The Use of Digital Technologies as a Condition for Developing Independent Educational Activities of Students in Mastering a Foreign Language

Ufimtseva O.V.

Ural State Pedagogical University, Yekaterinburg, Russian Federation
Email: uf.olga@gmail.com

ABSTRACT

The article is devoted to using innovative technologies in the process of teaching foreign languages. Due to the fact that currently all industries, system of education, politics, etc. require specialists who are proficient in foreign languages. Innovative activity in education is characterized, at least, by development and implementation of fundamentally new content and technologies of training, as well as availability of qualified teachers who are able to provide and implement this activity. The processes of globalization and internationalization require specialists who are able to extract information from foreign sources, interpret and present it in their native language, and apply it in their professional activities.

Considering innovative technologies of teaching a foreign language at a University, the author identifies personality-oriented technologies, professionally-oriented technologies, information-communication and computer technologies, including certain methods and techniques.

All mentioned above technologies are aimed at developing a student's personality and professional orientation and self-realization.

Personal-oriented technologies contribute to the development of a person's readiness for life-long language education and self-education for the purpose of intercultural interaction in various spheres of daily and professional activity.

Professional-oriented training involves professional orientation of educational materials and organization of activities that form professional skills in various situations of professional communication. The professional orientation of foreign language teaching requires its integration with specialized disciplines, and the content of educational materials should be focused on formation and development of professional competence.

Taking in consideration the fact that modern conditions require practical mastery of a foreign language and digital technologies, and the volume of information is constantly growing, it requires knowledge of ways to transmit, store and process it. Information-communication technologies and computer technologies are an effective means of foreign language teaching, as they contribute to formation and development of the skill of independent mastering a foreign language being studied.

Innovative direction in development of the educational process involves shifting the focus from the teaching activity of a teacher on independent productive educational work of a student.

Keywords: educational process, innovative technologies, digital technologies, independent educational activities, foreign language

1. INTRODUCTION

In the context of globalization process and internationalization of scientific knowledge, a well-organized system of international information becomes of particular importance, functioning of which is impossible without specialists who really speak foreign languages, who can quickly extract information from foreign sources, present it in their native language and apply it in their professional activities.

In these circumstances, a foreign language is not only an academic subject, but also a means of professional development of an individual.

In modern conditions, the potential of a foreign language is expanding, turning it into a means of education and comprehensive personal development; a means of access to foreign-language information; a means of intercultural communication in the context of professional activities of future specialists.

The existing requirements in the education system and the development of scientific and technological progress cause problems of classical education and determine the

need for the development and transformation of existing forms and methods, as well as the introduction of new innovative technologies, including digital technologies in the process of teaching foreign languages.

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The main task of higher educational institution is to form a qualitatively new specialist who is able to navigate information space and is ready for life-long professional self-development.

Studying digital technologies, we need to get answers on the following questions: Why is it necessary to introduce digital technologies in the process of teaching a foreign language? What groups of innovative technologies are used in mastering foreign languages? What is productive education? How do digital technologies contribute to the development of students' independent learning activities?

The purpose of this research is to study digital technologies in the process of teaching a foreign language and their impact on the development of independent learning activities.

2. METHODOLOGY OF THE RESEARCH

There have been various theoretical (learning pedagogical, methodological and scientific resources, generalizing, content analysis) and empirical research methods (observation, methods of pedagogical diagnostics to determine the level of proficiency in independent educational activities) used to study digital technologies and their impact on independent educational activities.

3. RESULTS AND DISCUSSION

The process of integrating Russia into a common education space requires a sufficient level of language training to achieve this purpose, the ability of students to independently search and analyze authentic information in the field of professional activity and apply it in the process of professional communication.

Nowadays special importance is given to English-language training of students in the process of integrating Russia into a common education space. The main task is to develop competencies in intercultural communication in the context of their professional and scientific activities. There is no doubt that the English-language component of a training program for a specialist who is able to search

for and analyze authentic information in the field of professional communication independently plays a significant role.

In this regard, there is a need to modernize the methods and principles of teaching foreign languages and introduce new innovative technologies.

Innovation in education is the introduction of advanced scientific developments in the educational process, which allows you to train specialists who are ready for education throughout their scientific and practical career.

In this article, we will consider several innovative technologies that are used in foreign language classes of students 41.03.05-International relations " at the Ural state pedagogical University.

