IMAGE OF A STUDENT AND A TEACHER IN LIGHT OF CHANGING LEARNING NEEDS

Anastasia Zabrovskaya

[1]Bauman Moscow State Technical University, Moscow, Russian Federation

Abstract. The modern society sets new challenges for university students increasing the demand for the well-qualified, skilful workforce. These challenges inevitably bring about innovative tools and educational mechanisms which teachers can use to meet students' needs and interests. The changing attitude of contemporary Russian youth to conventional educational methods has revolutionized the role of a teacher in the learning experiences and the image of a teacher in academic system as a whole. The paper analyses the students' learning needs of methods of teaching a foreign language at technical university, and shows the impact of these changes on the teacher's role and image in the educational process. Due to the technical progress and rapidly changing modern society, the approach to university learning and teaching undergoes significant transformations. The image of a modern student determines different rules and inevitably leads to the appearance of a new image of a teacher, thus, fostering new teaching methods. In our work, we focus on a social profile of a student of the XXI century, make an attempt to reveal the similarities and differences between students of the past and present days, and highlight the necessity of innovative teaching methods which can meet the needs of students and tackle important problems. New conditions of social and technological transformations of the XXI century are obvious and give rise to the search of new approaches in education.

Keywords: collaborative learning, digital natives, generation gap, innovative teaching approach, profile

1. Introduction

Technology has advanced with years and it has changed the way people live, the way they do their regular routines, communicate and learn. These changes have brought about changes in the educational system, increasingly affecting both learners' expectations and teaching methods, as well as the approaches to traditional strategies applied in school and in higher educational institution [1]. A modern student is completely different from a student of the past decades in terms of their attitude to life in general, and to studying in particular. The image of a student results in new rules of the "game", essentially influences the development of a new image of a teacher, and consequently, leads to innovative teaching methods, different educational culture as a whole [2]. The experience of working with young people for a long time allows us to draw certain conclusions regarding the rapidly changing needs and interests of a given social group due to the time, the dynamics of the formation and evolution of the student's social profile.

In the XXI century, a new generation of young people, born in the era of technological revolution, can no longer live without gadgets, the Internet, take them for granted, and therefore their studies at university, which has always been an essential part of their life, is no longer

possible without the computers and smartphones. New generation of learners has immersed in the university classroom. These modern people are determined, driven achievers who completely depend on technology and its benefits. The teaching methods of the past can't correspond to the learning needs of this generation.

According to Christian Koch [3], it is crucial to integrate the computer into studying to develop various projects and courses. Since the computer has become an inherent part of life of modern youth, it seems important to actively use it for students and teachers' benefits in the educational process. The use of Information and Communication Technologies (ICT) as a learning tool has a positive effect on its quality and effectiveness [4]. There has appeared the term "digital pedagogy", which in its turn follows the blended learning models. Digital pedagogy focuses on technologies as potential instruments for both teaching and learning. Digital pedagogy today is engaged in system integration, as well as the development of new educational standards, taking into account the new horizons, the development and testing of methods for their application in educational activities, updating the competences of the teacher.

2. Methods

When facing the problem of teaching new generation of students, educators should find the answer to the following question: how much do we really know about them? In 1991, two American researchers, W. Strauss and N. Howe [5], described the features and differences of different generations. The theory they created was based on the fact that the values of different generations are significantly different. Strauss and Howe studied these differences, as well as the reasons that gave rise to them, i.e. political and social situation, level of technical development, significant events of their time. The first thing to realize is that the new generation, so called Gen-Z, were born with the Internet at their fingertips and feel absolutely happy and comfortable with rapidly developing technologies. Their use of social media shows preferences that distinguish them from their teachers, who belong to other generations. The relationship with information is completely different as well. While the older generations traditionally treat their phones, for example, as the devices for making calls and texting, i.e. their primary purpose, the modern generation of users rely on their smartphones practically in all life situations. Information is surfaced to these new people - in an immediate, personal and contextualized form. As a result, when they are looking for any data to do their curricular tasks, they are certain to spend minimal effort searching for it. It is important that the information must be delivered to them in a timely and accurate manner; otherwise it is not recognized and accepted. We chose four generations that can interact today in educational process and put some distinctive features of each of them into the table below.

