Moodle in Higher Education and at Óbuda University

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Abstract—Living in the 21st century, we are exposed to vast amounts of information. ICT is becoming necessary for our everyday lives, we require the need for accessing our personal documents anywhere and anytime. This article is concentrating on the importance of unification in higher education, in terms of finding the most effective way for our students to access the curriculum. Here are presented the strategic steps needed for the acceptance of tutors, but also students’ approach of this new teaching method. I will present the importance of incorporating in our teaching methods, the virtual learning environment, like Moodle.

I. INTRODUCTION
The university of Obuda is Hungary's second biggest Polytechnic Institute with 5 faculties and 2 education centers in different parts of the city. More than 31% of our students are long distance trainees, which shows the increasing need for easy accessibility of the curriculum.

The university has conducted a survey amongst mature students, asking "What kind of help they need from their tutors and the university itself?" The majority has pointed out deficiency of tutors' pedagogical preparation as well as the accessibility of the curriculum.

One of the best phrased answers was: "In my opinion, we need a uniform and easy to access system to help us complete our notes. At present, students gather the information needed for their studies from wherever they can. (e-mails from tutors, libraries, Moodle system, articles, previous students' notes) Collecting information from so many ways, restricts our learning"

Based on the information from our students, the university has decided that in the 2012-2013 academic year’s second term, the Moodle virtual learning system becomes compulsory. This decision brought many difficulties, as expected, on one hand from tutors who were seeing it as adding to their work load, on the other hand from students who were concerned about whether the information posted on the system was up to date.

II. THE HISTORY
Our university first implemented the Moodle system in 2006. Even in the early days the system was intended besides a pedagogical tool, to also use the system’s functions as a platform where learning materials are uploaded electronically. In this way the students would not need to memorize different websites and their respective passwords.

The system was run by an administrator who pre-prepared the courses. Radius was needed to access the system, which used Neptuns’ learning materials, however when using the system again, the students had to know each courses’ password.

In the following half term the tutor has removed from course, which broke the continuity of accessing the learning materials.

In 2012 we had more than 5000 students (there were over 12 000 at the university) and 65 tutors used more than 300 active courses in each half term.

Based on statistical data, out of an average 18 log ons daily and 42Mb of data was downloaded.

III. SELECTION OF EDUCATIONAL METHODS
During technical training there are occasions when the objectives are reached better with traditional teaching methods, however virtual learning is welcome to:

- Require theoretical online learning and web links are most suitable.
- Mental ability like method and theoretical application generally happens by action learning, which can be enhanced by simulations, e-tutoring and e-coaching.
- Psychomotor abilities (connecting electrical circuits, using machines) develop through kinesthetic learning.
learning which can be supplemented by simulation and coaching.

The makeup of learning group determines which components are the most useful:
- For large groups, online learning is more suitable.
- Students from different geographical region are much better taught using virtual learning.
- Time is another factor when it comes to choosing the best teaching method. Offline teaching is time consuming and requires linked teaching.
- The more students are motivated the more effective online teaching becomes.

Expectations of the establishment:
- Updating the teaching materials depends on the subject, however online materials are much easier to update than offline materials.
- Maintenance determines how successful the component will be. For example the opposition towards technological components restricts the maintenance of these.
- If you do not possess the necessary technical and human resources you cannot provide successful blended learning.

IV. TRAINING SETTINGS

Learning strategy is to be interpreted as a complex system of procedures where methods, forms and means are united in an organic relationship. [2]

To find the best training settings the following questions should be asked:
"When is e-learning not suitable?"
"How could online and offline components be married?"
"How long should components operate and what time limit should be between components?"

In technological training the traditional teaching methods can/should be kept, however virtual learning is a welcomed innovative teaching method. There are four ways in which components can be combined.
- Individual components: at this level the components are not related at all.
- Integrating components: at this level all the components are interconnected.
- Collaborative components: at this level we find more coherency between the components and the learners, depending on whether it is face to face or e-learning.
- Expansive components: at this level besides the four components, others are added to complete the traditional learning. [3]

With the introduction of the Moodle system we managed to incorporate the components, however we strive for the best way to use the available components.

V. THE INTRODUCTION

THE ACADEMIC SIDE

We had to take into consideration the technical developments and the needs of our students. [4] Prior to the system's induction meetings were held with tutors and students about the best way of introducing this educational tool.

The most opposition was experienced from tutors. 78 tutors were surveyed, "Why are you not using the system?" 36% of the answers were " I do not have the necessary training to use the system". From this point on it was clear that for those who were not using the system, the introduction will be perceived as an extra work load.

