

## Thesis Web Dialogue

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### Abstract

#### English

This paper describes development work where an application specially adapted for essay-writing and supervision has been constructed, developed and tested. The aim of the programme development has been to create support for essay-writing and supervision.

With the ambition of reinforcing important ingredients for effective supervision and essay-writing the aim and requirements for the Thesis Web Dialogue were formulated. The chief aim from the tutor's perspective was to facilitate organizing his or her supervision and efficiently follow and support the essay-writer. The essay-writers' chief aim was to find easy access to tutor support and information relevant to their essay work. The Thesis Web Dialogue was continuously developed and evaluated, a process which culminated on two evaluation occasions.

The majority of the tutors and essay-writers who had tested or been introduced to the Thesis Web Dialogue are positive to its idea and function. The most positive is the student group. A few students have expressed their scepticism vis-à-vis the Thesis Web Dialogue. Some of these students feel uncertain when confronted with the technology, while some apparently want to avoid being subjected to higher demands and greater insight into their essay work.

The result shows that the Thesis Web Dialogue can be of great help to many students and tutors. It is probably especially suitable for distance courses and/or essay courses where the tutor follows the essay-writers for a fairly long time.

#### Swedish

I denna artikel beskrivs ett utvecklingsarbete där ett för uppsatsskrivande och handledning särskilt anpassat applikation, Uppsatsdialogen, har konstruerats, utvecklats och prövats. Med ambitionen att förstärka viktiga ingredienser för effektiv handledning och uppsatsskrivande formulerades syfte och krav för programmet. Det främsta ändamålet ur handledarens perspektiv var att denna enkelt ska kunna organisera sitt arbete och effektivt kunna följa och stödja uppsatsskrivarens arbete. Främsta ändamålet för uppsatsskrivaren var att lätt nå handledningsstöd och information som är relevant för det aktuella uppsatsarbetet. I de virtuella rum som skapades för handledare och uppsatsgrupp eftersträvades en komplett miljö för dialog, stöd och informationsökning.

Utveckling och utvärdering av Uppsatsdialogen genomfördes fortlöpande men var koncentrerad till två utvärderingsstillfällen. Den första utvärderingen genomfördes i mindre omfattning med stöd av intervjuer, medan utvärdering två innefattade de ändringar och kompletteringar som gjordes i programmet och inkluderade enkät och intervjuer med ett större antal uppsatsskrivare och handledare.

Huvuddelen av de handledare och uppsatsskrivare som prövat eller fått Uppsatsdialogen presenterad för sig, är positiva till dess idé och funktion. Mest positiva är studentgruppen. Ett fåtal studenter har uttryckt sin skepsis till användningen av uppsatsdialogen. Några av dessa studenter känner osäkerhet inför tekniken medan några uppenbarligen vill undvika en ökad kravnivå och insyn i uppsatsarbetet. Många studenter uttryckte positiva omdömen men framförde kritik mot att deras handledare inte var villiga eller saknade kompetens för att använda tjänsten vilket också bekräftades i några av handledarsvaren.

Resultatet visar att uppsatsdialogen kan vara till stor hjälp för många studenter och handledare. Vid distanskurser och/eller i uppsatsskurser där handledaren följer uppsatsskrivarna under en längre tid är den sannolikt särskilt lämplig.

### Background

University education in Europe and the USA has for some decades been in focus for transformation. Several western researchers have described the process as "mass education" (Trowler, 1998). More and more students are to be educated with the support of fewer and fewer resources. Educating 50 % of an age group has for a long time been a goal for Swedish universities. At the same time Sweden's Parliament Auditors have brought attention to the increase in the number of students who have not attained any results in their studies. Frequently it is degree and essay projects that have not been completed. To better organize the supervision that may help the students to finish their degree projects and essays within reasonable time, without jeopardizing the demands of academic quality, is urgent. One way of supporting and improving the results may be found within the transformation of teaching and learning usually referred to as flexible learning. This may entail developing solutions that facilitate and reinforce supervision and essay work with the support of ICT.

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#### Degree project supervision

Supervision is a multi-faceted activity entailing various tasks and roles, depending on who defines the activity. The tutor's own experience of learning will affect his or her tutoring and ambition to further the students' learning process (Myringer & Wigforss, 2002).

Most people involved in higher education agree that student access to competent supervision is essential for success in their studies. A lack of supervision places students in situations that may be difficult to handle (Moses, 1987). Close and relatively informal contacts between student and tutor may facilitate the student's work (Cook, 1980; Bynner & Henry, 1984). The relation and continuity developed between tutor and student are essential (Gerrevall, 1992). Unfortunately, many students express dissatisfaction with their

supervision when its aims are vaguely formulated (Lybeck & Asplund-Carlsson, 1986). Often the demands on the students are clearly laid down, but not those on the tutor.

In a study conducted in three different educational locations and programmes, the students were unanimous in their views on how their supervision ought to be structured.

- They want a clear framework with clearly formulated demands and expectations.
- They want supervision to be continuous and process-oriented.
- They want to receive constructive help in the course of their work.
- They want to consider their tutor as an advanced discussion partner committed to the task. (Gerrevall, 1992, p. 230)

In cases where the tutor is to assess the student, they want both the process and the product to be considered.

There may be different views of what supervision entails. In her thesis Franke (1990) describes different variations of the supervision phenomenon. Franke distinguishes between *principle-oriented* and *episode-oriented* supervision strategies. The object of the former is to look beyond the details to find the ideas behind. The latter entails putting the emphasis on behaviour that can be objectively registered. Bynner and Henry (1984), who have evaluated distance teaching supervision, emphasize the importance of contacts being close and taking a variety of forms. This enables choosing the most appropriate interaction form. Supervision during planning and implementation is essential, comprising elements like directives, rules, manuals and help in planning. Boosting the student's own work and self-confidence is also important. Process-oriented supervision has often turned out to be successful (Cook, 1980).

