

LMS Portal Moodle in Technical Professional Language Teaching

Marta Gluchmanova ¹

¹ *Technical University of Košice, Faculty of Manufacturing Technologies with a seat in Prešov, Bayerova 1, 080 01 Prešov, Slovakia*

Abstract - Currently, the concept of e-learning is becoming a part of almost all areas of the educational process. Teachers should strive to implement the elements of subjects and thus actually upgrade the overall system of knowledge transfer, knowledge and skills in order to increase the quality of teaching and student work. E-learning has become a part of both the higher education fields of study branches and the study programs, but directly incorporated as a progressive form of education within general and professional courses of university study. This is the case even for students of production technologies.

Keywords – e-learning, Moodle, foreign languages teaching, production technology.

1. Introduction

The issue of e-learning is not entirely new. It constantly evolves and gradually has a stable place in modern education. Despite the fact that many teachers refuse e-learning only because of the ignorance of working with it or others uncritically overestimate the possibilities of its use, it is nevertheless supporting of face-to-face or distance learning method. Active and enthusiastic users of such forms of education can very quickly understand many benefits - the central location, processing a

variety of information activities and resources to students and colleagues, monitoring of students' work during the semester and the current seminar, gradually acquiring quality feedback, saving time and money on printing, reproduction, gathering as well as evaluation of tests and assigned tasks. Their own work pace, unrestricted and easy access to e-course is beneficial for students who are not just in the classroom is one of the benefits of that forms of teaching. It is a space created to work with gifted students and those less gifted and many others. The result of such work is attractive and modern teaching, engaging and enhancing the competitiveness of each educational institution, including the students of production technologies, for which an appropriate professional foreign language study material in the context of language teaching is prepared. It is proven that experimentation in the field of e-learning is often spontaneous. The implementation of e-learning requires a careful and comprehensive approach, for which we are preparing a coherent structure of necessary activities and resources that may be used by teachers and students during the semester at the Technical University and within the teaching of English. For that purpose, the so-called "Learning Management System" (LMS) is developed, which allows to implement e-learning into education and the overall educational process [1].

Moodle can be used by all Internet users via the classic Web browser to perform e-learning. This is one of the freely available software packages that are installed on the server of the Technical University of Kosice, as well as other educational institutions. Then the teachers and the students can use it via Internet. Moodle with other systems offering an electronic learning is abbreviated as LMS (Learning Management System). It brings together a set of tools providing management education. It facilitates the content of education, the educational process to the students of production technology and it also provides the needed information about the student, his results and overall assessment for teachers.

DOI: 10.18421/TEM71-23

<https://dx.doi.org/10.18421/TEM71-23>

Corresponding author: Marta Gluchmanova,
Technical University of Košice, Faculty of Manufacturing Technologies with a seat in Prešov, Slovakia

Email: marta.gluchmanova@tuke.sk

Received: 23 December 2017.

Accepted: 06 February 2018.

Published: 23 February 2018.

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2. Moodle use in production technologies

Moodle is the acronym of Modular Object-Oriented Dynamic Learning Environment for modular object-oriented dynamic learning environment. If the teachers want to work in LMS Moodle and create their own e-courses, first they must have connected

to the Internet with good signal, because otherwise it disturbs the teaching and the activities during the seminar, and the final effect for them and the students is not satisfactory. In addition, Web address where the system is located must be clear as well as the user account (username and password).

Projektové LMS systémy:

Moderné vzdelávanie pre vedomostnú spoločnosť/
Projekt je spolufinancovaný zo zdrojov EÚ

Európska únia
Európsky sociálny fond

Operatívny program VZDELÁVANIE

Agentúra
Ministerstva školstva, vedy, výskumu a športu SR
pre štrukturálne fondy EÚ

Tento portál vznikol za finančnej podpory z **Európskeho sociálneho fondu** v rámci Operačného programu **VZDELÁVANIE**.

Prioritná os 1 Reforma vzdelávania a odbornej prípravy
Opatrenie 1.2 Vysoké školy a výskum a vývoj ako motory rozvoja vedomostnej spoločnosti.

