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**MONITORING AND ANALYSIS OF ACADEMIC PERFORMANCE AT UNIVERSITY BY MEANS
OF SOCIAL NETWORKING SERVICES**

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Abstract

Improvement of the education system increasingly depends on the effective management of the quality of education. The article presents the possibilities of monitoring and analyzing the quality of knowledge in higher education institutions students by means of social networking services and social media. Based on an expert survey, the advantages and disadvantages of using the means of social networking services for conducting various types of monitoring are identified, the key advantages of using the means of social networking services designed for analyzing the quality of knowledge acquisition are emphasized, a comparative analysis of social networking services in various types of monitoring is conducted, and examples of the use of the means of various social networking services are provided.

Keywords

Quality of education – Academic performance monitoring – Social media – Testing

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Introduction

In the context of the formation and development of modern society, obtaining a high-quality higher education is considered to be one of the main indicators of the economic stability of a country. Consequently, the search for new models of modern students' educational activity organization is a priority task being solved by the researchers in the pedagogy field. Indeed, when training a future educated, highly qualified, competitive specialist, one should take into account that the student has to not only "learn how to learn", but also to use the knowledge obtained at the university in the right way. Under this condition, the main question arises: what are the ways of organizing the monitoring of knowledge acquired by a student, since the classical system for monitoring student knowledge and skills is not always objective?

At the same time, according to researchers, the traditional form of student training is already losing its popularity¹. Time-saving and maximally time-efficient and effective testing of student knowledge is the modern tendency in the search for new forms of knowledge monitoring organization. The modernization of the educational process forces one to modernize the process of knowledge and skill quality monitoring via the use of computer equipment and means of communication².

G. Iu. Sokolova³ considers the effectiveness and efficiency of educational activity as a whole to be dependent on its monitoring. Monitoring is viewed as a confirmation that the activity is being carried out according to plan and simultaneously as a process of student activity evaluation⁴.

The indicators of knowledge monitoring are the only basis for evaluating the outcomes of learning and, therefore, for resolving the issues of transferring to the next course, assigning a scholarship, graduating from a higher school and issuing a diploma. Knowledge monitoring results serve as the main indicator for assessing the activity of not only individual students and teachers, but also academic groups, courses, faculties, universities as a whole, and their auxiliary elements, for example, libraries⁵.

¹ M. N. Dudin; E. A. Pogrebinskaya; V. N. Sidorenko; E.I. Sukhova; N.Y. Zubenko y J. S. Shishalova, "Cross-cultural management in the system of harmonization of interests in the multi-confessional educational environment", *European Journal of Science and Theology*, Vol: 15 num 3 (2019): 1-243; N. Rodinova; I. Romagna; V. Ostroukhov; V. Breznyakovsky y A. Grunina, "Improvement Of Universities' Competitiveness: Attraction Of Non-State Funds", *Revista Inclusiones*, Vol: 7 (2020): 154-160 y M. S. Logachev y G. S. Zhukova, "Problems of Professional Education in Russia: Quality Monitoring of Educational Programs", *Revista Inclusiones*, Vol: 7 (2020): 263-274.

² L. Schindler; S. Puls-Elvidge; H. Welzant y L. Crawford, "Definitions of quality in higher education: A synthesis of the literature", *Higher Learning Research Communications*. Vol: 5 num 3 (2015): 3-13.

³ G. Iu. Sokolova; N. M. Saukova and S. A. Morkin, *Ispolzovanie sistem avtomatizirovannogo kontrolya znaniy v professionalnoi deiatelnosti pedagoga* (Moscow: Prometei, 2013).

⁴ D. G. Omerzel; R. Biloslavo y A. Trnavcevic, "Knowledge management and organisational culture in higher education institutions", *Journal for East European Management Studies*, Vol: 16 num 2 (2011): 111-139.

⁵ A. P. Pavel, "The Importance of Quality in Higher Education in an Increasingly Knowledge-Driven Society", *International Journal of Academic Research in Accounting, Finance and Management Sciences*, Vol: 2 num 1 (2012): 120-127.

E. A. Sinkina⁶ believes that in the pedagogical process, monitoring in the university should be viewed as the instrument of pedagogical guidance of students' learning activity, in which regular gradual assessment and correction of the future specialist's training are carried out in relation to both the assimilation of knowledge and skills and upbringing.

