Use of information and communication technologies in a creative education

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Abstract. The theoretical analysis of a problem of use of information and communication technologies (ICT) in creative education is presented in article. The main thing was the motivation of teachers and students to studying and use in educational process of innovations in the field of information and communication technologies. Now in development of process of informatization of creative education the following tendencies are shown: creation of uniform information educational space; active introduction of the new means and methods of training focused on use of information technologies; creation of system of the advancing education. Some results of research on introduction of ICT in educational process of the university are described.

1 Introduction

Creation and development of information society assumes wide use of the information and communication technologies (ICT) in creative education that is defined by a number of factors.

- firstly, the ICT allows to accelerate transfer of knowledge both between generations, and between people of one generation;
- secondly, the knowledge of bases and interaction with ICT helps a person to adapt to requirements of modern society;
- thirdly, the ICT allows to gain any knowledge of concrete area of knowledge, helps their assimilation[1].

The main objective of creative education consists in developing the put creative potential in each student, awaken need for further self-knowledge, creative self-development and self-updating. The special role in it belongs to information and communication technologies. Creative education is directed to interactive interaction of the teacher and student at the solution of problems of educational process during which interests and value of the identity of the student are the dominating component of organization and sense of educational activity.

We will mark out the main lines of creative education:

- this education of creative type which main orientation is: formation of creative thinking, development of creative abilities and intellectual potential, search of new approaches in the solution of modern problems;
- this education is fundamental and perspective, constructed on vision of the future and understanding of natural development of economy and society;

- this education is continuous, characterized by the increasing competence, professionalism and social responsibility of graduates of school [2].

In the context of this research it was required to open essence of the concept "creativity" that in translation from English means creativity that is in the most general view this is a creation of the new, original, more perfect material and cultural wealth possessing the objective or subjective importance.

2 Research and discussion

The philosophical aspect of the problem of creativity is presented in S.F. Martynovich's works (creativity values are disclosed), M. Arkadyeva (the principle of performing creativity is allocated), F. T. Mikhaylova (single questions of creativity, consciousness), etc. A. D. Tsedrinsky defines pedagogical creativity as:

- one of approaches to understanding of the person and his essence at which the essence of the person (his reason as the triple intuitive and conceptual and emotional nature) is comprehended through self-realization of spiritual, mental, astral and vital abilities to creative activity (in literature – creation). Self-realization of creation is directed to development of the outside world, and the person acts as the subject of development of oneself, the abilities to think, choose and distinguish and, indirectly, of societies;

- ability to spiritual creatively thinking which allows to generate unusual ideas, to deviate from traditional, algorithmic schemes of thinking, to find solutions of problem situations;

- ability to creation of original intellectual products, including in pedagogical activity; it is self-realization of integrity and pedagogical consciousness and such

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intentionality (orientation) of individual pedagogical thinking when the person of information society acts as the subject of development most at all age steps of the behaving (main) activity [3].

In a social and historical context creativity appears as the process happening at a given time in the person or as the process subordinated to social communications, criteria of estimates of a creative product.

Analyzing works of domestic and foreign psychologists, teachers [4-7] it is possible to allocate four directions of research of creativity: as product (L. I. Antsyferova, T. V. Kudryavtsev, A. N. Leontyev, A. M. Matyushkin, Ya. A. Ponomarev, S. L. Rubenstein, O. K. Tikhomirov; K. Taylor, D. Taylor, etc.); as process (F. Barron, etc.); as abilities (J. Gilford, E. Torrance, D. B. Bogoyavlenskaya, V. D. Shadrikov, V. N. Druzhinin, etc.); as lines of the personality (L. I. Sharygina, etc.). Creativity, whatever of aspects, it was mentioned, in our opinion, all researches are concentrated on the solution of two main questions. The first is connected with clarification of the nature of creativity as phenomenon, her criteria, indicators and methods of an assessment; the second is concentrated on a problem and opportunities of her development.

The domestic pedagogical science translates the concept "creativity" as "creation" and considers as "the ability reflecting property of the individual to create new concepts and to form new skills, i.e. ability to creativity"; "as readiness for application and development of the abilities"; as "the search and converting attitude of the personality towards reality which is shown in search converting activity" [4, 7]. In all approaches the distinctive feature of creativity is allocated: ability to be beyond the set situation, ability to statement of own purpose.

Teachers characterize the concept "creativity of the personality" as follows:

- the developed sense of new, openness to all new; it is high degree of development thinking, his flexibility, intolerance and originality, ability to quickly change methods of action according to new conditions of activity (Yu. N. Kulyutkin);

- system of the personal abilities (an ingenuity, imagination, criticality of mind, openness to all new) allowing to change optimum methods of actions according to new conditions and the knowledge, abilities, beliefs defining results of activity (novelty, originality, uniqueness of the approaches to activity implementation), as a result of inducing the personality to creative self-realization and self-development (V.G. Ryndak);

- result of creative thinking (O. K. Tikhomirov);

- domination of process of creation new (A.V. Brushlinsky, V. A. Molyako);

- a social mental set on nonconventional resolution of conflicts of objective reality (E. V. Kolesnikov);

- the integrative personal property which is expressed in the relation (an installation, a position, an orientation) of the personality to creativity (A. M. Matyushkin).

