MASSIVE OPEN ONLINE COURSE DEVELOPMENT: EXPERIENCE OF A REGIONAL UNIVERSITY

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Abstract. The article is devoted to the issue of the need to develop and implement a massive open online course for a foreign language teaching. The purpose of the study is to determine the prospects for the use of educational resources, as well as to describe a developed massive open online course. Theoretical foundations for the development and implementation of massive open online courses in domestic and foreign pedagogical practice are analyzed in this research. The article indicates the main features and types of massive open online courses and such approaches as connectivism and constructivism. Prior to the development of a massive open online course, the authors conducted a survey among 89 respondents of 2-3 year students of the educational program "Foreign Language: Two Foreign Languages" of Pavlodar Pedagogical University. The authors of the article carried out diagnostics of students' interest, aspiration and skills in the use of massive open online courses in the learning process. Cronbach's alpha coefficient was applied to check the reliability and internal consistency of the authors' questionnaire. The R. Likert scale was used in questionnaire to demonstrate the degree of agreement. SPSS Statistics software was used for statistical data processing. The analysis of the questionnaires illustrated students' desire to study the learning material using the online course. In the proposed work, the authors considered the following parameters: according to the content, authentic and multimedia materials were used for the development of four types of skills (reading, speaking, listening, writing); on the organization and methods of teaching, gaming technologies, feedback from students and a forum were utilized; tests were used to evaluate the assignments. The study describes the goal, objectives, expected results, sections of the massive open online course "Learning English: Vocabulary & Grammar, Exercises & Tests", developed on the basis of the university official platform.

Keywords: educational resource, educational platform, massive open online course, survey, university students, digital competence, educational content, asynchronous learning

Basic provisions

Currently, modernization of the educational system is aimed at improving the quality of the learning process, and in this regard, the requirements for learning outcomes and the level of teaching staff training are increasing. The effective use of digital technologies, including massive open online courses, is one of the main transformations of the educational process.

The program for the development of the service sector in the Republic of Kazakhstan notes that massive open online courses (MOOCs) are one of the elements of e-learning and make it possible to give an individual character to education [1]. The use of MOOCs in the educational process allows students to manage educational

content, which will definitely increase their independence and responsibility for their learning.

Introduction

In the near future, all teachers will have to change their views on learning outcomes, taking into account the use of new digital information technologies [2]. As Kazakhstani scientists note, the training of a specialist should be based not only on professional competence, but also on digital one [3], [4]. MOOC is a tool for developing digital competencies of future teachers [3]. MOOC users can learn both from video lectures by professors and with the help of methods that appropriate for their individual learning style [5]. To solve this problem, there is a need to develop and implement a massive open online course in the educational process, which gives opportunity to interact with students inside and outside the classroom. Scientists believe that MOOCs bring together a community with common interests in the field of study, demonstrate personal interaction and social networks for learning and sharing collective knowledge [6]. Some scientists consider MOOCs to be a powerful means of language learning [7].

The purpose of our study is to determine the prospects for using a massive open online course in the educational process and describe the MOOC "Learning English: Vocabulary & Grammar, Exercises & Tests" developed by the authors on the basis of Pavlodar Pedagogical University official platform.

Materials and methods

The methodological basis of the study was the analysis and generalization of scientific literature. The empirical study of students' intention to use massive open online course for learning English was caried out in the period of 2021-2022 academic year. The research involved 89 respondents of 2-3 year students of educational program "Foreign language: two foreign languages" of Pavlodar pedagogical university. To assess students' intention to deal with MOOCs a special authors' questionnaire was developed. SPSS Statistics program for statistical data processing was chosen.

Results

The goal of MOOCs is to provide free access to education for a large number of students. Researchers point out two key features: 1) open access and 2) extensiveness [4].

The main features of massive open online courses are:

- students' independence in deciding the beginning and end of the course in accordance with the schedule of classes;
- students choose the location of the course due to the Internet access;
- access to the online course 24/7;
- students and teachers discuss the pace of learning;
- teachers provide support to students in the remote mode.

According to development of massive open online courses, two types of courses are distinguished nowadays: cMOOCs with its approach of connectivism and

xMOOCs with a constructivism approach [8], [9]. The cMOOC type is aimed at the joint work of course participants, the training is focused on interaction and discussion in the Discussion Board, answering questions and evaluating some assignments.

The course we have developed belongs to the xMOOC. The course structure has a specific program of recorded video lectures, video presentations, assignments, tests.