Názov projektu: Balík inovatívnych prvkov pre reformu vzdelávania na TUKE

Balík inovatívnych prvkov pre reformu vzdelávania na TUKE

ESF moodle
Bez prístupu študentov

TUKE moodle
S prístupom študentov

Školenia:

Téma 1: *Základná práca so systémom Moodle*
[Prihlásenie do e-kurzu](#)

Téma 2: *Hodnotenie vedomostí v systéme Moodle*
[Prihlásenie do e-kurzu](#)

moodle@tuke.sk

Figure 1. Creating a platform Moodle TUKE

When creating an e-course on the Moodle platform, there is available number of users: in the first place, the administrator who has unlimited power, the manager has allowed access to courses, and he can also modify the courses, then the course creators – they can create new e-courses, a teacher who has all competences in the course, including changes in resources and activities, as well as evaluation of the students, a teacher who can teach the created courses and evaluate students, but cannot change the resources and the activities, in our case, the final recipients of the course, the students of manufacturing technologies that have fewer rights in the course in general.

According to Veštic (2009), digital illiteracy should be seen as a new driving force, as it reduces the chances for quality as well as attractive education and thus well-paid employment, to increase competitiveness, upgrading skills and specialization, or higher social status [2]. From my own experience of several years' work and the use of the Moodle

platform, I consider the development of technical, software, information explosion and the use of information and communication technologies globally affected the general population, regardless of the age of users and their social status. The role of the main actors of teaching and learning focuses on the student and the teacher's role has changed so much from lecturer to facilitator. Creating an e-learning Moodle platform at the Faculty of Manufacturing Technologies offers the opportunity to complement the already created e-courses, to create new ones for the new accredited study programs and study branches and innovate educational study programs and teaching content within the foreign languages teaching effectively, as well as uses all the modern education tailored to individual needs of students, but also to the fact that they were well prepared for future careers and work (also foreign) market [3].

Foreign language teachers as makers of e-courses try to follow the basic educational principles

[4] and then to apply those to the study resources and activities which are added for the students of individual study programs. First of all, they try to create foreign language professional study material for the students more understandable. They form the structure of the arrangement clearly due to rapid orientation in order to avoid student to select

important and less important facts. The foreign language technical terminology must be consistent with their knowledge and expertise, and explained adequately. If necessary, external links to online dictionaries (but those will not serve them when offline) will serve to students.