I. N. Aynutdinova confirms that "modern language education requires interdisciplinary integration, multi-levelness, variability, and orientation to the intercultural aspect of language acquisition" (I. N. Aynutdinova, 2011). The author notes that "new challenges involve changes in the level of foreign language proficiency, to defining new approaches to content selection and organization of material, to the use of adequate forms types controls" (I. N. Ainutdinov, 2011).

T. V. Avner, V. V. Vanag, V. A. Adolf define innovation as purposeful inclusion of innovation in educational systems of different levels with the aim of improving the quality of education (T. V. Avner, V. V. Vanag, V. A. Adolf, 2016).

Considering innovative technologies in teaching foreign languages in a higher, we, following I. N. Aynutdinova, distinguish:

1. Personality-oriented technologies, in which a student becomes an active participant of educational process, and the process of teaching foreign languages itself is based on organizing cooperation of a student and a teacher, on creating favorable conditions for development of students abilities to self-education, self-determination, independence;

2. Professionally-oriented technologies that give opportunities to organize the process of teaching foreign languages, taking into account professional orientation of training and focusing on a personality of a student, his personal and professional interests, paying attention to his/her inclination and abilities;

3. Information- communication and computer technologies that enable participants of educational process to intensify educational process of gaining a foreign language; giving opportunities for using computer technologies for testing, training grammar, spelling, reading, translation and working with text skills; turning learning a foreign language into a highly productive, relevant, motivated and innovative process; providing students and educators with not only an opportunity to work at basic language skills, but also to study culture and traditions of the country of the language being studied, to establish friendly contacts with native speakers, to work at joint projects, and take part in discussions with higher students from other countries.

Every group of technologies, according To N. V. Zhilenko (2013), I. N. Gainutdinova (2011), and D. K. Kondratiev

(2014), includes certain sub-technologies that include certain methods and techniques (table 1).

Table 1 Technologies of foreign language training

Personal-oriented technologies	Professional-oriented technologies	Information and computer technologies
Technologies of training in cooperation (E. S. Polat, F. Yu. Uvarov, etc.)	The technology of contextual training (A. A. Verbitsky)	Internet technologies (M. Warschauer, H. Shetzer, C. Meloni)
Technology of modular training (P. A. Juceviciene, M. O. Choshanov etc.)	Translation of professionally oriented texts (V. N. Komissarov, B. N. Klimzo)	Multimedia technologies (M. S. Afonina, I. L. BIM, A. O. Vorotnikova, I. A. Zimnaya)
Technology for developing critical thinking through teaching reading and writing (I. O. Zagashev, S. I. Zair-Bek, etc.)	Game technologies (L. S. Vygotsky, B. P. Nikitina, D. B. Elkonin, S. A. Shmakov)	Information and communication technology (M. Z. Bibolov,M. A. Bovtenko,E. D. Neronov,E. S. Polat, R. K. Potapova,T. P. Saransk, etc.)
Project technology (I. A. Zimnaya, E. S. Polat, T. E. Sakharova, etc.)	CASE-STUDY (Stephen D. Krashen)	Distance learning (M. N. Bukharkina, E. S. Polat, B. Loveless, Gui Ying, etc.)
Technology of workshops (I. A. Mukhina, A. A. Okunev, etc.)	Language portfolio (European Language Portfolio)	E-learning (M. V. Golysheva, A.V. Didenko, M. V. Vlasova, G. Kranz, D. Munen, and others)
Technology problem-dialogue learning (A. M. Matyushkin, E. L. Melnikova)		Lifelong learning (continuing education) (N. D. Galskova, N. F. Koryakovtseva, A. Armitage, J. Evershed, and others)

One of the most important aspects of personality-oriented educational paradigm is productive educational activity of a student.

Productive education in the strict sense is practice-oriented training, which is based on the acquisition of subject knowledge in the process of practical activity. This condition was justified and developed in the pragmatic concept of J. P. Blavatsky. Dewey (learning by doing), in works of A. S. Makarenko, S. T. Shatsky.

Commitment to the student's personality determines the concept of language education. One of the priorities of productive education is development of independence and creativity of a student in the process of mastering language and culture, which contributes to development of personal readiness for continuous language education and self-education with the purpose of intercultural interaction in various areas of daily and professional activities.

As a wider-ranging concept, productive education is associated with self-expression, self-realization and self-development of the student's personality.

