

Information technologies in teaching English at ecological and environmental protection faculties

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Abstract. Currently, the methods and ways of teaching foreign (English) language in information departments have changed dramatically. A specialist who has received a diploma of higher education must have knowledge of his field and profession, as well as excellent language. A future hacker, an IT technician must speak not only English, but also have the skills and knowledge, as well as the necessary set of terminology in a foreign language in his professional field, have professional communication skills. The use of modern Internet and information technologies in practical classes in the discipline of a foreign language creates conditions for the development of students' cognitive, educational and language skills. Through information technology, information students improve their writing, speaking, and listening skills. In the presented article, educational Internet materials were considered. It was found that the use of modern information technology in the practical classes significantly increases the motivation of students in the study of a foreign language.

1 Introduction

Information technology became indispensable assistants in practical training in a foreign language [1]. The main types of speech activity have become possible as a result of information technology. Listening and speaking with native speakers has become available [2]. Information technologies provide students of non-language universities with the possibility of real communication, selection of authentic material, which is extremely necessary for students of information universities [3].

We studied the scientific works of domestic scientists on the given problem. The improvement of modern education is a paramount issue in learning. Note that teaching a foreign language using the communicative approach has become possible thanks to information technologies. In the scientific work of Averyanova V.V. the problem of using Internet resources in teaching listening is described. Listening is the driving force behind a communicative approach to learning. The communicative approach promotes communication in a foreign language and improves speaking skills [4]. Information technologies include a computer with Internet access, social networks that facilitate further

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communication of students in a foreign language, as well as all kinds of programs and Internet applications. Modern information technologies are ways to increase the motivation of students studying a foreign language.

2 Materials and methods

Under the relevance of this paper, we understand the application of modern information technologies in the study of a foreign language by students of information universities. The aim of the work is the application of the most significant information technologies influencing the increase of motivation for learning a foreign language. In order to achieve this goal, we have defined the following tasks: 1) review basic information technologies; 2) identify the most significant information technologies, that positively influence students when learning a foreign language. The materials for our study were: a computer with Internet access, Internet resources, audio and video applications for creating distance courses.

Computer with Internet access became an excellent motivator for students [5]. Thanks to the use of the computer, the students' interest in the studied language increased and practical lessons with audio and video applications became possible. And as a result, the use of audio and video applications gave impetus to the development and promotion of online courses for learning a foreign language. [6]. Online language courses are flexible, they allow you to change the content of the class and its course, which has a positive impact on the motivation for learning [7].

Internet resources have played a role in achieving the goal. Resources include authentic literature and scientific articles in a foreign language published by native speakers, as well as all kinds of quests and sources of information, the formulation of the problem in general terms and its connection with important scientific and practical tasks. At present, training with the help of information and Internet technologies has received active development. [8]. It literally took over the world [9]. Due to pandemic and new coronavirus infection Covid-19 [10]. Internet learning has entered both high schools and general educational institutions [11]. Internet-based training gave teachers the impetus to develop new educational platforms [12] and create online courses [13]. At first, courses were created on the platform of universities, now there are a large number of open platforms for creating courses [14]. Since the beginning of 2020, educational institutions have switched to a distance format [15]. Teachers needed to create online courses for students and learners [16].

Modern students actively spend their time on the Internet [17], exchange and disseminate information, participate in discussions [18]. Using this knowledge, we found it necessary to involve learners in the educational process [19] on the Skif platform of Don State Technical University [20].

More than 560 English language learners were involved in the 2022- 2023 academic year.

At the beginning of the academic year there were 100 students enrolled in the course, as the final results show the number of students increased. By the end of the academic year there were 560 students enrolled in the course.

We summarize the number of students on the course in Table 1.

Table 1. Number of listeners.

	year 2022	year 2023
Number of listeners	100	560

The results by the number of listeners were translated into a chart. Below is a diagram of the increase in the number of students. Let's look at Figure 1.

