V. METHODS, FORMS AND TECHNIQUES IN DISTANCE LEARNING

E-LEARNING IN HIGHER EDUCATION IN PRACTICE

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Abstract: *The article is a summary of the results the Moodle's use as the educational process support at the Department of Chemistry of the University of Adam Mickiewicz during the Project "UAM: Unique Graduate=Opportunities. Growth of the Adam Mickiewicz University's didactic potential through innovation-oriented education in English, interdisciplinarity, e-learning and investment in human resources" (co-financed by the European Union under the European Social Fund).*

Keywords: e-learning, b-learning, Moodle, chemistry

INTRODUCTION

Recently, a significant increase in research in the field of distance education can be observed. Such phenomenon is the consequence of the development of society and economy based on knowledge as well as the transformations resulting from the widespread presence of modern technology in professional and private life which is reflected in the formal education sector, particularly at the level of academic training. The design and implementation of remote courses is led by professionals from different disciplines, who in the form of e-learning and blended learning conduct their classes. Digital reality puts new challenges in the areas of information literacy. Students expect the teachers to support classes and lectures using ICT (Information and Communication Technology) methods and tools. On the other hand, universities face the new challenge which is a forthcoming demographic decline. It is estimated that in 2020 the number of people aged 18-24 years (in a typical college age) will decrease to 2.7 million (a decrease of 35 percent) (Goc 2011) (Ciżkowicz, Opala, Rybiński, 2009).

E-learning method is associated with cultural development, it is the change in the way of thinking about learning and a big challenge for the university - in terms of financial, organizational and human issues (Adamczewski 2008). Perhaps supporting teaching with remote learning platforms will increase the attractiveness of courses, and provide a more flexible form of classes. Therefore, both the assessment of courses and students' participating in blended learning activities self-assessment, should be analyzed. Gathering these data requires effort and commitment of the students taking part in the courses.

Assumptions of the project (the UAM project : a unique Graduate=options. Improving the teaching potential of the Adam Mickiewicz University through innovative education in English, interdisciplinary approach, e-learning, and investment in human resources" were published in the monograph *E-learning and Intercultural Competences Development in Different Countries* (Bartoszewicz 2014)

Acting as remainder: **BRIEFLY ABOUT THE PROJECT**

"UAM: Unique Graduate = Opportunities" is the largest project funded by the European Social Fund, implemented at the Adam Mickiewicz University. In this project, new specializations and doctoral studies are launched, an e-learning platform is being built and teaching staff of AMU is being educated. Its aim is to make it easier for AMU graduate to find work and become valued employees. *Project "UAM: Unique Graduate=Opportunities. Growth of the Adam Mickiewicz University's didactic potential through innovation-oriented education in English, interdisciplinarity, e-learning and investment in human resources"* started on July 1st, 2010 and is going to end on December 31st, 2015. It was funded under Priority IV Higher Education and Research, Measure 4.1. "*Strengthening and developing of the didactic potential of university and increasing the number of graduates in fields of key importance for knowledge-based economy*", the Sub-measure 4.1.1 Strengthening the capacity of university teaching (Contract No.: UDA-POKL.04.01.01-00-019/10-00).

As part of the project "*UAM: Unique Opportunities Graduate = Opportunities*" server was purchased and Moodle platform was installed. Each of the 13 departments are represented by the coordinator (Department coordinators, 2014) and e-learning platform consists of separate instances of Moodle.

STUDY GROUP

The study regarded lectures and classes conducted in the form e-learning on the university's platform. Using the survey we sought to confront the students' expectations regarding courses with the reality and explore their views on the benefits and difficulties related to e-activities. The study covered students using the platform in the academic year 2013/2014, and the survey was carried out after completion of the course.

SELECTED QUESTIONS

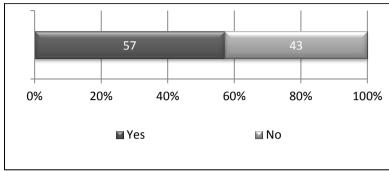**Question. Have you ever participated in any e-learning course?**

Figure 1. Student's answer

Source: Author's archive
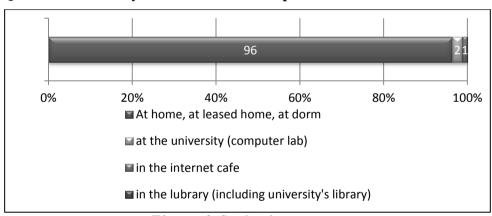
Question. Where do you most often used the platform?