In a study treating how research students look upon supervision an overview is given of the primary supervision ingredients from the research students' point of view.

The tutor's interest in the assignment and in the subject and his or her professional expertise is ranked high, whereas there is a feeling that the least help is offered in guiding and planning, see the table 1 below (Lindén & Fitger, 1990).

**Table 1.** The most important factors in supervision (ibid. p. 87)

| Good supervision                | Bad supervision                  |
|---------------------------------|----------------------------------|
| 1. Guidance and planning        | 1. Lack of interest              |
| 2. Time and accessibility       | 2. Lack of guidance and planning |
| 3. Encouragement and support    | 3. Lack of time                  |
| 4. Professional expertise       | 4. General knowledge             |
| 5. Encouragement and enthusiasm | 5. Lack of knowledge             |
| 6. Advice and suggestions       | 6. Too much control              |

*Creating more favourable conditions for communication and planning was part of the goals formulated for the Thesis Web Dialogue, hence called TWD.*

### Deception in process and progression

One educational problem connected with report writing and examination is cheating with the aim of giving the examiner the wrong impression of the student's knowledge and skills. Such behaviour counts as deception, according to the Higher Education Ordinance (1993:100). The most common type of deception is plagiarism, which means that the student entirely or partly copies the texts of others without referring to the original source (The National Agency for Higher Education, 2004:17R; 2005:28R). In order for plagiarism to count as deception in the sense of the National Agency for Higher Education it must be regarded as a target-oriented activity with a clear intent to deceive (Jareborg, 2002).

Since the year 2001 the National Agency for Higher Education has made a survey of disciplinary cases at Swedish universities demonstrating a clear trend towards an increasing number of revealed cases of cheating during the 2001-2004 period. Studies have shown that plagiarism is the largest and most rapidly increasing category of cheating (Jokela & Karlsudd, 2005). Suspected cheating can seriously damage the trust existing between teacher and students and between students working in the same group. In the long run cheating constitutes a considerable threat against the academic credibility of the university (Wiedersheim-Finn, 2005). Many universities have begun using various digital tools to facilitate quicker checking of student work against various existing sources. Another way of proceeding is to create examination forms focusing on feedback and continuous learning and thus reinforcing the insight into and control of process and progression (Gunnarsson et al., 2002; Martin, 2004). With a continuous, formative examination system there is probably less risk of cheating (Gunnarsson et al. 2002). Following the whole work process as a teacher may be one way of countering cheating. Students may, for example, write a process diary, which facilitates for the teacher to follow the progress of the work.

*One aim of the Thesis Web Dialogue project was to improve the handling of essay-writing process and progression with the purpose of reducing deception in essay work.*

### Flexible learning

Many people are convinced that elements of IT support will play an even more prominent role in future education. Traditional communication will be complemented and in many cases replaced by new communication (Edenholm, 2000). The young generation is growing up with a new kind of knowledge communication, where sound, picture and text are communicated through modern information (SOU, 1994:45). There are a number of studies pointing out that this communication may offer interaction that is at least as qualitative as the traditional face-to-face encounter (Peterman, 2000; Berger, 1999). One of the advantages of using IT support is the greater possibility of adapting education to student conditions and capacities in a model usually referred to as flexible learning.

The flexible learning concept invites to discussion and to some disagreement. In Australia and the Nordic countries the term is relatively strongly anchored (Holmberg, 2006). A common interpretation is that flexible learning "should make use of technical support, offer the possibility of choosing direction and material for studying, make room for different study working methods and allow for them being conducted independently of time and place" (ibid., 315). Thus, flexible learning may be characterized by several factors

such as more flexible course syllabi, forms of study, study tempo, examination forms, different learning styles, geographical independence, and variation in communication form between student – teacher and student – student. Many researchers claim that the role of the teacher is changed when modern information technology is introduced in the education system. One of those that do not share this opinion is Holmberg who argues that the role is still the same, i.e. to tutor the students and to guide them in their learning process. What is changing is the nature of the teaching tasks but teacher's role will be to help students to acquire knowledge (Holmberg, 1998).

Pedagogical insights into how various people take in information, process and transform it into knowledge are also important. Flexible education must be viewed in a larger context than that of distance education programs. The question must be asked whether some elements of flexible education can be integrated into traditional on-campus programs to ensure course quality, contribute to optimal resource utilization and/or solve problems connected with the tools usually associated with flexible education. The division made between distance and more conventional education, often referred to as on-campus education, is diminishing today. (Dahlin 2000).

*In working with the Thesis Web Dialogue the guidelines have been the principles of flexible learning. In addition to utilizing the possibilities of distance communication the aim has been that every tutor and student should be able to adapt the tool individually.*

## Development Goal

With the ambition of reinforcing important components for effective supervision and essay-writing the aim of the construction and functionality of the Thesis Web Dialogue was formulated.

The aim of the web support is that tutors should easily be able to organize their work and efficiently follow and support the work of the essay writer. The web support should be usable for distance courses but also as a complement to more traditional supervision (face-to-face meetings). Essay writers should be able to easily obtain the information relevant for their current work. Communication with the tutor will occur in one place providing with continuous documentation. In the virtual space created for tutor and essay group the aim is to achieve a self-contained environment for dialogue, support and information search.

The aim of the Thesis Web Dialogue application can be specified as follows:

- The application should facilitate communication between student and tutor.
- The tutor should be able to follow the writing process/progression of the student's essay-writing.
- The student should be able to evaluate and estimate work effort and time expenditure.
- The application should clarify the compulsory elements of the degree work.
- The student should easily find information data, support and documentation relevant to the essay.
- The tutor should be able to more easily administer and follow students currently engaged in essay-writing.

