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**SOCIAL AND CULTURAL TRANSFORMATION OF TEACHER
TRAINING TOOLS UNDER DIGITALIZATION CONDITIONS**

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Abstract

The article analyzes basic cultural characteristics of the younger generation referred to as a Z generation, main vectors of transformation of teacher training tools under digitalization of educational processes. The sociocultural approach examines the phenomena in the context of the unity of culture and sociality, reveals factors influencing education, including factorial effects of education. The leading ideas of the approach and its specificity are determined by three dimensions of human existence: man interacting with society, culture and sociality. The article analyzes basic categories of the sociocultural approach: a person as a bearer of interaction; society as a set of interacting individuals; culture as a set of knowledge, values and norms. The research aims to identify features of perception of information by a new generation. These qualities are decisive for designing new competencies of teachers and determining methods. Teacher training tools were developed in the following interrelated aspects: transformation of worldview features of the “digital” generation affecting cognitive and information perception processes; transformation of professional qualities of the teacher in the conditions of digitalization; transformation of methods, means and forms of the educational process aimed at maximizing efficiency of the digital generation. These data suggest that the sociocultural approach allows us to consider the process of designing pedagogical tools as transformation of the worldview of young people and identification of the most effective means for developing a professional worldview. This unity is achieved by synthesizing social and cultural analysis, subject and object sides of the digital culture development.

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Keywords: Digitalization, Z generation, vocational education, sociocultural approach.



1. Introduction

Total changes in the consciousness of modern youth are associated with digitalization, when the speed of distribution of information flows increases many times, and mass communication and online media are leading holders of the social content. Cultural changes, whose chronological framework can be referred to the beginning of the 2000s, are associated with the transition from informatization to digitalization and emergence of a Z generation.

Socio-cultural transformations are systematic changes in the process of learning values that determine development trends of social culture. Education as a resource for social development is subject to transformational processes. The flexible response of the whole system of training and education of the younger generation to the current demands, and development of adaptability are crucial issues. Vocational education is a conservative system of university training, requiring a mobile response to changes in order to achieve maximum results.

2. Problem Statement

Based on the tasks formulated in the National Projects “Education”, “Teacher of the Future”, “Digital Educational Environment”, “Digital Economy of the Russian Federation”, the teacher training is focused on training a specialist ready to work in the mobile digital environment, create an atmosphere of openness and growth for students, meet the needs of young people, students of Z generation (Ivanova & Ryabchuk, 2018). However, digitalization of the education system cannot be reduced to digital textbooks, documents and access to high-speed Internet. The common value-semantic basis is a focus on new qualities of the personality of future teachers determining their successful self-determination in the digital age. Professional competences of the teacher can be developed using new methods aimed at redirecting the entire educational process, shifting the emphasis from the teacher to the student. The secret to the success of educational activities is to focus on ways of perceiving information by future specialists.

The main problem of our research is to search for updated tools for professional education of teachers that meet requirements of new specialists of the digital generation. The traditional format of e-learning (video lectures, presentations, test controls, etc.) does not arouse interest of the representatives of the new generation. It is necessary to develop innovative, adaptive and interactive approaches to the training of future specialists. Digitalization is one of the tools.

3. Research Questions

The research aims at identifying features of perception of information by a new generation that has grown up in the digital space. These qualities are decisive for designing new competencies of teachers and determining methods for organizing the educational process in a pedagogical university.

4. Purpose of the Study

Identification of problems of modern transformation of educational processes based on changing principles of information perception allowed us to set the following research goal: identification and testing

of pedagogical tools for developing professional competencies of future teachers based on socio-cultural changes.

5. Research Methods

The methodology is based on the sociocultural approach in education. In the history of pedagogical science, the sociocultural approach is consolidated together with the idea of importance of social factors in upbringing and separating society as the “third pedagogical space” in the second half of the 19th – beginning of the 20th centuries (Gnatyshina & Salamatov, 2017). In studies conducted by Tsiryulnikov (2016) implementing the technology of socio-cultural design based on the socio-cultural analysis, the method involves an awareness of the educational situation and the choice of a strategy and a development model in the social and cultural context. Ethnographic, cultural, ethnoregional features and local regional experience are essential factors for development and modernization of the educational system, fundamental characteristics of educational processes. Every educational process occurs in a culture-like environment, whose components are filled with human meanings and serve a person who manifests his individuality, ability for cultural self-development and self-determination in the contemporary world of cultural values.

