

## **REDUCING DROPOUTS IN ONLINE EDUCATION - GROUP TUTORING IN VIRTUAL SEMINARS AND SUPPORT STRUCTURES**

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### **Abstract**

This paper describes a development project aimed at reducing the large number of dropouts in online degree project courses. The idea was that the introduction of group tutorials in virtual seminars, combined with extensive support materials, would reduce dropout rates. Among the students who participated, the dropout rate was reduced by 50% compared to previous courses. While all supervisors and students saw the support structure as an important function, there was some resistance among the supervisors towards the virtual seminars, probably due to existing tutorial cultures and organizational structures.

### **Introduction**

In the 2000s, the number of students attending distance courses in higher education has increased dramatically in Sweden (Swedish National Agency, 2010). For example, there were 18,000 full-time students at Umeå University in 2010, 4,900 of which were distance students, usually located in the sparsely populated northern parts of Sweden. At present, 70% of the new students are distance or online students. Those in the latter category are students who are attending a net-based course with no physical meetings (Söderström, From, Löqvist, & Törnquist, 2012). Developments in digital technologies have made it possible for individuals to communicate and interact, regardless of time and location (cf. Guri-Rosenblit, 2009) and have also led to reflections on instructional design, learning and the teacher-student relationship becoming more important in the practice of online teaching as well as in research (see, for example, Garrison, 2009; Palloff & Pratt, 2005). Today, digital technologies are used to varying extents in online courses and programs offered by Umeå University. In some courses such technologies are used merely to distribute course information to students while in others they enable active communication and interaction between teachers and students (Johansson, Stödborg, Johansson, & Hedman, 2005). The development that is taking place can be described as an increasingly strong focus being placed on the social dimension of the learning process. In other words, the teaching is gradually moving from a transmission model to a model in which shared knowledge construction, active participation and collaboration are given increased priority (cf. Jonassen & Land, 2000).

The Department of Education at Umeå University is one of the largest departments of education in Sweden. In the past ten years, the department has

continually strived to develop its distance courses and today it is one of the major actors in this area in Sweden, both in terms of research related to distance education and the number of students attending distance courses. The increasing number of students is of course a positive trend from a financial point of view (Söderström et al., 2011), but has also resulted in the department having encountered many new challenges. One very important such challenge is an increase in the number of dropouts, especially on the online degree project courses (bachelor's and master's degrees). This challenge led to a development project being initiated in the department, as described and discussed in this paper. It should be noted that the technology and design of these degree project courses have not been developed in the same manner as other online courses in the department. They are still run in accordance with supervision models used in our campus courses. One might say that such teaching practices and models have shown a resistance to change (cf. Jaldemark & Lindberg, 2012). Students are given individual supervision and since face-to-face communication between supervisors and students has not been possible, the supervision has been carried out via written communication (email and/or asynchronous net forums).

The large number of dropouts is a problem both for the individual students and for the department. When a student drops out at the end of a course or programme it is of course a personal failure. In addition, incomplete studies may cause problems when it comes to establishing oneself on the labour market. For the department, dropouts will result in financial loss and they may also cause staffing problems. In addition, they may lead to supervisors regarding degree project supervision as a less desirable task.

Figure 1 shows dropout rates on degree project courses at the Department of Education in 2007 and 2009.



Figure 1. Number of registered students on degree project course and number of dropouts in 2007 and 2009.

The total number of students who started working on their degree project in 2007 and 2009 was 221 and 225, respectively. The number of online students more than tripled and the dropout rate on online courses was 76 % in 2007 and 64 % in 2009.

Overall, it can be noted that there is a clear positive correlation between the increase in online education and the number of dropouts. For instance, master's degree courses in teacher education are run with fewer and fewer physical meetings, while courses for the bachelor's degree are run online without any physical meetings at all. All in all, it seemed that the degree projects on distance, and especially online, courses were particularly prone to high dropout rates. Discussions about, and analysis of, student dropouts in the department led to the assumption that the lack of communication and interaction between teachers and students (Heinze & Heinze, 2009), as well as the absence of a support structure, were important factors contributing to this negative development. Below follows an account of a development project carried out in 2011 with the support of development funding from Umeå University.

### **Project Background and Implementation**

Below is an account of the structure of a typical degree project, the characteristics of degree project courses and the two main elements of the development project.