## User adaptation

In experimental systems development it is customary to develop a prototype, a realistic example of the external qualities a future system is planned to contain. A prototype often contains nothing but screenshots which open for a dialogue between presumptive users and systems planners. The development of this project has taken place in a functioning program environment. In line with views expressed by the users the conceptual model which has served as the starting-point of the program or application will be modified (Andersen, 1994).

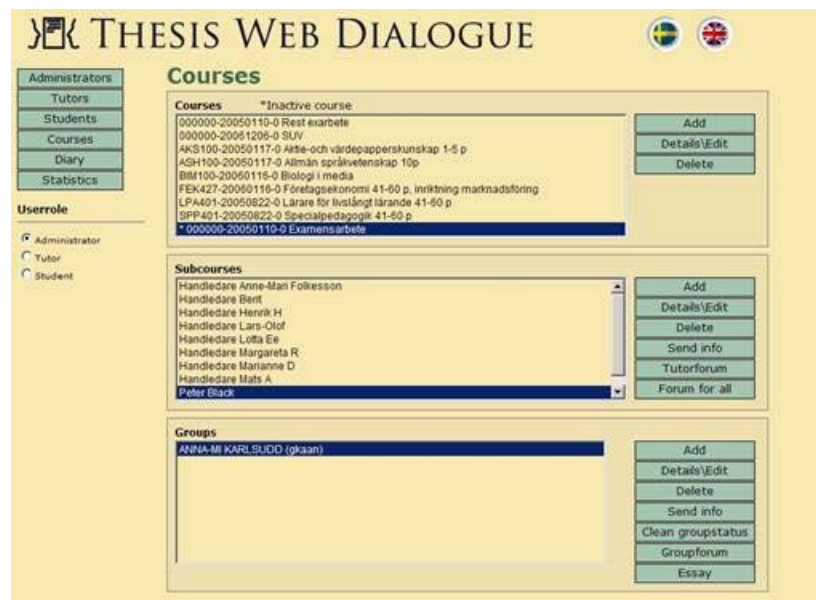
The interaction between man and computer is affected by the qualities and context of the participant (Allwood, 1998). There are obvious differences both between people and between different learning platforms. It is essential that the communication programs used are adapted to the target group. There are at least four different factors that determine application usefulness, namely *adaptation*, *user-friendliness*, *user acceptance* and *user competence*. *Adaptation* means that a program is designed to optimally follow the structure of the task the user tries to solve. *User-friendliness* comprises a number of aspects, accessibility being one of them. It should be possible to link the programs to others and to provide support for the user's actions. Individualization is an important aspect of user-friendliness. *User acceptance* entails that the users are positive to the program and its functions. Good user acceptance can be secured in the implementation process. *User competence* involves that the user has the understanding and skills required for interacting with the computer effectively (Karlsudd, 2001).

Technical problems are the major source of irritation for the users of different learning platforms. There is still much left to be desired as regards technology and technical problems frequently arise, unfortunately, in the learning platforms used. In most cases technical support is required to start and maintain continuity in the systems employed (Svensson & Åberg, 2001).

*During work with the Thesis Web Dialogue four factors, adaptation, user-friendliness, user acceptance and user competence, occupy a central position in the conceptual phase of the construction. In the following section the Thesis Web Dialogue application will be presented with the help of some screenshots from the program.*

## Description of the Thesis Web Dialogue

On the logging-in page of the Thesis Web Dialogue the user finds information on how to log in and gets access to a manual and instruction film. The start page shown after logging in looks different for *administrators* and *tutors*. The chief administrator can see all tutors and courses. The individual tutor only sees the courses and students he or she is responsible for. In Figure 1 the start page for administrators is shown.



**Figure 1.** TWD start page for administrators. This page contains courses, course sections (tutors) and groups/essay writers.

On the start page one can easily add and delete *administrators*, *tutors* and *students*. The function is linked to the student data base and the university's internal list of staff, which makes it easy to register students and tutors. The start page contains a diary, where the tutor can make notes and load down files without anyone else getting access to the information.

The *statistics* function leads to user statistics. There the administrator on the course and tutor levels can follow how the users have taken advantage of the various functions of the program. Under the *essay* function on the start page (Figure 1) there are a number of functions that tutors and students can apply in tutoring and essay-writing. Tutors can deselect the functions they do not plan to make use of. The start page also contains the *send info* function, which helps the tutor or the course coordinator to quickly reach students and other tutors via the essay page or by e-mail.

The essay writer or writers, if there is more than one author of an essay, have access to a unique essay page, as shown in Figures 2, 3 and 4. This forms the basis of the application and contains a number of alternative functions.

Under the *essay title* heading (Figure 2, item 1) the essay writer can enter the preliminary title of the essay. This can be changed as the work proceeds. In the *students*, *group name* and *tutor* fields (Figure 2, items 2-4) the group name and student and tutor addresses are presented automatically. The tutor may easily change the name of the group. In the *information* field (Figure 2, item 5) the tutor and the course coordinator can quickly enter information to the student.

The *self-evaluation* field (Figure 2, item 6) enables essay writers to estimate their contributions to the main sections making up an essay. The estimate may be regarded as a visualization of the important parts of the essay and of work progression. If the estimate deviates considerably from the tutor's assessment or the time plan presented and accepted, it may be advisable to discuss the reasons and try to find solutions which may advance work. Here the tutor may define the essay elements considered especially important.

At *progress report* (Figure 2, item 7) the essay writer writes down a simple time plan as a support for work on the essay and as a basis for tutoring. There is also space for essay writers to continuously report briefly on the current status of their work. This enables the tutor to take stock of planning and work progress.