Digitalization determines research methods of the educational process and is reflected in the practical methods for developing new pedagogical tools (Hürsen, Özçınar, Özdamlı, & Uzunboylu, 2011; Vorozheikina, 2018).

6. Findings

Having summarized the results of theoretical research and empirical experience of socio-cultural transformations of professional training tool designing, the following interrelated aspects can be identified:

- transformation of worldview features of the “digital” generation affecting cognitive and information perception processes;
- transformation of professional qualities of the teacher in the conditions of digitalization;
- transformation of methods, means and forms of organization of the educational process aimed at maximizing the performance of the digital generation.

Within the first aspect, on the basis of research on a new generation (Ayale-Pérez & Joo-Nagata, 2019; Khvatova, Dushina, & Nikolaenko, 2018; Martín, Hirsu, Gonzales, & Alvarez, 2019), we identified the following factors affecting the system of perception and learning.

- 1) The Z generation has matured in the digital space; a digital gadget is a primary source that was mastered at an early stage of development.
- 2) Multitasking: one-time performance of various types of work: reading, listening to music, communicating through social networks.
- 3) The need for urgent assessment of their actions by society (reviews, comments, likes, etc.).
- 4) Constraints of any kind are painful, they grew in awareness of infinite possibilities, they are alien to any frameworks and narrow evaluation systems.
- 5) Clear goal statement when interacting with representatives of the Z generation.

These qualities can be supplemented; however, let us identify fundamental professional qualities that determine features of the teacher's career. Understanding the mission of a teacher as a carrier and translator of culture, they have to have the following characteristics: humanistic worldview, moral position, legal, communicative, digital culture, self-determination culture, etc. This set allows the modern teacher to focus on generation, production of an educational result that is valuable both for the student and for the society.

The problem of professional training can be solved by changing the approach to teaching, using new teaching tools (Baranova & Simonova, 2018; Choi, Cristol, & Gimbert, 2018; Dewey, 2018).

We have designed teaching tools focusing on preferences of the digital generation which allow us to influence professional qualities. These tools can be supplemented depending on the profile of teacher training and factors of the micro-cultural environment and educational organization. According to the results of the experimental research, the most transformed aspect of sociocultural influence turned out to be the methodical one – the need for transforming teaching methods. Active digitization of mass culture provided all active generations with digital gadgets, made available social networks, open educational portals, various databases and library resources (Pupkov & Telesheva, 2014; Sibirev, 2017; Sousa & Rocha, 2019).

1. Training forms:

- short distance courses that allow students to independently study the disciplines depending on the individual learning path;
- micro-lessons, allowing students to focus on one topic and proceed to the control of learning results;
- “inverted classes” focus on an independent basis for mastering the content of the discipline using video lectures or educational portals (e.g., Coursera, etc.).

2. Interactive methods:

- gamification (gaming methods) focuses on enhancing the competitive spirit, building a rating, while affecting visual receptors;
- project targeting is a kind of individualized project training aimed at setting learning tasks depending on individual educational needs of the learner;
- “educational events” consolidate ideological features of the Z generation by activating the multitasking ability, individuality, clip thinking;

3. Digital means:

- groups in social networks;
- open access video materials;
- Mobile electronic educational resources, etc.

The efficiency of these teaching tools is ensured by the system of pedagogical support that adjusts professional training conditions based on systematic monitoring of the quality level.

7. Conclusion

Socio-cultural factors associated with changes in the mass consciousness of the younger generation, transformation of the information perception system and interactive methods in the information

environment make it important to search for new teaching tools. The development of the system of professional pedagogical education in the digital economy is focused on new approaches to the formation of the educational environment, the structure of educational programs, the content of education, results of educational activities, transformation of the role of the teacher, and interaction with social institutions.

We identified three transformational directions focused on changing approaches to teacher training for the younger generation of the digital era: transformation of worldview features of the “digital” generation affecting their cognitive and information perception processes; transformation of professional qualities in the conditions of digitalization; transformation of methods, means and forms of organization of the educational process aimed at maximizing the performance of the digital generation.

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