

SOME ASPECTS OF ON-LINE STUDYING PROCESS IN HIGHER EDUCATION INSTITUTIONS FROM MOLDOVA.

Valentina TÎRȘU, drd, lector USM

Abstract

Higher education institutions in Moldova go through a difficult transition period requested by implementing the principles of the Bologna Process, which lead to the restructuring of the national university education.

The work includes a study of implementing e-learning in higher education institutions in Moldova. The results presented are obtained from the investigation conducted at Moldova State University on the quality of higher education. The platform MOODLE is growing. The importance of developing Moodle is significant and allows improving the quality of higher education. We believe that Moodle is an effective tool to facilitate the integration of young professionals in the labor market.

Key-words: e-learning; learning process; information technologies; educational platform MOODLE

1. Introduction

Education reform in Moldova began in 1995 with the approval of the new Education Law. After a period of 20 years there are outlined new tasks that would boost local education development in harmony with European countries' education systems to meet the new challenges of the time.

When referring to higher educational institutions (HEI) from Moldova, undergoing a difficult transition period, requested by implementing the principles of the Bologna Process at the moment, the great challenge that launches a new concept of academic education is competitiveness at national and international level. We can mention that higher education in Moldova faces serious problems:

1. Relevance labor market studies.
2. Unperformed laboratories in terms of hardware and software equipment that does not meet today's requirements.
3. Unsystematic collaboration (ad-hoc) with companies in the business and private sector.
4. Poor promotion of specialties at municipal and national level.
5. Most teachers have no opportunities for retraining.
6. The low rate of youth among teachers.
7. Faculties do not implement at maximum within informational technologies for distance educational the national level.

8. Advanced students, especially college graduates in the field of study obtained in most cases in the traditions of the former planned economies are of unable advanced specialization . Slightly working with students in research.

9. The low level of interconnection between higher education, scientific applied research and economic environment.

10. Insufficient participation of universities in international projects and programs.

11. Lack of job internships.

12. The universities do not attract the teaching staff on the best candidates, partly because salaries are too low compared to the salaries from business sector in the country.

For 2014, the employment rate of people aged 15-24 was 27.77 % compared to 47.13 % employment rate of working age population (16-56 / 61 years). And youth unemployment rate was 10.23 % higher than the unemployment rate in the general population - 4.03 % (Figure 1).

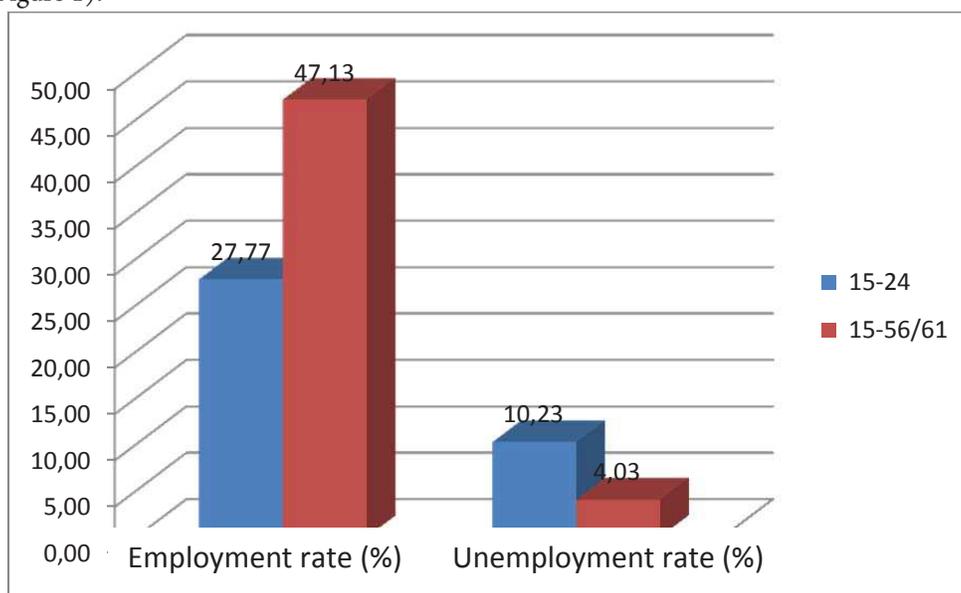


Figure 1. Rates of employment and unemployment for 2014

Source: made by the author based National Bureau of Statistics[1]

Often, young people with higher education and vocational training cannot find a job due to lack of work experience. Business representatives believe that education graduates do not meet the needs of professionals in terms of quality. The lack of sufficient qualified staff cause additional expenses for staff training from the employer, which are then reflected in cost of products, their quality and delivery time market. All these effects erode the competitiveness of local products on regional and international level.