**Updated**      2006-09-05 11:29:05

**Essay title**      Evaluation of the Web Dialogue      [Edit](#)

**Students**      ANNA-MI KARLSUDD anna-mi.karlsudd@hik.se

**Groupname**      ANNA-MI KARLSUDD (gkaan)

**Tutor**      PETER KARLSUDD 0480-447398  
Peter.Karlsudd@hik.se

**Information**      **2007-01-02 This week I will be out of office Monday to Thursday  
Peter**

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**Self-evaluation**

|   |      |
|---|------|
| Research questions                          | 25 % |
| Literature survey                           | 25 % |
| Method                                      | 15 % |
| Data collection                             | 25 % |
| Theoretical framework                       | 0 %  |
| Results/analysis                            | 0 %  |
| Discussion                                  | 0 %  |
| References, Abstract, Summary, Introduction | 10 % |

[Save](#)

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**Progressreport**      [Show all](#)

**ANNA-MI KARLSUDD** 2005-06-23 13:54:59

22/9 - 26/9  
Literature search; most of the material Peter suggested could be found, but I have to wait two weeks to receive Miller's book.  
Based on the literature survey I was able to formulate the first draft of my research plan, focused on the research questions.

*Peter sent some feedback about the plan and I realise that the second research question must be rewritten. We are going to discuss this on Friday.*

**Figure 2.** TWD essay page for essay writers, part I. This view shows the fields for general information (1-5), self-evaluation (6) and progress report (7).

In the *compulsory steps* square (Figure 3, item 8) the tutor can define the compulsory elements of the course and mark completed activities. In the *appointments* field (Figure 3, item 9) the tutor, in consultation with the essay writer, writes down the next individual tutoring appointment, for example. Written communication between tutor and student is chiefly conducted in the *discussion* field (Figure 3, item 10).

**Compulsory steps**

Starting seminar     Group tutorial 1     Individual tutorial 1     Midseminar     Group tutorial 2  
 Individual tutorial 2     Peer-to-peer tutorial     Concluding seminar     Postseminar     Course completed

[Save](#)

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**Appointments**

Anna-Mi, Friday 2/9, 9 am, Conference room 214

[Save](#)

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**Discussion**      [Hide](#)

[New message](#)

**ANNA-MI KARLSUDD** 2005-06-23 11:49:06

Tutorial on Friday morning is all right.  
/Anna-Mi

**PETER KARLSUDD** 2005-06-23 11:47:05

We can have a tutorial on Friday, 9 am, I'll bring some articles that may interest you. Could you check if the software for content analysis is available, Nancy B. mentioned that we can use their computers.

**ANNA-MI KARLSUDD** 2005-06-23 11:46:32

Yes, now I can see what you mean by that remark, the second question must be rewritten. But I'll need some help to find other theories in this area. Could we have a tutorial at the end of this week or early next week?  
/Anna-Mi

**PETER KARLSUDD** 2005-06-23 11:44:24

I read your research proposal and it seems all right. As you wrote, the title needs to be modified but that can be done later on. Before you go on with the literature search, we must discuss the second research question, it is not clearly connected to the first one and you could look at some supplementary theories to support your hypothesis.

**ANNA-MI KARLSUDD** 2005-06-23 11:43:25

Hi Peter,  
Yesterday, I sent you the first draft of my research proposal. Did you have time to check the plan? The title is still preliminary but I think that the research questions are relevant. Could you send me some brief feedback about the plan as I would like to proceed with the literature survey.  
/Anna-Mi

**Figure 3.** TWD essay page for essay writers, part II. This view shows the fields for compulsory steps (8), appointments (9) and discussion (10).

In *files* (Figure 4, item 11) the essay writer attaches documents, for instance those which present the plan and various versions of the essay. The tutor may load down documents, write or record oral comments directly into the document and then re-attach his or her document version to the essay page. Writers and tutors can erase their own files only. At the bottom of the essay page a number of pre-defined *link buttons* (Figure 4, point 12) lead to links and documents essential to essay-writing. It is possible to change the names of link buttons and add new links.



**Figure 4.** TWD essay page for essay writers, part III. This view shows the fields for attached document files (11), link buttons (12) and buttons for various discussion fora (13, 14).

The Web Thesis Dialogue provides the opportunity to create discussion conferences at different levels. *Tutor forum* is reserved for course administrators, tutors and examiners alone. This is the place for giving information, attaching documents and discussing essay-writing issues without allowing unauthorized persons to intrude. *Forum for all* is accessible to course administrators, tutors, examiners and all essay-writing students in the course. *Group forum* is meant for the individual tutor and his or her students (Figure 4, items 13 and 14).

One important principle of the Web Thesis Dialogue is its adaptability to tutors' and students' own wishes. Under the *details/edit* function the course coordinator or the tutor may configure the essay page, i.e. change, redefine and/or add and delete functions. By choosing *e-mail for essay change* the tutor receives an e-mail with a direct link to the page when it has been updated by the student.

## Implementation and Evaluation

The implementation of the Thesis Web Dialogue has been performed in an evolutionary spirit, which means developing, improving and delivering the functions in line with the development of the system. The development and evaluation of the Thesis Web Dialogue were carried out continuously but chiefly concentrated to two evaluation occasions. The first evaluation, Evaluation I, was less exhaustive, whereas Evaluation II comprised several essay writers and tutors.

When a new service or system is introduced both motivational and practical problems turn up. Introducing IT-based tools into teaching is neither simple nor self-evident. Many times it may entail a complicated time-consuming process (Pelgrum & Plomp, 1993). A fundamental principle is that developers and users participate in this process (Andersen, 1994). The implementation process may contain a series of obstacles that make people oppose change. According to Dalin (1978), these may be divided into practical, psychological, value and power barriers. For a radical change to take place these barriers have to be overcome. Practical obstacles may include economy, accessibility, training opportunities, etc. One psychological barrier may be that teachers feel threatened in their role, fearing that the students might know more than they. Value barriers might exist when values accompanying the technology do not agree with those of the teacher. When a power barrier prevails teachers may feel their entire situation threatened.