Table 1: Generations of the new history of Russia

Generation	Years of birth	Events that effected	Features
Baby boomers	1943-1963	years of the Thaw, the conquest of space, the USSR being the world superpower, the cold war, the first plastic surgery, the use of birth control	optimism, interest in personal growth and reward, at the same time collectivism and team spirit, the cult of youth

		pills, uniform standards of schooling, the guarantee of medical care	
Generation X	1963-1984	continuation of the cold war, perestroika, drugs, the war in Afghanistan	willingness to change, choice, global awareness, technical literacy, individualism, the desire to learn throughout life, the informality of views, the search for emotions, pragmatism, self-reliance, gender equality.
Generation Y/Millenials	1984-2000	the USSR collapse, terrorist attacks and military conflicts, atypical pneumonia, the development of digital technology, mobile phones and the Internet	civic duty and morality, responsibility, but at the same time naivety and ability to obey for immediate reward
Generation Z	2000-	the impact of the global financial and economic crisis, Web 2.0 and the development of mobile technologies, the growth of globalization and the emergence of postmodernism	digital natives, impatient, short-term goal focused, consumption-minded, individualistic, appreciate honesty and sincerity, quickly grow up, engaged in self-education on the Internet, multitasking, self-interest-motivated, have clip way of thinking6 hyperactive, self-immersive

The chart below shows the differences between generations in using technologies, smartphones in particular.

Figure 1: Smartphone penetration by traditional generation (2015)
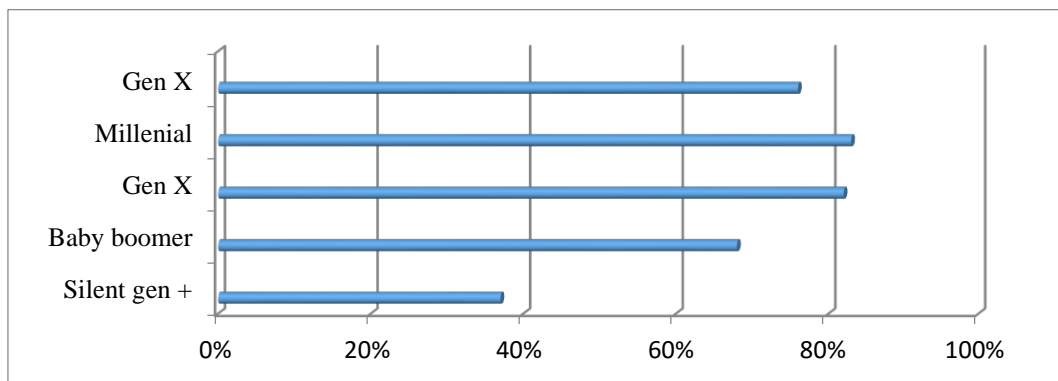
Source: Simmons Teens Survey and NHSC (Fall 2015)

The purpose of this study is to qualitatively examine the student and teacher's images in light of changing learning needs by analysing the dynamics of their development, as well as their attitude to the use of modern methods, i.e. media technologies, for both learning and teaching English. This study was conducted at the Department of English for Industrial Engineering at Bauman Moscow State Technical University (BMSTU).

The young people's in-born desire to use electronic devices has to make us, their parents and teachers, reassess our attitude to these "digital natives" and restart our approach to educating them [6]. Parents and teachers, unfortunately, are not always ready to do it, as they belong to other generations and have been developing and testing their educating style over many years. Here, we face the eternal problems of generation gap, age barrier and rejection of everything that does not match our expectations. This misunderstanding leads to the Gen-Zs', i.e. students', sceptical attitude towards a particular adult, a teacher, and, results in complete distrust and neglection. As the students' sheer necessity to use technologies is not met, and often he is faced with a teacher's intensely negative reaction regarding the use of devices in the classroom, their motivation and interest in the academic subject are steadily falling and are responsible for the poor academic performance.

