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# APPLICATION OF THE EDUCATIONAL INFORMATION AND COMMUNICATION TECHNOLOGIES FOR TEACHING FOREIGN LANGUAGES TO STUDENTS MAJORING IN INFORMATION TECHNOLOGIES

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**Abstract.** The article presents the overview of cutting-edge educational information and communication technologies used by the lecturers of the Department of Cross-Cultural Professional Communication of the Faculty of Engineering and Economics of the Belarusian State University of Informatics and Radioelectronics for teaching foreign languages to the undergraduate students of the first stage of higher education receiving a bachelor's degree in information technologies. The article also analyses the effectiveness of the Telegram-based information channels used by the lecturers of foreign languages as an alternative to sending materials to students via e-mail. The author outlines an interactive web-based resource *slido.com* for visualising the results of brainstorming sessions instead of using the traditional ways of presenting the results of this teamwork format. The article describes a non-standard way of introducing new vocabulary with the help of rebuses created on a web-based resource rebus.club which does not require any prior registration. The author also presents an additional way of assessment of the level of proficiency in oral examination topics and revision of their content within the final classes after completing the study of a module or section in the format of an interactive Jeopardy game created with the help of a template based on a web-based resource *jeopardylabs.com*. To conduct current and final lexical and grammar tests on the topics covered within the course of practical classes of a foreign language, as well as to allow students to evaluate their success in the classroom, a web-based resource onlinetestpad.com is offered to replace traditional methods of assessment of the undergraduate students of the first stage of higher education receiving a bachelor's degree in information technologies.



**Keywords**: foreign languages teaching, educational information and communication technologies, interactive resources, students majoring in information technologies

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# ІТ-МАМАНДЫҚ СТУДЕНТТЕРІ ҮШІН «ШЕТ ТІЛІ» ПӘНІ БОЙЫНША САБАҚТАРДА БІЛІМ БЕРУ АҚПАРАТТЫҚ-КОММУНИКАЦИЯЛЫҚ ТЕХНОЛОГИЯЛАРЫН ҚОЛДАНУ ПРАКТИКАСЫ

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Аннотация. Макалада Беларусь мемлекеттік информатика және радиоэлектроника университетінің инженерлік-экономикалық факультетінің мәдениетаралық кәсіби коммуникация кафедрасы бойынша жоғары білімнің бірінші сатысы (бакалавриат) ІТ-мамандықтарының студенттерін шет тілдеріне оқытуда қолданылатын заманауи білім беру ақпараттық-коммуникациялық технологияларына шолу жасалған. Студенттерге қажетті материалдарды электрондық пошта арқылы жіберудің баламасы ретінде Telegram мессенджері базасында шет тілдері оқытушыларының ақпараттық арнаны пайдалану тиімділігі талданған. Командалық жұмыстың осы форматының қорытындысын таныстырудың классикалық тәсілдерінің орнына миға шабуылды көрсету үшін slido.com интерактивті ресурсы ұсынылды. Алдын ала тіркеуді қажет етпейтін rebus.club ресурсы негізінде жасалған ребустардың көмегімен жаңа лексиканы енгізудің стандартты емес әдісі сипатталған. Jeopardylabs.com үлгісі ресурсында орналастырылу көмегімен құрылған, Jeopardy интерактивті ойын форматында модульді немесе бөлімді оқып болғаннан кейін қорытындылау сабақтарында ауызша емтихан тақырыптары мен олардың мазмұнын қайталауды меңгеру деңгейлерін тексерудің қосымша тәсілдері ұсынылған. «Шет тілі» пәні бойынша практикалық сабақтар курсы шеңберінде өткен тақырыптар аясында ағымдағы және қорытынды лексика-грамматикалық тестілерді өткізу үшін, сондай-ақ студенттердің сабақтағы жұмыстың жетістіктерін бағалауды жүзеге асыру үшін жоғары білімнің бірінші сатысындағы (бакалавриат) ІТ-мамандықтар студенттерін тестілеудің дәстүрлі тәсілдерін алмастыратын onlinetestpad.com ресурсы ұсынылды.