According to E. V. Prilipko⁷, monitoring is the activity aimed at the identification of learning expertise levels with the goal of bringing the results to a professional level. The levels of learning expertise are the stages of a gradual increase in the quality of professional training in the process of studying various disciplines. Moreover, knowledge monitoring contributes to the improvement of a person's mental processes: memory, thinking, cognitive activity, speech, verbal communication, systematic independent work skills.

K. Smith⁸ indicates that in higher education, monitoring should be considered much more broadly than the interpretations listed above since it presents an integral part of the training system and includes three areas: monitoring of scientific and methodological work, academic achievements monitoring, and education quality monitoring. Academic achievements monitoring involves the subject of knowledge and the skills acquired by the students while the education quality monitoring is aimed at determining and improving the level of teachers' professional skills. These dimensions of monitoring combined together serve for the assessment of the degree of learning goals achievement, for the identification of difficulties encountered by students in the process of learning, for the stimulation of students' independent work, for the determination of the degree of the teacher's professionalism, and for obtaining the information necessary to improve the educational, scientific, and methodological work.

Integrating the various definitions of monitoring, it can be argued that monitoring is an important component of the learning process that positively affects the assimilation of educational material, helps to improve the organization of lessons and independent work, increases the level of responsibility students and teachers have for the level of acquired knowledge, and makes it possible to evaluate students' personal qualities.

The use of information technologies is of particular relevance in the educational process, including the knowledge quality monitoring, since it is necessary to prepare students for further life in the information technology environment and to increase the amount of knowledge that students should acquire⁹. In the era of development of the digital educational environment with each educational process participant taking an active part in its progress, the Internet and its services have become a popular tool. This tendency is caused by the following necessities identified by modern researchers¹⁰:

⁶ E. A. Sinkina, "Sovremennye podkhody k kontroliu v sisteme obucheniia", Vestnik of PSTU. Mashinostroenie, materialovedenie, Vol: 15 num 3 (2013): 86-90.

⁷ E. V. Prilipko, "Otsnochnaia deiatelnost prepodavatel'ia v kompetentnostnoi paradigme: formirovanie osoznannoi kompetentnosti", Innovatsionnye proekty i programmy v obrazovanii, num 1 (2017): 30-35.

⁸ K. Smith, "Assuring quality in transnational higher education: A matter of collaboration or control?", Studies in Higher Education, Vol: 5 num 7 (2013): 793-806.

⁹ V. N. Babeshko y A. R. Nabiullina, "Avtomatizirovannyi kontrol kachestva obucheniia", Innovatsionnaya nauka, Vol: 9 num 9 (2015): 243-245.

¹⁰ N. Elassy, "A model of student involvement in the quality assurance system at institutional level", Quality Assurance in Education, Vol: 21 num 2 (2013): 162-198; L. M. Pollacia, "Using web 2.0 technologies to meet Quality Matters (QM) requirements", Journal of Information Systems

-the need to guide teachers' activity towards the search for new models of education organization and the formation of a safe educational environment;

-to form an information system for the support of the educational process aimed at the implementation of its basic functions;

-to provide the educational process with the means of information and communication technologies (ICT) and ensure educational institutions' access to global information resources.

Open education resources are defined as ICT tools that ensure the formation and updating of online electronic information resources of open learning space, as well as the use of open pedagogical systems design and implementation technologies.

Multiple open education system tools are relevant to the modern educational process, including electronic distance learning technologies, global social media, scientific and educational information networks, mobile connection support technologies, etc.¹¹. Scientific and pedagogical workers, therefore, face the crucial task of searching for new models of educational process construction in the context of educational sector informatization.

A. G. Asmolov et al.¹² argue that effectiveness of the education system informatization depends greatly not only on the types and quantity of ICT tools used for the support of educational, scientific, and organizational work, but also on the quality of these tools and technologies, the degree of mastery students, teachers, scientific and methodological workers, and educational process managers possess in using them, how actively they are used, and how pedagogically thought-out their application is.

Modern information technologies demonstrate new tendencies in the development of social media and social networking services: the emergence of integrated interactive connection in social media; social media and social networking services adaptation to the newest computer devices and operation systems (global mobile access); competition between the existing and new social media and social networking services (new competition opportunities); more severe registration policy (higher user responsibility); increased economic influence¹³. The researchers also indicate¹⁴ that ICT and information technology network tools and technologies combined form new solutions that can affect base education system processes: transfer and acquisition of knowledge and skills, achievement fixation, education quality assessment, creating positive motivation and promoting independence in educational and cognitive activities.