Although it seems really necessary to introduce information technologies in the educational process, it is up to each teacher to decide to what extent it should be done. The best and most experienced professionals manage to grab the students' attention and support a proper level of interest in the subject even without the active involvement of gadgets in the educational process. It is the teacher's personality that has always been the key to success. Teacher's rich professional experience, knowledge of the subject and the ability to encourage, communication skills, warm attitude to students and charisma - all this, undoubtedly, will bring about the increasing interest in both the teacher's personality and the subject he is teaching.

However, today it is difficult to imagine the life of a modern educational institution, a university, without digital technologies: lessons are conducted in the form of Power Point or Prezi presentations, classroom work is often supported by You Tube resources, students do their projects in Kahoot, various assignments are given through e-platforms like MOODLE, assessment of students' work is done by e-university. Moreover, we teach students to use plenty of Internet resources like online dictionaries and corpuses to write essays; to visit webinars and video conferences held by Russian and foreign universities; to study foreign journal sites and searching for interesting articles for further research, etc.

Digital pedagogy, which focuses on the careful usage of digital technologies in teaching, offers increasing opportunities. These include: methodological support of teaching activities; the possibility of improving their skills at distance; participation in scientific contests and competitions; opportunity to communicate with foreign colleagues throughout the world. The Internet space is filled with a growing number of services that should be creatively integrated into the educational process - participation in forums, chats, blogging, email correspondence, teaching classes via Skype, chatting in messengers.

Thus, it is crucial to examine the increasing role of technologies in the modern world, as it appears to be one of the most important reasons for the transformations in the image of a teacher and student, along with other global changes [7].

3. Results

In this paper we made an attempt to analyse the changing profiles of a student and of a teacher in view of needs of modern students as to the learning process they are engaged in, and the teacher's readiness to meet these needs. Findings of the research show that rebuilding the relationship between students and teachers means developing effective partnership between these two parties leading to collaborative learning. The model of this partnership proposed in [8] relies on the following values: authenticity; inclusivity; reciprocity; empowerment; trust; challenge; community; responsibility. Within the model of partnership, the teacher's role shifts from the one of an instructor and a monitor to the one of a collaborator, co-learner and facilitator. The teacher is not only responsible for distributing data but for helping students learn how to use the information for their benefits by developing their abilities to think critically, deal with problems, make informed judgments, and create innovative Internet resources-based projects. The idea is hugely supported by blended learning [9], which combines online educational materials and opportunities for interaction online with traditional place-based classroom methods.

3.1 Student's image development

A decade ago it was difficult to imagine the classroom like today: all students have the Internet access in their gadget, and are certain to use its services as soon as they can. Teachers notice that in the past, students who received their education at university were dramatically different from modern students. Although they still belong to the same age group (on average, they are from 17 to 23 years old), it is perhaps almost the only thing that makes a student of past years and a modern student similar.

A modern student is of undoubted scientific interest for research. Despite the differences in their social origin and, consequently, their material capabilities, students are united by a common type of activity and, therefore, they form a certain social and professional group. The general activity in combination with the territorial concentration gives students a community of interests, group-awareness, a specific subculture and a way of life, which in turn is complemented by age homogeneity, which distinguishes students from other social and professional groups.

As a social group, a student body is an association of young people with certain socially significant aspirations and tasks. Having a desire to get education in a higher educational institution and thus fulfill their need for higher education, most students realize that a higher education institution is one of the means of promoting young people in a social elevator, and this serves as an objective prerequisite for the psychology of social advancement.

Common goals to get higher education, a single nature of their work - learning, lifestyle, active participation in public affairs of the university contribute to the development of student cohesion, a single set of needs and interests.

Another important feature is that students actively interact with each other through live communication and more with the help of instant messengers and chats. In addition, other social groups, parents and teachers are involved in this communication. Therefore, an increasing level of communication is another specific feature of the student body today.