The data presented above confirm the discrepancy between the quality of services offered by higher education institutions in the country and labor market requirements. Human capital which would allow creation of premises out of the crisis, resulting from an

ongoing and effective process of education and training. For this reason, the Moldovan Government has recognized education as a priority sector for the country's future, a catalyst for economic and social development. In 2014 was adopted Education Development Strategy for the years 2014-2020 "Education-2020", which close the university system to European standards in the process of Bologna. It is based on the development of the economical qualitative growth as a means to reduce poverty and contribute to building a prosperous state with high level of life of citizens.

Effective implementation of the priorities established in Strategy of Moldova 2020 can be successfully achieved only through the intelligent use of information technology .

Involvement of informational technology in education, which have become central elements of new methods of conducting studies on electronic media, influenced the emergence of new models of distance education, which can be classified and approved according to purpose, demand for education and resources [3].

2. Experimental research

At Present there are used a variety of platforms that support distance learning, among which we can mention: MOODLE, ILIAS, ATutor, AEL, Claroline, HyperEdu, NetSuport School Pro, Logicampus, TYPO3, SAKAI etc.

In Moldova there are successfully used MOODLE platforms, ILIAS, Claroline (in colleges and universities), AEL Siveco (in schools, high schools, colleges). For example, in September 2014 e-Learning platform MOODLE had 36 implementations, including Moldova State University (MSU), Academy of Economic Studies of Moldova (ASEM), Technical University of Moldova (UTM) Pedagogical College A. Russo in Orhei etc. From 36 private implementations – 18 are private [4]. In the Academy of Sciences of Moldova (ASM) it is implemented e-Learning platform Claroline [5]. In the International University of Moldova (ULIM) and in the Military Institute of Moldova is implemented educational platform ILIAS [6]. In some schools and colleges enjoys popularity author platform AEL [7].

Platform Modular Object-Oriented Learning Environment (MOODLE) [8] represents a software package for producing Internet-based courses and web sites. It is a global development project designed to support a social constructionist framework of education.

Since the launch (the first official version appeared in 2002) e-Learning platform MOODLE is evolving, continuous reaching September 2014 to version 2.7.2. Platform interface is translated into 82 languages (<http://en.wikipedia.org/wiki/Moodle>).

For the last few years, this platform has been actively connected and higher education institutions in Moldova: Technical University, Academy of Economic Studies of Moldova, Agricultural University, State University of Moldova etc. who participated in the project TEMPUS [8] in order to create an electronic network involving inter-university education and universities from Belgium, Spain, France, Italy and Romania.

USM MOODLE system can be found at <http://moodle.usm.md>. Since October 2011, this institution is created with establishing the infrastructure of the Moodle server for managing educational programs in the MOODLE and allocated a special portal. Teacher

training activity in the field of using the MOODLE Platform and the creation of on-line courses started in academic year 2012-2013, which is still continue.

If in 2014 there were 145 created courses, in January 2015 the number of the courses increased to 218, which is an increasing of 60%. From 13 faculties that are in the MSU, on the MOODLE Platform there are presented only 8 faculties. At present in this process of studying are engaged actively about 86 teachers. An active involvement is seen at Economic Studies and Mathematics and Informatics Faculties, which 38 finished courses, followed by the Faculty of Foreign languages with 37 courses, etc. Also teachers participate actively of the importance of the use educational platform MOODLE in the studying process.

