Abstract

Experience of creating a bilingual e-learning course in Moodle system for Kazan Federal University students is discussed in the article. The aim of this paper is to analyze the efficiency of a distance course mastering on the basis of students’ participation in projects online international open laboratory. The authors have created the masters’ course “Social transformations in the transition economy countries”. The paper examines the impact of a series of educational technologies (cases, webinars, workshops, business and intellectual games) application produced on educational material development level. The opening and final testing of students enables a comprehensive education monitoring. The functioning analysis of Online International Student Open Lab “Transformers” key results are as follows: a) online open lab significantly expanded the geography of student audience (Russia, Finland, Germany, Hungary, Netherlands etc.); b) webinars conducted under the lab enhanced the capabilities of teacher and student communication, not only in KFU, but also in other universities; c) the course for bilingual professionals can significantly expand the conceptual apparatus of the students (in Russian and English); g) the created simulation games allow scientific modeling in the field of social transformations as part of the laboratory.

Keywords: Distance learning course (DLC); Moodle; social transformation; transition countries.

* ADDRESS FOR CORRESPONDENCE: Irina Malganova a*, Kazan (Volga region) federal university, Kremlyovskaya, 6/20, 420018, Kazan, Russia. 
E-mail address: IGMalganova@kpfu.ru / Tel.: +7-927-447-1258
1. Introduction

We observe a recent significant growth of Distance Learning Courses (DLC) adoption at the universities in the Russian Federation. As a rule, each University has created a Distance Learning Center (DLC), rendering support in development of the courses. For example, Distance Learning Center (DLC) is a structural unit of Educational Resources Development Office (ERDO) in the Kazan Federal University. DLC activities focus at: the organization, coordination and methodological support of e-Learning at KFU; training at KFU faculties within the implementation of Learning Management Systems; improvement and more efficient use of innovative educational technologies and resources.

For developing of electronic courses we chose learning management system of (LMS) Moodle as a virtual learning environment, which enables to create editable and manageable electronic training materials (Fix, 2015; Caputi & Garrido, 2015; Gogan, et al., 2015).

The bilingual distance course project demand is based on the active development of international partnership links with the leading foreign research and educational centers; the increase of the foreign students’ number in KFU; the increase in competitiveness of the studied subject; and finally, with the urgency of social transformations topic only in Russia, but also in the transition economy countries.

The authors developed the course “Social transformations in the transition economy countries” for masters (master's program “Economic geography and spatial development”) in Russian and English. This bilingual course has been designed to give our students the tools, insights, knowledge, and skills to understand processes of social transformation in different countries. It teaches how to diagnose social transformations in Russian and the foreign countries. Together with our students we try to understand structural, economic and geographic characteristics of these transition economy countries. We also look at a variety of tools, the claims makers may use to effect change, highlight the role of trendsetters in social change, and the conditions under which they can be successful. We have developed the course “On-line International Student Laboratory “Transformers”. The aim of this Project Lab is to create international social transformation research environment. The main tasks of the laboratory activity are the following:

A) The efficiency increase, that means also the motivation increase of participation in the research projects and students’ competitions, which is a good incentive for application and practical realization of theoretical material.

B) Formation of simple step by step algorithm of project realization. Assistance in formulation and bringing the competition or grant application to the final stage. Official documents formulation, including the Contract with the Customer etc.

C) The research results approbation. We investigate and study the market of the bright idea prior to the spent efforts: economic, academic.

D) Promotion of our own students’ projects within the scope of the Laboratory.

The demand in bilingual distant course is based on the active development of international partnership relations with the leading foreign research and educational centers; the increase in the share of the foreign students in KFU; competitiveness of the studied subject; and finally, the urgency of social transformations topic not only in Russia, but in the countries with transition economy.

2. Methodology

The efficiency of distant course digestion analysis (Fig.1) on the basis of students’ participation in the online projects of international open laboratory (Fig.2) has been fulfilled as follows. The authors made a survey in three groups of students (100 people): 1) students having taken the course within the scope of the educational program, both daytime and distant; 2) students, who helped in the development of different elements of the course; 3) students of the Kazan University, who would like to take the distant
course; 4) students of the other Kazan and the Republic of Tatarstan universities, who would like to take this course; 5) foreign students, leaving application for participation in the course.

Figure 1. Screenshot of the bilingual e-learning course “Social Transformation in the Transition Economy Countries”

Figure 2. Screenshot of the bilingual e-learning course “Student Project Lab”
Two types of the survey have been used in the research work: educational (introductory text has been the same for all groups of students), and the research one (the alleged aim was to evaluate the quality of the course on the whole and its convenience in use in Russian and English languages).

The Table 1 illustrates the results of the introductory survey, which shows the degree of practical knowledge management by the types (common quiz, case, business-games, webinar, and project lab’s case). As we can see from the Table 1, application of different educational techniques renders different impact on the level of educational material digestion. Herewith its highest level is manifested by the case of the project lab (89.6% on the average, in all five student groups). The lowest digestion level was manifested by the case and the common quiz (63.8% on the average and 70.2% respectively). However, in accordance with the university current scoring and rating system, these corresponds to the results “fair” and “good”.