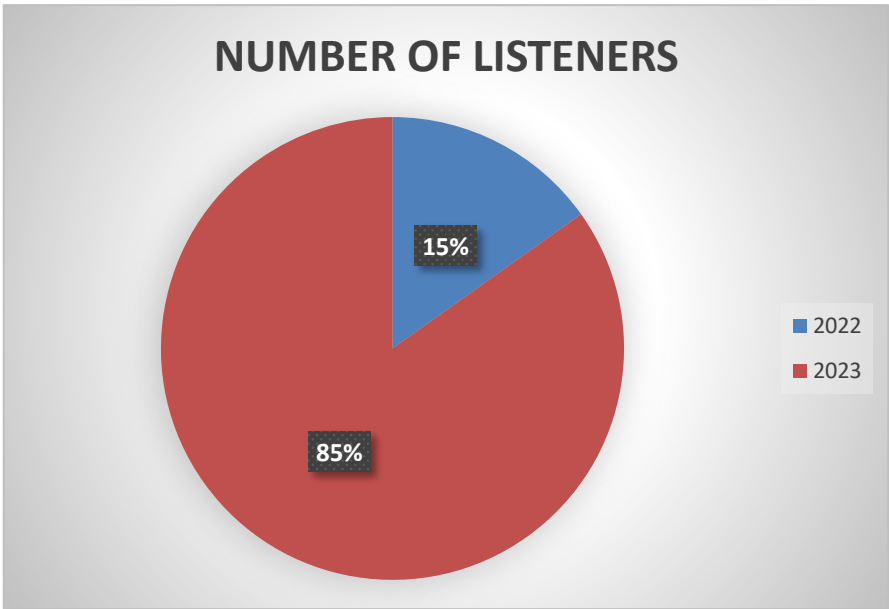


Fig. 1. Number of students.

We can see from the chart that the number of listeners increased by 85 per cent.

Learners who spend a lot of time on social networks are open to communication [21], they are less inhibited, and they use learning material outside the classroom [22]. The teacher in this experiment is the administrator and dictates the topic of the discussion to the participants [23].

Modern internet technologies are indispensable aids to the modern English language learner [24]. Internet, social networks, various chat rooms and forums provide students with necessary information, they give the opportunity to communicate in real time with native speakers[25]. With the help of information technologies, students have the opportunity to study authentic materials and a large number of educational programs [26]. Listening instruction takes place through online resources [27].

3 Results

We have analyzed the latest developments of scientists [28]. Learning a foreign language is impossible without a communicative language teaching. The use of a communicative approach in practical English classes helps to develop listening and speaking skills. Modern information technologies: Internet conferences, e-mail, various messengers, social networks, telegram channels are means of verbal communication [29]. Thus, Internet technologies and modern information technologies are ways to increase students' motivation in learning English.

The purpose of the presented work is to identify modern information technologies as a means of increasing the motivation of students of information faculties in learning English. To achieve this goal, it is necessary to perform a number of tasks: a study of the main Internet resources; information technology research; identification of information technologies that affect the increase of students' motivation in learning English.

Students can participate in international practical scientific conferences and Olympiads, as well as internet competitions. Modern browsers provide an opportunity for students to

use resources for creating Internet presentations and storing materials created by them on disk. Working on projects and taking part in project activities, students can use different information, finding it on various sites.

Internet resources are modern technology for the exchange and transmission of information. They help to expand the zone for verbal communication between students and native speakers of the language. Social networks are a platform for interpersonal communication. With the help of Internet resources, we have the ability to transfer information to communicants, to exchange information between students. Currently, on the Internet, a teacher can find a large amount of information to prepare for classes, and students do their homework [30].

As a result of the study, the following results were obtained [31]. There is an increase in the motivation of students in the study of a foreign language, improved knowledge of grammar and vocabulary [32]. Information technology had a positive impact on students of information faculties in learning English [33].

4 Discussion

We had an experiment. Students actively used computers in practical classes, Internet resources were introduced, and students were able to evaluate the most interesting tasks and identify their advantages. Information technologies actively entered the teaching process, which had a positive impact on IT students [34]. The level of language proficiency increased significantly [35].

It was noted that when using information technologies in foreign language classes, students' reading skills were formed, their writing skills were improved, and their vocabulary became much higher. Information technology has become a catalyst for remembering information and learning new knowledge [36]. It is worth noting that the information presented through information technology is evaluated and processed primarily by the teacher [37]. Thus, the introduction of information technology in the process of mastering foreign languages had a positive effect and significantly increased the motivation of students. Students in practical classes not only acquired new knowledge of the foreign language, but were also involved in learning the history and traditions of the country, as well as customs and holidays [38]. With the help of acquired knowledge, students can understand the language personality through the process of communication in a foreign language.

It should be noted that students were given the opportunity, using Internet resources, to improve their knowledge of grammar and vocabulary. They made extensive use of resources to prepare for practical exercises and develop project work.

The theoretical significance of this study is determined by the contribution to the development of methods of teaching foreign languages in higher education. This paper may contribute to the further development of an online course for English language learners.

The practical significance of the study is due to the application of the acquired knowledge in the development of practical online courses for high schools in the study of English.