The huge amount of information that modern students have to face every day undoubtedly expands their knowledge. However, its excessive volume, combined with the young people's insufficient experience and ability to process and select it, as well as lack of time, which is so typical of life of a modern person, can only lead to superficial knowledge and level of thinking, which as a result will require special work of teachers to deepen the knowledge, skills and interests of the students in general.

Comparing the needs and interests of modern young people with those of the students of the past, we should not the extreme importance of technologies. In the 21st century, a new generation of young people born and raised in the era of the technological revolution, no longer imagine their lives without electronic devices, the Internet, take them for granted. Therefore studying at university becomes impossible without the active use of computers and smartphones. Students with different starting potential, different personal qualities and abilities, who come from central or remote regions, have something in common that unites them, and significantly distinguishes them from students of previous years. All young people are currently active users of various electronic devices - computers, laptops and smartphones - and active supporters of digital technologies and electronic resources. According to Mark Prensky [10], modern students belong to digital natives, that is, to those who grew up on new technologies. Digital activity for them is a natural habitat. This is the generation of technological acceleration, the Internet and social networks. Growing up in such an environment and being "carriers" of a digital language, they think and process information in a completely different way, their thinking algorithms have changed.

The exponential growth of technology has changed the approach to modern education, because students have access to information anywhere at any time using mobile technologies, including tablets and smartphones. This in turn democratized the relationship between the student and the teacher and led to significant changes in their social and professional profiles. Modern students are no longer just passive recipients of knowledge. They are active participants in the educational process, with a lively mind and keen need for knowledge, armed with modern technologies and exceptional ability to rapidly absorb information and accumulate new knowledge, but as before they need the competent help of a teacher in realizing their mental abilities and creative potential.

Figure 2: Characteristics of a modern student
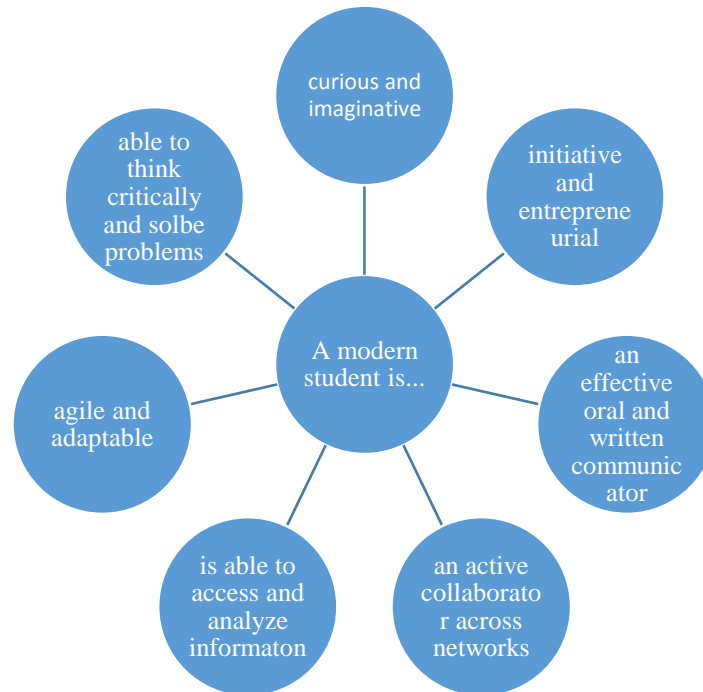
3.2 Teacher's image development

As educators, i.e. parents and teachers, we always look forward to training our children, students, for the world that exists around them. We teach them a lot of essential skills – how to read, write, and calculate. Furthermore, we teach them less tangible skills we teach - how to work in a team, think critically, and be curious about the things they encounter each day.

We strive to prepare them to have productive and successful lives once they leave us and become independent adults. It should be recognized that educators of the past did not know that so much of our world would be based on computers and technology now. They could not imagine what skills would be needed in the job market today. Nowadays, educators still have to face the same complicated task – preparing students for the "bigger world".