The MOOC "Learning English: Vocabulary & Grammar, Exercises & Tests" could be useful for:

- students as an additional resource for the English language learning;
- school and college teachers as a resource for advanced training and professional development;
- any attender who studies a foreign language for self-education.

While creating this MOOC, we were guided by the following parameters: in terms of content, authentic and multimedia materials were used to develop four types of skills (reading, speaking, listening, writing); on the organization and methods of teaching, gaming technologies, feedback from students and a forum were utilized; tests were used to evaluate the assignments that demonstrate students' level after passing a unit.

2-3 year students were offered to fill in the questionnaire with five statements. These statements engage students' interest, aspiration and skills in using massive open online courses to study foreign languages inside and outside the classroom. The R.Likert scale was used in questionnaire to demonstrate the degree of agreement [10]. It consists of five positions: 5 – "strongly agree", 4 – "agree", 3 – "neither agree or disagree", 2 – "disagree", 1 – "strongly disagree". The processing of statistical data was carried out by the SPSS Statistics program.

The results of the survey allow us to determine three main levels of aspiration and mastery of students in the use of MOOCs: low, average and high.

Answers "1" and "2" refer to the low level, "3" and "4" to the average level, "5" to the high level.

Students were asked to choose the following statements, evaluating the answers on a five-point scale according to the degree of agreement:

1. I am skillful to use massive open online courses for learning.
2. I am interested in using massive open online courses in the classroom.
3. I am enthusiastic to use massive open online courses outside the classroom.
4. I have an interest to master skills of utilizing massive open online courses better.
5. I am interested in discussing some issues in the MOOC forums actively.

To check the reliability of the developed questionnaire and the internal consistency of its individual items, the Cronbach's alpha coefficient (SPSS Statistics program) was applied. Table 1 shows the calculation of the Cronbach's alpha coefficient.

Table 1 – Cronbach's alpha for questionnaire items calculation results

Variable	Cronbach's alpha: ,730 Cronbach's alpha based on standardized items: ,726				
	1	2	3	4	5
1	1,000	,614	,088	,294	,479
2	,614	1,000	,154	,093	,509

3	,088	,154	1,000	,385	,394
4	,294	,093	,385	1,000	,450
5	,479	,509	,394	,450	1,000

The internal consistency of all items of the authors' questionnaire is ,730 and Cronbach's alpha based on standardized items is ,726. The internal consistency of the questionnaire is rather high, since the coefficient α is closer to 1.

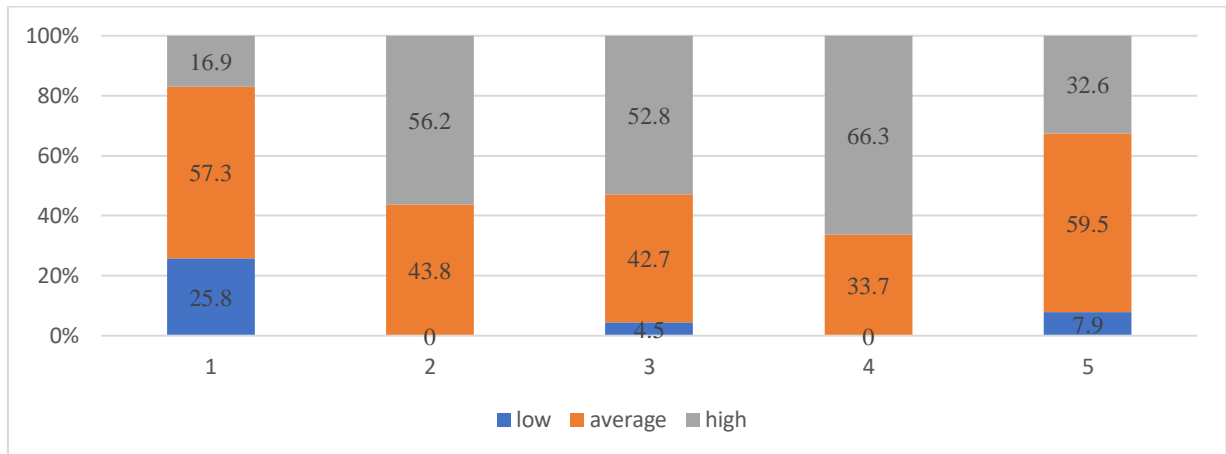The results of students' answers (n=89) are presented in Figure 1.