### Evaluation I

In the introductory evaluation 7 tutors and 13 students were involved in testing and evaluating the Thesis Web Dialogue. The tutors signing up for the test were all experienced computer users, and half of them also had tutoring experience. The students' computer experience, however, varied. Half of the students were from the teacher training programmes and had a modest knowledge of IT support, while the other students' knowledge may be considered quite good, as they were in their last term of the IT programme. The essay work was performed at the C and D levels of *on-campus education* during 10 and 20 weeks, respectively. All the respondent interviews were based on three open questions asked at the end of the course.

- How would you describe your experiences of using the Thesis Web Dialogue?
- Has the Thesis Web Dialogue improved tutoring and essay-writing?
- How can the Thesis Web Dialogue be improved?

### Experiences from Evaluation I

All the *tutors* were positive to the Thesis Web Dialogue as a support for tutoring and essay work. Some expressed concern that the students' demands on tutor accessibility would increase. As a result of the use of the web support the work load might grow rather than remain unchanged or diminish. Others thought that the risk should not be greater than when communicating by e-mail. Since this was the premiere for the application, some extra time was required initially for learning to use the system.

Several teachers stressed the importance of tutor and student drawing up a contract with rules and routines concerning the possibilities offered by the system. It was considered important that the tutor should lay down the rules for student attendance in the system and vice versa, but the requirements varied among the tutors. Some demanded that the students confirm their work by attaching texts produced weekly. Many

teachers appreciated having all essay-writing students gathered into one system which contained a clear structure and documentation for the work.

The *students* who had used the Thesis Web Dialogue thought that they felt secure with the essay documentation, the presence of the tutor and with visually watching the work grow. The self assessment conducted was felt as concrete evidence that the work was advancing and becoming easier to survey. Many students expressed their appreciation that all information and communication was concentrated to one place. A few students were negative, experiencing the Thesis Web Dialogue as coercion; in these cases the tutor never acquired any real insight into the work. Most of these students' computer experience must be regarded as low.

No technical problems appeared with the application, but a few tutors and students had initial problems handling some functions, which was helped by quick support. No security problems were reported. Many students and the tutor experienced possessing an "exclusive sanctuary" for tutoring and essay work.

In answer to the question of how the Thesis Web Dialogue could be improved both students and tutors made suggestions. Many expressed a wish for an eligible function to remind them when something had been updated on the essay page or in the conferences.

The improvements made after Evaluation I meant that a large number of functions became eligible. This change made the program more flexible. In addition to a number of upgrades and adjustments further functions were added as follows:

- Discussion conference for students and tutors at course level
- Discussion conference for tutors and examiner at course level
- Tutor diary
- Logging for time and activity regarding latest student input
- Student log for situation report alternatively diary notes (accessible to the tutor)
- Link to video communication
- Reminder function

The intentions behind the Thesis Web Dialogue are that quality should increase without increasing the work load. To avoid extra work a few tutors considered it important that student and tutor set up an agreement of in what way and how frequently the Thesis Web Dialogue should be utilized. Tutor and student are to choose the modules supposedly giving added value to the essay work. To assist in this a template for contract-writing was created.

## Evaluation II

After the Thesis Web Dialogue had been upgraded 20 teachers involved in the final course of the Teacher Training program, *Degree Project 10 credit points*, were offered to try the Thesis Web Dialogue. 17 of these started tutoring 51 students with the help of the program.

## Supervision and essay-writing in teacher education. An illustrative example of the essay dialogue use.

Before the essay dialogue programme was introduced the supervisors expressed their anxiety that they did not have complete control of the students' writing process. The contact between students and supervisors had so far been poor, the supervisor often being contacted towards the end of the supervision period when the student suddenly just "turned up" with a completed essay. Since many supervisors felt that they kept repeating a number of their comments to the essay writers they asked for a system which could make their supervision more efficient. To be able to systematically follow the essay work in a way whereby everything was documented in a good chronological order and the communication between students and supervisors was encouraged was a wish expressed by many supervisors. When the essay dialogue was introduced to the students many of them saw the advantage of having the information presented in one and the same place. A description of how the essay dialogue work was implemented follows below.

### Course coordinator

By means of the course code and the simple act of pressing a button the course coordinator picks up the course from the central course database and all the registered students are automatically included in the system (Figure 5).



**Figure 5.** TWD page for the course coordinator to include registered students in the system.

Equally simply the supervisors are entered from the personnel database (Figure 6) and each student is linked to his or her supervisor (Figure 7).

Figure 6. TWD page for the course coordinator to include supervisors in the system.

Figure 7. TWD page for the course coordinator to link students to their supervisors.

The course coordinator then selects the default functions deemed to be most appropriate for the supervisor. These functions can be easily supplemented or excluded by the supervisor. The course coordinator also includes relevant and valuable links appropriate to the course, such as an essay matrix and rules for research ethics (Figure 8).

Figure 8. TWD page for the course coordinator to select the default functions and to include relevant links in the system.

### Students and supervisors

After all students have been linked to their individual supervisor, students and supervisors receive an e-mail with a link to the system. If the users are already logged into the school network no in-logging is required but everyone gets immediate access to the sites and functions covered by their eligibility.

### Supervisors

The first page encountered by the supervisor is a list of the essays he or she has been asked to supervise. For each essay writer symbols show whether there has been any activity on the essay page (Figure 9). By pressing a button the supervisor can reach each essay writer's essay page.

Figure 9. TWD page for the supervisor, the page shows a list of essays to supervise.

