Teaching and Learning on the Web

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Chalmers library began teaching information literacy for students in the mid 1970s and today most programs include the compulsory course Information Literacy for Undergraduates. In the autumn of 2002, we presented our first web-based course and since then we have worked with various platforms and course structures. On this poster we present our current version of the course.

Information Literacy for Undergraduates

Most programs require their students to take this course when they start working on their bachelor or master theses. The course structure is the same regardless of which program they are enrolled in. Approximately 1000 students participate in the course each academic year. It is divided into two parts, the first is taught in a traditional classroom setting whereas the second is an interactive web-based learning experience.

Part 1

The first part consists of a lecture on information retrieval and a workshop during which students seek information for their specific theses. We adjust our lectures according to the students' different subject areas. During the workshop the students get an assignment where they need to practice writing references for three different types of publications. In part 1, we also introduce students to Ping Pong, which they use in Part 2 of this course.

Experiences from the course

Our experience with this course structure is mostly positive. Below is a table with some of our observations.

Advantages	Disadvantages
Students actually visit the physical library during Part 1 of this course.	A lot of deskwork for a short period of time.
Personal contacts develop between the teachers and students.	Difficult to create questions that cannot be misunderstood by students.
Improved abilities to help students with relevant material for their theses early in the research process.	
Easy to update the study material.	
The test includes several questions which are self-correcting.	
Most of the administrative work is done in one place.	
Provide students with different learning styles a greater opportunity to learn information literacy.	
Good opportunities to communicate with students via e-mail and chat.	

Part 2

About Ping Pong

Ping Pong is a communicative Learning Management System (LMS) and includes many specific tools for teaching, collaboration, assessment and administration. The system was developed in Sweden and it is used by universities and colleges, government agencies and large corporations.

When Chalmers decided to purchase Ping Pong, the library volunteered to teach the course on a trial basis. We transferred our information literacy study materials from our previous learning platform, Fronter.
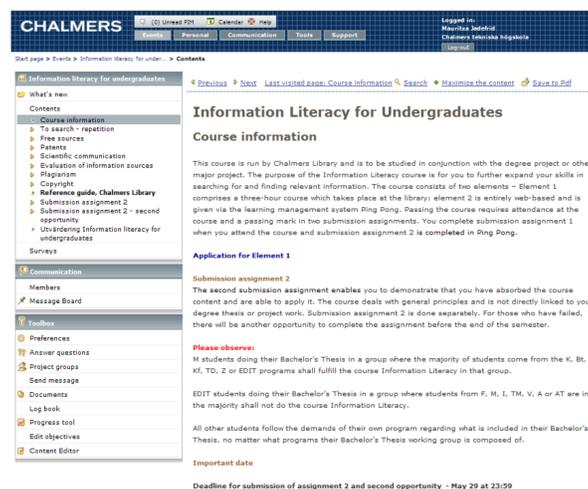
Ping Pong is a fairly new product on the market and it is still being developed and improved. When we discover technical deficiencies we address them directly to the company. In addition, we often provide feedback and suggest improvements for functions and tools. We use Ping Pong because it offers students a flexible self-study environment.

The course material and the assignment

All course material is available in Ping Pong and students do not need to collect information from other sources. The assignment consists of 15 questions and it takes approximately 3-4 hours to complete. The students have access to the study material and can work on the assignment until the due date.
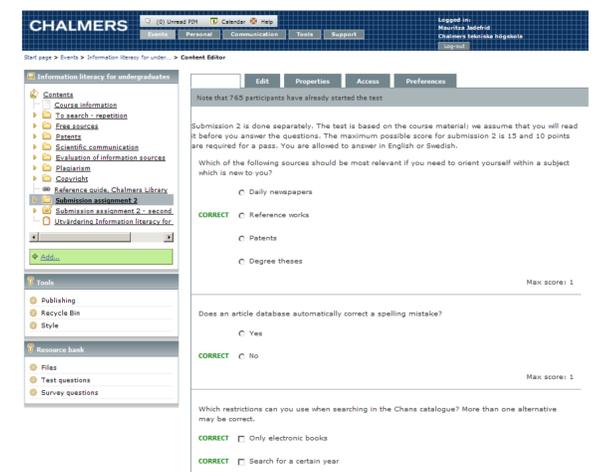
Preliminary results from an ongoing student survey

How have the technical and practical aspects of Ping Pong worked?