Dynamically changing student's image brings about a new type of the teacher. The teacher's image today is characterized not only by individual personal qualities and professionalism but also by the new approach to teaching determined by students' needs to use information technologies, as well as by the ability to develop meaningful feedback with students as an important element of establishing partnership relationship. Modern students have clear expectations regarding the professional pedagogical image of a university teacher. According to Henry A. Giroux [11], "to invoke the importance of pedagogy is to raise questions not simply about how students learn but also about how educators (in the broad sense of the term) construct the ideological and political positions from which they speak."

Figure 3: 21st century pedagogy
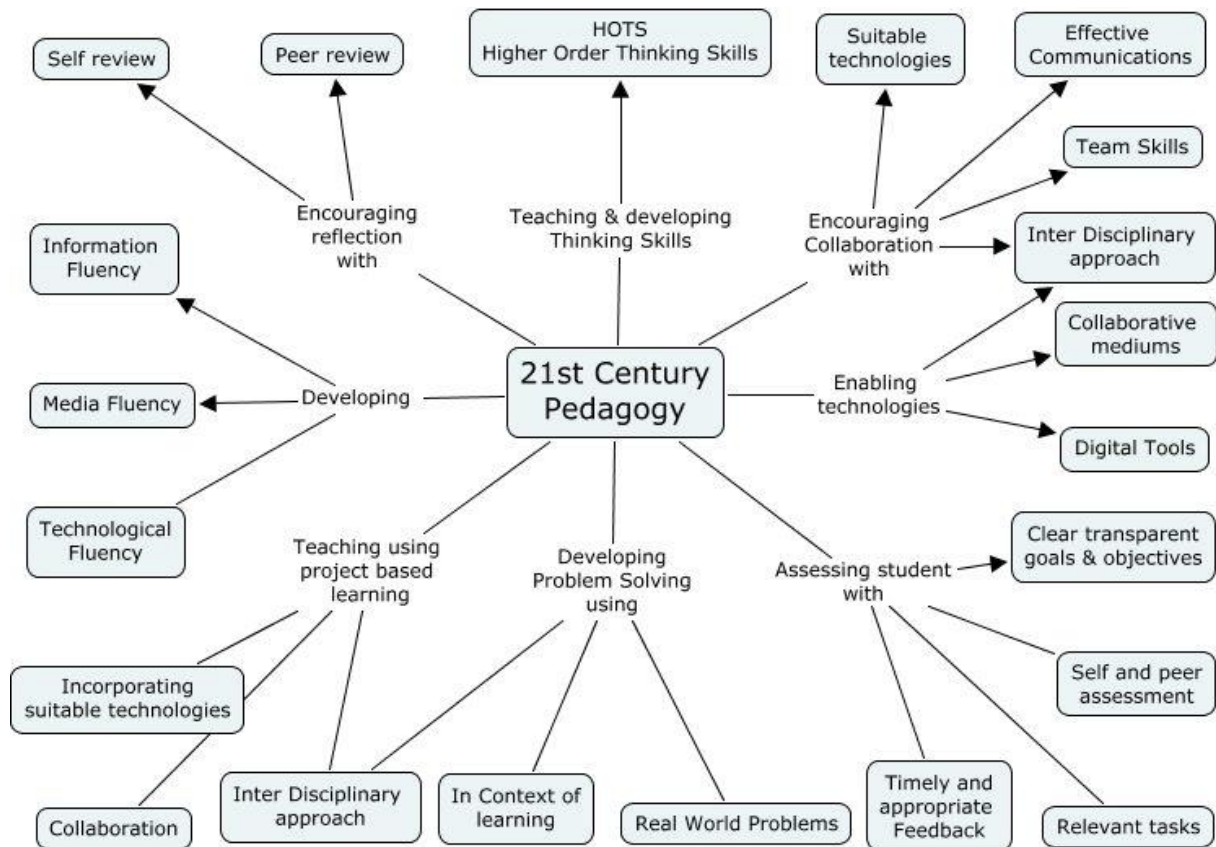
Source: TeachThought

It's challenging for a teacher to manage a learning environment where it's becoming increasingly difficult to educate students in the face of such radical technological and pedagogical progression. Teachers inevitably ask a question: how can they optimize their teaching strategies, what ingredients should they add to the conventional methods to meet learning expectations of students of a new generation?

