PEHPP 2019
Pedagogical Education: History, Present Time, Perspectives

PROBLEMS OF IMPLEMENTATION OF MODERN EDUCATION TECHNOLOGIES

N. N. Surtaeva (a)*, O. Vl. Roitblat (b), Je. B. Margolina (c)
*Corresponding author

(a) Herzen State Pedagogical University of Russia, St. Petersburg, Russia, nsurtaeva@yandex.ru
(b)TOGIRRO, Tyumen, Russia, info@togirro.ru
(c) Herzen State Pedagogical University, St. Petersburg, Russia, krasney@mail.ru

Abstract

The article discusses the problems of implementing modern educational technologies. A number of issues are identified that make it difficult to implement educational technologies in educational organizations, both in Russia and abroad. A list of various educational technologies used by practitioners is given. It also explains the reasons for the need to implement educational technologies at the present stage. The fact of understanding educational technologies in the broad and narrow sense of the word is ascertained, a generalized understanding of the essence of the term "educational technologies" is given. Presents the results of studies of teachers of four educational organizations of the city of St. Petersburg based on the application of interrogation methods. In particular, the results are given, the analysis of which makes it possible to understand that practical trainers do not distinguish between the concepts of "technologies of upbringing", "educational technologies", "upbringing systems", educational concepts, and do not have clear positions on the application of various types of educational technologies. The article cites certain studies of foreign scientists on pedagogical technologies, where it is noted that in foreign studies there is no clear distinction between the concepts of upbringing technologies and teaching technologies, many issues in education are associated with the use of information and communication technologies. The attention is also focused on the issues of adult education (upbringing) technologies.

1. Introduction

In the world of systemic changes that are taking place against the backdrop of the introduction of information and communication technologies, geopolitical changes and the transformation of the professional environment are noted, which raises the question of changes for the person himself. Increasingly, discussions are taking place in the scientific world on the skills of the future, competencies, and human qualities, the acquisition of which would help assist in successful socialization in the future in the personal world. Confirmation of such judgments is found in the work (John, 2017). If the list of competencies and personality traits that are significant for the younger generation is changing, then the educational tools should change as well. What is used at the present stage as such a toolkit? What kind of results does it give? These questions are of interest for many researchers of the educational process. At the present stage, during the intensive development of various aspects of pedagogical technologies (consideration of the essence of the concept, types of pedagogical technologies, conceptual elements, inclusive education technologies, functions, options for their use in the educational process, correlation with methods, techniques, didactics, etc.), one can refer to the works (Alisov, Ivanova, Kunitsyna, Surtaeva, & Frolova, 2018; Schurkova, 2018; Surtaeva, 2019; Uman, 2018) and others. So Surtaeva (2019) discusses the integration of pedagogy, didactics, private methods and pedagogical techniques. The practice of introducing such technologies into the educational process is shown, the problems that arise during the implementation of student-centered learning as a tool for shaping the skills of the future are indicated. The paper also considers a feature of the educational process based on the use of such technologies as paracentric, control and corrective, mutual dialogue technology, technology "educational retraining", technology for learning from problems, technology for learning from mistakes, technology for incrementalism, etc. (Surtaeva, 2019). Humanitarian technologies that are directly related to the upbringing process are highlighted separately (for the most part they are understood as the practical use of systematized humanitarian knowledge in order to purposefully influence the improvement of personality, the social environment that affects the success of socialization). Humanitarian technologies include motivation technologies, adaptation technologies, support technologies, communication technologies, provision technologies, human social orientation technologies, health-saving technologies, employment technologies, construction technologies, design, monitoring, management, etc. Among modern management technologies are called distributed management technologies, transparent management technologies, collegial style technologies, "rear management" technologies, collective search techniques for solving errors and others, which also relate to educational technologies. Social technologies are separately considered as a kind of humanitarian technologies (global modeling technologies, management strategy search strategy technologies, social consent technologies, conflict resolution, accompaniment and support technologies, etc.), which can also be attributed to educational technologies. Increasingly, in scientific research there is a discussion about educational technologies, which in a generalized form are understood as systemic methods aimed at solving the problems of upbringing (culture-based educational technology, socially oriented technologies, bright spot technology, etc.). These methods (technologies) can fit into educational technologies and can be implemented separately. Speaking about educational technologies in scientific research, they often talk about modern upbringing concepts (the concept of systematic construction of the upbringing process, the concept based on the system-role theory of the formation of the child's personality,