- Very good: 34,7%
- Fairly good: 33,2%
- Neutral: 22,1%
- Fairly poor: 5,5%
- Very poor: 4,5%

"Ping Pong seems to be a good tool. The AutoSave-function is very good."

"Sometimes difficult to know what to do and where to find the information."

"Opened the assignment in my iPhone, just to submit it [...], which gave the result that the iPhone couldn't read Flash [...] which gave the result that I didn´t pass the assignment and had to do it again."

Which teaching method do you think is best for learning information literacy?

- Classroom instruction: 50%
- Web-based course: 20,4%
- A combination of both: 29,6%

"The web-based course worked well, since the study-material had some useful information. But classroom teaching will always be the best alternative since you have a teacher which you can talk to if you don´t understand."

"If you get stuck on the web, you can´t get help, then the assignment can take 1 to 24 hours."

"Web-based learning gives you more freedom, you don´t have to stress during lectures and can do the assignment in your own pace."

"The best part was when you could sit by yourself and there were teachers around to help if you get stuck."
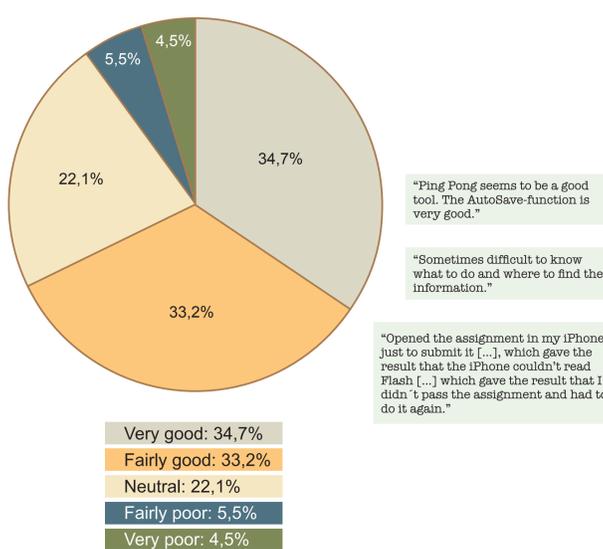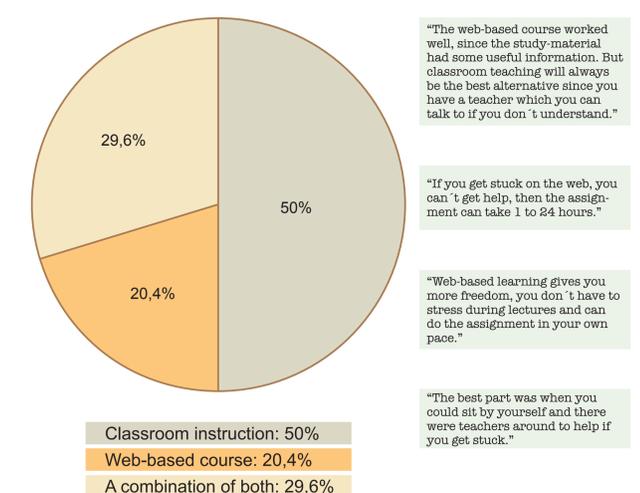
Improvements for the future

The student surveys and our teaching experience has given us valuable insight for the ongoing development and refinement of the course. The student survey results clearly demonstrate that students prefer classroom instruction, but we do not have the resources to fulfill this request. Instead we will focus on improving both the content and the functions of the web-based part of this course. As of now we will continue this combination of having both a classroom and web-based section of this course.

This is what we plan to work with:

- Change and improve the questions in the assignment so they cannot be misunderstood. Create a question bank.
- Incorporate study material about social media and other technical tools in the course.
- Try to make the study material more interesting with instructional films and social media.
- Make the study material from Ping Pong available to all our users.
- Change focus of the course. Most students know how to search but not how to make a critical evaluation of the sources retrieved. Incorporate more about publication types, reference writing and plagiarism.
- Improve the instructions in how to use functions and tools in Ping Pong.
- Work even more with trying to understand the students' perspective by addressing the following: How do the students experience the course and do they learn what they need in order to be information literate?