T. Heick [12] points out seven shifts to create a classroom of the future. In our opinion, most important among them are: digital and research literacy, i.e. accessibility of digital resources, connections, and spaces, which are overwhelming; game-based learning and gamification, which aggregates the power of learning simulations, social gaming, emotional immersion, and digital literacy to produce a net effect of transparency and participation on the learner; connectivism, when social media, mobile learning, blended learning, eLearning, and other inherently connected learning experiences, make it possible to leverage the learners' potential.

Figure 2: Characteristics of a modern teacher

A modern teacher is...

- energetic and enthusiastic
- clear and fair
- encouraging and supportive
- dramatic and interesting
- efficient and effective
- able to be on the same wavelength with students
- digitally savvy

Discussion

The world we live in has always been evolving. In this era of modernization and revolutions, along with the traditional lessons and content, there is a need to develop some values and skills among our learners which we prominently call as "the 21st century skills".

In an English language class, it is of utmost importance to consider these skills as English is the lingua-franca of the world and empowers the learners with career opportunities throughout the globe [13]. The modern world requires collaboration, digital literacies, critical thinking, leadership, imagination and creativity. Being teachers makes us train our students for the "big world" by cultivating these skills in them as we can blend these skills in our regular lessons effectively.

What are these efficient ways? Teaching students to be leaders is one of them. Leadership is considered to be an inborn quality, so it seems quite possible to develop it in an English language classroom by giving various kinds of responsibilities to students e.g. checking homework, supporting a partner, managing a team project and reporting back to the teacher, leading a project and giving the presentation, etc. Even learners who are not so fast can also be given simple tasks which focus their individual abilities. By changing the leaders, equality can be brought into the class with opportunities for all.

Collaboration, which is another important principle, can be achieved by pairing and grouping students thus providing teambuilding. Teamwork allows learners of different abilities and learning habits to come and work together, be sensitive towards others' needs, learn to adapt and listen to each other. Helping the teammates and learning from others paves the way for peer learning and peer assessment. Putting learners together can encourage shy students to open up and challenge stronger ones for creative tasks. Whatever the grouping style is, the results are

positive and encourage students think critically. This type of work prepares them for the future workplaces which demand collaboration.

Imagination and the creativity are the other crucial skills teachers should provide the opportunities for. Selecting the texts and setting appropriate tasks, e.g. role plays, visualizing a situation, writing short poems, dialogues between real and imaginary characters, may foster these skills.

As we mentioned before, students of new generation are called the natives of the digital world. They are usually much better than their parents and teachers when it comes to technology. When used in learning purposes, technologies serve for the benefit of both students and teachers, meanwhile adding more enjoyment and engagement in the classes. However, being digitally literate isn't enough, at might have its pitfalls as well. It is the teacher's responsibility to teach good digital habits in our students while using technology. Students should be aware of fake information and be able to select only relevant sources for their projects, stay safe from cybercrimes and know the difference between the virtual world and the real world and use technologies as a means of increasing their academic proficiency and making progress in their future life.

3. Conclusion

Education aims at developing the individuals, making them able to survive in the world. The world nowadays is full of challenges and opportunities. It's the teacher's responsibility to bring out a generation capable to sustain in this modern world. Teachers have always had to modify their methods and styles for the sake of their learners' success by using advanced pedagogical tools and enhancing teaching and learning performance [14]. Diverse and innovative teaching methods, for example combining face to face and online forms of teaching, are now thoroughly used throughout the world. Technology and multimedia, smart gadgets used for various tasks have challenged teachers to improve their competence responding to the learners' needs. The application of innovative teaching and learning methods is critical if our aim is to motivate and develop a spirit of learning as well as enthusiasm in students. The role of a teacher today should be about utilizing innovative methods so that the students' learning process is as free-flowing as possible and that the methodology they adopt is conducive to learning. Innovative teaching and learning methodologies are very useful in addressing the rapid technological advances and developing workplaces that will be required in the foreseeable future.

