

## СЕКЦИЯ 8. ПЕДАГОГИЧЕСКИЕ НАУКИ

UDC 372.881.111.1

### INTEGRATION OF INFORMATION AND COMMUNICATION TECHNOLOGIES INTO THE PROFESSIONAL TRAINING OF A TEACHER: LEARNING ENGLISH WITH THE HELP OF ROBOTS

**G.R. Minnigaleeva,**

2nd year student, ex. "Pedagogical education", profile "Teaching English in secondary and higher schools"

**R.R. Zaripova,**

Scientific Director,

Art. prep.,

KFU,

Kazan

**Annotation:** This article examines the potential of teaching English using robots as part of the professional training of a teacher. The principles of work of robots and their value in the educational process in a foreign language are revealed. Robotic learning is a niche area in social robotics and human-robot interaction. It is noted that integrated classes allow students to master technologies and skills of the 21st century in an easy and playful way.

**Keywords:** information and communication technologies, non-traditional classes, softskills, English, robotics

Nowadays it is impossible to implement the requirements of the Federal State Educational Standard for the quality of education without the use of innovative educational technologies. IT technologies not only develop cognitive and creative activity of students, but also contribute to improving the quality of the use of study time. The use of innovative technologies in teaching a foreign language is particularly relevant.

The need to optimize approaches to the organization of the educational process, and above all, an integrative approach to learning is conditioned by the innovative processes taking place in educational practice. The preparation of students for life in the information

environment is provided by the informatization of education, which occupies a leading position in the content, methods and forms of educational activity. According to N.V. Boldyreva, the use of modern IT technologies in the educational process can be considered as one of the active forms of individualization of learning [1-4].

Many domestic and foreign scientists pay attention to the importance of the use of innovative technologies in modern education, since the use of innovative technologies makes it possible to significantly diversify the content, methods and forms of education. According to K.N. Ryabtseva, "the use of computer technology introduces heuristic novelty into the learning process and creates motivation for productive self-knowledge and self-improvement, and also makes the lesson attractive and truly modern, individualization of learning occurs, control and summing up are objective and timely" [3].

The widespread dissemination and development of information and communication technologies (ICT) in our daily lives opens up wide opportunities for foreign language teachers and students, although this may also lead to some pedagogical difficulties. Learning a foreign language (for example, English, Spanish, French, etc.) has become very popular and, therefore, has become a necessity in our communicative world. In addition, the need to combine ICT and language has become a vital part of the work of linguists and researchers. A literate, communicative and technologically oriented world must accept the challenges of applying this new movement in education, regardless of whether it is positive or negative.

Robot-assisted language learning (RALL) is defined as the use of robots to teach language expression or comprehension skills, such as speaking, writing, reading or listening. This includes native and non-native language instruction in both spoken and non-verbal languages, such as sign language. RALL is a subdomain of robot-assisted learning (RAL or r-learning), which also uses educational robots for educational purposes. They have a lot in common, but by addressing a unique problem space, RAL offers its own pedagogical methods and implementation problems. However, both of these areas can complement each other.

The advantages of using robots in language learning include:

1) intelligence – the presence of sensors that allow you to communicate and interact with the environment;

2) accessibility – the ability to be used by people who usually do not have access to teachers, for example, those who live in remote areas, as well as those who wish or need additional practice, for example, at home or in the classroom;

3) versatility – single or group use is possible, as well as use with an educator or teacher;

4) individualization – the possibility of personalization for both an individual and a task;

5) possibility of updating – potential addition of new content and information;

6) repeatability-performing repetitive tasks without fatigue, which allows you to practice repeatedly. In addition, robots tend to reduce students' anxiety and increase their motivation to learn [5].

According to foreign researchers, robots can teach people a foreign language, although the results regarding their ability compared to other technologies are ambiguous. Since robots in RALL, as a rule, are not intended to replace teachers, but only to complement them, robots are also often opposed to 2D technologies such as computers, tablets and virtual agents (chatbots). Compared to these technologies, there is some support that robots offer unique advantages by helping students learn a language and complete tasks. In addition, they have a positive effect on students' confidence, excitement and motivation. Robots do not provide any unique advantages in learning vocabulary, at least in the short term. However, more research is needed to fully determine the benefits provided by the use of robots in language teaching.

Robots can be autonomous, remotely controlled, or able to switch between both modes of operation. Remotely controlled robots are controlled from a distance, while autonomous robots have a programmed algorithm of actions. Some robots (for example, Robosem) can work autonomously or remotely, depending on the mode. Both autonomous and remotely controlled robots are often used in RALL, and robots with autonomous capabilities are often remotely controlled for experimental purposes.

Nowadays we live in an information environment and almost all spheres of human life, including education, depend on technical equipment. The intensive development of digital technologies encourages us to quickly perceive and use them when teaching foreign languages, when developing

educational materials to ensure an increase in the effectiveness of classes, since students are involved in the educational process.

### **Bibliography**

- [1] Azimov E.G. New dictionary of methodological terms and concepts. / E.G. Azimov, A.N. Shchukin. [Electronic resource]. – URL: [http://linguistics-online.narod.ru/olderfiles/1/azimov\\_e\\_g\\_shchukin\\_a\\_n\\_novyy\\_slovar-21338.pdf](http://linguistics-online.narod.ru/olderfiles/1/azimov_e_g_shchukin_a_n_novyy_slovar-21338.pdf). (date of access: 10.03.2021).
- [2] Kritsyn A.A. Main trends in the development of educational robotics. / A.A. Kritsyn. // Scientific collection "Modern school of Russia. Issues of modernization": materials of the International scientific and practical conf. – M., 2012. 6-65 pp.
- [3] Ryabtseva N.K. New communicative trends in modern culture and innovations in the field of teaching a foreign language. / N.K. Ryabtseva. [Electronic resource]. – URL: [https://iling-ran.ru/library/sborniki/for\\_lang/2016\\_08/11.pdf](https://iling-ran.ru/library/sborniki/for_lang/2016_08/11.pdf). (date of access: 10.03.2021).
- [4] Boldyreva N.V. The influence of information and communication technologies on the effectiveness of the educational process. – 2013. [Electronic resource]. – URL: <http://webs.ucm.es/BUCM/revcul/e-learning-innova/144/art1970.pdf>. (date of access: 10.03.2021).

© Г.Р. Миннигалева, 2021