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CONTENTS

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VIDEO USE IN EDUCATIONAL PROCESS AS URGENT REQUIREMENT

The article presents peculiarities of the Internet Generation learning, results of the surveys on the students' requirements of video use in educational process. It analyzes advantages and disadvantages of the creation and use of educational videos, suggests recommendations for creating high-quality video.

Key words: *educational process, Internet Generation, Generation Z, educational video.*

Introduction

The 21st century is a period of transition to the high-tech technology information society, in which the quality of human potential, the level of education and culture of the entire population become determinant for economic and social progress of the country [5]. Integration and globalization of social, economic and cultural processes spreding throughout the world, and prospects of Ukrainian state development for the next two decades require a deep renovation of the education system, determine its advanced nature.

The importance of information and knowledge has increased a lot for all the areas of human activity. Knowledge has become the individual efficient power and the main product as well as the industry of creating and using knowledge has become technological basis of modern economy development. Rapid development of innovative techniques, globalization process, emergence of knowledge economy etc. associated with it actualized the problem of quality increasing of human intellectual

potential, thereby advancing the education to the forefront among the other factors of social development. Consequently, an objective necessity for adaptation of the education system to new circumstances has been recognized as well as its other tasks of main importance: first of all, training student for full independent operation in terms of future technologies when computer competence becomes obligatory component of any professional activity and, secondly, effective educational use of all the possibilities of modern information technologies and educational potential of global electronic information environment in educational process (V. Tarasenko, A. Mykhailiuk, M. Snizhko, L. Bihun, 2009). Scientists argue that the use of educational video promotes formation and development of communicative competence, improves motivation of learning the discipline and is an inexhaustible source of educational materials. Unfortunately, the quality of video is not always at a high level, so the development of scientifically grounded approach to creating educational videos is still urgent and necessary.

1. New Generation Development and Educational Requirements

Globalization of educational environment is accompanied by individualization of each person. The current educational paradigm can be analyzed as informational communicative one that provides the ability to understand and interpret certain educational tasks. Education becomes a permanent communication process, in which self-realization and self-development of each participant of individualized educational practices are implemented. Therefore one of the important means of teacher-student communication is a Video that can be cognitive, modern, and useful as well as help personalize the educational process.

Education requires changes because pupils and students nowadays belong to the Internet generation (Generation Z) that was grown up and formed in the digital environment.

What the previous generations called “new technologies” or “technologies of future”, now are real and stable for Generation Z. That is the main factor that distinguishes it from Generation Y. Many members of this generation are highly connected with communication and media technology like the Internet in general, Youtube, mobile phones, instant messaging, text messaging, MP3 players [3; 4].

Generation Z demonstrates independence, they are confident in their own abilities and always ready to prove themselves. Teachers, educators and mentors play an important role in the development of a successful, creative and socially active individuality. It is necessary to change paradigm of pedagogical science according to current generation's wishes, requirements and opportunities to bring up a successful nation that will be competitive, energetic, creative and interested in the future.

To provide a quality educational process that satisfies contemporary student generation, a teacher should possess and be able to form such skills among students in the 21st century, as: ***learning and innovation skills*** (creativity and innovation, critical thinking, and problem solving, communication and collaboration); ***life and career skills*** (flexibility and adaptability, initiative and self-direction, social and cross-cultural skills, productivity and accountability, leadership and responsibility); ***information, media and technology skills*** (information, media and ICT literacy) [7].

Information and communication technologies are important means in the educational process. Nowadays it is introduced distance learning, open educational electronic resources, and it is spread mixed (hybrid) type of learning. Tools of information, media, and communication technologies are constantly expanding. Skills in the field of digital technologies become vital. Teachers should learn how to use media resources for education and media-tools for creating effective products of communication (video / audio, web-lectures, webinars, etc).

2. Use of Educational Video at Universities

According to present, it is essential to use educational video in the educational process, because visual and auditory analyzers are the dominat channels of educational material perception. Video use considerably improves the effectiveness of the learning process, encourages to communication activities and allows to learn 65 % of the material.

There are numerous of modern software to create videos that allow to vary the presentation of the material using animated presentations, original scenarios, various plot lines.

In many countries, video is considered as an effective tool for management of educational process. In 2006 it was implemented digital video for teachers training in Great Britain and the USA. In 2007 it

was published the article "Aim, shoot, ready! Future Teachers Learn to "Do" Video" by Hernandez-Ramos [2] which examined how to help teachers overcome their fear of new technologies and start using them in educational process. Every year the number of video for educational purposes increases in the world. It is due to technology development, free software and services with the opportunity to post any video (Youtube, services Google Apps, TED-Ed, MOOC etc.).