It was unequivocal that the system would not work by tutors only emailing the list of courses they were managing, therefore change was needed. Moodle had to be restructured.

Now when a user is accessing the system is able to see all Neptun's courses. With these changes of the system tutors considered it more acceptable.

THE STUDENT SIDE

Meetings were held with student representatives in order to find out the best way of using the system.

In survey, which was completed by 519 students we found out that students were accessing the learning materials from various places.

Figure 3.
Undoubtedly, the students would support the idea of a system where curriculum materials are stored and easily accessible.

Figure 4. “Do you agree with the concept that the university should have a system where notes and learning materials are stored?”

The students did not find the old Moodle system suitable for storing information.

Figure 5. Do you think that Moodle meets this purpose?

In case students can find in the Moodle system all Neptun courses alongside the learning materials, then Moodle could be the best virtual learning environment. This system will provide the students with the appropriate learning tools to succeed in their respective courses.

Figure 6. In case students can find in the Moodle system all Neptun courses alongside the learning materials, then Moodle could be the best virtual learning environment.

VI. HOW DOES THE SYSTEM WORKS?
If we don’t have high expectations and clear and concise objectives, further development cannot be expected. [4]

Taking into consideration the expectations of the system for the second term of the 2012-2013 academic year, the fact that is compulsory, for now we use the system as an electronic display of learning materials. There is a closer relationship between the Neptune and Moodle systems. Moodle’s authenticity is given by SAML’s protocol, from the IdP Radius certification, however the additional data comes from a LDAP data base. When the user logs on, is able to see automatically the courses from Neptun, which are imbedded in the data base.

The system administrator is ingeniously able to recognize the role of the user either as a tutor or student.

Currently our system has 7309 users, 218 tutors and 6998 courses available. We have over 10000 records daily, and over 11Gb of data traffic.

The system’s features were mostly used by information technology teachers, this is so nowadays. Before we introduced the system, we placed particular attention to training our tutors on how to use the system most effectively. Besides all our efforts, some faculties use the system only for the minimum requirements. This means that electronic learning materials are uploaded without appropriate pedagogical planning.

On the other hand, we have faculties which use the system effectively in terms of pedagogical methods and subject related materials.

Beside the compulsory requirements the system can also be used for task communication, collecting homework, grades and feedback.

Figure 7. Types of activities used for

VII. ADVANTAGES AND DISAVATAGES
The concept of e-learning was for a long time not clearly understood. We have come across different interpretations of the term, which is not surprising really, considering that is been 15 years since this phenomenon appeared. Many people thought virtual learning will take the place of teachers from the classrooms. Possibly, this was the main reason for teachers’ reluctance to welcome virtual learning, they felt that the teacher-student relationship will disappear.
Based on this information is important to adopt up-to-date strategies to develop learning materials which are interactive, easy to follow up students gain of subject knowledge, and are modern from didactical and pedagogical point of view.

In technical education, face to face teaching is indispensable, however in distant learning the curriculum has to be passed on in quarter of the time, compared to full time education. Precisely, for this reason virtual learning becomes extremely important.

Typical questions regarding this are:
"How can we marry the online and offline components of the course?"
"What is the difference between the online and offline components of the course?"

VIII. CONCLUSION

When a new system is implemented the first step is drafting the aims. When there are no aims and plans on how to achieve these, one cannot expect growth and development, especially when is additional to traditional teaching methods.

We managed to achieve our objectives with the introduction of the system, taking into consideration the tutors and students expectations.

Tutors have been trained, user instructions are completed for tutors and students. We provide constant help online for users; the evidence for this is given by the average daily use of the system, which is above 1302 log ins and over 11Gb of data traffic.

We are preparing for the next step, which will provide the courses with pedagogical and didactical background for a well thought out and modern blended learning.

The secrete of good teaching is based on the right mixture of optimum teaching methods which is used to bring out the maximum attainment of our students. [4]

The mixture is right if the answers to the following questions contain the same or very similar components.

- Which teaching method is the best for my subject?
- Which teaching method is the most effective to enhance the learning of my students?
- Which teaching method is best for my subject from the point of view of my universities’ expectations and limitation.

Let's not forget, the best cocktail is not the one which contains the mixture of all the drinks we know, but the mixture of those few which complement each other to bring out the best taste, much better than each drink on its own. However there are drinks which work best on their own, like whiskey.

REFERENCES