The screenshot displays a Moodle course page. At the top, the Moodle logo and the University of Stat din Moldova logo are visible, along with the course title "Tehnologii Informaționale de Comunicare". The user profile of "lector superior, Tîrșu Valentina" is shown. The main content area lists several activities: "Noțiuni teoretice", "Fereastra Excel și elementele ei", "Registrul de lucru Excel", "Comanda cu ferestre și reflectarea tabelelor", and "Formatarea celulelor". A calendar for March 2015 is also present, showing the 15th as the current date. The sidebar on the left contains navigation options such as "Meniu principal", "Pagina mea", "Profilul meu", "Current course", "TIC (Tîrșu V.)", "Participanți", "Badges", "Cursurile mele", "Setări", "Administrare curs", "Activează modul de editare", "Editează setări", "Utilizatori", "Filtre", "Rapoarte", "Note", "Outcomes", "Badges", "Copie de rezervă", "Restaurează", and "Importă".

Figure 2. Web page of the course ICT

Source: made by the author

Placed on Moodle courses are used in the training process. Thus, in the school year 2014/2015 was created and placed the course "Informational Technologies of Communication" for students of the 1st year – licensed, faculty Economical Studies. This course includes 90 hours, 30 hours lecture and 60 hours laboratory rated by 5 credit. During

the first half of the course enrolled over 170 students study at the polling day and low frequency.

The teaching material is divided into 14 modules (subjects) according to the curriculum approved at the meeting chair "Accounting and Economic Informatics". Each theme includes three sections: theoretical concepts, laboratory work and evaluation issues (Figure 2). Emphasis is placed on developed during activities involving the exchange of ideas and formation of new knowledge. More resources are available to students, for example, online books, web pages, files of any type.

During of the use Moodle has been noticed the improvement of the communication between teacher and students on studied course material lecture, students were interactive with pleasure collaborating and participating in group discussions. The course ended with the final evaluation - exam. In order to analyze the impact of IT use upon students' grades were compared percentage marks obtained by students during the last three years of study: 2012/2013 - 97 students, 2013/2014 - 112 students, 2014/2015 - 90 students (Table 1). In total at this sample survey were 299 students.

Table 1.

Grades taken by students on academic years

| Years of studying | 2014/2015 | 2013/2014 | 2012/2013 |
|--------------------------|------------------------|------------------|------------------|
| Grades | | | |
| 1 ÷ 4 | 6 | 13 | 11 |
| 5 ÷ 6 | 24 | 47 | 39 |
| 7 ÷ 8 | 42 | 41 | 37 |
| 9 ÷ 10 | 18 | 11 | 10 |
| Total | 90 | 112 | 97 |
| | Share notes (%) | | |
| 1 ÷ 4 | 6,67 | 11,61 | 11,34 |
| 5 ÷ 6 | 26,67 | 41,96 | 40,21 |
| 7 ÷ 8 | 46,67 | 36,61 | 38,14 |
| 9 ÷ 10 | 20,00 | 9,82 | 10,31 |
| Total | 100 | 100 | 100 |

Source: realized by the author

After analyzing the results we can conclude that IT influenced positively the students' knowledge: share notes 9 and 10 for students enrolled in the academic year 2014/2015 has increased more than twice, while the number of grades from 1-6 has decreased twice. A positive dynamic of 10 % represents 7 and 8.

This argument is confirmed by the students' success - in 2014/2013 academic year from students enrolled in the course only 9.8 % were obtained 10 and 9 compared with 20 % of

students enrolled for the academic year 2014/2015 . This difference is because of the material placed on the platform to the student and can be studied at their own pace. They have to know just to think logically and to locate the information they need. There can be revisions, summaries, attractive animated scheme leading to faster remembering of the essential information.

