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STUDYING CAPABILITIES OF MOODLE FOR ARRANGING STUDENT SELF-INSTRUCTION IN FOREIGN LANGUAGE STUDIES

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Abstract

The paper considers problems of increasing the efficiency of student's self-instruction during studies of foreign language in a non-linguistic university. Self-instruction is defined as a leading form of activity for formation of principal competences in specialists of any profile. One of the most promising ways to optimize the independent work of students in studying foreign language is integration of e-learning into the university's educational process. LMS Moodle as an electronic educational resource offers various course elements that may be used for arrangement of student self-instruction. The article demonstrate results from a research aimed at studying students' opinion on efficiency of the main teaching tools of LMS Moodle and identifying student preferences with respect of educational resources and electronic course elements, as the courses are widely developed and used by instructors to organize student self-instruction during the foreign language studies. The research has been conducted in Nizhny Novgorod State Pedagogical University at the Department of Management and Social-Technical Services and at the Department of Design, Media Technologies and Arts in the 2019/2020 academic year. It covered second year intramural students. The survey developed by the authors allowed establishing student preferences in selection of tasks and resources in LMS Moodle. Results and conclusions of the research may be applied by Moodle course developers and instructors willing to intensify student self-instruction in connection to the Foreign Language subject.

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Keywords: Higher education, leaning autonomy, language training, information and communication technologies, LMS, Moodle.



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1. Introduction

At the contemporary stage of development of the Russian professional education, a significant portion of student workload consists of self-instruction. In this connection, when organizing educational process in tertiary schools aimed at formation of a competent, mobile, independent person and specialist, special attention shall be paid to formation and development of student independent learning (Chelnokova & Kuznetsova, 2017; Kaznacheeva & Perova, 2017; Takhokhov, 2018).

In recent years, the problems of independence and learning autonomy are becoming a relevant topic of educational and methodological research (Arabai, 2017; Lau, 2018; Zmeyova, 2018). Self-instruction is defined as “the highest form of student’s learning activity” (Novikov, 2013, p. 73), an organizational form of the educational process that stimulates activity, independence and cognitive interest in students (Merenkov et al., 2016), “student work that assumes them being maximally active with respect to the subject of the work” (Pidkasistyi, 1972, p. 43), learning-cognitive work of students organized by instructor in order for the former to obtain knowledge, skills and experience on the basis of independent analytical intellectual activity (Miliutinskaia et al., 2011).

Development of independent learning activity of students during studies of foreign language is also an important educational goal. It is aimed at improving skills and experience in the principal types of language activities – speaking, listening, reading and writing—as well as at development of investigative skills and creative abilities of students (Mineeva et al., 2019). One of the ways to optimize the independent work of students in studying foreign language is integration of electronic education (e-learning) into the university’s educational process. Active application of e-learning allows creating an electronic learning environment for students and instructors, organizing interactive communication between the subjects of the education process and simplifies access to educational resources while providing support to students’ independent learning activities (Vaganova et al., 2018).

Table 01. Correspondence between objectives and types of self-instruction task with Moodle tools

Objective	Task type	Course elements and resources
Acquiring knowledge	<ul style="list-style-type: none"> – reading and work with a teaching text; – information search on the Internet and in other sources 	Resources: – Hyperlink; – Page; – File. Course elements: – Lecture; – Glossary
Consolidation	<ul style="list-style-type: none"> – repeated work with teaching materials; – compilation of tables for systematization of learning materials; – answering advancement questions; – analytic processing of text and preparation of an essay; – doing practice test, etc.. 	<ul style="list-style-type: none"> – Forum / Chat; – Glossary – Test; – Task; – Wiki
Skill formation	<ul style="list-style-type: none"> – solving typical problems and model exercises; – solving variable-based problems; – doing practice test and problems. – doing individual or group creative tasks; – participation in discussions 	<ul style="list-style-type: none"> – Test; – Task; – Forum / Chat; – Wiki

Learning management systems (LMSs) find wide application in e-learning implementation; they are intended to provide administrative and technical support of processes related to e-learning. Currently, modular object-oriented dynamic environment of Moodle is among the most widely used (Lyashenko & Frolova, 2013). This LMS offers a diverse set of tools for organization of group work, instructor interaction and student independent work. Its toolbox includes creation of files, text pages, hyperlinks, wikis, glossaries, tests, lectures, chats and forums. Most tools allow solving several educational tasks simultaneously: information transfer, evaluation of learning, organization of communication and joint activity of instructor and students. Various instruments may be used to organize self-instruction of students during their foreign language studies. Correspondence between various system tools with self-instruction tasks is shown in Table 1.