Education, Vol: 20 num 2 (2009): 155–164 y K. L. Polupan, "Monitoring kachestva obrazovaniia v vuze v usloviakh vnedreniia kompetentnostnoi modeli podgotovki spetsialistov", Vestnik of Immanuel Kant Baltic Federal University, num 11 (2012): 41-45.

¹¹ S. Wheeler, Open content, open learning 2.0: Using wikis and blogs in higher education. U.-D. Ehlers & D. Schneckenberg (eds.), Changing cultures in higher education: Moving ahead to future learning (New York: NY: Springer, 2010).

¹² A. G. Asmolov; A. L. Semenov and A. Iu. Uvarov, Rossiiskaia shkola i novye informatsionnye tekhnologii: vzgliad v slediushchee desiatiletie (Moscow: "NeksPrint", 2010).

¹³ B. Lee, "Emerging trends in social software for education", Emerging. Technologies for Learning, num 2 (2007): 9-22.

¹⁴ S. J. Godwin; M. S. Thorpe y J. T. E. Richardson, "The impact of computer-mediated interaction on distance learning", British Journal of Educational Technology, Vol: 30 num 1 (2008): 52-70.

One of the main, even fundamental concepts for the recent development of the Internet is Web 2.0. Web 2.0 is a designation of new directions of development and a new stage of evolution of the Web. This stage did not come suddenly, replacing outdated sites, but, on the contrary, was the result of perpetual progress and its logical improvement, since the information technologies constantly evolve and acquire new qualities¹⁵.

Even though modern Web 2.0 social networking services were created as commercial means of gathering information about the users, it promoted revolutionary changes in the ways of human interaction with each other and the Web. The main difference of Web 2.0 instruments is the ability to not only “consume” information on the Web, but also to create new and complement the existing information on the Web¹⁶. Despite the commercially motivated creation of Web 2.0 instruments, the active implementation of Web 2.0 social software instruments (such as blogs, Wikipedia, communities, podcasts, and social media) in the educational process might be beneficial for students and teachers alike, greatly enhancing students’ opportunities for independent learning and teachers’ ability to apply more creative teaching approaches. According to G. Grosseck¹⁷, the key factors of the growing success of Web 2.0 social networking services are open content, speed of access and upload, and independence from the individual schedule of participant inclusion in the communication process during joint work. The distribution of social networking services usage led to the transformation of the informational space that has mostly transferred to the Internet.

Literary sources analysis indicates the consideration of certain aspects of the possibilities of using social networking services in the educational process.

According to B. Newland and L. Byles¹⁸, approaches to the educational process have changed as a result of social networking services distribution. This mostly relates to the following factors:

- in recent years, the amount of information created and distributed on the Internet has grown significantly;
- the problems of information streams optimization are increasingly coming to the fore in the educational process (the issue concerning both the student and the teacher);
- the preference is increasingly more often given to smaller informational objects in various formats and from different sources instead of large documents;
- Internet users are no longer satisfied with one-way information transfer: they strive to create information resources themselves, transfer them to the Web and evaluate the work of others; therefore, appropriate tools have appeared, providing the ability to work with several types of information simultaneously;

¹⁵ B. Alexander, “Web 2.0: A new wave of innovation for teaching and learning?”, *EDUCAUSE Review*, Vol: 41 num 2 (2006): 32-44.

¹⁶ D. Bawden; L. Robinson; T. Anderson; J. Bates; U. Rutkauskiene y P. Vilar, “Towards curriculum 2.0: Library/information education for Web 2.0 world”, *Library and Information Research*, num 31 Vol: 99 (2007): 14-25.

¹⁷ G. Grosseck, “To use or not to use web 2.0 in higher education?”, *Procedia Social and Behavioral Sciences*, num 1 (2009): 478-482.

¹⁸ B. Newland y L. Byles, “Changing academic teaching with web 2.0 technologies”, *Innovations in Education and Teaching International*, Vol: 51 num 3 (2014): 315-325.

- face-to-face meetings are no longer required to receive information from scientists (although they still take place), the majority of information is already posted on the Web: on forums, in scientists' personal blogs, on social media, in online scientific groups, on scientific institutions' websites.

D. Churchill¹⁹ suggests that virtual social networks can be used for group learning (working in educational mini-groups), personal training (self-education), random learning (the ability to learn something new unconsciously), and for the purpose of informing on the functioning of the educational institution and related activities and events.

It is noted in an article by M. A. Vilcea²⁰ that every modern teacher has to have the opportunity to use formal and informal methods of education, which increasingly often includes learning using electronic social networks.