Figure 1 – The results of students' answers

Diagnostics of the interest, aspiration and skills of 2-3 year students in using massive open online courses in the learning process demonstrate the following results:

- 25.8% of students have a low level of MOOC proficiency, 57.3% of respondents show an average level, and 16.9% of students illustrate a high level. The proficiency score is average or low in most statements. Those students who indicate a high level, obtain part of their knowledge and skills independently through the courses completion on international educational platforms;

- 2-3 year students have a strong interest in using massive open online courses in the classroom (56.2%), learners are enthusiastic to use massive open online courses outside the classroom (52.8%), students have an interest to master skills of utilizing massive open online courses better (66.3%) and 32.6% of students are interested in active discussion of issues on the forums of massive open online courses. The positions of students confirm the importance and timeliness of using massive open online courses in academic and non-academic hours. The involvement of students in the utilization of digital technologies at the university will help achieve the goals and prepare highly qualified specialists in the field of education.

Discussion

Based on the results of the survey, the authors developed a massive open online course "Learning English: Vocabulary & Grammar, Exercises & Tests" on the platform of Pavlodar Pedagogical University and introduced it into learning process for students of the educational program "Foreign language: two foreign languages" (Figure 2).
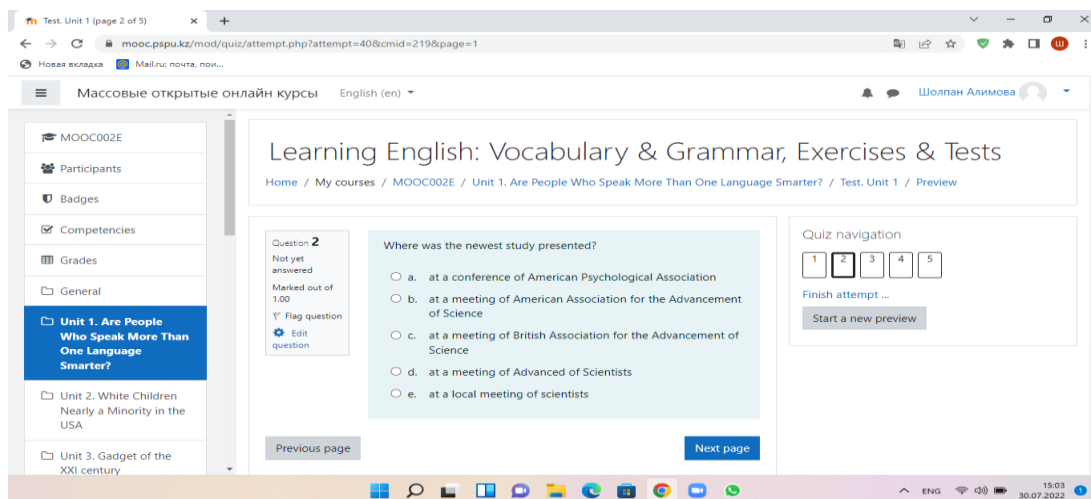
Figure 2 – Massive open online course "Learning English: Vocabulary & Grammar, Exercises & Tests"

This online course was put into practice in such disciplines as "Practical English Course (reading, speaking, listening, writing)", "Practice of Oral and Written Speech" and "Academic Writing".

The course is aimed at developing students' practical skills and knowledge of a foreign language, as well as grammatical skills formation in oral and written speech. The online course is able to control students' asynchronous learning, increases students' independence and the ability to use multimedia, educational materials and resources.

The online course "Learning English: Vocabulary & Grammar, Exercises & Tests" is designed in English and consists of 12 sections. The content of the MOOC is presented in Table 2.

Table 2 – MOOC content

#	MOOC content	Number of hours
Unit 1	The unit includes a pre-listening task, a video, a text for reading, assignments, free wring and a test.	6
Unit 2	The unit has pre-listening and listening tasks, True/False questions, vocabulary work, grammar materials, a test.	6
Unit 3	The unit consists of a warm-up activity, pre-reading and reading tasks, matching synonym, completing diagram, free writing and a test.	6
Unit 4	The unit contains pre-reading and reading tasks, vocabulary work, forum, essay writing and a test.	6
Unit 5	The unit includes a warm-up activity, a pre-listening task, a video, comprehension questions, speaking activities and a test.	6
Unit 6	The unit has a warm-up activity, pre-listening and listening tasks, pronunciation activities, writing assignments and a test.	6
Unit 7	The unit consists of pre-reading and reading tasks, True/False questions, vocabulary work, speaking activities and a test.	6
Unit 8	The unit contains pre-reading and reading tasks, Quizlet flashcards, spelling, writing activities and a test.	6