2. Problem Statement

Significant number of recent research point at positive results from using Moodle for organization of self-instruction among non-linguistic students studying foreign language, as this platform has a number of educational features and advantages:

- modular approach to structure and content of electronic courses;
- organization of communication between the subjects of the educational process and orientation to cooperation and team work of students;
- wide communication capabilities;
- in-depth study of teaching materials;
- learning at any time, in any place and at one's own pace.

It should be noted that researchers usually pay attention to advantages that this LMS may provide in organizing self-instruction in a tertiary school (Amandu et al., 2013; Cooch, 2010). Preparedness of instructors and motivational aspects of Moodle-enabled learning has also been studied (Oproiu, 2015; Vinnik, 2013). Researchers note a necessity to first study opinions and preferences of students as end-users of educational products that instructors create in LMS Moodle (Arkhipova et al., 2019; Plekhanova, 2014; Stickler & Hampel, 2010).

A short analysis of available literature has shown that special attention shall be paid to studying those capabilities of the system which are primarily effective on students' opinion, in order to appeal to motivational component of learning and cognition and to form interest in self-instruction with this technology.

3. Research Questions

The following questions shall be noted among those posed by the authors in conducting this research:

1. Which course elements and resources the students consider most efficient in organizing self-instruction for learning a foreign language?
2. What tasks for independent work in LMS Moodle cause special interest in students?

4. Purpose of the Study

This work sets its purpose to identify the tools of LMS Moodle that students deem most efficient. Besides, during the research, student preferences were identified in selection of electronic course elements and educational resources from those used by instructors to organize student self-instruction in learning foreign language (English). Answering these questions will in its own turn help instructors in finding ways of creating Moodle courses in such a way as to increase efficiency of student training on the basis of their self-instruction. Understanding the motivational component of students' learning requires research into revealing the mechanisms that keep and hold student involvement.

5. Research Methods

This research was conducted in Kozma Minin Nizhny Novgorod State Pedagogical University in the 2019/2020 academic year. It involved 2nd year students of non-linguistic majors in the Department of Design, Media Technologies and Arts and the Department of Management and Socio-Technical Services. Participation was voluntary and anonymous. The following theoretical and experimental methods were employed in the research: selection and analysis of literature on the topic of research, studying practical implementation of e-learning on the basis of information presented on web-sites of Russian tertiary schools; surveying, statistical processing of surveying results.

For this research, a questionnaire of 12 questions was compiled, 10 of those questions were aimed at revealing students' evaluative judgment on efficiency of various tools used to organize self-instruction. Two additional questions gathered information about gender and department of studies. In order to determine student attitude to certain tools used to organize self-directed learning, Likert scale was used (Kwon et al., 2018), where a degree of agreement or disagreement was represented in the text form from "completely disagree" to "completely agree" with three intermediate variants. The list of questions reflected attitude to the principal tools and capabilities of LMS Moodle used in course creation, as well as to resources and task types: interaction with hyperlinks, forum or chat, watching educational video, lexical-grammatical tests and tasks, reading and understanding tasks, model-based essay, glossary compilation, creation and use of wiki-pages.

The survey was created with a free online resource SurveyMonkey (<https://ru.surveymonkey.com>), then the link to the survey was distributed through social networks and messengers. The survey was open from 24 September to 22 October 2019, 41 responses were obtained. It should be noted that analysis of results revealed unanswered questions, but they always were the last two ones, concerning age and department, thus the incomplete surveys were kept for analysis. In statistics, the questions with the lack of answers are reflected with account for the omitted answers. There were 20 participants (49 %) aged 17–18 and 21 participants (51 %) aged 19–21.

6. Findings

The results of research into student's interest and readiness to use certain elements and task types in LMS Moodle for organization of self-instruction during studies of foreign language are summarized in Table 2.

Statistical analysis of responses shows that all the system elements and resources offered for evaluation spark profound interest among students, which finds its way in a significant number of answers relaying complete or partial agreement with efficiency of the offered tools in organizing self-instruction.

