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New Technological Trend in Educational Management

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Abstract: The authors aim to highlight, after using the LMS based Sakai from implementation, the perception of both sides (professors and students) over the use of the implementation of information and communication technology (ITC) in the education process. In the academic year 2007 – 2008, the leadership of Danubius University from Galati adopted the strategic decision to develop an integrated information system, which to incorporate the Student Information System (UMS), an e-learning platform, management system, research and administrative management. In the months April – May 2010, at Danubius University from Galati it was made a survey organized by MISI 2010, at which 28 universities attended from around the world who use Sakai, of the professors and students regarding the use in their activity of the ITC and in general of the platform Danubius Online. At the university Danubius from Galati answered to the survey 24 professors and 177 students. The participants responded to questions about both their views concerning the use of the information technology in the superior education in general, and at specific questions concerning the Danubius Online portal. After the experience gained in the pilot phase, developed in the academic year 2009-2010 and taking into account by the results of the survey, it was decided that starting with 1 October 2010 to proceed to the stage production. To this end, it was installed the Sakai version 2.7.1 and significantly increased the number of course sites that are operating on the Danubius Online portal, the tendency being to generalize at all the university courses, taking into account by the trends of the both sides. There have been introduced more extensive indications of use, both for students and for professors. The article aims to highlight the reactions of both sides: professors and students, on the implementation of the Danubius online platform, through a survey that took place during May – June 2010. This is a clear example of response to the technological change management within the university. By participating in the survey organized by MISI 2010 we found both strengths and weaknesses in the Romanian educational management, but also of all the participant universities within the survey. Being the only university from Romania, which has implemented the learning platform developed in the Sakai project, we can state that the results are unique, so therefore we believe that this paper brings a new contribution to the higher education by highlighting the current level of development.

Keywords: e-learning platform implementation; survey; platform; technological change; trend; education

1 Introduction

In the academic year 2007 – 2008, the leadership of Danubius University of Galati adopted the strategic decision to develop an integrated information system, which to incorporate the Student Information System (UMS), an e-learning platform, research management system, administrative management, information system of the library, anti-plagiarism system (Ephorus).

After the study concerning the choice of the LMS platform which to suit best to the needs of the university, in February 2009 was made a comparative study between the existent LMS platforms and comparing the advantages offered by these, it was decided the implementation of the Sakai learning platform, developed since 2004 by renowned universities from America. It followed a probationary period of 6 months in which there were tested the Sakai CLE incompatibilities with the operating systems and implicitly with the hardware platforms. Also, there were created several test sites of course where the students could experiment and use the tools provided by the collaborative environment Sakai. After the probationary period, the conclusions where were reached were in the favor of starting the pilot phase, thus it was decided the formation of the T&L workgroup. A particularly important role in the positive scoring of the collaborative environment Sakai had and that we are active members of the Sakai community and Opened Practices community – A community to practice for teaching and learning with open/community – source tools (http://openedpractices.org/institution/danubius-university).

In the academic year 2009 – 2010, at the Danubius University of Galati, it was put in service in pilot phase the Danubius Online portal made with Sakai version 2.6.0. The portal worked with a relatively small number of course sites both of license and of master, the main objective being to gain usage experience in real conditions of exploitation. There were conducted with the students from all forms of learning (day, ID, LFE) all the activities relating to the courses sites: communication of discipline objectives, obligation if the students and calendar program of the activities, transmission of homework, receiving the homework executed by students, correction by the instructor (owner of discipline), reviewing of the works by the students and communication of the given grades; performance by students of some self-assessment tests given during the semester, with feedback from the instructor, providing by the instructor online consultation for students, conducting of discussions on chat or forum; online support of the exams from supervised rooms.

This paper aims to highlight, after usage from implementation the perception of both sides on using and implementing ICT in the education process (information and communication technology).

2 Research Methodology

In April-May 2010, at the Danubius University of Galati was organized by a survey of professors and students concerning the usage in their activity of the information and communication technology (ICT) in general of the Danubius Online platform.

