Pedagogical support of the "creative cluster " in bachelors' online education

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Abstract. The article highlights the issues of solving educational, methodological and organizational tasks of integrating the disciplines of the art cycle under the auspices of the creative cluster in the distance education of bachelors. The article includes a description of the concept of "creative cluster" in the context of our research, which in the educational sphere takes the form of a cluster of creatively oriented technologies aimed at studying the disciplines of the artistic cycle. The problems of the formation of students' motivation for artistic-applied, scientific-research and self-educational activities were also studied in the article. This problem is especially relevant in the presence of high speeds of information transfer in an integrated distance learning course. The features of pedagogical support for the generation of creative ideas in the information space during distance learning, the conditions for the implementation of the cluster program block with the use of distance educational technologies, the types of distance learning are considered. The educational and methodological content of the creative cluster module includes educational technologies of painting, drawing and sculpture. The block-modular system integrates the progressive movement of educational content.

1 Introduction

In the age of rapid development of computer technology, students and future graduates should feel comfortable and valuable in modern socio-economic conditions. To solve this problem, it is necessary to organize the educational process based on the latest information technologies, using electronic means for more effective learning. Given the epidemiological situation in Russia, educational technologies are implemented using information and telecommunication networks remotely, and the interaction of students and teachers is carried out indirectly. The territorial disunity of students and teachers is leveled by informational and telecommunication technologies, as well as by adaptation of work programs to remote learning. Online learning does not detract from the dignity of full-time stationary education, instead we are talking about the introduction of online learning in fragments. This is advocated by many scientists who have studied this problem - D. S. Girin, Yu. F. Katkhanova, V. V. Koreshkov, L. Ya. Nodelman, V. B. Moiseev [1], O. N. Yanitskiy [2]. Yu. S. Avraamov have also argued about the advantages and disadvantages of online learning [3]. Pedagogical support of online learning oversees the educational process through Internet

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platforms, observing all its components (goals, objectives, content, methods, and means of teaching), followed by an interactive and specific form of implementation through Internet technology. [4]

The concept of "creative industries" (when the dominant activity is the creation and usage of intellectual property: architecture, fine arts, design) formed the basis for the design of educational and methodological support of the cluster [5]. The priority is the applied arts, the features of which were analyzed in the works of S. Frith [6], E. Gombrich [7], N. Livingston [8], N. Yu. Zakharova, I. M. Vlasova, R. L. Lukyanov, I. V. Protopopova [9].

After analyzing the above sources, we can conclude that the priority of online learning:

Accentuates the independent artistic and applied activities of students;

Activates their creativity, self-development, and self-realization;

Provokes the need for an independent search and scientific research solution of problem situations.

2 Materials and methods

Online education allows you to significantly increase the amount of educational material, improve the quality of educational services, put into practice an individual approach, and scan the intellectual capabilities of students. To optimize the educational process in online learning disciplines of the art cycle, a program was developed on a block-modular basis, linking them into a single creative cluster. The concept of a "creative cluster" (by Simon Evans), in the context of our research, in the educational sphere takes the form of a conglomerate of creatively oriented technologies aimed at studying the disciplines of the artistic cycle. The creative cluster is a successful fusion of creativity and learning in the educational structure of which the study of such disciplines as painting, drawing, and sculpture is organically integrated. Pedagogical support for the generation of creative ideas in the information space during online learning acquires the following features:

– provocativeness - outstripping the directions of creative aspirations of students;
– the generality of requests in a single field of research;
– erasing the boundaries of formality in the relationship between the supporter and the supported;
– horizontal connections (alignment of priorities in the communication);
– interdisciplinary unity of requirements in obtaining an intellectual product;
– synthesis (a combination of methodological forms and teaching aids of the educational process);

Pedagogical support for the implementation of the cluster program block using online education provides the following conditions:

1. The functioning of the electronic educational system;
  The availability of information resources;
  Availability of educational resources;
  Access to informational educational portals [10].

The effective use of online technologies in the implementation of each component of training involves the development of intellectual and creative potential, creative thinking, the need for self-realization, and raising one's professional level.

Pedagogical support of a creative cluster in online learning has the following tasks:

1. Creation of proprietary online technologies;
  Creation of a database of proprietary online education courses on online education platforms;
  Providing an individual educational trajectory in the process of conducting WEB-consultations;

Providing the necessary methodological and didactic content, popular messengers, media files;

Optimize the presence of motivation for education and self-education in online learning;

Organization and conduct of classes and consultations in the Skype program.

Pedagogical support of individual and group activities of students in the space of a creative cluster to create an educational product has innovative increments in the form of the formation of skills in research activities. The module is based on traditional methods and informational/communication technologies, which increases the productivity of the learning process. A new form of pedagogical support of methodological and organizational work on the interaction of students with information and educational technologies is becoming relevant, in which the teacher becomes the organizer, leader, and participant in the student's dialogue with the cognition process. Modern computer technologies are interactive, students find themselves in the center of information flows, differentiating and selecting in the informative space.