Effective command of a foreign language requires, first of all, the ability to work independently on learning language, to maintain and constantly gain new knowledge, to improve skills, to develop communication and information culture. In this regard, independent educational activity of a student as the basis of productive language education becomes an important component of the educational process.

This innovative direction in development of the educational supposes, first of all, shifting the focus from teaching activity of a teacher to independent productive educational work of a student. The educational process should be aimed at self-determination and self-realization of a student, and not only at transmitting information and acquiring knowledge by students.

In the framework of productive training, personality-oriented technologies (see table 01) provide students with cognitive activity, their self-determination and self-realization. Productive educational activity is aimed at creating a "personality-oriented product as a result of use of knowledge and skills" (Koryakovtseva NF, 2010).

Taking into consideration the fact that the purpose of teaching students a foreign language is to achieve a level of foreign language proficiency sufficient for practical use of knowledge and skills in future professional activities.

Professional-oriented training involves professional orientation of educational materials and the organization of activities that form professional skills in various situations of professional communication.

Despite the fact that foreign language training takes place in an artificial language environment, professionally-oriented training should be communicatively-oriented and can have effect in official and informal environment. It is recommended to use conversations on professional themes, discussion of professional issues, public speeches, meetings with foreign professionals – native speakers, writing business letters and e-mail.

It should be noted that students' interest in learning a foreign language increases if students clearly are aware of prospects for using their knowledge and skills in their professional activities. The professional orientation of foreign language teaching requires its integration with specialized disciplines, and the content of educational materials should be focused on formation and development of professional competence.

Accepting the fact that modern conditions require practical mastery of a foreign language, and the volume of information is constantly growing, one need to know how to transmit, store and process it. This modern requirement involves gaining information and computer technologies. According to I. N. Gainutdinova, "the use of information technologies reveals huge possibilities of a computer as a means of learning. And with introduction and development of the Internet, possibilities of using computers in teaching a foreign language have enormously expanded "(I. N. Aynutdinova, 2011).

Integration of information-communication technologies in the educational process changes the role of a teacher in this process. The teacher not only translates knowledge and forms language skills, his/her main task is to motivate students to acquire foreign languages, stimulate interest in the subject taught, as well as to develop students' independence in mastering foreign languages and using information- communication and computer technologies.

The main advantage of using information-communication technologies in the process of teaching a foreign language is an ability to create a learning language environment that is as close as possible to real communication.

The process of teaching foreign languages gains an individualized character. Information-communication environment is aimed at "personal orientation, operability, communication (M. M. Ferzilayeva, 2015).

According to I.A. Gainutdinova, information-communication environment should include the following components:

1. Multilingual communication (various information and reference blocks);

2. Continuous support for language learning (various lexical and grammatical exercises; independent language learning blocks, access to a multimedia database of educational materials);

3. Analysis and diagnostics (analysis of needs and identification of students' profiles, diagnostics of language proficiency, assessment of progress, etc.);

4. Processing and adaptation of multimedia educational materials (text, audio, video) in accordance with the educational goals (by topic, by structure, by degree of complexity) (I.A. Gainutdinova, 2011).

The information-communication environment provides teachers with access to the Internet sites containing the latest materials in both text and illustrative format, as well as in the format of multimedia programs, dictionaries, reference books.

Teachers can not only use existing educational sites, but also create their own, adapting received materials to needs and level of language proficiency of students.

Being in a virtual language environment, students get access to constantly updated authentic materials that allow students to read and to listen samples of modern authentic speech and "use them to generate their own statements" (E. V. Voevoda, 2009).

Using the Internet sites contributes to the development of basic speech skills of students in the main types of speech activity:

1. Letters (official and unofficial correspondence via email and blogs);

2. Reading (studying the content of text sites, reading e-mail messages, etc.);

3. Listening (listening and viewing audio and video materials, listening to speech of an on-line interlocutor);

4. Speaking (communicating via Skype, producing "secondary" texts of students based on information from the Internet).

Internet technologies such as email, blogging, Skype-communication, Internet conferences, and teleconferences offer a wide range of opportunities for international and cross-cultural communication.

Virtual communication of students in a foreign language not only removes language barriers and allows them to apply gained knowledge, skills and abilities in practice, but also helps students to overcome socio-cultural stereotypes, better understand mentality of people from countries of the language being studied and develop tolerance.

