EUNIS 2008: CHANGING THE E-LEARNING PLATFORM AND SUPPORTING THE LEARNING PROCESS

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1. EXECUTIVE SUMMARY

1.1. Backround

The first learning platform used at Vaasan ammattikorkeakoulu, University of Applied Sciences (VAMK), in virtual study units was mainly WebCT. In 2005 open source based Moodle was adopted alongside WebCT. Web CT license was renounced at the end of 2006, due to the cost of the software and its complex technical implementation. Moodle became the main platform at the beginning of 2006 and all virtual study units built in WebCT were transferred to it. The e-learning group organized the transfer and e-learning secretary was responsible for the implementation.

Table 1: Reasons for the transfer from WEbCT to Moodle

Changes in curriculum, need to increase ICT supported instruction
A wish for a one eLearning platform instead of many; also a need for synchronous software
New pricing system for WebCT
The new version of WebCT would also have been a big change for users; big changes to come in 2-3 years when the changes due to the merge of WebCT and Blackboard take effect (totally new platform maybe)
Resources directed to support services and pedagogical development instead of technical development
Positive experiences from some other sciences of applied sciences

1.2. Transfer Plan and Implementation of the Transfer

a) Inquiry to the teaching staff on the platforms used in virtual study units: amount, software, etc; b) Account for cost and implementation of the transfer;c) Decision on the transfer; d) Informing the staff; e) Purchased as outsourced service, transfers as IMS-packages; detailed manual corrections in addition; f) Staff training: own training arranged, work shops, co-operation with the university learning centre, personal guidance, etc. The emphasis in virtual study units moved from technology to guidance and support services; g) Evaluation of transfer: corrections, specifications and updates were needed, transfer time was extended.

1.3. Evaluation and results

The amount of e-supported studies increased, as well Distance Learning. The easy-to-use platform enabled the e-supported instruction in all fields, also in Health Care and Social Services. E-supported instruction is utilized in thesis guidance and practical training, as well as in group tutoring in the beginning of studies (Studies and Information Acquisition study unit). It has been possible to reallocate teachers' resources from laborious design work to instructing the students. Concentrating on one platform and the easy usability of the chosen platform (Moodle) has lowered the threshold to use e-learning platform as a support of learning, especially in non-technical fields. It has been possible to target the costs to instruction and learning instead of software.

2. WEBCT – MOODLE TRANSITION

2.1. Survey and decision making

Target group were teachers at VAMK who used either of the platforms. The questionnaire was sent to 39 current or former active users, 16 of which returned the questionnaire (reply rate 41%). Conclusion: the number of active WebCT users will be very small in the future. Some already transferred over to Moodle and therefore insignificant to them if WebCT is available or not. Approximately half of the respondents are ready to move over to Moodle, only a few see problems in the transfer. Some respondents already moved over to Moodle but those who still use WebCT utilise the tools provided by WebCT extensively.

The survey brought up the following problems that the transfer to a new platform can cause:
A) The basic logics of Moodle and WebCT very different
B) The tools in Moodle and WebCT very different
C) Learning the new tool takes time, therefore less time available for the development of the contents
D) Learning to use the tool considered laborious
E) Some teachers do not consider Moodle as good a tool as WebCT in their instruction

There was two basic possibilities of transfer: eighter teachers are allocated working time for the transfer, or the transfer will be bought as a service from person, who made the converison for EVTEK or Mediamaisteri. In addition of teachers self transfer 2 or 3 students will be employed as trainees during summer and they will undertake the part of the transfer that can be made as a conversion and help those teachers who want their courses transferred for them. The trainees can be obtained e.g. among the IT students who have applied for training placement through international trainee exchange (also Finnish students).

In discussions one platform option was considered better and Moodle has so many users that it cannot be abandoned. The advantages of Moodle are the low maintenance costs (no licence fee) and the fact also that the threshold to start using it is fairly low. Better and more versatile tools can also be expected in the future because the development of Moodel has been rapid.

Some members of the eLearning team wanted a longer transfer period but the majority of the team had an opinion that the transfer can be made by the end of 2006 as long as teachers get enough support during the transfer period. Various possibilities for support were discussed and the genral opinion was that both training and support services are needed to manage the transfer.

2.2. The final proposal by the eLearning team

I) WebCT licence is not renewed after 31 December 2006.