#### **Degree Projects**

Most social sciences programmes in Sweden, both at bachelor and master level, conclude with a course called *examensarbete*, translated as *degree project* in this paper. The extent of such a degree project is 15 and 30 credits, respectively. In these courses, students will carry out an individual study, which is to be presented in a project report that meets academic requirements. Generally speaking, the report should start with a well-defined problem presented with a background description and a methods section. Next, the results and analyses are presented and finally the results and the methods used are discussed. Each student is assigned a supervisor. In a final examination seminar the student will defend his or her project and serve as a student reviewer of a fellow student's project report.

#### **Online Degree Project Courses Compared to Other Online Courses**

Our online degree project courses differ from other online courses in some important respects and many students have described the transition from the didactic models used in other online courses as problematic. Having previously only attended largely collaborative courses with access to extensive course materials, often including recorded lectures; students on the degree project courses are expected to work on their own in a highly independent manner. Unlike students on other online courses, they have no support from a study group and they are largely left to their own devices and the written guidance of their supervisor. Thus, a need to develop a learning environment that will encourage students to engage in collaborative learning while maintaining an individual approach among the students (MacKeogh, 2006) was identified.

Communication in online degree project courses is seen as huge problem by many supervisors (Todd, Smith & Bannister, 2006). Traditionally, contacts on such courses between supervisor and student have chiefly been limited to

written communication. This limits the personal touch and makes the supervision inefficient and ineffective. Furthermore, supervision carried out solely via written communication is a very time-consuming activity in which misunderstandings can easily arise which can take a lot of time to resolve.

Besides causing financial and staffing problems for the departments, the large number of dropouts will also affect the supervisors' attitude to their work. For example, supervisors who put in a lot of work during the initial phase of a degree project often feel that their effort is more or less wasted if the student drops out. There is a great risk that supervisors who have had such experiences will limit their commitment until they are convinced that the student will finish his or her project report. This is commented on by Grant (2005), who observes that students and supervisors often have different expectations of accountability, accessibility and the extent and character of the supervision. We believe that these uncertainties tend to be reinforced in online supervision.

### **The Two Main Elements of the Project: Group Tutoring in Virtual Seminars and Support Structure**

Below is an account of how the development project aimed at reducing the number of dropouts was designed.

First, virtual seminars (with audio, video and shared document management) were introduced with a view to promoting and increasing collaboration between the students and the quality of the supervision. In every course, study groups of three to five participants were set up and each student was assigned a supervisor. In these virtual seminars, which were held approximately every two weeks, group tutoring was carried out where each student's work in progress was presented and commented on by both the supervisor and the participants in the study group.

Second, a comprehensive support structure was designed that was easily accessible via a dedicated online platform for degree projects shared by the entire department. This structure consisted of filmed lectures, literature links, templates that the students could use in the design of their reports and examples of good degree project reports. One component of that structure consisted of theoretical materials dealing with questions related to academic work. In another component, various methodological issues were presented and discussed while a third contained more detailed instructions about the form of a project report.

The project was divided into three phases. During the first phase, joint seminars were arranged for course managers, supervisors and ICT professionals, where the project was presented and discussed. Short courses were then given based on a survey of the department's teacher training needs. In order to provide materials for the above-mentioned support structure, the expert knowledge of various members of staff in the department was utilized. Course platforms and web conferencing systems were developed jointly by ICT staff and experienced supervisors. During the second phase in the spring of 2011, four pilot projects were carried out involving 17 students and 5

supervisors. The third and final phase was a full-scale project in the autumn of 2011 in which 97 students and 22 supervisors participated.

### **Methods**

The fact that the project leaders were employed at the department, and thus knew both the administrative and the teaching staff, and also functioned as supervisors in the degree project courses, affected the information gathering. The research model can be described as a case study with participatory research (Johansson, 1999). The advantage of such a model is that the researcher comes very close to the phenomena studied. The disadvantage is that important but sensitive information may have to be withheld due to ethical considerations. The same considerations apply to the level of confidence the research subjects have in the researcher since it will affect the kind of information they will be willing to provide. This was not a problem in this project, however, since the project did not involve the collection of any sensitive information.

Throughout the project period, seminars were held every second month. Participants in the seminars were administrative staff, course coordinators, supervisors and ICT-experts. In those seminars, experiences were shared and suggestions for alternative avenues of approach were put forward. These seminars developed into formative evaluation sessions since ideas and considerations came to affect the progress of the project. The progress was also described and discussed at two staff meetings in which all members of staff in the department participated and input from those meetings also had an impact on the progress of the project.