In addition, digital learning makes the learning process more comfortable and informal, David Leuercher emphasizes that many students recognize possibility of being "invisible", that they will not be judged on their characteristics, nationality, body size or physical disabilities. This makes them feel equal with other people. Teachers are also aware of advantages of digital learning that allow them to get feedback from every student, not just from those in the classroom who have volunteered to respond. Although they must review their classes every semester, much of what they have prepared for one course will be carried over to the next one.

The drawback for students is that in an absolute online environment, they do not meet either the teacher or their classmates in person. All contacts are made online via email, messages to the course management system or an electronic forum. Students often experience a lack of sense of community, or if they do, they have to create a virtual community through social networks. In many situations, students may not have adequate personal computer equipment, software, or fast enough Internet connection. Besides, if they do not have enough computing skills, they may not have sufficient training to complete their tasks [D.V. Loertscher, B. Woolls 2012].

Doing a research of online learning and traditional learning, Dr. Neelam Parmar notes that integrating mobile technology in the learning process is no longer an innovative option. Today, it has become a part of educational process for the 21st century generation, where device selection is also no longer a matter of discussion. Regardless of the fact if a higher education institution has adopted one of the most popular online platforms for teacher-student collaboration, whether it is Google, Windows or Apple, it will be always a primary issue of how teachers integrate technology into their teaching practices and what learning outcomes students demonstrate.

Introduction of subject-based educational applications was original and even now it is the most wide-spread usage of EdTech in educational institutions. Educational apps have been mastered to add variety to teaching and learning. Teachers use them in classrooms to expand and enrich their lessons in special areas. Indeed, the author has a complete table of applications related to subjects to achieve the goals of the curriculum. But we also need to be careful, since educational apps can also be used as a game-based learning tool that has little or no pedagogical instructions, that leads to limited impact on a user [Y. N. Palmer, 2016].

Effective use of technologies in education has changed the essence of education and created more educational

opportunities. Both teachers and students have benefited from various educational technologies, teachers have learned to integrate technology in their classrooms, and students are becoming more interested in learning with the help of technologies. The use of technology in education has removed educational boundaries, and students and teachers can cooperate with each other in real time using advanced educational technologies such as digital technology [K. Ramey, 2013].

Nowadays, teachers have a large choice of textbooks and tutorials in the Premium Pack format. These courses combine printed and digital components, which allow a teacher to devote more time to live communication in the classroom. This educational and methodological complex enables one to master not only language skills, but also to develop general cultural competencies that will help a student to realize his/her place in modern society, cope with difficulties in learning, and solve professional problems.

Every course is divided into separate sections and activities that form a clear structure. Tasks are interactive, including voice chats, forums, organizing language and professional communities. Wide range of multimedia, presentations, audio files, and videos are used in such courses kike this. The Premium Pack training course contains:
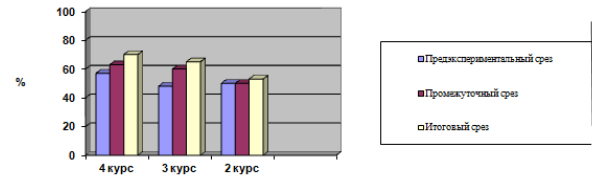
- Textbook for students (Students' Resource Centre), which includes audio and video materials of the course, authentic texts, additional tasks on vocabulary and grammar, vocabulary lists, online excersises;
- Section Life Skills, which contains exercises, texts, and audio material that allows students to revise studied language material and master interpersonal communication skills;
- Teacher's book (Teacher's Resource Centre) - an online resource for teachers that contains speaking assignments, project work, and Presentation Kit, which is a digital version of the textbook for students with built-in audio and video materials and a set of tools for working on an interactive whiteboard;
- Online workbook - opportunity to create a virtual classroom for monitoring students ' independent work.

This course develops participants' awareness of various types of using innovative technologies in language education, principles of language education, and ways of applying these principles in a professional context.

This course is aimed at development of independent educational activity. I. A. Giniatullin believes that "independent educational activity is characterized by complete cognitive independence with absence of external pedagogical influence. At the same time, student-teacher relationship can be described as relations in cooperation" (I. A. Giniatullin, 1990).

The diagnostics, carried out, to determine a level of development of independent educational activity of students of the direction "International relations" showed that the use of innovative and digital technologies increases the level of proficiency in independent educational activities. The conclusions are made in

accordance with the students 'self-assessment and the results of teachers' observation.