Various studies outline the ways of using web instruments for the organization and informational and technological support of the educational activities²¹ and provide empirical research on the use of social media like Facebook²², YouTube²³, and Twitter²⁴ in the educational process.

The educational process modernization requires a transition from passive lecture methods of obtaining educational material to active forms of lessons and the organization of students' independent activity that will allow to plan students' activities in different conditions and to form professional qualities of successful citizens of the information society. The acquisition of the identified goals can be promoted by the introduction of new educational tools and subsequent monitoring based on the use of Web 2.0 social networking services²⁵.

Despite the diverse scientific research on many aspects of the use of virtual educational communities, the issue of organizing the monitoring and analysis of academic performance in higher education institutions students by the means of social networking services remains underinvestigated. Social networking services have not yet found wide application in the modern education system since its implementation in the educational process calls for the revision of requirements applied to methods and forms of education organization and to the role of the teacher and their professional training.

¹⁹ D. Churchill, "Web 2.0 in education: A study of the explorative use of blogs with a postgraduate class", *Innovations in Education and Teaching International*, Vol: 48 num 2 (2011): 149-158.

²⁰ M. A. Vilcea, "Quality Culture In Universities And Influences On Formal And Non-Formal Education", *Procedia - Social and Behavioral Sciences*, num 163 (2014): 148-152.

²¹ A. M. Ahmed; A. A. Almuniem y A. A. Almabhoh, "The current use of web 2.0 tools in university teaching from the perspective of faculty members at the college of education", *International Journal of Instruction*, Vol: 9 num 1 (2016): 179-194.

²² M. D. Roblyer; M. McDaniel; M. Webb; J. Herman y J. V. Witty, "Findings on Facebook in higher education: A comparison of college faculty and student uses and perceptions of social networking sites", *Internet and Higher Education*, num 13 (2010): 134-140.

²³ T. Jones y K. Cuthrell, "YouTube: Educational potentials and pitfalls", *Computers in the Schools*, Vol: 28 num 1 (2011): 75-85.

²⁴ S. B. Rinaldo; S. Tapp y D. A. Laverie, "Learning by tweeting: Using Twitter as a pedagogical tool", *Journal of Marketing Education*, Vol: 33 num 2 (2011): 193-203.

²⁵ M. Rogers-Estable, "Web 2.0 use in higher education", *European Journal of Open, Distance and eLearning*, Vol: 17 num 2 (2014): 129-141.

The goal of the present article is, therefore, to analyze the advantages and disadvantages of using the means of social networking services for conducting various types of monitoring, to emphasize the key advantages of using the means of social networking services designed for the analysis of knowledge acquisition quality, and to disclose the ways of organizing monitoring and analysis of university students' academic performance with the use of social networking services and social media. The research hypothesis: the means of social networking services and social media can become one of the powerful auxiliary instruments for creating and organizing test monitoring of student activity. The results acquired in the course of the study indicate that the set goal was achieved.

Methods

The present study deployed the following methods:

- theoretical methods – analysis of scientific, pedagogical, and methodological literature on the theoretical foundations of monitoring performance and analyzing its results; analysis of online resources, pedagogical software, etc.; the study and generalization of pedagogical experience in improving the process of monitoring and analyzing student performance, as well as organizing the educational process in higher education using digital technology.

- empirical methods – expert survey method, used to identify the advantages and disadvantages of using the means of social networking services for conducting various types of monitoring, to emphasize the key advantages of using the means of social networking services designed for knowledge acquisition quality analysis, and to conduct a comparative analysis of social networking services in various types of monitoring.

Teachers of higher education institutions (38 people) with 8 to 14 years of teaching experience were invited to the expert survey conducted online.

Results

During the expert survey, the experts determined that social media, when introduced into the educational process, can be used to solve the following tasks (Table 1).

No	Tasks	%*
1	organizing the collective work of students in and outside the classroom, which contributes to cooperation and the acquisition of teamwork experience	95%
2	expanding the organization of student learning at home, as social media allows the use of educational content without time, geographic and age limits	87%
3	developing a student's personalized learning environment, contributing to the creation of their portfolio and educational content of the disciplines	87%
4	promoting students' self-study (implementation of research-based learning principles)	79%
5	promoting students' self-study, since every student has to learn in their own pace	74%
6	carrying out informal communication between the teacher and the student	68%
7	introducing electronic academic transcripts	66%

Note: compiled on the basis of the expert survey; *percentage of expert references

Table 1

Tasks resolved via social media in the educational process

Since the modernization of the educational process requires changes at all its stages, the experts argue that testing conducted using social networking services and social media will gain a lot of popularity in knowledge monitoring organization. Electronic monitoring has a significant list of advantages over the traditional form of knowledge quality monitoring for both teachers and students (Table 2).