Unit 9	The unit includes a warm-up activity, pre-listening task and listening tasks, completing KWL chart, True/False questions, vocabulary work, a virtual tour to the Louvre and a test.	6
Unit 10	The unit has pre-reading and reading tasks, Quizlet flashcards, writing activities, grammar materials and a test.	6
Unit 11	The unit consists of pre-reading and reading tasks, vocabulary work, grammar spot, memory game and a test.	6
Unit 12	The unit contains pre-listening task and listening tasks, comprehension questions, vocabulary work, essay writing, grammar spot and a test	6
Total:		72

MOOC includes recorded video lectures, reading texts, audio recordings, assignments, essays, graphs and diagrams, a virtual tour to the Louvre Museum, games, grammar materials, Quizlet flashcards (Figure 3) and tests.
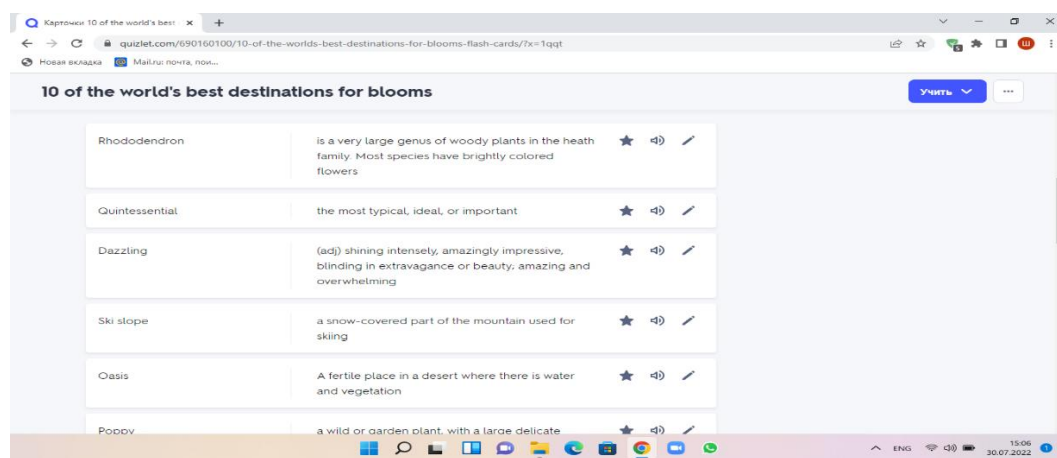

Figure 3 – Quizlet flashcards

The learning outcomes of the online course are:
- students know: lexical and grammatical means of the level B1-B2, on the basis of which some basic skills of speaking, listening, reading and writing are formed and improved;
- students use active vocabulary of the level B1-B2;
- students perceive video and audio recordings of authentic texts in monologues and dialogues;
- students realize their communicative intentions and evaluate the effectiveness of foreign language communication.

Conclusion
Thus, MOOC is a universal electronic educational resource that provides access to various online courses. MOOC is used by students as an additional resource for the English language learning; school and college teachers as a resource for advanced training and professional development; any attender who studies a foreign language for self-education.

The study demonstrates that the massive open online course "Learning English: Vocabulary & Grammar, Exercises & Tests" allows students to manage educational

content, which increases their independence and responsibility for the results of their learning. Upon completion of the online course, students have developed the skills of searching and processing information and extracurricular communication.

In connection with the foregoing, we believe that high-quality access to the educational Internet resources and the organization of educational activities with the help of information and communication technologies should be attributed to the prospects for the development of digitalization in education.