Modern students considerably differ from their predecessors. The Youth is born and grown up in digital society. The ways of getting, processing, giving the information considerably differ from those ones the teachers of generation "X" and "Y" used to. Video is multimodal, it sets in motion different senses, which are improving the perception and learning the educational materials. Objective social significance of the video confirms appropriateness of its use in educational process.

It was carried out an anonymous survey of first-year students of Borys Grinchenko Kyiv University on the "Ways of Delivering Teaching Material", the results of which confirms the need to use video in educational process.

The survey reveals students' view on their expectations of using video in educational process. Thus, most of the students would like teachers to create and use video materials (*Figure 1*).

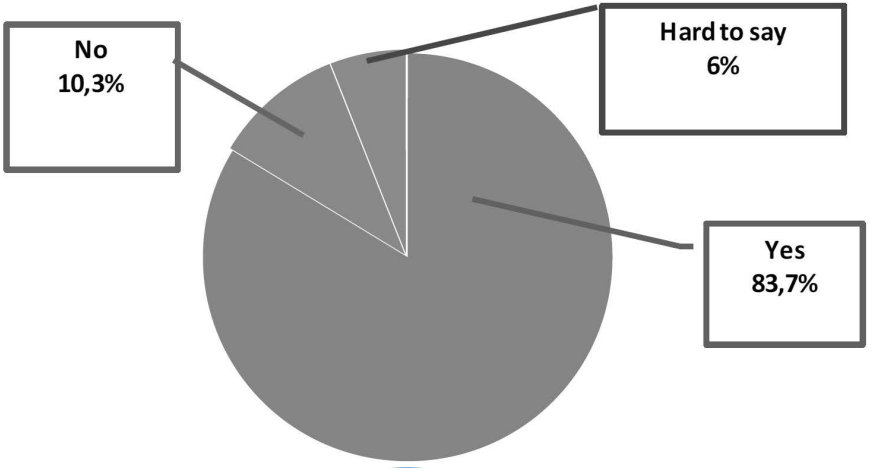

Fig. 1. Students' View on Creating and Using Video by Teachers

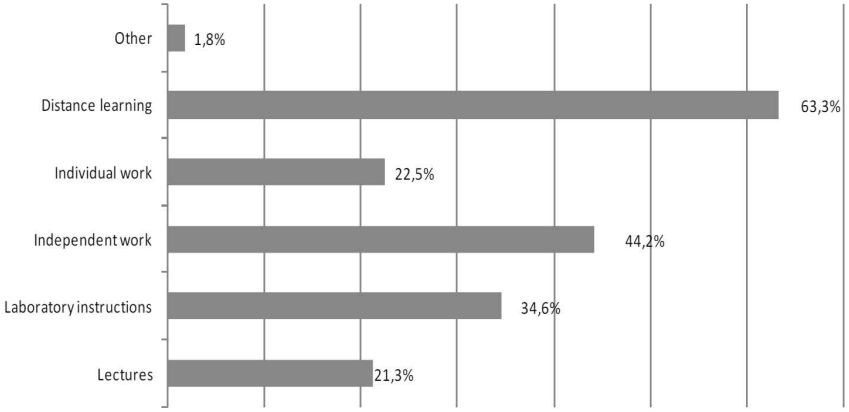

Fig. 2. Types of teaching activities with essential video use

Among different ways of teaching activity the most students expect to use video for distance learning, self-study and laboratory instructions (*Figure 2*).

On students' opinion, they understand and learn the material better through the video and illustrations. As to text material, it is learned well only by 6.3 % of students (*Figure 3*).

In the survey, students were also asked to identify the advantages and disadvantages of using video at the lessons.

The most common students' responses are that educational video:

Advantages:

– is easy to memorize;
– makes the process of studying easier;
– is easy to understand because of illustrative material;
– animates the process of studying;
– is convenient in use and perception;
– increases the interest in a particular discipline;
– is perceived by the youth better;
– shows modernization of educational process;
– improves cognitive activity;
– is interesting, not tiring;
– provides the appearance of lasting images;
– creates better emotional perception of the material;