the concept of "education as a pedagogical component of the child's socialization", the concept of "forming a lifestyle worthy of Man". A detailed study of scientific and pedagogical literature shows that in pedagogical knowledge a lot of groundwork has been made in the field of pedagogical technologies. But the question of classification, classification grounds, justification of the effectiveness of the use of technologies remains difficult. The research is needed on the applicability of pedagogical technologies taking into account the age characteristics, frequency and diversity of the use of pedagogical technologies. For example, how will the constant use of the same technology affect the results of educational activities? Is it necessary to apply different technologies? Moreover, what should be the basis for choosing a technology by a teacher? Is it possible to use the same technologies in the process of vocational training of students and training of schoolchildren? At the present stage, the term "technology" has become more and more applied when considering issues of upbringing, the educative process, and educational systems. In this regard, many problems can be identified, both in the implementation of modern educational technologies and in the theoretical developments of this issue.

In scientific research, one can find on this subject a different kind of discussion. We outline a number of such discussion questions:

- Is it legitimate to use the term "technology" when speaking of upbringing?
- Is it possible to identify the terms "technology" and "educational methods"?
- Do "upbringing technologies" and "educational technologies" differ in meaning?
- What is the ratio of upbringing systems, educational technologies and concepts of education?
- What are the circumstances associated with the use of upbringing technologies in educational organizations?
- Are the arguments about the use of educational technologies valid when it comes to the category of adults?
- How do socialization of adults and the process of using adult education technologies relate?
- What upbringing technologies can be called modern pedagogical technologies?
- What are the positions of foreign scientists on the issue of pedagogical technologies?

Here are some aspects of considering issues related to pedagogical technologies in the works of foreign

In foreign scientific literature, various issues of teaching and development technologies are also discussed. For example, based on D. Kolba's theory of empirical learning, the "service learning" technology is considered (Salam, AwangIskandar, Ibrahim, & Farooq, 2019). Unfortunately, in the open form, it is difficult to meet the term "upbringing technologies", but when considering issues related to educational issues, one can grasp the context of upbringing. In the authors' work, the technology of "service learning" is considered as a learning process that is based on experience that allows combining community service with classroom training. Practical experience is considered as a tool for obtaining practical knowledge from practical field study. The authors suggest more attention to be paid to effective integration and this process is called technology and more and more hours include "service training" (service technology) in their curriculum. This process of integration (technology), as the authors note, is not sufficiently developed in

pedagogy. To solve this problem, a specific structure of technology integration is proposed for the training programs considered, for example, the training of specialists in the service sector. The integration structure (as the essence of service technology) includes three components: 1- determination of the general stages for the implementation of integrative relationships in the learning process, which are based on the theory of empirical study (Kolb, 1984); 2- designation of the level of technology support; and 3- creating a model for stakeholder participation in training. When considering this technology in an implicit form, it is possible to identify issues of social responsibility education, labor education (attitude to work, their production and educational responsibilities, etc.), which allows this technology to be attributed to upbringing technologies.

We find discussions on the subject of educational technologies in teacher reflections on the use of technologies in practice. The work (Heitink, Voogt, Verplanken, van Braak, & Fisser, 2016) presents the results of studies conducted using a video case. Teachers demonstrate their technologies in practice and reveal the reasons for using technologies that are designed to make studying attractive to students, to realize educational goals and facilitate the learning process. Here we are talking about adult educational technologies, the process also involves upbringing.