**Table 1. The degree of different practical tasks fulfillment, %**

<table>
<thead>
<tr>
<th>Groups</th>
<th>Quiz</th>
<th>Case</th>
<th>Business-Game</th>
<th>Webinar</th>
<th>Project Lab’s Case</th>
</tr>
</thead>
<tbody>
<tr>
<td>Student Group 1</td>
<td>89</td>
<td>75</td>
<td>90</td>
<td>80</td>
<td>94</td>
</tr>
<tr>
<td>Student Group 2</td>
<td>92</td>
<td>58</td>
<td>92</td>
<td>75</td>
<td>94</td>
</tr>
<tr>
<td>Student Group 3</td>
<td>60</td>
<td>65</td>
<td>70</td>
<td>78</td>
<td>96</td>
</tr>
<tr>
<td>Student Group 4</td>
<td>45</td>
<td>49</td>
<td>51</td>
<td>60</td>
<td>80</td>
</tr>
<tr>
<td>Student Group 5</td>
<td>65</td>
<td>72</td>
<td>70</td>
<td>72</td>
<td>84</td>
</tr>
</tbody>
</table>

The second survey carried out for this research – the evaluation by the students of the simplicity and quality of the same educational techniques – manifested slightly different results. (Tab.2). However, the Project lab case received the greatest number of positive responses (88.4%). Herewith, the most interested were the first two groups of students studying the subject according to the educational program and those students, who were involved into the process of the course development, 84.2% and 80.6% - the average evaluation of these groups by all types of educational techniques.

**Table 2. Evaluation by the students of the simplicity and quality of different type practical tests, %**

<table>
<thead>
<tr>
<th>Groups</th>
<th>Quiz</th>
<th>Case</th>
<th>Business-Game</th>
<th>Webinar</th>
<th>Project Lab’s Case</th>
</tr>
</thead>
<tbody>
<tr>
<td>Student Group 1</td>
<td>87</td>
<td>70</td>
<td>90</td>
<td>84</td>
<td>90</td>
</tr>
<tr>
<td>Student Group 2</td>
<td>90</td>
<td>55</td>
<td>90</td>
<td>72</td>
<td>96</td>
</tr>
<tr>
<td>Student Group 3</td>
<td>50</td>
<td>60</td>
<td>72</td>
<td>70</td>
<td>95</td>
</tr>
<tr>
<td>Student Group 4</td>
<td>55</td>
<td>54</td>
<td>54</td>
<td>65</td>
<td>78</td>
</tr>
<tr>
<td>Student Group 5</td>
<td>60</td>
<td>68</td>
<td>70</td>
<td>70</td>
<td>83</td>
</tr>
</tbody>
</table>

Besides, the group No 5 of foreign students, who submitted an application for participation in the distant course “Social transformations in the countries of transition economy”, underwent a separate survey. The geography of the foreign students was as follows: Finland, Germany, Hungary, Netherlands and Poland. The Table 3 shows the survey results of these students by the countries (Tab.3)
Notwithstanding the fact, that the groups of foreign students were not numerous, we managed to trace a certain dependency. On the whole, the majority of foreign students manifested interest in participation in the project lab, 83.3% expressed interest in passing a quiz and business-game. More standard tests (quiz and case) received positive evaluation of 63.3% and 73.3% respectively.

The surveys and testing were participated by Russian and foreign students. And both target groups marked the importance of bilingual course in the survey.

3. Conclusions

The analysis of the introductory and the investigation survey, as well as “Transformers”, the online international student open lab manifested the following:

A) Demand in the course by the Master degree students of the 1st training year specializing in 05.04.02 “Geography” (Masters degree program “Economic Geography and special development of the territory”) is based primarily on the application of the distant course as an additional tool in daytime training in the respective subject of “Social transformations in the countries with transition economy” of master degree students in the first term of the 2016/2017 training year; on carrying out of business-games within the scope of the on-line lab operation commencement; as well as on the inclusion of the following scientific papers, e-library systems and references into the distant courses of the leading world universities into the section “Additional Educational material” of the distant course:

1. “Managing Transformations in Work, Organizations, and Society” Course, Prof. Joel Cutcher-Gershenfeld, Prof. Thomas A. Kochan, Prof. Wanda Orlikowski, Massachusetts Institute of Technology

2. “Property Rights in Transition” Course, Prof. Annette M. Kim, Massachusetts Institute of Technology,


B) On-line lab activity enabled to significantly enlarge the geography of the student audience (Russia, Finland, Germany, Hungary, Netherlands), mainly the students of Geography from the European organization EGEA;

C) Webinars carried out within the scope of the lab enabled to widen the opportunities of the teachers and students communication not only in KFU, but also of the other universities;
D) Bilingual character of the course enables to significantly widen the professional conceptual framework of students (in Russian and English languages). Herewith, it is important that the English version of the course passed adaptation and transformation not only of the linguistic type, but also a conceptual one. The English version of the course present a larger amount of scientific articles, a number of cases were adapted for the foreign students;

E) Business-games developed within the scope of the laboratory enable to carry out scientific modeling in the field of social transformation study;

F) The widely known “Learning by Doing” methodology turned to be the most demanded and efficient in the present research regardless of the language used in the distant course. Methodological novelty of the distant course was connected with the multiplicative effect from both the educational sections and the educational project lab development in the course, and the block of “Add your own business-game”. It all resulted in publication of a teaching workbook of the new format supplied with a CD-disk.

Among the divisions of the topical blocks, apart from the traditional, there will occur the unique ones, such as: “Audio lecture”, “Business-game”, “Question to the expert”, “Research survey”, “useful information from the employer”, “Competitions. Grants. Practical training.”, “Webinar”. The course is 70% interactive with application of educational technique “Learning by Doing”.

Acknowledgements

This paper is performed under the support of the Vladimir Potanin Fellowship Program.

References