According to the analysis, the total percentage of respondent agreement with efficiency of these system tools fluctuates between 64 % (writing an essay) and 85.4 % (watching a video). It should be noted that together with traditional activities popular among students, such as lexical tasks (84 %) and reading (78 %), interactive activities also gain traction, e.g., hyperlinks (80.5 % of general agreement with its efficiency), participation in a forum or a chat (75 %), team work on wiki pages (50 %) and creation of course glossary (70 %). These numbers demonstrate that students are ready to work in cooperation with their instructor or other students during out-of-class hours and confirm efficiency of such activities.

Significant interest is caused by completing tasks (tests, video and audio exercises, reading), out of which grammar tests show the highest agreement on behalf of the students with respect to their efficiency for organizing self-instruction (53.66 %). Students characterize creation of forum or chat for individual consulting or student feedback as a highly efficient tool: 48.8 % of respondents agree with efficiency of this course element.

Table 02. Survey data of efficiency of resources, course elements and individual tasks in LMS Moodle

Do you consider it an efficient tool in organizing your self-instruction with LMS Moodle	Completely agree (% / persons)	Somewhat agree (% / persons)	Not sure (% / persons)	Somewhat disagree (% / persons)	Completely disagree (% / persons)
Interaction with other sites by hyperlink	47.5 (19)	35 (14)	12.5 (5)	2.44 (1)	2.44 (1)
Forum / chat for instructor-student feedback	48.8 (20)	26.3 (11)	12.5 (5)	7.32 (3)	4.88 (2)
Watching video and completing tasks	48.8 (20)	36.6 (15)	2.44 (1)	4.88 (2)	7.32 (3)
Completing grammar tests	53.66 (22)	29.97 (12)	4.88 (2)	4.88 (2)	7.32 (3)
Completing lexical tasks and tests	29.27 (12)	53.66 (22)	7.32 (3)	9.76 (4)	0
Reading and reading-related tasks	46.34(19)	31.71 (13)	9.76 (4)	12.5 (5)	0
Writing an essay (out of 39)	43.59 (17)	20.51 (8)	12.5 (82)	7.69 (3)	15.38 (6)
Creating a glossary (out of 40)	42.5 (17)	27.5 (11)	15 (6)	10 (4)	5 (2)
Listening to audio recordings with subsequent completion of listening-related tasks	35 (14)	32.5 (13)	20 (8)	12.5 (5)	0
Creating a wiki-page	20 (18)	30 (12)	40 (16)	10 (4)	0

Besides, it should be emphasized that non-standard forms of work, such as hyperlink to an external site, forum or chat with the instructor, glossary compilation causes the most difficulties in determining their efficiency (12.5; 12.5; 15 %, respectively), thus, organizing the work with these course elements, despite interest from the majority of students, may require more effort on behalf of the instructor in comparison with the more common task types, be they Test of Task. An interesting result from data analysis is disagreement of the respondents with efficiency of essay writing in the electronic course: 23 % voiced their disagreement with the efficiency of this tool, while 12.82 % were undecided. The students did not voice a categorical disagreement with the efficiency of the traditional forms of work, such as lexical tasks, reading, listening. Such an activity as creating a wiki-page also does not invoke disagreeing with its efficiency, however 40 % are undecided, which may mean issues in using wiki-pages, or, alternatively, lack of experience in working with this course element during self-instruction in a course.

7. Conclusion

Data analysis allowed concluding that the students think that traditional tests and exercises are the most efficient tools of the LMS Moodle for consolidation of language material and formation of linguistic skills. The students are also interested in using new formats, such as glossary compilation, wikis, chat, where communication may take place with the aim of systematizing one's knowledge. As a whole, the same traditional forms of work that are used in class are deemed efficient in LMS Moodle, however, essay writing or working with wiki may cause difficulties in use for self-instruction. An important role of instructor shall be noted in provision of an individual approach or feedback in a forum or chat. The students hold this course element an important component of self-directed learning in studying a foreign language.

Consolidating the above, the authors may draw a conclusion that LMS Moodle may be successfully applied in the linguistic training of students in conditions of a modern non-linguistic tertiary school. This system allows resolving a number of issues in formation of second language communicative competence, as well as facilitates efficient time management of both the student and the instructor and improves efficiency of learning as a whole.

At the same time, careful development of content and linguistic training process are required of the instructor: it is necessary to correctly distribute linguistic activities between in-class hours and e-learning, select learning methods and forms of control, as well as take into account the factors that facilitate formation of a stable student motivation to studying foreign language.

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