### Students

The first page shown to the student is the essay page (see Figure 2 above). Students who use the application in more than one course can first select the essay page in question. After this the student may communicate with the supervisor in the discussion format and download documents. The student also has



access to the discussion conferences created specifically for the course (see Figure 4 above, items 13 and 14).

The first communication taking place on the essay page usually concerns the contract drawn up between supervisor and student. Then the essay plan is presented as well as a first version of the essay. The student downloads the work, the teacher imports it and makes comments on it in a text or sound file in the document and after this the document is returned to the essay page. The student imports and develops the essay in order to download a new version later (see Figure 4 above, item 11). Subsequently, the supervisor follows up with advice and instructions individually as well as via the various discussion fora linked to the essay page. In the forum in which every supervisor gathers his or her essay writers the students download their essays half way through the course for their fellow-students' feedback and guidance as peer to peer learning.

### Examiners

The examiner has the capacity to download all essays and, with the supervisor's permission, follow the communication between student and supervisor. The examiner also has the opportunity to discuss with other supervisors in a special discussion forum for supervisors and examiner. However, it should be noted that only a few examiners actually make use of this facility.

If the essay is not approved or the essay writer has temporarily interrupted the studies the page is de-activated. All documentation and communication remain saved until the student is able to take up his or her studies again. This makes it easier for any supervisor who takes over the responsibility for continued supervision.

At the end of the course an interview study was conducted with 10 tutors, and a questionnaire was distributed to all the students who had used the Thesis Web Dialogue.

### Contrasting with the support of interviews

With the purpose of making a deeper analysis of the pros and cons of the Thesis Web Dialogue five of the tutors that had spoken positively about its use were interviewed. To contrast these views interviews were made with five tutors who had expressed dissatisfaction and refrained from using the program or interrupted it after a short while. The purpose of this confrontation between five greatly satisfied and five dissatisfied users was to give an all-round picture of the attitude to the IT support offered. The seven teachers that did not take part in the interviews all made positive statements about the application.

### Interview results

In an attempt to study whether there was any suggestion of a difference in tutoring strategy between those who had and those who had not appreciated the Thesis Web Dialogue the interviewees were asked to assess which approaches/elements they considered important in tutoring the "typical" essay writer. The interviewees had to reflect on nine approaches/elements, five of which were of a more process-oriented and four of a more product-oriented character. In the table below the mode of the respondents' answers is presented. The highest mode, 5, stands for 'very important' and the lowest mode, 1, for 'less important'. The answers indicate that the tutors who had been positive to the Thesis Web Dialogue had a somewhat higher assessment of process-oriented tutoring (Table 2).

**Table 2.** The mode of the 10 interviewees' assessment of the importance of the different tutoring approaches. Mode 5 refers to "very important", mode 1 to "less important".

| <b>Process-oriented tutoring</b>                         | <b>Positive to its use</b> | <b>Negative to its use</b> |
|--|----------------------------|----------------------------|
| Being accessible   | 4                          | 2                          |
| Giving encouragement and support                         | 5                          | 5                          |
| Communicating general knowledge of a scientific approach | 4                          | 5                          |
| Challenging process and thinking                         | 5                          | 4                          |
| Giving ample time  | 4                          | 2                          |
| <b>Sum total:</b>  | <b>22</b>                  | <b>18</b>                  |
| <b>Product-oriented tutoring</b>                         |                            |                            |
| Providing essay planning support                         | 4                          | 5                          |
| Giving advice  | 3                          | 4                          |
| Communicating interdisciplinary knowledge                | 3                          | 3                          |
| Providing concrete writing tutoring                      | 3                          | 4                          |
| <b>Sum total:</b>  | <b>13</b>                  | <b>16</b>                  |

Being accessible and giving ample time were the attitudes showing the greatest assessment differences. The respondents who had been negative to the use of the Thesis Web Dialogue assessed accessibility and time as less important. The answers to the question how much tutoring time was used in relation to the time allotted do not differ greatly. Both groups state that it takes more time than what has been allotted.

The group that had made *positive* statements about the use of the Thesis Web Dialogue was asked what were the chief motives behind their decision to test and use the program. Everyone answered that the main motive was to improve and facilitate following student essay work. Most of those asked were also of the

opinion that the system helped tutor and student to structure essay tutoring.

Those expressly *negative* to using the Thesis Web Dialogue were asked to state their main motives for abstaining from the program. Some of the respondents referred to usage problems and the lack of time to set aside for learning the program. A few started using the program but soon went back to communication forms they were familiar with. Some encountered problems using the pop-up screen blocks programmed into the computers. After unsuccessful attempts to solve the problems they reverted to their usual routines.

The answers to the question what type of students the tutors thought would appreciate the Thesis Web Dialogue did not show any great differences between the two groups. Many thought that the arguments for creating a better structure might have been decisive.

When the respondents were asked to grade the functions of the Thesis Web Dialogue the different functions obtained high grades by both groups, including those who had never tested the program. The functions in themselves were not questioned but were considered relevant. Many have abstained from using the forums available to set up to include students and tutor (Table 3).

**Table 3.** Interviewee grading of Thesis Web Dialogue functions. Mode 5 refers to "very important", mode 1 to "less important".

| Function              | Positive to TWD mode | Function not used | Negative to TWD mode | Function not used |
|-----------------------|----------------------|-------------------|----------------------|-------------------|
| Forum for all         | 4                    | 3                 | 5                    | 5                 |
| Tutor forum           | 4                    | 3                 | 5                    | 5                 |
| Group forum           | 4                    | 3                 | 5                    | 5                 |
| Send info             | 4                    | -                 | 5                    | 3                 |
| Self-evaluation       | 4                    | -                 | 4                    | 3                 |
| Situation report      | 4                    | 5                 | 4                    | 5                 |
| Compulsory elements   | 4                    | -                 | 3                    | 5                 |
| Meeting and time      | 4                    | -                 | 3                    | 3                 |
| Discussion            | 5                    | -                 | 3                    | 3                 |
| File loading          | 5                    | -                 | 3                    | 3                 |
| Information via links | 5                    | -                 | 3                    | 3                 |
| <b>Sum total</b>      | <b>47</b>            |                   | <b>43</b>            |                   |

Few suggestions for supplementing the Thesis Web Dialogue were given by the interviewees. Some suggested more and better links.