5 Conclusion

Modern education has become possible for remote corners of the country with the help of online courses. Online courses developed in many disciplines. They are auxiliary material for teaching and studying a particular discipline. The undoubted advantage of online courses is their flexibility. The course developer can add information, create new tasks and

tests for testing, and conduct conferences during the course. An indispensable attribute in the created online courses is under their control. Each test or test work is reflected in the student's personal account and transferred to the teacher. In turn, the teacher can make diagrams and tables about the results of the students. Modern online courses contain animation elements, video clips and interactive tasks. Most online courses are based on specific educational and methodological complexes and are aimed at a specific field of activity, for example: strategic management or information technology. We list some of the advantages of using Internet technologies: 1) significant savings in search time; 2) updating the studied materials; 3) the possibility of using several sources simultaneously; 4) greater access to information; 5) access to newspapers, magazines of foreign editions, which are characterized by low cost compared to printed editions.

The use of modern information technologies in the classroom creates favorable conditions for the development of language skills of students of information faculties. Thanks to Internet technologies, students were able to improve their English language skills, improve their reading, speaking and writing skills, as well as listening skills. With the help of information resources, students were able to learn the modern realities of the countries of the studied language.

It should be emphasized that students' motivation increased significantly. The use of Internet resources in practical English classes helped students to improve their knowledge of grammar. And it is also worth noting that speaking, reading and writing skills were improved.

References

1. H. Bardesi, A. Al-Mashaikhi, A. Basahel, M. Yamin, *Covid-19 compliant and cost effective teaching model for king abdulaziz university*, Int. J. of Inf. Tech. (Singapore) (2021)
2. S. Sharov, V. Kolmakova, T. Sharova, T. Kamyshova, Int. J. of Inf. and Education Technology **11**, 10, 486-492 (2021)
3. I. Barna, L. Hrytsak, H. Henseruk, *The use of information and communication technologies in training ecology students*, E3S Web of Conferences. International Conference on Sustainable Futures: Environmental, Technological, Social and Economic Matters, ICSF 2020, p. 10027 (2020)
4. I.A. Poluekhtova, O.Yu. Vikhrova, E.L. Vartanova, Psychology in Russia: State of the Art. **13**, 4, 26-37 (2020)
5. H.M. Shalatska, Information Technologies and Learning Tools **66**, 4, 186-196 (2018)
6. M.S. Soboleva, I.V. Amelina, S.Y. Meshalkina, J. of Adv. Pharmacy Education and Res. **11**, 3, 25-30 (2021)
7. A.A. Adăscăliței, S.T. Arădoaei, M.C. Temneanu, et.al., Advances in Intelligent Systems and Computing **1329**, 136-147 (2021)
8. N.A. Sergeeva, V.G. Ryabchikova, E.G. Nikulina, O.S. Rubleva, Perspectives of Science and Education **3(51)**, 481-493 (2021)
9. T. Karsenti, O.M. Kozarenko, V.A. Skakunova, Education and Self-Development **15**, 3, 76-88 (2020). <https://doi.org/10.26907/esd15.3.07>
10. O.N. Brega, G.V. Kruglyakova, Pers. of Sci. and Education **2(50)**, 459-471 (2021)
11. E. Novozhenina, O. Sychev, O. Toporkova, O. Evtushenko, Lecture Notes in Computer Science **12951**, 681-692 (2021)
12. J. Sabin, A. Olive, Political Science & Politics **51**, 1, 183-189 (2018)