Nº	Advantages	%*
1	provides the ability to quickly and simultaneously test the knowledge of a large number of students on different topics	87%
2	relieves the teacher from routine activities and mass monitoring organization, adding more time for the improvement of teachers' professional activity and the development and implementation of the most modern tools	79%
3	the possibility of implementing individual work with students increases, which is one of the main components of the new education system, since the student receives a third of the knowledge during the independent work	66%

Note: compiled on the basis of the expert survey; *percentage of expert references

Table 2

Advantages of electronic monitoring over the traditional form of knowledge quality monitoring

At the same time, during the survey, the experts highlighted the positive aspects of using social media and social networking services for monitoring and analyzing student performance (Table 3).

Nº	Advantages	%*
1	high level of cooperation between the student and the teacher	95%
2	opportunity for the exchange of experience between the educational process participants	87%
3	innovativeness as an opportunity to implement both traditional and innovative pedagogical solutions	84%
4	free use of social networking services and social media	84%
5	convenient and intuitive interface	79%
6	ability to create and edit test questions online	79%
7	instant response submission and validation	74%
8	convenient means of result analysis	68%
9	cross-platform nature of social networking services (useable on different devices with different operating systems – smartphones, tablets, PC)	66%

Note: compiled on the basis of the expert survey; * percentage of expert references

Table 3

Positive aspects of using social media and social networking services for monitoring and analyzing student performance

The following issues were highlighted by the experts as the disadvantages and complications of the use of social networking services and social media for monitoring and analyzing student performance (Table 4).

Nº	Issue	Issue characteristic	%*
1	technical	lack of a stable Internet connection	82%
2	motivational	despite the great popularity of social networking services and social media and the positive experience of its use in the educational process reformation in the foreign countries, most teachers decline the idea of introducing social networking services in the educational process, being convinced in the	79%

		negative effect of its content on students	
3	competence	incompetence of a significant part of university teachers in the use of social networking services and social media in the pedagogical process	74%
4	developmental	inconsistency in the development of technical, software (service functionality has not been exhausted) and pedagogical tools, the presence of inertia on the part of teachers in pedagogical methods for the development of information technologies	68%
5	methodical	lack of practical methods that guarantee the effective use of social networking services in teachers' professional activity and for educational purposes	66%

Note: compiled on the basis of the expert survey; *percentage of expert references

Table 4

Issues in using social media and social networking services for monitoring and analyzing student performance

The experts indicate four types of monitoring: preliminary, current, periodic, and final. Determining testing instruments and types of test tasks is highly important in conducting electronic testing. There is a variety of programs and Internet services for creating tests and conducting testing, but in the expert survey, we focused only on the means of social network services and social media.

The results of the expert survey on determining the most effective social networking services for conduction various types of monitoring and analyzing performance are summarized in Table 5.

	preliminary monitoring	current monitoring	periodic monitoring	final monitoring
Google Forms	+	+	+	+
Instagram	+	-	-	-
Kahoot	+	+	+	+/- *
Quizalize	+	+	+	+/- *
Nearpod	+	+	+	-

Note: compiled on the basis of the expert survey; *in personal opinion of the authors of the study, it is possible, but not advisable to use during the final monitoring of knowledge or should be used in the mode of base knowledge actualization (or the "local admission" to pass the final monitoring (provided that the necessary minimum is met during the auditory lessons)).

Table 5

Social networking services in conducting various types of monitoring

Discussion

The expert discussion on the means of social networking services most effective for conducting various types of monitoring and analysis of performance in university education resulted in the following conclusions. Google as a public American corporation provides a choice of extensive functionality to support the educational process through additional services and to improve the work of educational student groups. The group has the opportunity to add lecture and laboratory materials, create thematic conversations on specific tasks, where students, together with the teacher, can exchange opinions and resolve certain aspects of the problem, present ideas on the modernization of the educational process itself, etc. Links, additional videos, documents (presentations and text files) can also be added to the notes.

Conveniently, it is possible to add pictures (for example, screenshots in case of difficulties arising during the work on an assignment), videos (recording of the execution of a laboratory or module assignment step), audio or a document (a file with completed assignment) from computer to the comments on the notes.