Digital learning is considered to be a progressive form of teaching. But at present, they cause a number of psychological and pedagogical problems that must be solved by teachers and students:

- Difficulties in establishing interpersonal contacts between participants of the educational process;
- Problems of organizing effective work of small educational groups when training in cooperation;
- Assessment of individual characteristics of students ' perception of information and their learning styles for better organization of the educational process;
- Updating and maintaining students' motivation to study the subject;
- Sufficiency and ability of a teacher to chosen methods and techniques of digital learning.

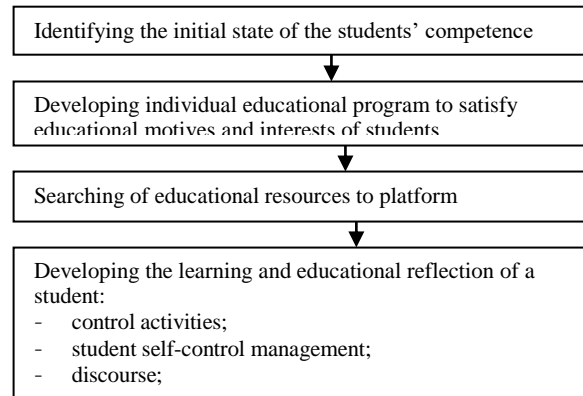Thus, teacher's activity during the digital educational process can be represented graphically (Fig. 1).)

Figure 1 Teacher's activity in digital education environment

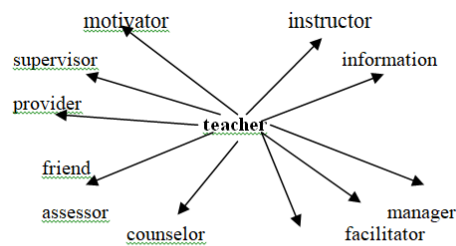Working in digital environment a teacher should fulfill the following functions:

Figure 2 Roles of a teacher in on-line and distance learning

So teachers and students must acquire digital culture and digital literacy, because schools and universities are implementing digital technologies in all segments of their work - from online lessons and homework downloads to student chats and forums and digital administration. Currently, students study in virtual classrooms, teachers post homework on websites and in the portal, and lessons are filled with videos and demonstrations from online sources. Students' and teachers' files are stored and maintained electronically, as well as their profiles, grades, and ratings.

Further work is planned to develop a program and guidelines for teachers of foreign languages on the use of digital technologies in the process of teaching a foreign language in order to develop students' independence in mastering a foreign language after graduation from a higher educational institution.

4. CONCLUSION

Introduction of information-communication and computer technologies into educational process allows improving language and methodological skills of not only students, but also teachers via participating in video conferences, online forums for the exchanging experience with foreign and domestic teachers.

The use of multimedia tools helps to optimize a system of control and self-control, which in turn develops independence in learning a foreign language.

In a pragmatic sense, introduction of computer classes, multimedia manuals, interactive whiteboards and other multimedia tools into the educational process gives an opportunities of "reducing the need for printed publications and additional handouts" [M. V. Eremenko, Yu.s. Pashukevich, 2010].

Observation and teaching experience allow to assert that the use of digital technologies increases students' interest to learning a foreign language, enables the teacher to adjust learning tasks according to degree of difficulty, allows to create a situation of success, as working at one's own pace and using reference materials, students have an opportunity to learn material and bring solution to educational problems to the end.

Information- communication technologies and digital technologies are effective means of teaching a foreign language, as they contribute to the formation and development of the skill of independent mastering of the foreign language being studied, "which leads to reduction of time for performing standard tasks and allows one to increase the time for performing creative works [E. V. Timofeeva, Yu.a. Kail, 2014].

In conclusion, it should be noted that all innovative and digital technologies are aimed at forming an innovative personality that is competitive in the modern labor market, at updating and intensifying the educational process and updating its content, methods and forms of training and upbringing. Innovative pedagogical and digital technologies give a chance to organize joint educational activities of a teacher and students, to develop students' responsibility, to improve the level of foreign language proficiency.

Digitalization of education is introduction of advanced scientific developments in the educational process, which allows to train specialists who are ready for education throughout their scientific and practical career.