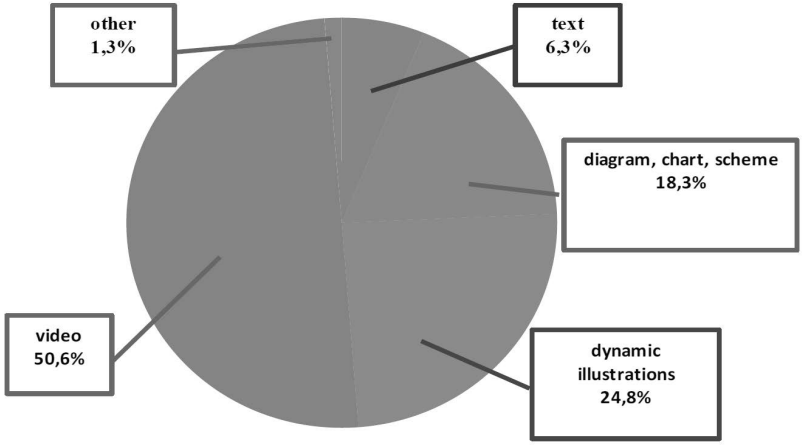

Fig. 3. Mastering educational material by students

– brisks up thinking activities;
– ensures the individualization of educational process;
– gives a large amount of scientific information with the latest achievements of science;
– gives the opportunity to get a substantial amount of scientific information with the latest advances for a short period of time;
– directs student's attention and work at further development on certain subject;
– gives the opportunity for multiplied demonstration of educational video at the classroom and the ability to repeat it at home;
– increases the level of individual practical work, considerably improves the quality of their performance;

Disadvanteges:

– is perceived well only by people with highly developed visual memory;
– may cause sound and vision problems because of many people at the classroom;
– requires constant pauses for better learning or activity and orders according to detailed video instructions;
– additional effects might be distractive;
– which lasts more than ten minutes might be boring;
– requires large expenditures of time for its creation.

Analysis of responses to the question *"How much time do you need to understand that you are not interested in educational video?"* has shown that modern students are very mobile and desire to get everything fast. Teachers should interest them in their creation. Video should demonstrate learning material as well as maintain an interest from the beginning to the end. If educational video doesn't interest students during first 10 minutes, 90 % of the them will turn it off.

The survey confirms that students are not only ready to accept the educational material with the help of the video, but they seek for it.

To create a quality educational video it is necessary to follow such recommendations:

1. **Interest.** Video should start with emotions of happiness, surprise and stimulate and motivate to further revision.
2. **Emotional ups and downs.** Educational video should provide slow gradual change of viewer's calm state for emotional leap.
3. **Diction.** Each sound is clearly pronounced according to the phonetic standards of the language. Watch your breath, pauses and rhythm. Do logical and psychological accents. Pay attention to the sound of voice while teaching, don't shout.
4. **Gestures.** Gestures shouldn't be uncontrolled, but purposeful. Not every phrase needs to be emphasized with gesture, nervous jabs might distract from the meaning.
5. **Plot.** Any video should include such elements as exposition, rising action, climax, and resolution. To enhance the viewing effect prologue and epilogue can be included.
6. **Style.** Keep common presentation style. If you use animation effects, they should emphasize the meaning but not distract from it.
7. **Duration.** Educational video should last no more than 10–15 minutes. If it is longer in length, the viewer gets tired from a great number of information, learning becomes more difficult and there will be no desire to keep on watching the video.

Conclusion

Modern students have a number of characteristics that are fundamentally changing the traditional learning process. Understanding these features, the teacher can simplify the process of learning, motivate students to increase their educational and cognitive activity and as a result, improve the efficiency and effectiveness of learning. Pedagogical influence

should be aimed at the achievement of educational goals that are defined by the student — the future member of society. Modern teacher should be able to respond quickly to the nowadays challenges, to be an expert in the branch of knowledge and not to be afraid of innovating the educational process.

Videos are convenient to use and play in different situations, whether it is a classrooms, home or park.Great changes in society demonstrate the willingness of modern generation to develop their intellectual potential, and we, teachers, should help them. *Information technology* is infusing into the *human* sphere, thus education should support youth's interests in video and approach them in a right way.Video will not be only associated with TV-shows and entertainments. Teachers should learn how to create and use quality and interesting products for supporting educational process in the realities of the present.

REFERENCES

1. Kurbatov, O. (2007). Innovative Training Technology of Preparing Skilled Workers in the System Vocational Education (in Ukrainian). http://refdb.ru/look/2119245.html (accessed 18.06.2015)
2. Tarasenko, V. (2009). The Functionality of Specialized Information and Analytical Systems for Support Information and Learning Activities [Online] / A. Mykhailyuk, V. Tarasenko, M. Snizhko., L. Bigun // *Problems of Information and Management. — 2009. — 3 (27).* — p. 123–125 (in Ukrainian). http://www.researchgate.net/publication/265918503.
3. Hernandez-Ramos, P. (2007). Aim, Shoot, Ready! Future Teachers Learn to 'Do' Video. *British Journal of Educational Technology, 38(1)*, p. 33–41.
4. Howe, N. (2000). *Millennials Rising: the Next Great Generation*. New York: Vintage Books.
5. Intel®.The Way to Success (in Ukrainian). http://uspih.iteach.com.ua/for-trainers/treasury/21 century (accessed 20.06. 2015).
6. Mitchell, David. (2008, August 16). Generation Z-striking the Balance. *National Center for Biotechnology Information. 37(8),* pp. 665–667. http://www.pubfacts.com/detail/18704218/Generation-Z--striking-the-balance:-healthy-doctors-for-a-healthy-community.