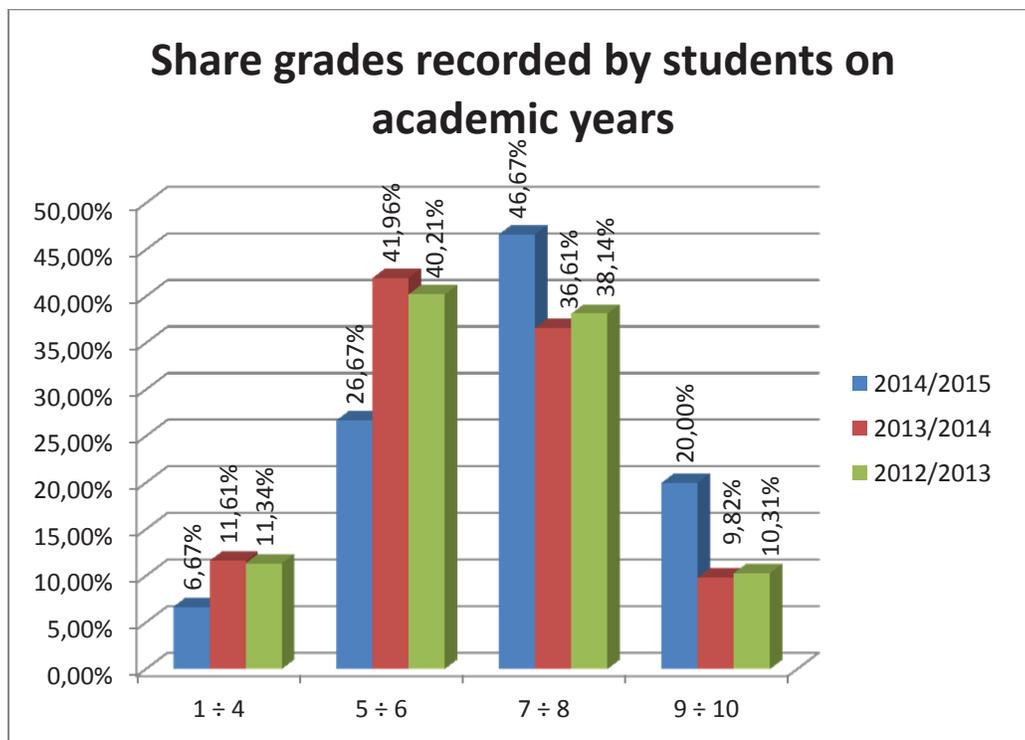


Figure 3. Share of grades taken by students on academic years (%)

Source: made by the author

Platforms that support distance education are the most modern way of training, being at the same time, much more open and more accessible than all traditional ways of presenting the courses. E-learning courses are characterized by interactivity and dynamism, combining animation , sound and video footage, so that learners attention remains alive throughout the course .

3. Conclusions

1. Moodle allows the creation and implementation of interactive training courses, which have significant advantages compared to traditional forms of learning and development of this type of education has gained a particular importance to the education system in Moldova, under the impact of the following processes:

- Continuing economic reforms, which advances toward education requirements?
- Formation of new needs of the population for new content and technology education;
- Political changes that promote the growth of international relations, including in education;

- Appearance, the rapid development of new and better means of information exchange among participants in the educational process;

- Increasing international integration in education, with increased competition in global markets of educational services;

- A flexible and appropriate reaction to the needs of society;

- Implementation of the constitutional right to education of every citizen.

2. Involvement of the modern information technologies in education has become an integral part of the educational system at all levels. The most active, information technologies, are involved in the training of undergraduate and postgraduate open at distance practiced throughout life.

3. Using the computer, the Internet and the Web, by students in the processes of self-training create the conditions necessary to obtain the skills and competencies required in the labor market.

4. Analysis of the most popular e-Learning platform at global and national level allow us to mention that Moodle is a platform that is successful and has gained extensive implementation in several institutions in the country.

5. The system Moodle is the environments of presentation, development and management of electronic courses. This allows increasing the quality of education by:

- Create online courses;

- Managing the training process;

- Compliance with the requirements of European education;

- Training of much more competent specialists and competitive on labor market;

- Extending the professional skills of teachers;

- Promote the image of the university.

6. It follows to notice that higher education institutions are trying to create their own informatics systems, which, naturally, take data and produce reports of different formats. Partial automation, unevenness of the results and insufficiency of resources (technical, technological and financial) for the maintenance and development of these systems cause a number of shortcomings in the work of academic institutions in collaboration with the Ministry of Education of the Republic of Moldova, the most important being:

- Lack of a unified system for admission to study;

- Inability of qualitative and quantitative estimation of data on education;

- Lack of effective means of qualitative and quantitative analysis of data related to education;

- Low efficiency in transmitting reports to the Ministry of Education by universities lack of strict evidence of fixed assets of universities;

- Inaccurate forecasts and strategic planning at national and even institutional level;

- The risk of bias and incompleteness of collected data;
- Bias and incompleteness of collected data;
- Etc.

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