Түйін сөздер: шет тілін үйрену, білім беруші ақпараттық-коммуникациялық технологиялар, интерактивті ресурстар, ІТ-мамандық студенттері

Дәйексөз үшін: П.С. Полубинский. Іt-мамандық студенттері үшін «шет тілі» пәні бойынша сабақтарда білім беру ақпараттық-коммуникациялық практикасы//Халықаралық ақпараттық технологияларын колдану коммуникациялық технологиялар журналы. 2023. Т. 04. № 2. 53–60 бб. (Орыс.). https://doi.org/10.54309/IJICT.2023.14.2.005

# ПРАКТИКА ИСПОЛЬЗОВАНИЯ ОБРАЗОВАТЕЛЬНЫХ ИНФОРМАЦИОННО-КОММУНИКАЦИОННЫХ ТЕХНОЛОГИЙ НА ЗАНЯТИЯХ ПО ДИСЦИПЛИНЕ «ИНОСТРАННЫЙ ЯЗЫК» ДЛЯ СТУДЕНТОВ ІТ-СПЕЦИАЛЬНОСТЕЙ

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Аннотация. В статье представлен обзор современных образовательных информационно-коммуникационных технологий, используемых в обучении студентов ІТ-специальностей первой ступени высшего образования (бакалавриат) иностранным языкам по кафедре межкультурной профессиональной коммуникации инженерно-экономического факультета Белорусского государственного университетаинформатикиирадиоэлектроники. Проанализирована эффективность использования преподавателями иностранных языков информационного канала на базе мессенджера *Telegram* в качестве альтернативы рассылке необходимых студентов материалов посредством электронной почты. интерактивный ресурс slido.com для визуализации результатов мозгового штурма вместо использования классических способов представления итогов данного формата командной работы. Описан нестандартный способ введения новой лексики с помощью ребусов, созданных на базе не требующего предварительной регистрации ресурса rebus.club. Представлен дополнительный способ проверки уровня владения устными экзаменационными темами и повторения их содержания на результирующих занятиях после окончания изучения модуля или раздела в формате интерактивной игры Jeopardy, созданной с помощью размещенного на ресурсе jeopardylabs.com шаблона. Для проведения текущих и итоговых лексикограмматических тестов по пройденным в рамках курса практических занятий по



дисциплине «Иностранный язык» темам, а также для осуществления студентами оценки успешности работы на занятии предложен ресурс *onlinetestpad.com*, заменяющий традиционные способы тестирования студентов ІТ-специальностей первой ступени высшего образования (бакалавриат).

**Ключевые слова**: обучение иностранному языку, образовательные информационно-коммуникационные технологии, интерактивные ресурсы, студенты IT-специальностей.

Для цитирования: П.С. Полубинский. Практика использования образовательных информационно-коммуникационных технологий на занятиях по дисциплине «иностранный язык» для студентов it-специальностей// Международный журнал информационных и коммуникационных технологий. 2023. Т. 04. № 2. Стр. 53–60 (На рус.). https://doi.org/10.54309/IJICT.2023.14.2.005

#### Introduction

Up-to-date methodology outlines three models of information and communication technologies (ICT) application in teaching foreign languages.

According to the first model, ICT is integrated into a foreign language lesson and applied as required. Inquiry/response systems, multimedia training courses, electronic textbooks, simulators, control and demonstration software have become an essential part of an integrated lesson (Harmer, 2007: 288). All of them are used at a particular stage of a lesson to achieve specific methodological goals and objectives: demonstration of speech samples, presentation of audio/video materials and other visuals, automation of speech skills activation and development, management of students' oral or written interaction in a foreign language, organisation of control, mutual control or self-control in the classroom.

Within the second model, a lecturer combines students' independent work with ICT and their work in the classroom without the use of computers or other devices. The lecturer can offer students to find information on the topic of the lesson on their own, using information search software (online encyclopaedias, multimedia learning portals, etc.); perform language and speech relative exercises at home; complete communication tasks in a blog, chat, on a student group page in a social network or on a wiki service (based on Web 2.0 technology) (Mayer, 2009: 320).

Within the third model, computer programs and web-based resources are used for distance learning of foreign languages. Learning Management Systems (LMS) are constantly being improved to create and manage web-based training courses, as well as technologies that allow lecturers to develop, store and modify the content of information resources for educational purposes (Learning Content Management Systems or LCMS) (Motteram, 2013: 197).

This article presents the overview of cutting-edge educational information and communication technologies used by the lecturers of the Department of Cross-Cultural Professional Communication of the Faculty of Engineering and Economics of the Belarusian State University of Informatics and Radioelectronics for teaching foreign



languages to the undergraduate students of the first stage of higher education receiving a bachelor's degree in information technologies.

#### Methods and materials

Usage of Telegram-channels by lecturers of foreign languages

Very often lecturers of foreign languages face the challenge of effective sharing course-related materials with their students. And there are several reasons why doing that via e-mail does not seem to be the best idea. Firstly, due to a huge amount of letters sent by university lecturers to various student groups, their e-mails tend to end up in students' spam folders. So, they might not even find those letters in their inbox folder. Secondly, students receive lots of e-mails from their professors of other subjects. And if there are no subject-related filters activated, it sometimes makes it truly hard to search for the required materials dedicated to the classes of a foreign language. Thirdly, an individual student may also notice a new e-mail from a lecturer, read it and leave it without making it unread to let everyone else also notice it and get acquainted with its content

As an alternative to sending materials to students via e-mail, a *Telegram*-based information channel may be used by the lecturers of foreign languages. For example, as depicted in Figure 1, a private Telegram-channel "English by P.S. Palubinski" features a list of hyperlinks to all the necessary materials for teaching a foreign language to the first-year students: exam requirements (components, topics and questions), English grammar (both theory and practice), and materials related to general English and English for specific purposes (books, worksheets and handouts). This is a much more convenient way of not only sharing the information materials but also of notifying and reminding students of updates and news at one place.