Researchers dealt with a problem of development of creativity of students: A. N. Glukhova has offered the concept "certification and pedagogical complex of

development of creativity of students in professional education" and has developed a technique of development of creativity of students in the course of control of their vocational training; E. E. Scherbakova has developed conceptual fundamentals of creative pedagogic as factor of development of the identity of the student; A. N. Kolpakova has specified the conditions of development of creativity promoting self-updating of students and has established influence of creativity on formation of professionally important qualities of future teacher; E. M. Bazilevich has established dependence of manifestation of creativity on a level of development of special abilities etc.

For our research the point of view of those researchers is most significant (V. G. Ryndak, L. B. Yermolaeva-Tomina) which consider creativity as set of various abilities, each of which can be presented in a varying degree at this or that identity [8, 9].

The priority direction of creative education is formation of information culture of the student including: ability of fast and accurate information search, her systematization, judgment and interpretation; development of communicative skills and abilities. Successful use by students of modern information technologies requires development in them of system thinking and development of the important fundamental concepts by them (such as information, object, model, system) used in all spheres of information activities.

The most complete definition of information and communication technologies is presented to S. V. Titova who considers information technologies as the technologies based on base of both the computer equipment, and modern means of communication (e-mail, forums, chats, TV and videoconferences, blogs, etc.) [10, S.12]. As many researchers consider (A. P. Anoshkin, S. A. Mavrin, V. I. Andreyev, etc.), application of information and communication technologies allows to create essentially new system in training [10]. They strengthen training individualization, higher educational institutions become on the present the open educational rule for the outside world as students get access to volume arrays of information, they appear only before the choice of information necessary for them according to their purposes which are put and corrected by the teacher.

In the context of the studied problem the opinion of V.I. Andreyev who notes that information and communication technologies change a mentality of the teacher and student is represented significant, doing them by accomplices of information search of information, actual for each of them [11].

Due to the broad penetration of information and communication technologies also the content of activity of the teacher changes. The teacher stops being just "loud-speaker" of knowledge, becomes the developer of new technology of training that, on the one hand, increases his creative activity, and with another – demands the high level of technological and methodical readiness [12]. There was new activity of the teacher – development of information technologies of training and program and methodical educational complexes.

Development of network technologies opens new opportunities of an intensification of educational process of higher education institution. In our research a basic link of information technologies is the computer, main types of work with which are conditionally divided into four groups:

- 1) use of the training programs on CD;
- 2) creation of didactic material on the basis of multimedia technologies the teacher (together with students);
- 3) work on the Internet on occupation;
- 4) creation of computer tests.

The computer which is switched on in structure of intellectual activity of the student actively stimulates productive, creative functions of thinking. Gaining skills of work with information retrieval systems, students open for themselves access to almost unlimited resources for research activity [12].

Use of the training programs on CD. The most available method of application of multimedia technologies both on occupation, and in outside the classroom. The main advantage is the video conference of the teacher with all students or their group, and also video conference of the students united in group, among themselves. The video conference is understood as a possibility of simultaneous viewing of the screen by the student and the teacher.

We will note that use of the training programs has allowed us to work with split-level structure of students, to vary subjects on complexity level. Multimedia opportunities of the training programs have allowed the student to master different types of creative activity. Prerequisites of work with the training programs were put on occupation. In the center of attention there was an activity of students organized and directed by the teacher directly on occupations and indirectly through methodical instructions during the after-hour work.

The laying of didactic material on the basis of multimedia technologies the teacher. This didactic material in the maximum degree has helped the teacher with training of students as reflects not only his individual pedagogical style, but also material vision. The teacher created the presentation of material taking into account abilities of specific students, realizing the personal focused approach. For example, he changed and emitted significant material by means of color, a font, an inclination, the size, used photos, schemes, tables, strengthening effect of influence. First of all, development of didactic material characterizes ability of the teacher to work in Microsoft Word and Microsoft PowerPoint. The most productive was collaboration of the teacher and student over the presentations which assumed creative activity. At the same time the speed and quality of digestion of material increase.

Work on the Internet on occupation. Development of web technologies gives all new opportunities of educational process. Huge didactic potential of the Internet which use in educational process carries out the following functions is allocated: training, help, controlling, function of bank of resources in the solution of problems of training. The Internet finds the most frequent application in the help and controlling purposes.

His help function is provided by multilingual dictionaries, multimedia encyclopedias. The controlling function is realized in tests with limited time of performance in on-line mode.

The main thing was the motivation of teachers and students to studying and use in educational process of innovations in the field of information and communication technologies. So, now in development of process of informatization of creative education the following tendencies are shown: creation of uniform information educational space; active introduction of the new means and methods of training focused on use of information technologies; creation of system of the advancing education.

3 Conclusion

Thus, the theoretical analysis and the analysis of own experience has shown that active use in creative formation of information and communication technologies promotes: to increase of informative activity of the student on the basis of ability to obtain information, including on the Internet; to development of communicative skills of work; to increase of level of the information culture of students including work with equipment (the scanner, a video camera, multimedia a projector, Pinnacle PCTV Pro, etc.) and being the defining factor of their professional activity.

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