13. O. Fomina, O. Potanina, Shcherbakova I. *Etiquette failure of the speech as a linguoecological problem*, E3S Web of Conf. 8, "Innovative Technologies in Science and Education, ITSE 2020", p. 16007 (2020)
14. I. Shcherbakova, N. Kovalchuk, M. Timashova, *Means of expressing emotions in the engineering profession*, E3S Web of Conf. "International Scientific and Practical Conference "Environmental Risks and Safety in Mechanical Engineering", ERSME 2020", p. 08008 (2020)
15. M. Sirotová, V. Michvocíková, Eur. J. of Contem. Education **10**, 1, 127-136 (2021)
16. E.-S.M. El-Alfy, *Using mashup and web 2.0 to foster inquiry-based flipped classroom in online teaching of technical curriculum: a case study*, Proceedings of the International Conference on e-Learning, ICEL. 6. "2020 6th International Conference on e-Learning, ICEL 2020". p. 28-34 (2020)
17. N. Kovalchuk, I. Shcherbakova, XV International Scientific Conference "INTERAGROMASH 2022". Global Precision Ag Innovation 2022. **2**, 1111-1117 (2023) https://doi.org/10.1007/978-3-031-21219-2_126
18. M. Odinokaya, T. Krepkaiia, O. Sheredekina, M. Bernavskaya, Education Sciences **9**, 3, 187 (2019)
19. O. Akay, I. Tsarevskaia, I. Shcherbakova, N. Krivtsova, *Internet technologies in modern concept of english teaching (general and translation theory)*, В сборнике: E3S Web of Conferences. Innovative Technologies in Environmental Science and Education, ITESE 2019, p. 01077 (2019)
20. R.A. Ellis, A.M. Bliuc, British J. of Educat. Technology **47**, 5, 970-980 (2016)
21. N.A. Lozhkina, O.S. Rubleva, et.al., Perspectives of Science and Education **4(46)**, 455-467 (2020)
22. M.-C.Tsai, S P.-D.hen, et.al., Universal Access in the Inf. Society **19**, 4, 783-798 (2020)
23. Yu.I. Lobanova, *Distant studying experience reflection during pandemic of covid-19 (on the example of teaching in the technical university)*, Journal of Physics: Conference Series. Krasnoyarsk Science and Technology City Hall. Krasnoyarsk, Russian Federation, p. 12152 (2020)
24. E. Tokareva, O. Malysheva, Y. Smirnova, L. Orchakova, International Journal of Emerging Technologies in Learning **16**, 4, 166-183 (2021)
25. T. Asten, E. Egorova, E3S Web of Conf. **14** (2021)
26. G.A. Markova, Era of Science **21**, 235-238 (2020)
27. E.V. Vinogradova, N.V. Kornienko, Yu.V. Borisova, *Cat and lingvo tutor tools in educational glossary making for non-linguistic students*, European Proceedings of Social and Behavioural Sciences EpSBS. Proceedings of the joint conferences: 20th Professional Culture of the Specialist of the Future (PCSF 2020) & 12th Communicative Strategies of Information Society (CSIS 2020). p. 400-409 (2020)
28. I.V. Shcherbakova, N. Kovalchuk, *Using Distance Learning Courses as a Way to Increase Motivation of Students of the Agro-Industrial Faculty When Teaching German*, XV International Scientific Conference "INTERAGROMASH 2022". Global Precision Ag Innovation 2022. Cham: Springer, **2**, 1104-1110 (2023). https://doi.org/10.1007/978-3-031-21219-2_125
29. O.D. Rozhenko, A.D. Darzhaniya, V.V. Bondar, M.V. Mirzoian, *Gamification of education as an addition to traditional educational technologies at the university*, CEUR Workshop Proceedings. 5. "DLT 2020 - Selected Papers of the 5th International

- Scientific and Practical Conference "Distance Learning Technologies". p. 457-464 (2021)
30. A.A. Kalashnikova, O.M. Akay, I.V. Tsarevskaya, M.S. Volodina, E.O. Tsybenko, *Man in India* **97**, 16, 161-172 (2017)
 31. Z.R. Khachmafova, I.S. Karabulatova, S.A. Lyausheva, E.N. Luchinskaya, G.V. Osipov, *Mediterranean Journal of Social Sciences*, **6** (3), 476–481 (2015)
 32. C. Peñarrubia-Lozano, M. Lizalde-Gil, M. Segura-Berges, A.J.C. Bustamante, *Sustainability* **13**, 6 (2021)
 33. O.I. Vaganova, I.S. Vinnikova, Z.V. Smirnova, N.V. Kamenez, E.V. Vovk, A. Maseleno, *Int. J. of Eng. and Technology (UAE)* **7**, 4, 4096-4102 (2018)
 34. I.V. Shcherbakova, et.al., *E3S Web of Conf.* **273**, 10004, 7 (2021).
<https://doi.org/10.1051/e3sconf/202127310004>
 35. S.V. Ratovskaya, *Teaching university students to read digital texts in English*, CEUR Workshop Proceedings. 4."DLT 2019 - Selected Papers of the 4th All-Russian Scientific and Practical Conference with International Participation "Distance Learning Technologies"" p. 364-373 (2021)
 36. C.T. Martín, M.E. Honrani, Á.C.M. Estrada, C. Acal, *Sustainability* **13**, 2, 1-16 (2021)
 37. A. Pesha, M. Shavrovskaya, *Digital Technologies in the Formation the Students' Supra Professional Competencies*, 14th IEEE International Conference on Application of Information and Communication Technologies, AICT 2020 - Proceedings. **14**, p. 9368868 (2020)
 38. Z.R. Khachmafova, I.S. Karabulatova, S.V. Serebriakova, A.V. Zinkovskaya, E.N. Ermakova, *Pertanika J. of Social Sciences and Humanities* **25**, 137–150 (2017)