

practice the term «idea». Process improvement methodology terminology is quite active. Being sought more expressive and typical Ukrainian counterparts existing terms or stylistic design. As an example, the phrase «the formation of competence», «the formation of physical knowledge», which are found in many of

today's scientific publications. We consider that these factors should encourage further research on the issues highlighted here.

Key words: didactic physics terminology, creation of knowledge, concept, idea.

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VIRTUAL TEACHER OF PHYSICS AS A PROFESSION FOR FUTURE GENERATION OF STUDENTS

The article describes the image of a new teacher of Physics as a virtual teacher. The examples of the websites made by the teachers-to-be of Physics for their self-motivation in the professional activity are being analysed. Special tasks on creating and publishing websites for self-realization of professional competence of teachers of Physics develop the motivation to the profession of the teacher of Physics as, in general, it doesn't associate with highly paid profession and therefore it is difficult to motivate students to choose such a profession. Revealing the young people new opportunities of the development of the Internet space with the help of a virtual teaching, gives teachers the chance to promote the interest of students in training for this strategic profession. This is the profession of the teacher of Physics that carries the weight of the ideology of the natural conformity, diligence, partnership, thinking through categories of the philosophical, social, humane, technological, cultural and other intellectual values.

Key words: virtual teacher of Physics, website of teachers of Physics, updating teacher of physics.

1. Introduction

New trends in the development of students rely on the use of information technology and computer technology. The motivations of external and internal nature have become a necessary feature of teacher-to-be of Physics. There are the inner motivations of success, development, self-realization and external motivations, such as the financial, social, and political issues.

Based on such thoughts in mind, we decided to use students-physicists motivation for the creation of the websites of the virtual teacher of Physics. Doing this, firstly we analyzed the status of the issue in the recent scientific publications in different information sources. Then we planned the strategy of motivation of the students. Next, we developed a model of the teacher of Physics and its virtual characteristics. On the latest stage, we gave the task to the students to develop and create the individual websites of the virtual teacher of Physics.

Let us analyze the investigation of the experimental implementation of information technologies into the Internet.

2. Problem Formulations

Let us illustrate the contemporary view on the problem of the virtual teacher of Physics. From the source of Wikipedia, we have found a commonly accepted in recent publications description of the virtual teaching and learning environment: «E-learning includes numerous types of media that deliver text, audio, images, animation, and streaming video, and includes technology applications and processes such as audio or video tape, satellite TV and computer-based learning, as well as local intranet/extranet and web-based learning. Information and communication systems, whether doing free stand or based on either local networks or the Internet in networked learning, underlies many e-learning processes» [1].

In general, E-learning refers to the use of electronic media and information and communication technologies in education, which is broadly inclusive of all forms of educational technology in learning and teaching. As the result, E-learning is inclusive of, and is broadly synonymous with multimedia learning, technology-enhanced learning, computer-based training, computer-assisted instruction, internet-based training, web-based training, online education, virtual education, virtual learning environments (which are also called learning platforms), e-learning, and digital educational collaboration.

Taking into account that E-learning occurs in or out of the classroom, it can be either self-paced, asynchronous learning or instructor-led, synchronous learning. E-learning is suited to distance learning and flexible learning as well as used in conjunction with face-to-face teaching, in which case the term blended learning is commonly used.

The new technologies make a big difference in education. Many proponents of e-learning believe that everyone must be

equipped with basic knowledge of technology, as well as use it as a medium to reach educational goals.

Next, as an example, we can analyze a Ukrainian virtual school [5] and other portals such as *auction.ua*, *banner.ua*, *kartinka.com.ua*, *bezgmo.ua.*, which main functions, tasks, objectives and configuration are described in the same source. There are many citations to other sources too.