What is also helpful about the use of Google instruments and services is the existence of Google Forms, a tool that was especially noted by the experts (79% of the sample). According to one of the respondents, “it is the most popular testing tool to date since it has all the necessary functions”. The variety of types of tests presented in Google Forms is quite wide.

The possibilities of Google Forms service are diverse and include functions of creating a large number of questions and grouping them in different blocks according to the topic or the level of difficulty. It is possible to create a mandatory question (the mandatory item is marked by an asterisk (*) in the form. It is also possible to make tests and questionnaires of arbitrary form and complexity using this type of items), as well as to add images and videos to the test. According to the majority of experts (74%), the main advantage of Google Forms is the ability to conduct statistical analysis of results, which are displayed in a table of raw answers given by the students. The statistics automatically computed and presented by Google Forms include the total number of respondents, the average score, the average level, questions most often answered wrong, and the overall distribution of scores. A graphic interpretation in the form of a diagram displaying the number of people that marked each answer option as correct (in a form of a number or a percentage) can be created for every question. Google Forms can be used to easily and quickly administer various questionnaires, analyze and view their results. The service is extremely helpful in conducting frontal audience surveys during lectures and current and final testing. The created test form is easily integrated into existing Internet applications as a separate frame or a hyperlink.

A different service pointed out by 63% of surveyed experts is Kahoot – a free online service for creating interactive quizzes, questionnaires, and discussions. The created questions can be accessed by students from tablets and smartphones using the generated code, which, according to some experts, gives Kahoot more advantage over other services. The service also allows for adding images and video fragments to created tasks. The pace of test completion is regulated by introducing a timeline for each question. The teacher can introduce scoring according to the accuracy and speed of responding if necessary. The table of results is displayed on the teacher’s computer monitor or using other multimedia devices. The only disadvantage of Kahoot identified by one of the respondents is that “the surveys are conducted in real-time format only and the response timeline is set by the teacher, which can affect student performance in the test”. Instagram as a popular social media created for users to exchange photos and videos can also become a convenient tool for testing students’ knowledge as indicated by the surveyed experts (58% of respondents). The survey function present on Instagram will be useful during lectures when the need to quickly survey the audience on learning the new material arises. To the disadvantage of this survey, it is only possible to add two answer options, however, their content can be customized. Survey results monitoring is administered via personal messages, which show the respondents’ answers. The results themselves can be presented in percents next to the answer options. To familiarize oneself with survey results and general analytics, it is necessary to download the story and click on users’ profile pictures presented in the lower part of the page. The results are displayed on the user’s page for 24 hours.

The next service proposed by 55% of surveyed experts is Quizalize, an English-language Internet service designed for the construction of various quizzes, tests, and games, a distinct feature of which is the ability to answer questions both in the audience and from home; there is no need for all the students to complete the test simultaneously. Only the test question format is available when constructing the test (one answer per test item). It is possible to add an image, a time limit in seconds, and explanations and clarifications to the test question.

Settings for the general form of the test are also available: it is possible to add music, question order randomization, the number of questions per page, time limit for the duration of test completion, test results display.

After answering a question a student will be able to see if they were correct and how many points they got for the answer. The time spent on displaying answers is accounted for by the service.

A part of respondents also believes Nearpod to be useful for the actualization of knowledge and conducting in-class surveys. Nearpod is a social networking service designed for creating presentations, but the presentation itself in it turns into an interactive lesson or a questionnaire. The presentation can be opened using an access code.

The service allows for adding images, videos, graphs, and questions to the presentation. The students can, therefore, look through the educational content in the presentation and answer the test questions simultaneously.

The service also has a function of creating open questions, which is highly appropriate for the actualization of knowledge during a lecture or for preliminary control of admission to a practical or laboratory session. The answers appear online and the teacher can observe the general performance in the classroom or for each student separately.

Conclusions

The means of social networking services can become one of the powerful auxiliary instruments for creating and organizing test monitoring of student activity. The implementation of such innovative instruments expands the possibilities of creating relevant and interactive applications on the base of ICT, which in the context of the integration of new educational strategy and the development of new competencies is appropriate for conducting various types of monitoring. This supports the hypothesis we proposed at the beginning of the article.

We see the perspective for further research in the search for other rational ways of using social networking services and social media in the organization of educational and research activity of university students, as well as the development of methodic guidelines for students and teachers on the use of social networking services and social media in the organization of educational and research activity.

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