an academic career at present time, but finds the research project challenging.

### Conclusions

It is evident that the Swedish design research can still be considered both young and evolving. Research is found on a number of locations throughout the country, but there are few places where it is possible to state that there are enough individuals to create a critical mass of knowledge within the design field. At five places there is only one single doctoral student in design at present time, and only two at two other locations. This is clear evidence that many schools and universities are just starting to build their doctoral program in design and has in some cases admitted their first students into their program.

The area of expertise and the list of dissertation topics show great variety within the field of design. There are projects *in* design as well as *about* design. This can be expected due to the eclectic nature of the field. Based on the tradition of being a rather “applied” area it is also positive to see that there are at least a few individuals focusing on developing theory and methods.

As can be seen in the first figure in this paper the amount of active senior researchers are just marginally higher than the number of active doctoral students. This is not



normal. The reasons for this are probably twofold. First, since the design area in academic terms is young, there are not enough academics graduated within the field to begin with. Second, due to the public focus and trends the design area has become fashionable in Sweden and has experienced a fast expansion due to extra resources from the government during the last couple of years.

This survey points to a situation where a rather large portion of the current design research is done via projects carried out by doctoral students. There are also a number of senior researchers not yet started their own research or are currently entering the field. The professors with many current research projects as well as many doctoral students to tutor are usually found at engineering or business-schools at present time.

Even if the sample undoubtedly is missing a number of Swedish researchers and doctoral students within the field of design, it is at least a first attempt to map the area. Altogether, this study concludes that the research community can benefit from a more structured network that can help creating a critical mass of knowledge as well as educating doctoral students as well as supporting supervisors/senior researchers in the area.

### ***Future studies***

There are plans to make similar surveys during upcoming years in order to map the evolution of the area.

## **References**

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## ***Appendix 1 – Field of Expertise among the Professors***

Aesthetics  
Applied research  
Cognitive psychology  
Craftmanship & skill  
Design  
Design History  
Design management  
Design Methods  
Design process  
HCI  
Industrial design  
Information design  
Interaction design  
Polymer materials  
Product development  
Product semiotics  
Prototype-oriented design in interdisciplinary teams  
Regional development and design  
Sound design  
Spatial configuration  
Strategic design  
Textile design  
Theory of Design  
Theory of research and knowledge  
User centred industrial design  
User oriented design  
User-centred product development  
User-friendly/child-resistant products

## ***Appendix 2 –Titles of dissertation projects***

- Ad-dressing the body: The study of the interface between clothes and the body
- Appearing Computing
- Cultural Aspects of Global Design
- Creative problem-solving and product design for young disabled adults in housing and society
- Design and Technology in Use
- Design for user satisfaction
- Design Methods for Human Factors in Product Development
- Developing models for three dimensional aesthetical theory and practice
- Industrial Design - Engineering Design Interaction: Studies of Influencing Factors in Swedish Product developing Industry
- Industrial Design - Rapid Tolling for Small and Medium Sized Enterprises
- Information design in three dimensional nautical navigation visualization systems
- Location, Navigation and Coordination: Studies of work practice and technology
- Making Sense - technology, health and product Design
- Participatory inquiry – collective design
- Recycling of paper in porcelain
- Regional development and design
- Spatial Appearance and Experience of Light Distribution
- Theories, methods and tools for designing haptic user interfaces
- Use of design in small wood manufacturing companies
- Visual thinking as didactic phenomenon in design education
- Warpprinted textiles
- What makes a good organization?

(Two respondents had not listed a title of their dissertation project.)