With a view to capturing the students' and supervisors' opinions of the activities included in the pilot project, a questionnaire was handed out in connection with the examination on the course. The response rate was 100%. At the same time, focus interviews (Kvale, 1996, 2008) were also held with all participating students and supervisors. In order to assess the quality of the degree projects, the four examiners on the course were also interviewed. A student questionnaire was also used in the full-scale project, while information from the supervisors was obtained through focus interviews. When it became clear that the majority of the supervisors were not using the virtual seminars, but carried out their supervision via email or telephone, interviews were made with those supervisors to establish why they were avoiding the virtual seminars.

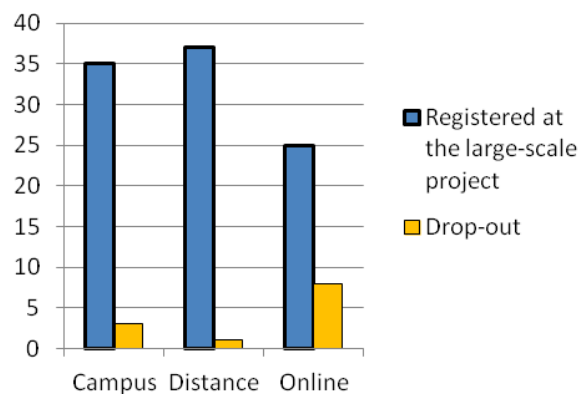
Data collection in this project was carried out through field notes made during the planning stage, seminars, staff meetings and the authors' work as supervisors. In addition, the interviews and questionnaires mentioned above were used for this purpose. As the project progressed, the extensive data thus collected came to be classified into the main categories described below.

## Findings

In this section, results are presented regarding dropout rates, the use of the support structure and students' and supervisors' views on the project's two main elements.

### Dropout Rates

In the pilot project during the first semester of 2011, 17 students and 5 supervisors were engaged in the online degree project course. One student, or 6 %, did not complete the degree project. The figure below shows the results of the full-scale project in the second semester of 2011.

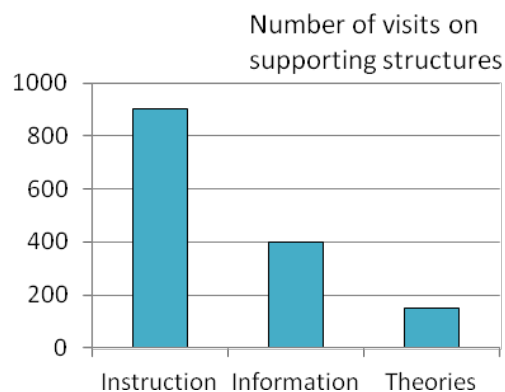


*Figure 2.* Number of registered students and dropouts during the full-scale project in the second semester of 2011.

Participants in the full-scale project included 97 students and 22 tutors. The dropout rate on campus courses was 8 % and on the distance courses 2 %. In the online courses 8 students, or 32 %, dropped out. Compared with the figures from 2007 and 2009, the number of dropouts on online courses had been reduced by more than 50%.

### Use of the Support Structure

Figure 3 shows the extent to which students utilized the support structure that was available on the course platform. The figure also illustrates what materials the students saw as the most important ones.



*Figure 3.* Number of visitors to the course platform's support structure.

About 900 visits were made to pages containing instruction materials (templates, APA-instructions and similar), almost 400 to pages containing information material (methodological issues), while 150 visits were made to the support structure dealing with theoretical aspects.

### **Students' and Supervisors' Views**

The students who participated in the pilot projects stated that the virtual seminars and the support structure had been very important in their degree projects. They believed that the communication and interaction in virtual seminars had significantly contributed to increasing their understanding of and motivation for their project work. They also considered the support structure an important complement to teacher instruction and a useful tool in their learning. In particular, the students stressed the importance of the material dealing with the structure and form of the degree project. The course evaluations from students who participated in the full-scale project showed that even if they had not used the virtual seminars, they had used the course platform's support structure and saw it as a very helpful tool in their writing process. These students, too, stated that the support material was particularly useful as it provided immediate guidance on structure and form.

Supervisors in the pilot project stated that the support structure had contributed to a reduction in the need for detailed instructions on the structure and form of the students' projects. This in turn, meant that more time could be devoted to methodological and theoretical aspects, both in the written correspondence between students and supervisors and in the virtual seminars.