The educational and methodological content of the creative cluster module includes educational technologies of painting, drawing, and sculpture. The block-modular system integrates the progressive movement of educational content, providing it:

1. Synchronous presentation of content in integrated disciplines;
2. Availability of the educational resource;
3. Conceptual integrity of educational information;
4. The unity of theory and practice;
5. The effectiveness of information and communication technologies;

Types of applied online learning:

1. Lesson "Announcement" - a review of upcoming activities to highlight the upcoming activities, optimization of motivation and activation of artistic and creative activities, familiarity with the electronic course;

Lesson "Introductory" - pre-project research, collection of information, problem statement, video lecture, master class.

Lesson "Individual consultation" - solving a problem and finding an individual educational route. Consultation in "WhatsApp Web" and by e-mail.

Lesson "Remote testing". Held in the "WhatsApp Web" group. Chat sessions are conducted synchronously.

Lesson "Asynchronous conference" - the achievements of the participants are published on the Internet platform of the University with a subsequent discussion.

Lesson "Synchronous video conference" - using e-mail and video conference mode "ZOOM". During the use of video conferencing, students interact on the screens of computer monitors.

Lesson "Web-quest" (Web Quest) - students independently search for information in the Internet resources on the instructions of the teacher or on the initiative of creative search.

Types of online learning modules:

— module for obtaining information (content system);
— module of instructions and guidelines;
— module of practical training;
— communication and consultation module (system of interactive pedagogical support)
— control module (intermediate control system).

3 Results

We have analyzed the results of the achievements of students in the creative cluster program in the experimental group (EG) and the results of the intermediate viewing of students in the

control group (CG) of bachelors. We have recorded an increase in the percentage of academic performance and the average score in the experimental group.

Table 1. Results of the achievements of students in the creative cluster program in the experimental group (EG) and the results of the intermediate viewing of students in the control group (CG) of bachelors.

Viewing results	EG (before)	CG (before)	EG (after)	CG (after)
percentage of academic performance	95	96	98	96
average score	4.6	4.4	4.7	4.4

A survey of bachelors was carried out in the "Creative initiative" direction. The results of these studies are shown in Fig. 1. Criteria for creative initiative:
1. Creative activity;
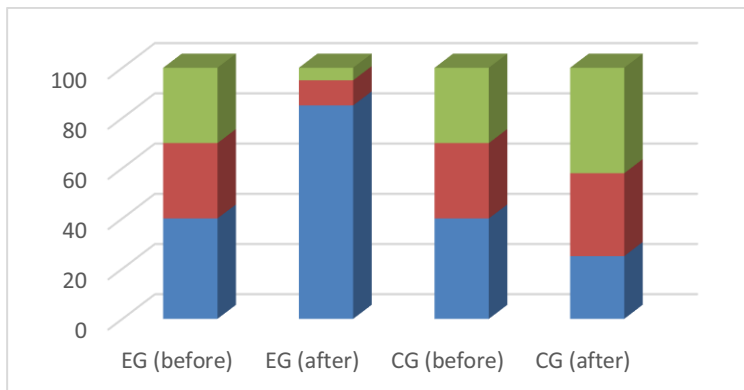Creative independence;
Creative productivity.

Fig. 1. Diagnostics of the creative initiative development.

According to the results of the research in the experimental group, the leveled movement of the creative initiative of bachelors was diagnosed.

4 Discussion

The productivity of "cluster" training depends on:
— the quality of the formation of the information and educational environment;
— the level of development of competencies among the online-learning students;
— the correctness of the choice according to the technical and technological characteristics of the employment model;
— productive way of providing educational content and video communications;
The meaning choice of the correct online learning in groups makes it possible to create common projects while working with information individually [11].

5 Conclusion

Prospects for the use of information and communication technologies in teaching bachelors in the space of a creative cluster require the optimization of work programs and the updating of methods of teaching art disciplines aimed at developing competence in the field of ICT. Similarly, the creation of additional conditions for the implementation of modern technologies is considered, as well as the creation of an integrated use of teaching methods in drawing, painting, and sculpture as a means of intellectual and creative increments of the personality of students. The main goal of creating creative clusters in online learning and its integration into social networks is to improve the quality of education, increase the intellectual and creative development of students and their competitiveness in modern society. [12]. The use of social networks, their tools and popularity for the implementation of pedagogical processes will raise the rating of educational activities and motivation to learn. It will also strengthen the ties between learners with similar interests. The results of measurements of the quality of educational activities have confirmed the effectiveness of the experience of creating creative clusters as "marches" into individual and group artistic and applied activities. The students of the experimental group created a better and more competitive product of artistic and creative activity [13; 14; 15]. Certain patterns can be identified:

— the effectiveness of the learning process in innovative technologies was the synchronous presentation of teaching material with an enhanced visual dominant, the symbiosis of information blocks in the studied disciplines;

— the personalization of teaching had a positive value, which strengthened the motivation, empathy and creative aspiration of the students;

— organized research and artistic and practical activities in online learning, conferences, chat classes, web classes have transformed the forms of education into interactive ones. This immediately affected the perception of the logic of the perceived material.

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