Being asked whether there had been any service interruptions the majority of the group that was negative to using TWD pointed out such occurrences. One of the respondents claimed that *"there were breakdowns all the time"*. None of those who had been positive to using TWD had experienced any breakdowns. On the contrary, the program was praised for its service reliability. Few tutors had agreed with the students on how to use TWD. Many times there was only an oral and more or less vague agreement. Many of the interviewed thought it might be a good idea to draw up a clear contract after deciding to use the program. Some pointed out that a contract might result in a clearer distribution of responsibility. On the final question whether the interviewee might consider using TWD for future tutoring, in campus and/or distance teaching many stated that they were positive to future utilization. In the group that had interrupted, or never started, work with TWD positive statements about future utilization were made. One person clearly rejected using TWD, declaring a desirability to limit contacts with the student.

### Student questionnaire and questionnaire results

36 questions were distributed as a web and in some cases as a paper questionnaire to the students participating in the study. Out of 51 invited 49 contributed. In nearly all of the questions the contributors were supposed to respond to statements with the help of five alternative answers.

The majority of those who answered the questionnaire were women (70 %) and the median age was 29. Most of the respondents (82 %) stated that they had broadband at home and that they used computers both there and at the university. More than two thirds agreed that they had large computer experience and that "the Thesis Web Dialogue was a good idea". Being asked whether TWD might be time-saving, less than half agreed that it might save time for the essay writer. More than half the respondent students considered it important to establish a contract between student and tutor about how to use TWD.

On the question about the logging-in procedure more than four fifths considered it easy to handle, especially when using the university computers. Over two thirds stated that they seldom had any problem dealing with the version, and that they appreciated the fact that the work was stored in the system. A few students, however, were worried that material sent within the Thesis Web Dialogue would disappear and that it would be read by unauthorized people. In a few cases they have not trusted TWD altogether, but used regular e-mail instead.

When the students were to consider whether TWD facilitates communication between student and tutor more than two thirds estimated that the communication had improved. A number of students pointed out that the contact between tutor and student had been bad and that this had been the reason why communications had not worked satisfactorily.

Many students judged that it was easier to estimate work load and time spent with the help of the self-evaluating and compulsory element functions. Over two thirds of the respondents were satisfied with these functions.

The time plan has been presented in the Thesis Web Dialogue by many students but there have been few continuous situation reports. The discussion conference has only been used by a few tutors, which made many abstain from answering that question. The majority thought that TWD had facilitated work. Most of the students had not experienced any technical disturbances. The information about the Thesis Web Dialogue and computer support during the course was considered unsatisfactory by nearly half the students.

Most of the students consider their computer experience sufficient for handling the Thesis Web Dialogue. On the other hand, they think that the teachers must improve their computer skills. Being asked whether the tutor had been positive to using TWD a not inconsiderable number have answered that they had not.

The Thesis Web Dialogue is said to function well in both on-campus and distance courses. Its usefulness is expected to be greatest in distance education. TWD was estimated to save time in some situations and the majority wants to recommend it to future students. On the question whether the Thesis Web Dialogue could be improved no direct suggestions were made.

### Evaluation of user statistics

In the Thesis Web Dialogue it is easy to study the user statistics of the various functions. It is also possible, with user permission, to study the communication carried out during the course. Discussion and file loading have been frequently utilized by both tutors and essay writers (Table 4).

**Table 4.** Ranked user statistics where the figure 1 represents the most frequently used function in the Thesis Web Dialogue.

| Function              | Tutor ranking | Student ranking |
|-----------------------|---------------|-----------------|
| Tutor forum           | -             | -               |
| Group forum           | -             | -               |
| Send info             | 5             | -               |
| Self-evaluation       | -             | 3               |
| Situation report      | -             | 5               |
| Compulsory elements   | 4             | -               |
| Meeting and time      | 3             | -               |
| Discussion            | 1             | 1               |
| File loading          | 2             | 2               |
| Information via links | 6             | 4               |

### Continuous evaluation focusing on project goals

During the course a continuous dialogue and evaluation went on with the users. This evaluation was of great importance to program development and testing. If focusing on the first project goal, *that the application should facilitate communication between student and tutor*, we may state that communication during the course has been lively. Many times it is a matter of brief questions from the essay writer in the discussion function and short answers and encouraging words from the tutor. The communication is listed in chronological order, giving a clear coherent picture of the dialogue that has taken place.

One possibility offered by the program is that a tutor can discuss with other tutors and examiners in a discussion conference without the students gaining access to what is being discussed. This function, however, has not been made use of in the course. Nor has the open discussion conference, where everyone in the course was able to ask questions and share experiences with others. One obvious reason is that this activity has not been encouraged by the course coordinators. The little used discussion conference has been available to the individual tutor and his or her students. Some tutors have appreciated this opportunity, since it enabled them to offer tutoring on general problems and simply reach out to all one's tutees. To improve the latent resource of other students forms should be developed in the future for collaborative learning in essay writing.

The quick information that can be provided on the essay page has also been utilized frequently, as has the possibility of e-mailing students quickly and with the help of prepared lists. A great deal of immediate concrete communication/tutoring has also taken place in the current essay version.