The survey was conducted within the action of MISI 2010 (Sakai Multi-Institutional Survey Initiative) at which 28 universities have participated from around the world that use Sakai (http://confluence.sakaiproject. org/display/UDAT/2010+MISI).

At Danubius University of Galati responded to the survey 24 professors and 177 students. The participants responded both at questions concerning their opinion on the usage in the superior education of the information technology, as and specific questions concerning the Danubius Online

portal. The survey results have shown that the attitude towards the usage of Danubius Online portal is a favorable one and it can be moved from the pilot stage to the production one.

3 Results

The survey was divided on three areas of interest:

- Opinions about the technology of using the ICT in general;
- Opinions of the participants about the usage of OCW (opens courseware);
- Opinions about the portal usage.

After the survey that took place in the period April – June 2010, we had the following results:

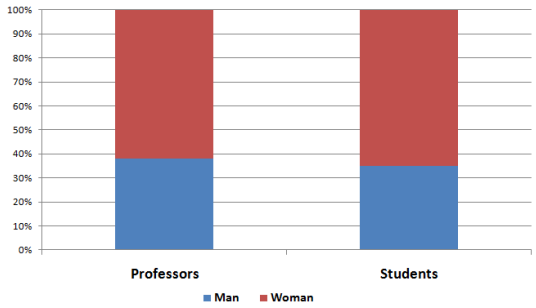

Figure 1: Repartition of respondents by sexes

Regarding repartition of respondents by sexes, we observe that the majority share within this study had on the both side the women with a percentage of 62% of the professors and 65% of the students. The numbers of men own a percentage of 38% in the part of professors and 35% from the student part.

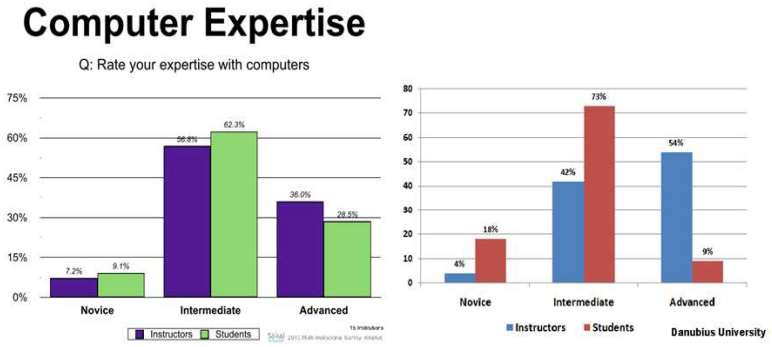

Figure 2 Respondents computer expertise (MISI 2010 and Danubius)

Generally in courses, the utilization of information technology at the Danubius University is situated at a satisfactory level, as it can be observed in Figure 3, compared with the average across all participating institutions. The experience level (Figure 2) of the professors in computers usage at advanced level, hold a significant majority of 54% comparative with that of students which has a less significant share of only 9 %. At the intermediate level the professors have a share of 42% while the students have a share of 73 %, while at the novice level at professors are found only 4% while at students 18% share.

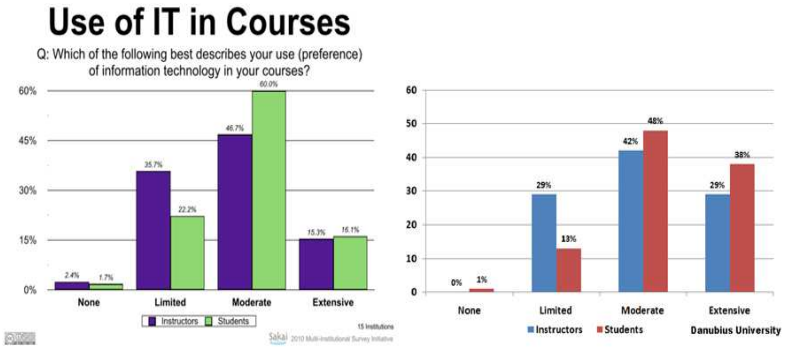

Figure 3 Level of usage information technology in courses (MISI and Danubius Survey)

From the above chart results that those of average level with a percentage of 42% hold the largest share in this field by the academic rank, being followed by 2 equal shares each having 29% between the limited level and extended level is the usage of information technology in university.