II) A personal plan for the transfer period will be made with active WebCT users (persons respobsible Mira Pihlaja and Timo Pitkäranta). If the teacher does not feel that s/he cannot implement her/his study units in Moodle the way s/he wants, the aim is to find the best solution for her/his needs and the implemention of this solution will be supported as much as possible.

III) Teachers are allocated resources in their yearly work plan for autumn 2006 to update their courses and to learn to use the new tool. The resource required will be determined in the discussions and presented to the Heads of Department in May 2006 at the latest.

IV) Current WebCT users are arranged a tailored training in using Moodle (by Mediamaisteri)

The decision to abandon WebCT and to make a contract with Mediamaisteri on the transfer of the courses was made during Apri-May 2006; transfer period 6 months. The schedule was changed on the part of the training so that the training will be arranged after the actual transfer in August.

2.3. Transfers and training

The courses to be transferred totalled 80 but in the final check some courses were removed from the list and some overlaps were eliminated. After the discussion round there was fairly little resistance, only a few teachers had a negative attitude towards the transfer. In the final contract the courses to be transferred and the schedule (June-August), the tailored training as well as the support services from Mediamaisteri to Moodle main users and to the teachers whose courses the transfer concerned were determined. Mediamaisteri was granted an access to WebCT and simultaneously the technical readiness of Moodle was confirmed. The majority of the transfers were made as IMS packages but some implementations required manual transfer. As the transferring proceeded the teachers were asked to inspect their own implementations and their functionality. Corrections were made as soon as errors were detected. The main user of Moodle supervised the transfer procedure and basic functionality.

2.4. Training for teachers and inspection of transfers

Before the instruction at the institute started in August 2006 a Moodle training day for all old WebCT users was arranged. Nearly all teachers whose implementations were transferred participated in the training. When all IMS packages had been transferred, some clear errors were detected. Mediamaisteri confirmed for some functionality that they cannot be transferred as IMS packages but they have to be done manually bit by bit. Therefore, one month's continuation was given. The main user of Moodle supervised the finalising of the rest of the functionalities together with the teachers. The majority of the courses were functioning as the teachers wanted. Some effective users were not totally satisfied with the tools provided by Moodle but a working way to implement the functionalities was found for the majority of them as well. As the tranfers were finished and the enf of the transfer period closed in teacher were offered personal support from the main user of Moodle and EduKlinikka at the Learning Centre. Many teachers took up on the offer but some of them preferred learning independently.

2.5. Final transfer and after care

WebCT was finally closed 31 December 2006 and and the course on WebCT were saved on the server and it was agreed with thr retailer and partner university of applied sciences that if need be courses can be reopened on their platform after our licence has expired. As an after care Moodle trainings were arranged regularly (basics and continuation training) and personal support was available, as was during the transfer period.

Table 2: Successes

All courses were transferred successfully and the budget was kept.
Nearly all old WebCT users participated in the training arranged during the transfer period.
The maintenance of Moodle is much cheaper that that of WebCT although the technical support is outsourced.
The need for resources in technical support and user maintenance decreased when only one eLearning platform in use.
The freed resource have been used to acquire a synchronous software (Breeze i.e. ConnectPro) and to user support and training
Due to training and personal support the use of Moodle has increased especially in non-technical educational field; Moodle is considered more approachable than WebCT .
Development of teaching methods is topical and continuous (especially eLearning pedagogy).
Students have a positive attitude towards Moodle and its use alongside contact teaching is considered good especially in adult education (availability of material, returning the assignments though the net, etc.).
Moodle has kept up with the development well (platforms change so that they support more guidance, communication and reflection).

Table 3: Problems

- WebCT and Moodle are technically very different so course on Moodle have a different structure from WebCT courses and due to this some manual work had to be done.
> Continuation time was needed to transfer the courses where various WebCT tools had been used in diverse ways (e.g. Quizzes).
> WebCT users missed some of the properties not available in Moodle, some resistance can be detected even after two years.
- The development and especially updates of an OpenSource product have not been on as secure basis as in commercial products (e.g. bugs found in every update).
- Outsourcing of technical support and version management has caused some problems in connection of updates (when the blocks are not in ”our hands”, confusions are frequent and make things difficult for the main user and end users).

2.6. Current situation

During study year 2007-2008 has started to do changes in curriculum, diversification and improvement of teaching methods, especially in adult education. Models of eLearning implementations (learning process and learning tasks emphasised) has also planned and encouraged teachers to establish multidisciplinary teams.