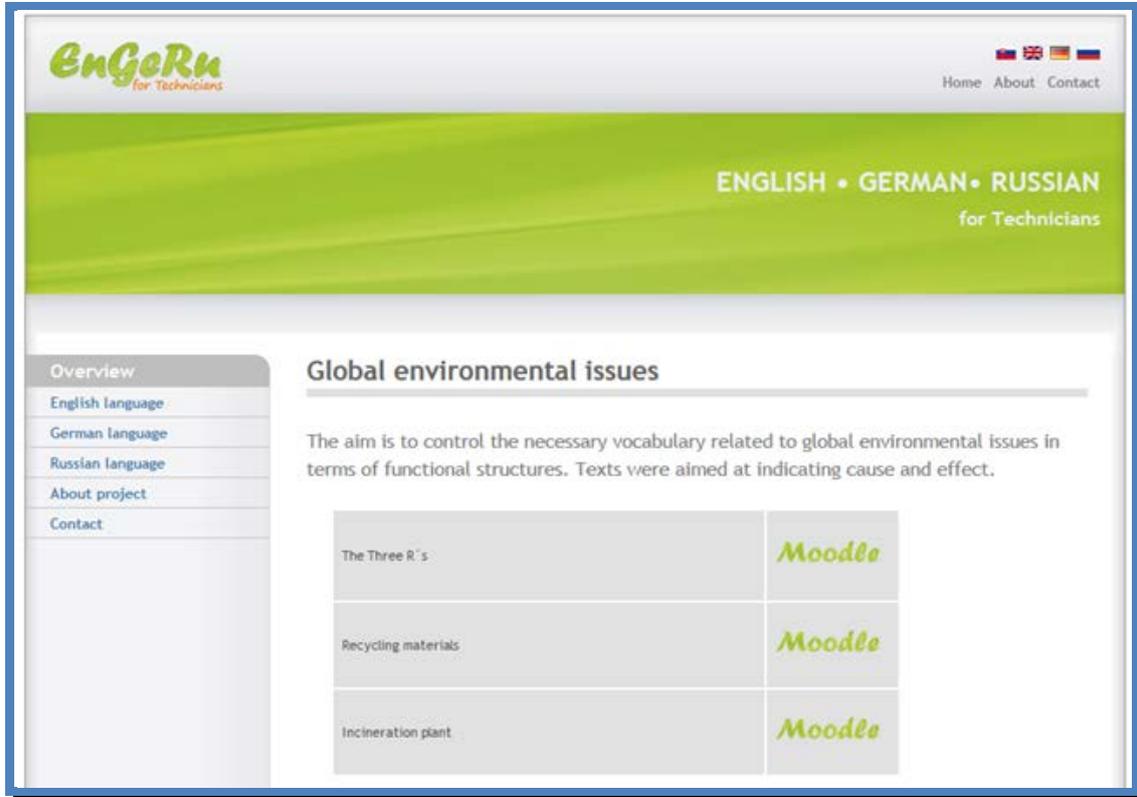


Figure 2. Creating themes related to environmental issues.

As regards to the structure of the curriculum, the content should be based on the principle from the simple to the more complex, to motivate students to further study and knowledge of the facts. They give emphasis on content uniformity. The teacher in preparing the study material on Moodle platform should not stray from the main topic. Therefore, I recommend at least deflecting curriculum to external sources, so as to lose the continuity of their self-study. Enough attention should be paid to the quality of the technical processing that the student can open the prepared study material on different types of computers and devices. The teacher must also take into account the fact that the embedded study texts should be readable, and the pictures, photos and videos should be of high quality. Many students work with tablets. We do not recommend using I-phone for students due to the wrong orientation in the text.

Today, we can see the growing global environmental problems in Slovakia as well, which lead to thinking about the possibilities of environmental protection. It is a waste of various kinds - municipal, industrial, which causes

accumulation of many negatives. The solution is usually the use of certain types of waste in order to avoid the negative consequences. A waste of resources prevents, for example, the process of re-use of previously used materials and products known as recycling. Because it is topical, we decided to include it into our Moodle platform [5].

Different types of waste present a threat to almost all components of the environment - water, air, soil, fauna and human population. Despite the fact that at present in Slovakia there are recycled only about 2 percent of municipal waste, I think that the issue of waste should be topical for us. At the Faculty of Manufacturing Technologies, therefore within the field of *Production Technologies* study branch a new accredited study program *Renewable energy sources* was introduced [6]. In the framework of the curriculum, the English language teachers decided to prepare Moodle platform with necessary professional foreign language study material. Collected study material was based on the profile of graduates of Bachelor and Engineer study programs. The graduates of Bachelor studies are able to analyse operations in process engineering from different

fields of industrial and food production. They know the techniques for processing and recycling solid and liquid wastes. They are able to control the process equipment and manage production in it. Graduates are successful in various industries in the

management process engineering, waste water treatment, management of landfills, in the development of process engineering, in the investment construction as well as the officials of protection techniques and environmental monitoring.