REFERENCES

[1] Ainutdinova, I.N. (2011), Innovative technologies in teaching foreign languages at a university: integration of professional and foreign language training of a competitive specialist (foreign and Russian experience): Handbook of an innovative, [Innovatsionnyye tekhnologii v obuchenii inostrannym yazykam v vuze: integratsiya professional'noy i inoyazychnoy podgotovki konkurentosposobnogo spetsialista (zarubezhnyy i rossiyskiy opyt)], Kazan University Press, Kazan, 456 p

[2] Voevoda, E.V. (2009), Internet technologies in teaching foreign languages [Internet tekhnologii v obuchenii inostrannym yazykam], Higher Education in Russia, No 3, pp. 110-114.

[3] Giniatullin, I.A. (1990) Independent work on the practical course of a foreign language [Samostoyatel'naya rabota po prakticheskomu kursu inostrannogo yazyka], Foreign languages at school, No 1, pp. 74-79.

[4] Eremenko, E.V., Pashukevich, Yu.S. (2010), The use of multimedia technologies in teaching of a foreign language [Ispol'zovaniye mul'timediynykh tekhnologiy v prepodavanii inostrannogo yazyka], Theory and practice of service: economics, social sphere, technology, No 2, pp. 36-40.

[5] Javner, T.V., Wonogh, V.V., Adolf, V.A. (2016), The role of innovative technologies in the formation of professional foreign language competence of future engineers [Rol' innovatsionnykh tekhnologiy v formirovanii professional'noy inoyazychnoy kompetentnosti budushchikh inzhenerov], Bulletin of the Bryansk State University, No 2, pp. 245-249

[6] Zhilenko, N.V. (2011), Personal-Oriented Technologies in Foreign Language Teaching [Lichnostno-orintirovannyye tekhnologii v obuchenii inostrannomu yazyku], Lingua Mobilis, No. 6, pp. 119-124.

[7] Koryakovtseva, N.F. (2002), Theory of teaching foreign languages: productive educational technologies: study book for students. lingua faculties. of higher institutions [Teoriya obucheniya inostrannym yazykam: produktivnyye obrazovatel'nyye tekhnologii], Academy, Moscow, 192 p.

[8] Kucheryavaya, T.L. (2012), Problems of professionally-oriented teaching of a foreign language to students of non-linguistic specialties. Theory and practice of education in the modern world: proceedings of the Intern. scientific conf. (G. St. Petersburg, February 2012) [Problemy professional'no-oriyentirovannogo obucheniya inostrannomu yazyku studentov neyazykovykh spetsial'nostey. Teoriya i praktika obrazovaniya v sovremennom mire: materialy Mezhdunar. nauch. konf. (Sankt-Petersburg)], Renome, St. Petersburg, pp.336-337, https:moluch.ru/conf/ped/archive/21/1783

[9] Timofeeva, E.V., Kail, Yu.A. (2014), The use of information and communication technologies in teaching a foreign language [Ispol'zovaniye informatsionno-kommunikatsionnykh tekhnologiy pri obuchenii inostrannomu yazyku], News of Altai State University, No 2 (82), V.1, pp. 71-80

[10] Ferzilaeva, M.M. (2015), Innovative technologies of teaching foreign languages as a tool for the formation of a multicultural personality [Innovatsionnyye tekhnologii obucheniya inostrannym yazykam kak orudiye formirovaniya polikul'turnoy lichnosti], Concept, Special issue No 15, available at: http://e-koncept.ru/2015/75219.htm

[11] Ufimtseva, O.V., Ivanenko, M.A. (2019), Development of tdigital culture of university students [Razvitiye tsifrovoy kul'tury studentov vysshego uchebnogo zavedeniya], Proceedings of the International Scientific and Practical Conference on Digital Economy (ISCDE 2019), available at: https://www.atlantis-press.com/proceedings/ iscde-19

[12] Loertscher, D. V., Woolls, B. (2012), "Information Literacy Interconnections Using a Virtual Learning environment", IFLA World Library and Information Congress: 78th IFLA General Conference and Assembly, available at: http:conference.ifla.org/ifla78

[13] Palmer, Y. N., (2016), "Digital teaching and learning", available at: https://education.viewsonic.com/digital-teaching-and-learning /, (published)

[14] Ramey, K., (2013), "The use of technologies - in education and teaching process", available at: https://www.useoftechnology.com/the-use-of-technology-in-education/, (published)