Figure 1. Private Telegram-Based Channel "English by P.S. Palubinski"

#### Results and discussion

Main features of a web-based resource slido.com

As shown in Figure 2, an interactive web-based resource slido.com may be used



by lecturers of foreign languages for visualising the results of brainstorming sessions instead of using the traditional ways of presenting the results of this teamwork format with sticky notes or posters put on a board (Slido, n.d.). The resource templates may be used not only for word clouds but also for live multiple choice and open text questions, for example, as a part of warm-up activities at the beginning of a class.



Fig. 2. Templates of a Web-Based Resource Slido.com

## Application of a web-based resource rebus.club

Instead of introducing active vocabulary in a box or a list of expressions, rebuses may be used by lecturers of foreign languages to make this process more creative and non-standard. Figure 3 highlights two examples of rebuses with active vocabulary related to the topic "Computer Networks: Tracking Technologies" — 'intrusion' and 'illicit' — created on a web-based resource *rebus.club* which does not require any prior registration (Rebus Club, n.d.). A plethora of rebuses can be created and printed in advance or sent to students as images or documents, for example, via a *Telegram*-based channel of a lecturer.

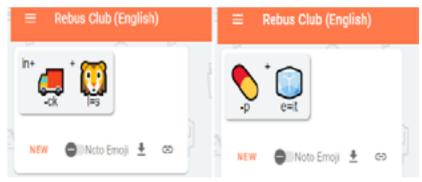


Fig. 3. Examples of Rebuses Created on a Web-Based Resource Rebus.club

Peculiarities of interactive Jeopardy games for teaching a foreign language

A lecturer of foreign languages also faces the challenge of effective distribution of time within a lesson. As a part of the English language examinations at the the Department of Cross-Cultural Professional Communication of the Faculty of Engineering and



Economics of the Belarusian State University of Informatics and Radioelectronics, students have to discuss one of the ten oral topics studied within an academic year which makes a lecturer of English assess the level of proficiency in oral examination topics and revise their content at the final classes after completing a module or section. An interactive *Jeopardy* game created with the help of a template based on a webbased resource *jeopardylabs.com* is one of the most time-effective ways to deal with this challenge (JeopardyLabs, n.d.).

As depicted in Figure 4, a lecturer divides students into 3 teams to play the *Jeopardy* game by choosing the articles-related, video-related or active vocabulary questions to answer after completing the topic "Computer Networks: Tracking Technologies". The team that scores the most points wins.

ARTICLES- RELATED QUESTIONS	VIDEO- RELATED QUESTIONS	ACTIVE VOCABULARY QUESTIONS
100	100	100
200	200	200
300	300	300
400	400	400
Team 1 Team 2 Team 3 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0		

Fig. 4. Jeopardy Game Created on a Web-Based Resource Jeopardylabs.com

Usage of a web-based resource onlinetestpad.com for students' assessment

To create crosswords, conduct surveys, current and final lexical and grammar tests on the topics covered within the course of practical classes of a foreign language, as well as to allow students to evaluate their success in the classroom, a web-based resource *onlinetestpad.com* is offered to replace traditional methods of assessment of the undergraduate students of the first stage of higher education receiving a bachelor's degree in information technologies (Online Test Pad, n.d.).

For example, Figure 5 presents students' self-evaluation form to reflect on their inclass experience by answering 10 questions online.



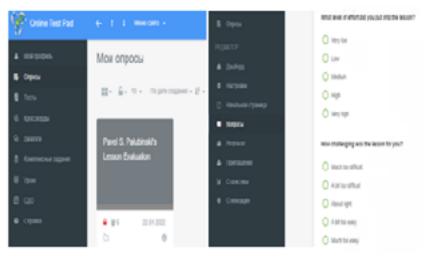


Fig. 5 – «Interface of a Web-Based Resource Onlinetestpad.com»

#### Conclusion

The above-mentioned educational information and communication technologies actively used by the lecturers of the Department of Cross-Cultural Professional Communication of the Faculty of Engineering and Economics of the Belarusian State University of Informatics and Radioelectronics for teaching foreign languages to the undergraduate students of the first stage of higher education receiving a bachelor's degree in information technologies can also be applied by the university lecturers teaching foreign languages to both undergraduate and graduate students majoring in information technologies and other fields of study worldwide.

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