The second explicit goal of the essay dialogue was that *the tutor should be able to more easily administer and follow students currently engaged in essay-writing*. By following the various essay versions the tutor could see how the work progressed. In the file-loading function the tutors have given direct feedback with their written comments or, occasionally, with sound commentary. Having all the essay versions and tutorial comments gathered in one place has been appreciated by both students and tutors. Many tutors claim that the risk of cheating is less if the tutor can see how the student reacts to the tutoring as the various essay versions become visible to the tutor. If a student should plagiarize it will probably become more difficult to do so in a close dialogue with the tutor.

Another application goal was *that the student should be able to evaluate and estimate workload and time spent*. One of the functions created for this purpose, the importance of which was initially underestimated by the tutors, was the self-evaluation function available to the essay writers. Many students have used it to visualize how their work progressed. The students reacted positively to being able to continuously mark the effort made as the writing progressed. It has also given the student a clear picture of which parts of the essay have abided by the time plan.

The function where the tutor was given the opportunity to define the compulsory elements of the course was constructed to attain the goal that *the essay dialogue should clarify the compulsory elements included in the degree project*. In this respect the tutors have been given administrative support to keep track of whether the students have participated in the compulsory activities, such as peer-to-peer seminars, trial opposition and group tutoring linked to the course. Since the activity is clearly exposed with student attendance marked, the attendance requirements are made more explicit.

To the goal that *the student should easily find information data, support and documentation relevant to the essay* all the functions of the Thesis Web Dialogue have contributed. Under the links presented on the essay page (Figure 4, item 12) could be found, for instance, syllabus, style sheet, essay template, research ethics, database links, opposition memo, etc. These links have been appreciated by both essay writers and tutors.

Another goal covered by many program functions was that *the tutor should be able more easily to administer and follow students in the essay course*. When a student interrupts his essay-writing for a long period and it may be necessary later on to change tutors, this can be easily done. The advantage is that previous work and process will be available to the teacher who takes over the tutoring role. The advice and demands formulated earlier are easily accessible. This function was appreciated by the tutors responsible for the 'rounding up' of stragglers, i.e. those students who were given extended time to finish their essay.

### Experiences and conclusions

The majority of the tutors and students who had tested or received a presentation of the Thesis Web Dialogue are positive to its idea and function. The most positive group is the students. The chief reason for the negative attitude of some teachers is their uncertainty about the technology and lack of time to learn the program. Some have also been concerned that the Thesis Web Dialogue might require greater accessibility and longer working hours. One way of reducing these problems and fears is to use the contract drawn up after the initial evaluation. Another measure could be to allot hours to the teachers for training and supervision. This initiative is certain to increase IT competence in general and thus be of use for other tasks as well.

A small number of students have also expressed scepticism about the use of the Thesis Web Dialogue. Some of these students feel uncertainty when confronted with the technology, while some obviously want to avoid being subjected to higher demands and greater insight into their essay work. Many students made positive judgments but criticized that some tutors were unwilling or lacked the competence to utilize the service.

Those who have appreciated the program have not reported any technical problems deriving from the application itself. However, those few who have reported technical problems have in nearly all cases been lacking in competence.

### Changes and additional functions

By most of the users the program has felt easy to handle and secure. An application like TWD is easy to understand and use when oriented towards a well defined task. This simplicity must not be lost by adding further functions to the system. The obvious risk is that using it will be considered these functionaries often possess a higher IT competence than ordinary users.

One function which is important to secure in further development concerns the choices that can be made when configuring essay-writing and tutoring support. There are many different personal requests and if tutors and students are offered functions they do not appreciate, or services that are not asked for, TWD will be regarded as a burden. Against the background of eligibility another function must, paradoxically enough, be added to enable selecting or deselecting e-mail messages when students make changes on the essay page.

### Reflections on the Thesis Web Dialogue and research on tutoring

The division made between distance and more conventional education is becoming less appropriate (Dahlin, 2000). This is why the *Thesis Web Dialogue* should be suitable for both distance and on-campus education.

The Thesis Web Dialogue should encourage a close contact, especially in the discussion function, and a more informal dialogue. Previous research has demonstrated that this is a success factor for effective tutoring (Cook, 1980; Bynner & Henry, 1984). At the same time the application invites to specifying and clarifying tutoring requirements, another important aspect of effective tutoring (Lybeck & Asplund-Carlsson, 1986). The Thesis Web Dialogue endorses what many essay writers consider being the chief ingredients of tutoring, namely guidance and planning, time and accessibility as well as encouragement and support (Lindén & Fitger, 1990). With a continuous formative examination system the risk of cheating probably diminishes. Giving the teacher tools to follow the student's work process may be one way of preventing cheating (Gunnarsson et al., 2002).

We are convinced that the Thesis Web Dialogue can be of great help to many students and tutors. We regard it as particularly suitable for distance courses and/or essay courses where the tutor follows the essay writers for a relatively long time. In D essays and projects at a higher level, such as thesis-writing, the documentation and archiving offered in the program may be of great help to essay writers and tutors. In frequently repeated courses, like essay courses, the system can be stored with relatively perennial information, which may largely be re-used by the following course. For this reason all tutors and students must take greater responsibility and suggest materials and links which can be made accessible to everyone.

Those who have stopped using or not used TWD at all have deepened our understanding of obstacles and problems in how to use it. The application may not suit everyone, but after having listened to this group and then made further improvements, more people will hopefully use the program. If TWD can facilitate for students to pass their exams or for tutors to save time or raise the quality without spending more time, the application is worth being introduced and offered to more university teachers. Evidently, most of the tutors and students who have tried the Thesis Web Dialogue want to go on using the service. It is our hope to be able to make this service more accessible to all universities and evaluate in greater detail possible time-saving and quality-raising aspects of essay-writing and tutoring.

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