Let us consider the basic functions of the teacher of virtual direction: «Pedagogical elements are defined as structures or units of educational material. They are the educational content that is to be delivering. These units are of independent format, meaning that although the unit may delivered in various ways, the pedagogical structures themselves are not the textbook, web page, video conference, Podcast, lesson, assignment, the multiple choice question, a quiz, a discussion group or a case study, all of which are possible methods of delivery. Various pedagogical perspectives or learning technologies may be considering in designing and interacting with e-learning programs» [1]. E-learning theory examines these approaches, including social-constructivist, one application of which was the One Laptop Per Child, Lorillard's [1] conversational model including Berretta Salmon's [1] five-stage model, and cognitive, emotional, behavioural, and contextual perspectives. In 'mode neutral' learning online and classroom, learners can coexist within one learning environment, encouraging interconnectivity. Self-regulated learning refers to several concepts that play major roles in e-learning. Learning courses should provide opportunities to practice these strategies and skills. Self-regulation and structured are supervision both enhance e-learning [1].

Other information sources pay much attention to the programs, which allow trainees to pass special courses to become a virtual teacher. For example, training course «Virtual teacher» for Indian teachers suggests a certified program [2].

Let us consider another example of learning in the virtual Internet society. For instance, the Californian University «Extensions» [4] gives such a description of learning how to become a virtual teacher: «At this time, we are no longer accepting new students or applications for candidacy to the Virtual Teacher Certificate Program. Please only apply for candidacy if you have finished or plan to finish the certificate requirements by of 2013. Teaching online, has evolved do not only included all state curriculum standards but also to address new pedagogical standards for online instruction? In addition to mastering synchronous and asynchronous technologies, virtual teachers must cultivate a personalized path to academic achievement for each student while maintaining a sense of support and community. Online instruction is the one area of education that is experiencing the need for qualified educators who have specific skills to step right into these positions. This certificate program addresses the skills and

knowledge required to being prepared to doing successfully teach in virtual schools and in online and blended learning settings. The courses are doing also provide core education in the tenets of online teaching» [4]. On the same website, there is a training program including virtual assistance for students as well.

3. Problem Solutions

Taking into consideration these and other sources we can make the conclusion that the question of the virtual training facilities, including virtual training, and virtual teachers of Physics in particular is of great importance in the global teaching environment. It means, it can intervene for development in Ukrainian system of education.

Motivation of students was the next stage in the implementation of the program of virtual teacher of Physics. For this purpose, we ran the conference «The urgent problems of methods of teaching Physics» (Kamianets-Podilsky, April 10, 2013). At this conference teachers and students made the reports on the theme of using the new information technologies in studying and teaching Physics in Ukrainian schools. These new trends increase the cognitive activity of the students at the lessons of Physics. The reports of the students and the audience supportive atmosphere, management of cognitive thought by teachers resulted in the following way: the students were motivated for the creation of their individual websites of the teachers of Physics.

Let us move to the next stage of the strategy. This was getting a task with special teacher's instructions [3]. Each student was given an individual task with clearly defined aims of its content to create and publish a website in the Internet.

The links to the websites developed by students-physicists are the following: 1) Diana Friuyk presented her lesson plans on Physics, as well as published her articles on methods of teaching Physics (<http://teacherphysicsu.ucoz.ua>); 2) Andriy Alekseev made a video in which he illustrates a device, which he made himself for the demonstration experiment on Physics (<http://teacherofphysic.ucoz.ru> (Figure 1); 3) Maxim Kucher on his website (<http://physicsua.ucoz.com>) stowed all the chapters of school Physics with videos on physical experiments (Figure 2) taken from existing websites; 4) Maxim Yerlykow put on his website (<http://yerlykow.at.ua/>) quizzes on school Physics and cognitive games; 5) Bogdan Myalkovsky (<http://Myalkovsky.at.ua/>) stowed presentations in Power Point on school Physics lessons; 6) Volodymyr Cventarniy on his website (<http://wotsy4itel.ucoz.ua>) also stowed scientific and popular papers on Contemporary Physics.