References

[1] Alsulami, Salmah. (2016). The Effects of Technology on Learning English as a Foreign Language Among Female EFL Students at Effatt College: An Exploratory Study. *Studies in Literature and Language,* vol. 12, no. 4, 2016, pp. 1-16.

[2] G.G. Gurova, S.V. Reznik, I.R. Shafikova. New materials and developing English language competence in university students and teachers. *IOP Conf. Series: Journal of Physics: Conf. Series,* no. 1134 (2018) 012019 IOP Publishing doi:10.1088/1742-6596/1134/1/012019.

[3] Ch. Koch. On the Benefits of Interrelating Computer Science and the Humanities: The Case of Metaphor. *Computers and the Humanities 25*, no. 5, p. 290, 1991.

[4] M. Healey. Students as change agents. *International Society for the Scholarship of Teaching and Learning Conference*. Hamilton, Canada, 24-27 October 2012.

[5] N. Howe, Neil (1992). *Generations: The History of America's Future, 1584 to 2069*. Quill; Reprint ed., 538 p.

[6] Tyurikov A. G., Kosarenko N. N., Gvozdeva T. B., Voronina M. V., Grishnova E. Y., Solovyeva N. A. New social reality in the context of information and communication technologies. *XLinguae* 2018, vol. 11 , no. 3, pp. 67 – 75. Available: http://www.xlinguae.eu/2018_11_03_06.html. DOI: 10.18355/XL.2018.11.03.06

[7] Torubarova T.V. The problem of absolute knowledge. Metaphysics as intellectual intuition in classic modern european philosophy. *International Journal of Environmental and Science Education*, 2016, vol. 11, no. 11, pp. 4910 – 4920. Available: http://www.ijese.net/arsiv/137

[8] B. Hirsch, ed. *Digital Humanities Pedagogy: Practices, Principles and Politics*. Open Book Publishers, 2012.

[9] N. Nurieva, T. Borisova, M. Kulikova. Application of Blended Learning in English Fiction Literature Course. *ICDTE 2018 Proceedings of the 2nd International Conference on Digital Technology in Education.* Bangkok, Thailand — October 10 - 12, 2018, pp. 23-28. ACM New York, NY, USA ©2018. DOI:10.1145/3284497.3284504

[10]   M. Prensky, "Digital Natives, Digital Immigrants Part 1", *On the Horizon*, vol. 9, no. 5, pp.1-6, 2001. Available: https://doi.org/10.1108/10748120110424816

[11]   Henry A. Giroux, "Rethinking the Boundaries of Educational Discourse: Modernism, Postmodernism, and Feminism," *Margins in the Classroom: Teaching Literature*, ed. Kostas Myrsiades and Linda S. Myrsiades, Minneapolis: University of Minnesota Press, p. 45, 1994.

[12]   Heick, H. (January 2019). 7 Shifts To Create A Classroom Of The Future. *Teach thought.* [Online]. Available: https://www.teachthought.com/the-future-of-learning/shift-learning-the-7-most-powerful-ideas-shifts-in-learning-today

[13]   Shafikova I., Gurova G., Novikov A. Developing English language competence for specialists in rocket and space composite structures. *MATEC Web of Conferences 2018*, vol. 194 .- Art.no 01051. DOI: 10.1051/matecconf/201819401051

[14]   Inozemtseva, K.M., Troufanova, N.O., Krupchenko, A.K. (2019). Professional Development Model for ESP Teachers Working at Engineering Universities. *Vysshee obrazovaniie v Rossii - Higher Education in Russia*, vol. 28, no. 1, pp. 147-158. (In Russ., abstract in Eng.).