

Efficient Implementation of Moodle Platform in HEI

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ABSTRACT

This research is addressed to explore the advantages and disadvantages of Distance learning as well as E-learning by means of Moodle Platform implemented in National University of Architecture and Construction of Armenia (NUACA) from 2015-2016 academic year. The efficiency of Moodle Platform Implementation is measurable taking into consideration several important factors, i.e., the age of the teaching staff, the type and number of courses delivered, and so on.

The conclusion that we may draw from the recent studies in NUACA is to design and develop a plug-in for Moodle Platform, which will enable us to visualize the above-mentioned tasks in the forms of reports.

Keywords

E-learning, education, information technology, Moodle, plug-in.

1. INTRODUCTION

Presently, 4 forms of education are classified all over the world: traditional, distance, mixed and electronic.

Within *traditional education*, the role of a teacher/instructor is dominant and the communication between the teacher and student/pupil occurs face to face. It is convenient for a certain group of students whereas it is not complete for up-to-date labor market and society.

As for *distance learning*, it is more flexible compared to the traditional one. A student can study anywhere, anytime using information technologies (IT).

Mixed form of education is the combination of distance and traditional ones. It is a flexible, non-limited form of education.

Electronic education is a form of education where IT communication technologies and electronic learning resources are used. It is particularly efficient for enterprises and chain companies.

Taking into account the fact that the Government of the Republic of Armenia adopted Distance Learning

as one of the advanced forms of education, the Norm for Distance Learning in Higher Education Institutions in 2007 [5], NUACA firstly formed an initiative team which was retrained on "Organizing E-learning on Moodle Platform". The already formulated team has annually retrained NUACA TSM since 2015.

The initiative research team has secondly put a special accent on the formulation of a lesson structure, administrative part, and creation of assessment standards, electronic gradebook and quizzes in the retraining process of NUACA teaching staff members (TSM). Henceforth, within the third phase the creation of the connection of student-teacher-course has been made forming the corresponding student groups and attaching them to the very teacher's course.

Based on the experience and carried out research, a number of tasks and problems have been observed leading to low efficacy of using Moodle Platform by teachers or students:

- a) the age of the teaching staff members,
- b) the copyright of the TSM related to the uploaded course materials,
- c) the type and number of the courses delivered,
- d) the factor of mastering computer skills by TSM
- e) the factor of additional time spent on adapting the course material for Moodle Platform,
- f) the factor of frequency by TSM and students being engaged in Moodle Platform.

2. ANALYSES OF THE OBSERVED TASKS AND PROBLEMS IN ONE OF THE HEIs

The observed tasks and problems are widely presented below:

- a) The TSM of a more respected age finds it difficult to spend so much time on Moodle Platform uploading the necessary materials or

digesting all platform opportunities rather than working out the course materials.

- b) Taking into consideration the copyright protection, the TSM is not eager to upload on NUACA Moodle Platform the course materials developed by them.
- c) From the viewpoint of the course features there exist some subjects that are not rational to be uploaded.
- d) A certain part of the TSM does not master IT skills, which hinders working on the platform.
- e) Lack of motivation which leads to non-willingness of the TSM and students to work on the platform.
- f) The current NUACA Moodle Platform delivers non-complete reporting packages, which make the state analyses, needs for identification and provision of solutions difficult.

A number of suggestions have been developed by the initiative of the research group based on the above-clarified tasks and problems, hence, thoroughly presented below:

- To develop a system of tutors which will be of great help to the TSM of a respected age to upload the necessary materials or digest all platform opportunities based on the experience that in many leading HEIs there exist 4 roles on Moodle Platform: leading chair, professor-developer, *tutor* and student.
- To follow the corresponding laws and norms for copyright protection when uploading course materials on Moodle Platform as a TSM is allowed to share, upload or deliver any course material developed by him or her on a USB stick which is already publicized (according to the corresponding point of Chapter 2 in the Law of RA on “Copyright Protection and Related Rights”) [4].
- To conduct similar courses using virtual remote laboratories taking into account the expediency of not involving certain courses on Moodle Platform.
- To hold retraining for that part of the TSM which does not master elementary IT skills taking the opportunity that there is a Continuous Learning Department at the university. It is also important to mention that a manual on “Organizing E-learning on Moodle Platform” is being developed by the same initiative research team.
- To develop continuous motivational mechanisms for students and the TSM representatives to be motivated for working on NUACA Moodle Platform, though there

occurred some rewarding cases but not continuously or systematically.

3. SOLUTION TO THE HIGHLIGHTED TASKS AND PROBLEMS

Besides all the above-mentioned suggestions made by our initiative research team, new reporting standards, adapted to our university, have been defined. In each HEI the report-based analysis is of utmost importance, whereas its making process is time consuming and complex. Moreover, the above-mentioned analysis is weekly required at NUACA. With this purpose, a new plugin has been created which will enable us to review the efficiency of the introduction of E-learning in HEI, particularly, the faced problems of each phase trying to give the corresponding solutions to them. The report analysis allows the research team to explore the faced problems of each phase and the achieved progress. In case of the explored problems, it is possible to review the sequence of the activities of the very phase.

The new plugin will allow us to consider the report according to the following defined standards:

1. Statistics of the Courses:
 - a) Availability of a study program,
 - b) Completeness of the delivered materials, lectures according to the timetable fixed in the study program as each lecture should be assessed, meaning that the grade for the lectures and delivered materials is a component part within the total grade of a student,
 - c) Completeness of practical/laboratory work if there is such, fixed in the study program,
 - d) Completeness of gradebook.
2. Statistics of students:
 - a) The number of attendance by students according to the defined period presented graphically,
 - b) Attendance (Activeness) of students on Moodle Platform according to the timetable.
3. Statistics of the teaching staff:
 - a) The latest updates of the delivered teaching materials and entrances by the TSM,
4. Attendance (Activeness) of the TSM on Moodle Platform according to the timetable.
 - a) The number and content of the courses according to the chairs,
 - b) The number of the TSM,
5. General statistics on Moodle Platform according to:

- a) The number of the groups,
 - b) The number of students.
6. Statistics of semesters according to:
- a) The university chairs,
 - b) The number of the TSM and pre-defined courses/lectures,
 - c) The number of groups and students.

4. CONCLUSION

Taking into consideration the above mentioned suggestions and the newly created plugin by our initiative research team we may state that efficient implementation of E-Learning based on Moodle Platform is of importance in the education process of a higher education institution creating various opportunities not only for students but also for the university teaching staff members.

5. ACKNOWLEDGEMENT

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