Most of the technologies used by teachers in practice, which were demonstrated using video cases, show various aspects of learning models in the transfer of knowledge. Most technology tools use videos to support learning activities. The use of video cases contributes to a better understanding of how teachers professionally discuss the use of their technologies and their role in the process of upbringing and training.

We find an argument about the connection of pedagogical theory with the use of technology in the educational environment in an article (Lin, Yu, Wang, & Ho, 2015), in which the data of teachers participating in the experiment are presented. Teachers note the lack of compliance with theories of pedagogy and the choice of teaching technology. A number of respondents recognize that they do not take into account pedagogical principles, such as the pace of training, activity planning, assessment, etc., when planning training using new technologies and focus on the greater integration of pedagogical theories and teaching technologies, without focusing on up bringing technology. We find a similar position in the article (Asset, Gabdyl-Samatovich, Ospanova, Begaidarova, & Balkiya, 2015), which deals with modern pedagogical technologies for the formation of communicative competence, which is closer to the issue of educational technologies by combining interdisciplinary knowledge and skills with social and personal qualities that ensure the success of professional activities. Carrying out the study, the authors identified the development of a conceptual model of a qualitatively new look at modern educational technologies for the formation of professional competence in the field of integrated security through an interdisciplinary approach as the main goal. The relevance of this study is due to the need to improve educational technologies for the formation of professional competence in the field of security in vocational education, which is important in the context of an increasing transformation of the professional environment. In the process of the study, which is discussed in the article, the authors managed to highlight a new quality of educational technology by combining interdisciplinary knowledge and skills with social and personal qualities that ensure the success of the graduates' professional activities in the new socio-economic conditions.

We also see a review of technologies when considering the issue of digital support for academic writing (Strobl et al., 2019), where there is mainly about information technology training. We also

encounter a discussion of learning technology issues when considering aspects of technology management in the field of andragogy, lifelong learning (Berg, Mani, Marinakis, Tierney, & Walsh, 2015). Acquaintance with foreign studies in the field of pedagogical technologies allows us to confirm the presence of a number of the same problems, as in Russian pedagogical science. This is the use of terms, consideration of the essence of the concept, revealing the connection with pedagogy or didactics, the purpose of technology, etc.

Namely, the search for answers to these and other questions related to the use of pedagogical technologies in organizing the process of education and training indicate the problems of scientific research at the present stage.

2. Problem Statement

In this article, we are trying to solve the scientific problem associated with the consideration of individual problems of implementing modern educational technologies in educational organizations, since any attempt to systematically consider the problem, or add something to human knowledge about any problem, can be considered a useful research result.

3. Research Questions

When solving the designated scientific problem, we distinguish the following questions:

- What modern educational technologies are implemented in educational organizations?
- What problems arise when implementing modern upbringing technologies?
- Are the results of the implementation of modern upbringing technologies diagnosed in educational organizations?

4. Purpose of the Study

It is the identification of problems in the implementation of modern educational technologies used in educational organizations.

5. Research Methods

To solve the designated goal, to find answers to the questions posed, various research methods were used, for example, such as: studying and analyzing scientific and pedagogical sources, studying and analyzing the educational documentation of educational organizations, interrogation methods, observation, conversation, reflection method, quiz. The quiz method was carried out repeatedly, at each meeting with the pedagogical community in the form of continuing education courses, seminars, creative meetings, which allowed to cover about 570 people (taking into account the quiz method -220), for three years (2015-2018. g.). During the quiz, 4-5 questions were asked that did not require long-term answers. The answers suggested a designation: either affirmation, in case of agreement (+), or denial, in case of disagreement (-). In the process of using the questionnaire, the questionnaire suggested 15 open and closed questions. The

questionnaires were anonymous. To use the observation method, an observation plan was compiled. During the study, we selected and implemented interrogation methods. Interrogation methods made it possible to cover a large array of respondents and to identify as many opinions as possible on the issue under study. In addition, the methods used do not pose great difficulties in application, they are time-saving and do not require special conditions (specialized premises, availability of observers, special equipment with technical means, etc.), respondents easily agree with them. They allow you to simultaneously interview a different number of respondents (from one to hundreds). The data used in carrying out the indicated methods is easy to process and present in various forms (tables, charts, diagrams, drawings).