The supervisors believed that participation in the virtual seminars had resulted in both knowledge gains and staff-time savings as many common issues could be addressed more efficiently and effectively at these seminars. Another benefit mentioned was the ongoing feedback the students got from their fellow students, which helped them to deepen their reflections and gave them practice in reviewing other people's texts.

Among the problems identified might be mentioned that the quality of some students' feedback was low, particularly in groups with limited experience from methodological courses. Overall, the supervisors felt that their work and the quality of their supervision had improved.

During the full-scale project only a few of the supervisors used group tutoring or virtual seminars. Among the reasons given for this might be mentioned that they felt they had too few students, that they were unfamiliar with the technology or that the students preferred the physical supervision seminars. However, a large number of supervisors did use the course platform's support structure and felt that it was an important complement to their own supervision efforts. An opinion often expressed by these supervisors was that those sections of the support material dealing with the structure, form and methods of degree projects were particularly useful. Students who had used this material had become more autonomous in their writing process and the supervisors thought that their supervision had become more professional than

before. Finally, interviews with the examiners showed that they believed the quality of the degree projects produced within the framework of the project **was** fully comparable to that of reports produced on traditional campus courses.

## Discussion

It was not surprising that dropout rates dropped dramatically during the pilot project. The students were given an uncommonly great deal of attention and the supervisors were experienced in group counseling and mastered the technology used for the virtual seminars (Gribbons & Herman, 2008). While the reduction in dropout rate was not as dramatic in the full-scale project as in the pilot project, the number of dropouts was more than 50% lower compared to previous years. A partial explanation for this outcome is, according to surveys and interviews, the students' frequent use of the support structure, which they saw as an important complement to their supervisor's guidance. Access to the support material meant that the supervision, to a greater extent than in corresponding campus courses, could be focused on the content and quality of the degree projects instead of being predominantly used to address questions about structure and form. As a result, the supervisors felt that the quality and effectiveness of their supervision had improved. It is reasonable to assume that this resulted in a win-win outcome where the supervisors' increased commitment and motivation also led to greater commitment on the part of the students.

Initially, the project's two main elements, group tutoring in virtual seminars and the support structure, were seen as equally important. But, as was mentioned above, the emphasis in the full-scale project came to rest more on the development and production of materials added to the support structure. These materials proved to be very much appreciated also by students and supervisors in other online courses. The reluctance of some of the supervisors to use virtual seminars came as a surprise. Since courses had been given in the technology used for these seminars as well as in virtual communication, it was assumed that the supervisors were prepared for and interested in trying new ways to communicate with the students in their supervision work. In evaluations, a number of different reasons were given for this reluctance. Grant (2005) suggests that such reluctance is partly due to the fact that it is difficult to find a balance between prescriptive rules and autonomy. Another explanation might be that when trying new avenues of approach, old ones must be abandoned. Thus, the reluctance is understandable in cases where the old way is a familiar well-trodden path with deep wheel tracks. Our view is that the tradition and culture of supervision work are highly characterized by the view that it should be carried out face-to-face and one-to-one. Thus, it would seem that virtual group tutoring was too great a challenge for many supervisors, which resulted in unwillingness on their part to set aside time for this alternative form of supervision (cf. Johansson et al 2005; MacKeogh, 2006).

The project has also had impact on the department's approach to degree project supervision. Through workplace meetings, workshops and staff



training activities the entire department became involved in this project. Structural weaknesses and potential developmental areas have been identified, one of the most significant being the assignment of supervisors to degree projects. In order to develop degree project courses into a practice where shared knowledge construction, active participation and collaboration are given priority, it is necessary to adapt the organizational structure to allow such an approach.

To sum up, the following conclusions can be drawn from this project:

- An efficient and effective ICT support function with pedagogical competence is of decisive importance to the development of, and reviews of, online courses. For example, such competence is required in the setting up of online pedagogical structures where the collective competences and knowledge of an entire department can be gathered and used by all members of staff.
- Supervisors/teachers must be given ICT training on an ongoing basis, for example in the administration of course platforms, the streaming of their own lectures or instructions and in leading virtual seminars.
- Seminar series on online education where best practice, quality aspects and problems can be discussed are conducive to increased knowledge and commitment on the part of supervisors/teachers.
- The incorporation of project outcomes into the everyday activities of a department is highly dependent on the support of the management during, as well as after, the project.
- In order to achieve commitment among the staff, transparency during the planning and implementation stages of a project is very important, as are ongoing information about the project and opportunities for the staff to have an impact on its development.

It is hoped that the above conclusions will also be helpful in the planning of future similar projects.

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