Figure 2. Student's answer

Source: Author's archive

Question. Do you think that the e-learning platform is easy to navigate?

31	33	25	10	1

0%   20%   40%   60%   80%   100%

■ Yes, very intuitive

■ Yes, it does not create many difficulties

■ Maybe it is not very intuitive but it is not difficult to find something

■ It does not belong to the easiest ones
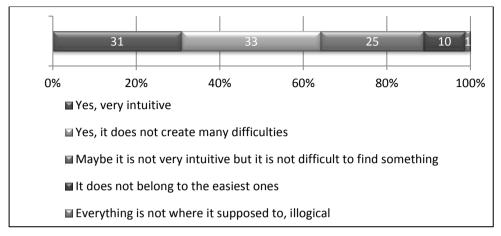
■ Everything is not where it supposed to, illogical

Figure 3. Student's answer

Source: Author's archive

Question. What forms of communication used during the course you found the most suitable? Please select up to three responses.
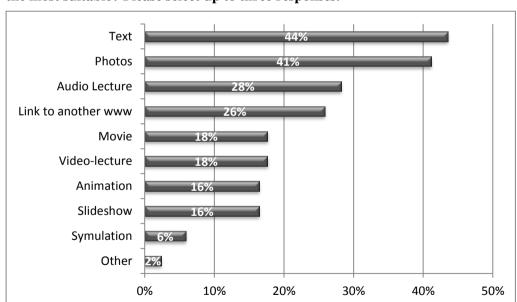
Form	Percentage
Text	44%
Photos	41%
Audio Lecture	28%
Link to another www	26%
Movie	18%
Video-lecture	18%
Animation	16%
Slideshow	16%
Symulation	6%
Other	2%

0%   10%   20%   30%   40%   50%

Figure 4. Student's answer

Source: Author's archive

Is the participation in e-learning course more time absorbing than the traditional learning?

Please specify a percentage, without taking into account the time spent on the commute.
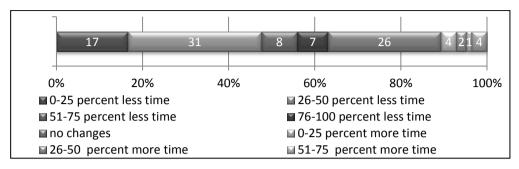

| 17 | 31 | 8 | 7 | 26 | 4 | 2 | 1 | 4 |

- 0-25 percent less time
- 26-50 percent less time
- 51-75 percent less time
- 76-100 percent less time
- no changes
- 0-25 percent more time
- 26-50 percent more time
- 51-75 percent more time

Figure 5. Student's answer

Source: Author's archive

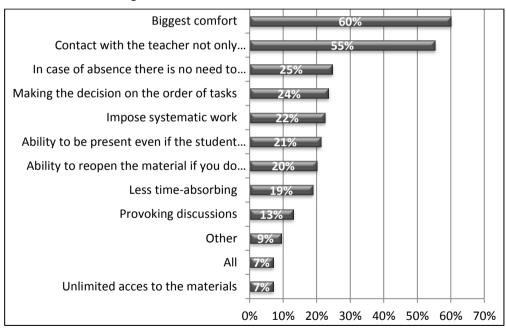**What are in your opinion the biggest advantages of e-learning courses? You can select multiple answers.**

- Biggest comfort — 60%
- Contact with the teacher not only… — 55%
- In case of absence there is no need to… — 25%
- Making the decision on the order of tasks — 24%
- Impose systematic work — 22%
- Ability to be present even if the student… — 21%
- Ability to reopen the material if you do… — 20%
- Less time-absorbing — 19%
- Provoking discussions — 13%
- Other — 9%
- All — 7%
- Unlimited acces to the materials — 7%

Figure 6. Student's answer

Source: Author's archive

CONCLUSION

For many people, the Internet is an integral part of life, used in its various spheres. Apart from the commonly perceived benefits of e-education for students, academics and the higher education institutions, there are also some new challenges, which must be faced by each of those parties. For students e-learning primarily means greater independence and responsibility for the organization of their working time, regularity, punctuality or attentive communication with the teacher. In return, students receive the greater flexibility of the learning process - which is vital at a time when studying different majors at the same time or combining study and work has become common.

The majority of academic environment accepts forms of distance learning, treating them as a natural consequence of the development of information and communication technologies, and desirable model for education is to educate mixed (blended learning) (Lubina 2005).

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