6. Findings

The study was conducted on the basis of four educational organizations in St. Petersburg, in which about three thousand students are studying. About 350 teachers took part in the questionnaire and another 220 teachers were interviewed in a quiz in different classrooms. The respondents were teachers with pedagogical experience (from three to 35 years), of various levels of training. In addition, during the experiment, the monitoring of the upbringing process, interviews with class teachers, and the study of upbringing plans and activities were carried out. The study was carried out using methods of studying and analyzing scientific and pedagogical sources, educational documentation of educational organizations, interrogation methods, observation, interviews, reflection methods, and quiz. The study allowed us to obtain the following results: in the process of conducting a survey among teachers of educational organizations, it was found that 71% of respondents (teachers) practically identify the concepts of eupbringing methods, educational technologies, on the one hand. On the other hand, teachers find it difficult to name the methods of upbringing and specific educational technologies - 54% of respondents. The study found a confusion of concepts, such as the upbringing system, educational technologies, upbringing methods, in approximately 49% of respondents. Clarification of the issue related to the understanding of the upbringing system was found that under this term educators - practitioners understand the totality of activities that are traditionally held in the educational organization (competitions, evenings, excursions to nature reserves, visits to theaters, museums, volunteer movement, etc. e.). 91% of respondents answered in this way.

Nevertheless, during the interview with teachers it was possible to find out the term "educational technology" is familiar, and it is used in the process of pedagogical communication, this was confirmed by about 98% of the respondents. When answering the question "What educational technologies do you use when working with schoolchildren?" They received such answers - technology for social design (or just design, project training) -78% of respondents noted, research technology -67% of respondentsindicate, 86% of primary teachers classes called the technology of organizational-activity games, 56% of the respondents called the technology of collective creativity, 24% of the respondents called the technology of individual reflective education, 9% of respondents called the technology of education interaction with the social environment, 17% called the technology of educating subjective social activity, 43% of respondents called the technology of work of children's associations, 34% of high school teachers talk about tutoring technology - pedagogical support.Educational technologies include situational technologies, technologies for creating a "success situation", show technologies, art technologies, personality-oriented technologies. And at the same time, among the answers to the question about the types of upbringing technologies used

in educational organizations, when analyzing personal data, we have identified answers that allow us to argue that educators identify the concepts of "upbringing technology" and "upbringing concepts". When answering this question, 32% of the respondents called the technology of harmonious development, the technology of self-determination, the technology of educating the spiritual culture of a young person, technology based on a systematic approach, technology of free education, humane-personal technology of education, system-role technology, etc.Various answers were received according to the questions: "Did they pay attention to questions related to pedagogical technologies in the educational process. In some groups, 80% of respondents answered in the affirmative, in other groups only about 30% gave affirmative answers. There were groups where respondents almost 100% answered negatively. To the question: "Is it important for a modern teacher to master a theory that reveals various aspects of pedagogical technologies for adult education" - more than 50% of respondents each time received affirmative answers. To the question: "Do pedagogies use some modern educational technologies (educational technologies) in their pedagogical activities", 70% of respondents, as a rule, answered in the affirmative. In the course of further surveys, it turns out that many answer so, because they understand the need to turn to modern upbringing technologies. To the question: "To name at least one upbringing technology that is most successfully used in their pedagogical practice", teachers saw difficulties in answering this question. Moreover, if there were answers, they showed - the difficulties of teachers, on average - 76% of respondents answered - individual educational technologies and about 57% of respondents called technologies related to information and communication technologies, 91% called technologies of patriotic education.