A process description of eLearning required by the quality system has been drawn up and it was one of the targets of the internal audit in autumn 2007. The development of diverse studying possibilities is one of the development tasks during 2007-2009. The emphasis is on ensuring flexible studying possibilities for mature students.

VAMK’s main eLearning at the moment is Moodle (https://moodle.puv.fi/), and ConnectPro is used as a synchronous learning platform for having meetings and lessons in real time. The current CoonectPro licence enables 40 simultaneous users. The users can divide into groups of various sizes as long as the limit of 40 simultaneous users is not exceeded. A reservation virtual class room has to be made for each

session and a platform and web site address is created on it, or the person acting as a inviter can use the same platform many times and update it when needed.

In addition to these VAMK has E-form software, which can be used for making www-based questionnaires (e.g. study unit feedback is implemented with this software). Both students and staff can use E-form software freely. To support distant learning and teaching there are also other ICT systems, such as Citrix. To access the software inside the firewall (e.g. search engine of addresses and helpdesk) and library databases a server farm implemented with Citrix Metaframe has been created. It is used with the browser and free Citrix client software installed on the browser.

2.7. Networking as a resource in eLearning

At the moment networking is topical when talking about the objectives of eLearning. A lot of cooperation is being done in this field with Finnish Virtual Polytechnic and Vaasa Consortium of Higher Education. These are also our partners in cooperation in the fields of information systems and library services and staff training. The emphasis of educational cooperation is in the utilisation of eLearning technologies and pedagogical training. The production of virtual material has taken place in the production ring of Finnish Virtual Polytechnic which has EU funding. A large group of various experts has been involved in the production ring and all products from 2005-2006 are now available for the network of polytechnics. During 2007-2009 the emphasis will be on introduction of material produced and in the survey on the development needs and updating. We have been and still are participating in other production rings whose finding is different from that of Finnish Virtual Polytechnic. In 2008 the purpose is to create multidisciplinary teams inside VAMK to produce material for common use in eLearning at VAMK whilst keeping the future changes in the curriculum. As for regional cooperation, the services of the Learning Centre are part and parcel of the aspiration to develop eLearning as well training, eLearning technology and pedagogy.

3. ELEARNING PEDAGOGY

An eLearning environment is a learning platform based on the www and the Internet and it consists of texts, hypertext, multimedia, possibilities for interaction (mail, chat, forum) and other supportive services. The types of eLearning can be divided into 1) contact teaching supported by e-learning 2) multimedia instruction on the web and 3) self-study on the web. The interaction is emphasized in the contact teaching supported by eLearning and in multimedia instruction. The interaction takes place between the teacher and the learner, among the learners or between the learner and the material. The interaction channels can be e.g. e-mail, discussion forums, audio and video conferences, chat groups, text messages, group work, games and simulations.

The planning and outlining of the contents and learning experiences affect the form of building eLearning environments. 1) Learning environment organized hierarchically and focusing on the contents is based on a larger entity of contents which have been outlined consistently. 2) Learning environment organized modularly and focusing on the contents can break the hierarchies traditionally used in text books. 3) In learning environments that focus on learning experiences and tasks and is organized modularly the emphasis can be shifted from the outlining of the contents more towards the planning of learning experiences and learning processes. 4) In learning environment which focus on problem solving and projects it is possible to implement lengthy problem solving tasks or projects. (Kiviniemi 2005, 21-31.) The function of the eLearning material is to activate the student and support the learning process.

In eLearning pedagogy it is important to take into account the special nature of the learning environment. The teacher's support and guidance is equally important. In didactic solutions it should be carefully considered what is taught and how. The learning concept as well as the teaching concept influences the design of the learning environment and the progress of the study and learning process. Good eLearning pedagogy feature student orientation, socio-constructivist learning concept as well as social and cognitive interaction. The teacher's task is to actively guide the student's learning and process of construction of information.

The learning process includes the start, orientation to the learning material, completing the learning tasks, reflection and assessment. Critical reflection and individual and collective reflection are especially important for deep learning.

The criteria for a good eLearning course are 1) interaction /co-operation, 2) audiovisual material, 3) high quality eLearning pedagogy and 4) reflection and objective assessment.

In information society, the institutes of higher education are faced with the requirement for a new operational culture; flexibility especially is the key word. Information and communication technology facilitate the availability of education and supports the learning process.

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