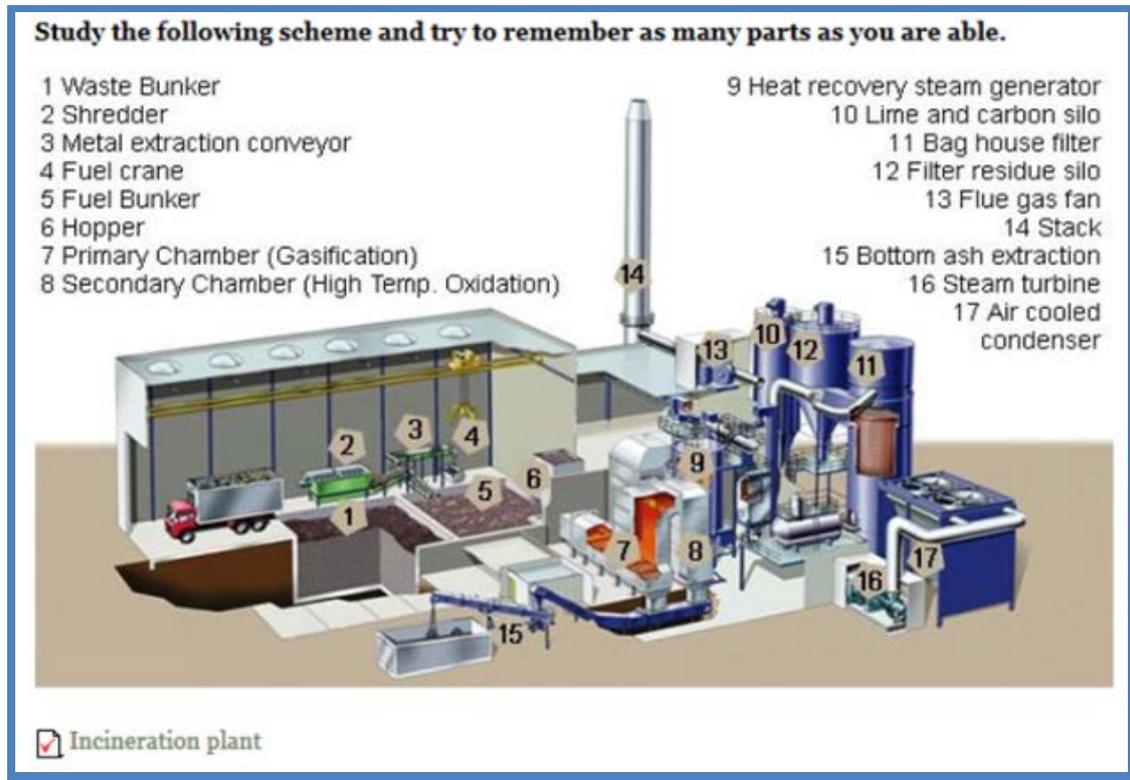


Figure 3. Sample assignment for the study of special terminology "incineration plant."

Within the Engineering study the graduates have understanding of theoretical knowledge of the transfer of momentum, mass and heat transfer as well as the theory of constructing devices, machinery and equipment for process engineering. They have knowledge of the theory of mechanical, hydraulic, thermal, diffusion processes and reactors, especially in the field of physical chemistry, processing of solids, powder materials, liquids, gases, and various mixtures of Newtonian and non-Newtonian nature. They are knowledgeable in equipment process technology, its conceptual designs for the required functions as well as projects including their implementation. Fully equipped with broad theoretical knowledge of individual processes and their contexts, they can participate in research projects in the field of process technology for the implementation of new production technologies with a high degree of creativity and independence. The graduates possess knowledge of a process modelling, mathematical description, methods of measuring static and kinetic characteristics, measurement of process variables and process control technology management using PC, microprocessors, etc. [7]. For that reason the foreign

language teachers prepared for the Moodle platform for the study program *Renewable energy sources* e-learning professional foreign language study material which is additional to the curriculum theme The Global Environment Issues. The exercises prepared in the test form are a part of the study material [8,9].

Their advantage lies in the immediate AutoCorrect. The advantage for the student is the feedback, as well as it facilitates the work of the teacher using AutoCorrect. The test is added activity from the perspective of the Moodle (in contrast to the source). In version 2.0, we used the following types of questions and tasks: short answer, numeric (response), true / false, multiple responses (MC even MC-MR), essay, matching, Random Short-Answer Matching, inserted answers, drag-and-drop machining, simple calculation, computers, computers with multiple answers and the like. Due to the fact that Moodle is focused on activities which activate the students, therefore the teacher need not be limited to traditional tests, respectively discussions. Moodle within a further offer includes questionnaires, surveys, various forms of homework, or tasks, as well as other activities [10].