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РАЗРАБОТКА МАССОВОГО ОТКРЫТОГО ОНЛАЙН-КУРСА: ОПЫТ РЕГИОНАЛЬНОГО ВУЗА

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Аннотация. В статье рассматривается вопрос о необходимости разработки и внедрения массового открытого онлайн-курса для обучения иностранному языку. Цель исследования заключается в определении перспектив использования образовательных ресурсов, а также в описании разработанного авторами массового открытого онлайн-курса. В работе проанализированы теоретические основы разработки и применения массовых открытых онлайн-курсов в отечественной и зарубежной педагогической практике. В статье указываются основные признаки и типы массовых открытых онлайн-курсов, а также коннективистский и конструктивистский подходы. До разработки массового открытого онлайн-курса авторами было проведено анкетирование среди 89 студентов 2-3 курсов образовательной программы «Иностранный язык: два иностранных языка» Павлодарского педагогического университета. Авторами статьи проведена диагностика интереса, стремления и навыков студентов использования массовых открытых онлайн-курсов в процессе обучения. Для проверки надежности и внутренней согласованности авторской анкеты был применен коэффициент альфа Кронбаха. В анкете использовалась шкала Р. Лайкерта по степени согласия. Для статистической обработки данных была использована программа SPSS Statistics. Анализ анкет продемонстрировал стремление студентов изучать материал с использованием онлайн-курса. В предложенной работе авторами рассмотрены следующие параметры: по содержанию использовались аутентичный и мультимедийный материалы для развития четырех видов речевой деятельности (чтение, говорение, аудирование, письмо); по организации и методам обучения применялись игровые технологии, обратная связь от студентов, форум; по оценке заданий использовались тесты. В исследовании описаны цель, задачи, ожидаемые результаты, разделы массового открытого онлайн-курса «Learning English: Vocabulary & Grammar, Exercises & Tests», разработанного на базе официальной платформы вуза.

Ключевые слова: образовательный ресурс, образовательная платформа, массовый открытый онлайн-курс, анкетирование, студенты вуза, цифровая компетенция, учебный контент, асинхронное обучение

ЖАППАЙ АШЫҚ ОНЛАЙН КУРСТЫ ДАМЫТУ: АЙМАҚТЫҚ УНИВЕРСИТЕТІНІҢ ТӘЖІРИБЕСІ

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Аңдатпа. Мақалада шет тілін оқытудың жаппай ашық онлайн курсын әзірлеу және енгізу қажеттілігі талқыланады. Зерттеудің мақсаты – білім беру ресурстарын пайдалану перспективаларын анықтау, сонымен қатар авторлар әзірлеген жаппай ашық онлайн курсты сипаттау. Жұмыста отандық және шетелдік педагогикалық тәжірибеде жаппай ашық онлайн курстарды әзірлеу мен қолданудың теориялық негіздері талданады. Мақалада жаппай ашық онлайн курстардың негізгі ерекшеліктері мен түрлері, сондай-ақ коннективистік және конструктивистік тәсілдер көрсетілген. Жаппай ашық онлайн курсын әзірлемес бұрын Павлодар педагогикалық университетінің «Шетел тілі: екі шет тілі» білім беру бағдарламасының 2-3 курсының 89 студенті арасында сауалнама жүргізілді. Мақала авторлары студенттердің оқу процесінде жаппай ашық онлайн курстарды пайдаланудағы

қызығушылығын, ұмтылысын және дағдыларын диагностикалауды жүзеге асырды. Авторлық сауалнаманың сенімділігі мен ішкі сәйкестігін тексеру үшін Кронбахтың альфа коэффициенті қолданылды. Сауалнамада келісу дәрежесіне қарай Р.Лайкерт шкаласы қолданылды. Статистикалық мәліметтерді өңдеу үшін SPSS Statistics бағдарламалық құралы пайдаланылды. Сауалнамаларды талдау студенттердің онлайн курсты пайдалана отырып материалды оқуға деген ұмтылысын көрсетті. Ұсынылған жұмыста авторлар келесі параметрлерді қарастырды: мазмұнына сәйкес сөйлеу әрекетінің төрт түрін (сөйлеу, оқу, тыңдау, жазу) дамыту үшін аутентикалық және мультимедиялық материалдар пайдаланылды; оқытуды ұйымдастыру және әдістемесі бойынша ойын технологиялары қолданылды, студенттермен кері байланыс, форум өткізілді; тапсырмаларды бағалау үшін тесттер қолданылды. Зерттеу университеттің ресми платформасы негізінде әзірленген «Learning English: Vocabulary & Grammar, Exercises & Tests» жаппай ашық онлайн курсының мақсаты, міндеттері, күтілетін нәтижелері, бөлімдерін сипаттайды.

Тірек сөздер: білім беру ресурсы, білім беру платформасы, жаппай ашық онлайн курс, сауалнама, университет студенттері, цифрлық құзыреттілік, білім беру мазмұны, асинхронды оқыту.