After the age in the higher education it can be observed a division of 48% those who have an average level, 38% after those who have an extended level, 13% after those who have a limited level, and a percentage of 1% for those who haven't used the information technology in the university. Below we have exemplified on graphic a repartition of the professors after their didactic rank and age.

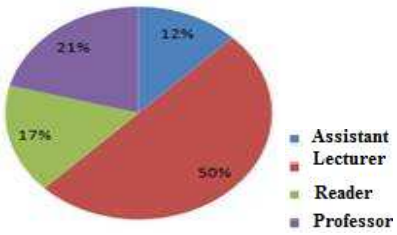

Figure 4 Repartition of the professors after their didactic rank

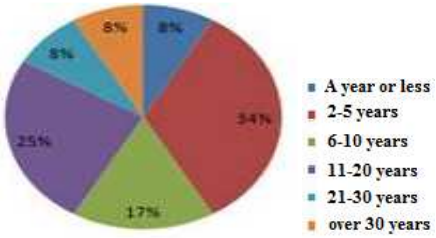

Figure 5 Repartition of the professors after age in the superior education

After the didactic rank the largest share have the lecturers with a share of 50%, followed by the Professors with a 21% percentage share, the third are the Assistants with a 17% share and lastly the Readers with 17% share of total. After the age in the superior education the first two shares are having the ones with age between 2-5 years with a 34% percentage share, being followed by the age between 11 – 20 years with a 25 % percentage share. The third with a 17% share is the age contents the 6-10 years, and the last three are all divided into 8% percentage each.

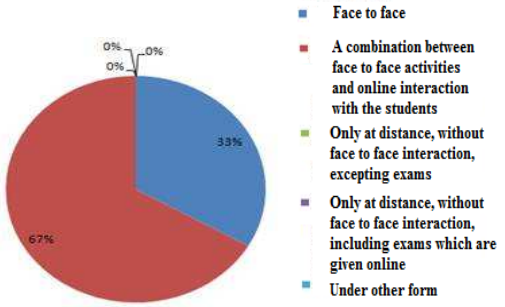

Figure 6 The form under which are developed the didactical activities at which are participating (professors)

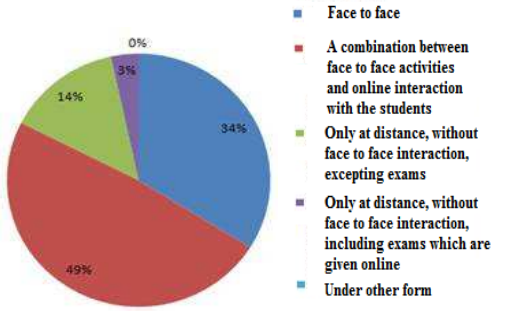

Figure 7 The form under which are developed the didactical activities at which are participating (students)

The only methods under which the professors developed their didactical activities were as noted in the graph, the combination between face to face activities and online interaction with the students with 67% share and the face to face type with a 33% share.

The responses of the students are a little bit different, 49% having the face to face activities and online interaction with the largest share of the students, followed by the face to face type of activity with 34% share, 14% that declared they had only at distance, without face to face interaction excepting exams, and lastly 3% which declared that they had the activities only at distance.

The significant results for this area of interest have been in the usage in the education activity and scientific area of certain software products and equipments as well as: systems of preventing the plagiarism and web sites for the socialization network, the online collaboration instruments through the document sharing, instant messaging systems, online systems of learning management, online media techniques and web-based teleconferencing systems.