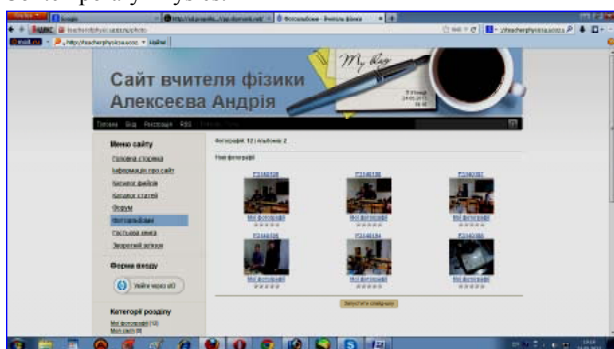


Figure 1. PrtSc of Andriy Alekseev's website

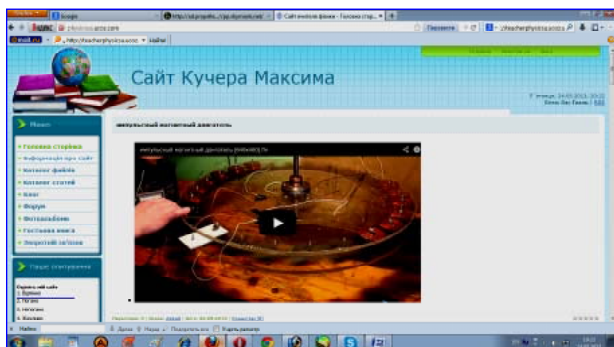


Figure 2. PrtSc of Maxim Kucher's website

At the Faculty of English teachers make their Web sites with information about their future profession as well. Talented students come up with a quiz, write poetry, sing, Ballad, fairy tales and more. At the Faculty of English teachers make their Web sites with information about their future profession as well. Talented students come up with a quiz, write poetry, sing, Ballad, fairy tales and more.

4. Conclusions

Special tasks on creating and publishing websites for self-realization of professional competence of teachers of Physics develop the motivation to the profession of the teacher of Physics as, in general, it doesn't associate with highly paid profession and therefore it is difficult to motivate students to choose such a profession. Revealing the young people new opportunities of the development of the Internet space with the help of a virtual teaching, gives teachers the chance to promote the interest of students in training for this strategic profession. This is the profession of the teacher of Physics that carries the weight of the ideology of the natural conformity, diligence, partnership, thinking through categories of the philosophical, social, humane, technological, cultural and other intellectual values.

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ВИРТУАЛЬНИЙ УЧИТЕЛЬ ФІЗИКИ ЯК ПРОФЕСІЯ ПОКОЛІННЯ БУДУЩИХ УЧИТЕЛЕЙ-ПРЕДМЕТНИКОВ

В статті описан образ будущего учителя физики как виртуального. Проанализированы информационные источники по обучению в мировых виртуальных университетах, которые доступны в Интернет-ресурсах первых уровней цитирования. Приводятся примеры сайтов, которые разработали будущие учителя физики для самоактуализации и мотивации в профессиональной деятельности.

Ключевые слова: виртуальный учитель физики, сайт учителя физики, самоактуализация учителя физики.

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ВИРТУАЛЬНИЙ УЧИТЕЛЬ ФІЗИКИ ЯК ПРОФЕСІЯ ПОКОЛІННЯ МАЙБУТНІХ УЧИТЕЛЕЙ-ПРЕДМЕТНИКОВ

У статті описаний образ майбутнього вчителя фізики як виртуального. Проаналізовані інформаційні джерела щодо навчання у світових віртуальних університетах, які доступні в Інтернет-ресурсах на перших рівнях цитування. Наводяться приклади сайтів, які розробили майбутні вчителі фізики для самоактуалізації і мотивації у професійній діяльності.

Ключові слова: виртуальний учитель фізики, сайт учителя фізики, самоактуалізація вчителя фізики.

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