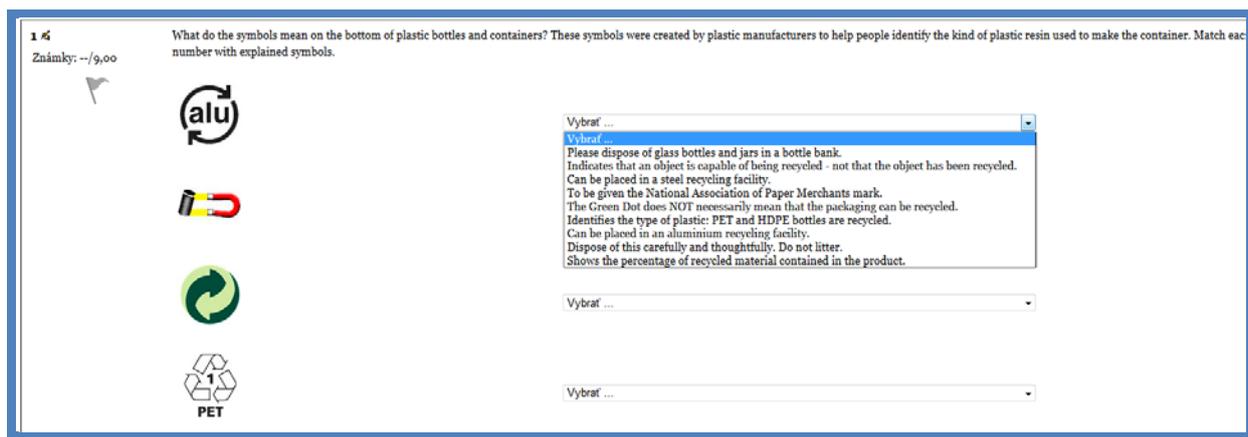


Figure 4. Sample tasks from the Recycling test

3. Conclusion

Constant, even though partial transformation of education in the Slovak Republic allows for the implementation of various innovations in the educational process at all types of schools, from primary schools to colleges or universities. Active teachers in their teaching subjects are introducing new methods and forms initiatively. Thereby they make the lessons, seminars, during which they acquire new knowledge, insights and skills effective and more attractive to students [11]. E-learning can be included to such a new factor. I believe that abroad e-learning course is used to a much greater extent than it is in Slovakia. It seems that at present e-learning begins to use in the Slovak education system much more. E-learning should be implemented in any type of study and then our work will be much more effective. It was not only a complementary form of teaching in the language preparation of production technology students. By applying of face-to-face learning with e-learning we achieve more intense interest in the compulsory and the optional courses within language teaching and the knowledge gained within them. This contribution is an example of how to make language seminars more attractive for students of the Faculty of Manufacturing Technologies, for future engineers to acquire knowledge for self-improvement even after graduation, in the future job, or in the fulfilment of their future careers.

Acknowledgements

This paper is supported by KEGA, contract No. 051TUKE-4/2017 Implementation of Blended E-learning to the Process of English Language Teaching within the Newly Accredited Study Programs at the Faculty of Manufacturing Technologies of the Technical University of Košice.

References

- [1]. Jakubeková, M.; Kapusta, J.; & Drlík, M. (2015). *Využitie e-learningu vo vyučovaní*. Bratislava: MPC.
- [2]. Velšic, M. (2007). *Digitálna gramotnosť na Slovensku*. Bratislava: Inštitút pre verejné otázky.
- [3]. Bielousova, R. (2014). Využívanie a spracovanie autentických materiálov v zmiešanom vyučovaní. *Technologické vzdelávanie v sociokultúrnom a environmentálnom kontexte: zborník recenzovaných vedeckých prác s medzinárodnou účasťou: teoreticko-metodický seminár*. Prešov: FVT TU, 4-9.
- [4]. Pisarský, R. (2012). *Využitie LMS portálu Moodle na vyučovanie predmetu informatika na obchodných akadémiách*. Bratislava: MPC.
- [5]. Bielousova, R. (2016). Using internet resources in English for specific purposes teaching. *SGEM - Sofia: STEF92 Technology Ltd. 773-777*.
- [6]. Gluchmanová, M. (2017). E-courses in language teaching. *Humanum.*, 24(1), 33-40.
- [7]. Radchenko, S. et al. (2017). *25 rokov FVT v Prešove*. Prešov: FVT. <http://www.fvt.tuke.sk> [accessed 12 June 2017].
- [8]. Bielousova, R. (2014). Designing the ESP course at the Faculty of manufacturing technologies of the Technical university of Kosice with the seat in Presov. *SGEM: 14th International Multidisciplinary Scientific Geoconferences: Ecology, Economics, Education and Legislation: Albena, Bulgaria - Sofia: STEF92 Technology Ltd., 3, 571-576*.
- [9]. Bielousova, R. (2013). On the issue of blended learning in foreign language teaching. *SGEM: Ecology, economics, education and legislation: Albena, Bulgaria, 469- 474*.
- [10]. Babinský, M.: Didaktické testy v e-learningu a ich vyhodnotenie. https://www.google.sk/?gws_rd=ssl#q=Babinsk%C3%BD:+Didaktick%C3%A9+testy+v+e-learningu+a+ich+vyhodnotenie [accessed 18.May 2017].
- [11]. Gluchmanova, M., & Gluchman, V. (2014). Development Ethics and Social Problems of the Contemporary World. *Ethics and Bioethics (in Central Europe)*. 4(3-4), 223-226.