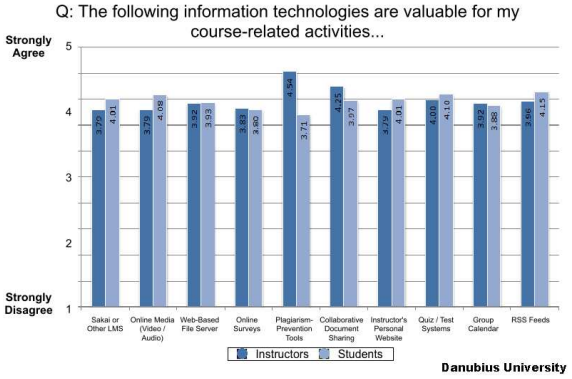

Figure 8 Top 10: IT valuable for Course Activities

Regarding the benefits of using the ICT, the participants at survey considered of greatest importance the following ones presented in the graphs below.

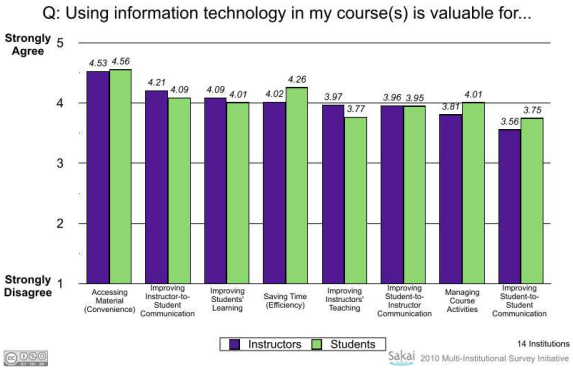

Figure 9 The greatest benefits of using ICT (MISI 2010)

In order of priority as indicated in Figure 10, at Danubius University the teaching staff believes that the most valuable benefit, regarding the using information technology in course(s), is represented by the instructors' teaching improvement, followed by the possibility of accessing materials any time, from any location (convenience).

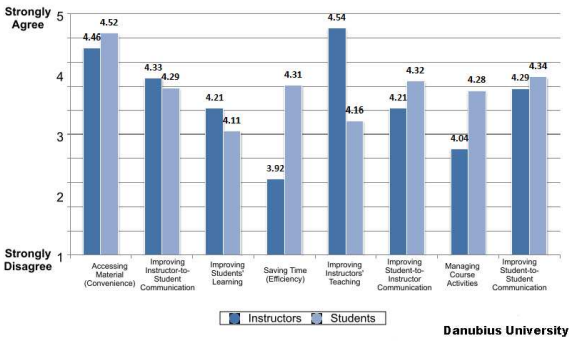

Figure 10 The greatest benefits of using ICT (Danubius)

From students' point of view, the most important benefit is the possibility of accessing materials any time, from any location (convenience), followed by the improvement of students' communication with each other.

4 Conclusions

After the experience gained in the pilot phase, conducted in the academic year 2009 – 2010 it was decided that from 1 October 2010 to be proceeded to the stage of production. To this end, it was installed the Sakai version 2.7.1 and was significantly increased the number of course sites that operate on the Online Danubius portal, the trend being of generalizing at all the courses within the university. There were introduced more ample using indications, both for students and for professors. Most of these indicators are now accessible directly from the portal entry page. It also extends continuously the number of project sites. At the same time, is starting the assimilation period of the Sakai version 3m with the intention to move to this new version since 2012.

Within our university the impact of using ict on professors and students had an important role of which we mention the following advantages:

- offers the distribution possibility and access on the course materials through the course sites before or after the lecture was held in front of student;
- offering a unique point access towards all online materials necessary to students;
- publishing on web the grades and scores obtained by the student;
- possibility to created ad-hoc groups or student teams to conduct certain activities;
- structuring and rescheduling the activities performed by the student collaborated and returning the paper or theme sent by these with the corrections, observations and comments of the professor;
- monitoring and following the students' progresses and/or of the way in which they fulfill their commitments;
- they can ask feedback from students regarding the courses and seminaries where each can tell his own opinion about the development way;
- collaborative work and interaction between student had a rather important role in integrating the collective and discovering the strengths of each individual;
- the students can read and/or comment the works prepared by their colleges, and in the same time to generate or prepare instructional material which they would use in common with the other students.

5 Acknowledgement

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