In the last year of our research, an increasing number of teachers called case technologies, quest technologies. In scientific research, these technologies are called education concepts. In addition, teachers refer to certain areas as technologies, for example, almost 90% of teachers called patriotic education, education of social activity, education of legal culture, environmental education. Studying the state of issues related to educational technologies has revealed a great diversity and many points of view on this issue of educators - practitioners. Identifying the problem the use of diagnostic methods for checking performance, the used educational technologies, more than 90% of teachers found it difficult to name any pedagogical tools that have ever been used in educational organizations. Among the answers it was identified that there were the number of students registered with law enforcement agencies, the number of winners of various competitions, including the winners of various olympiads, which it is not entirely related to the educational process. Despite the huge diversity of opinions on the types of technologies, attempts are being made to classify them. So, materialistic, pragmatic, humanistic, anthroposophical technologies of educationare distinguish on a philosophical basis; according to the scientific concept, educational technologies are classified into behavioral, activity, interiorisational, neuro-linguistic programming; according to the category of the object they are individual, group, collective, mass. This question is of more interest to scientists and is practically unimportant for educators and practitioners.

7. Conclusion

The study allows us to draw the following conclusion:

- at the present stage, there is no unambiguous understanding of the term upbringing technologies;

- in the practical activities of educational organizations, "upbringing technologies" and "educational technologies", and often "pedagogical technologies" are identified;

- in scientific research, upbringing technologies are considered in a broad (as a system of sequential deployment of pedagogical activities aimed at achieving the predicted goals in the educational system) and narrow sense of the word (as a personal mastery of a teacher in targeted impact on the development of a child by means, forms and methods);

- technologies of upbringing from the perspective of pedagogical science should be considered as a system of ways, methods, techniques, procedures of educational activity developed by science and selected by practice that allow it to appear at the level of mastery, guaranteed to be effective and qualitatively;

- among the methods of education in the theory of pedagogy and in educational practice, conversations, exercises, the deadlock method, requirements, encouragement, punishment are named, for example   recently the storytelling method (often referred to as storytelling technology), case technology, quest technology are more often called;

- in educational practice, there is practically no scientifically based pedagogical toolkit for testing the impact of the upbringing system, educational technologies on the personality of the student;

- in connection with the change of guidelines in the development of the child's personality, teachers have difficulties in selecting adequate upbringing technologies when working with schoolchildren, significant and possible in the conditions of activity of modern educational organizations;

- in spite of certain problems in the field of educational technologies, the interest of educators and practitioners remains, as evidenced by the requests of teachers for continuing education on topics related to problems of modern upbringing systems, educational technologies;

- scientific research and scientific developments in the field of educational technologies are required that meet the needs of modern educational organizations and familiarize the pedagogical community with the results of such studies;

- interest in upbringing technologies will continue to increase due to the fact that upbringing technologies have a specific sequence of actions: defining a clear concrete goal, developing a "package" of theoretical foundations, implementing certain theoretical ideas about the upbringing process, choosing certain pedagogical concepts that are appropriate to the goals , stage-by-stage, step-by-step structure of activity, where educational situations act as stages (preparatory, functional, control, final), the analysis of the results (monitoring - correction - reflection);

- the effectiveness of upbringing technologies can be assessed because how much it changes a child's attitude to himself, how he acts on "I am a concept" and how he promotes self-determination of a person (as one of many options).

Thus, the problems of the implementation of modern educational technologies include the lack of proper interaction between pedagogical science and educational practice, a unified understanding of the term "upbringing technologies", the lack of the necessary diagnostic tools to verify the effectiveness of the educational technologies that are being implemented. It also includes the change in targets in the education

of schoolchildren, a significant change in the sociocultural environment, opening up new problems in human life, to which a pupil needs to be prepared in educational organizations. Therefore, the question of the development and use of new educational technologies that meet modern realities remains open.

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