Problems of Introducing Modern Technologies into the Practice of Preschool Education

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Abstract: The article discusses the introduction and implementation of modern pedagogical technologies in organizations of preschool education. The research goal is to identify the main causes of these challenges and discuss ways to address them. The authors introduce a set of research methods they used. They describe in detail the “Scale of Criteria for the Implementation of Modern Pedagogical Technologies in the Practice of Preschool Educational Institutions” (which was developed by them), consisting of four levels: (a) optimal, (b) acceptable, (c) critical, and (d) unacceptable. The authors provide a description of each level of teacher’s professional readiness for the implementation of pedagogical technologies. The paper discussed a set of factors causing challenges in the implementation of modern pedagogical technologies in the practice of preschool education. The authors come to the conclusion that these challenges can be systematized at theoretical, practical, and organizational levels.

1. Introduction

The federal state educational standard for preschool education sets the task for teachers to introduce and implement innovative pedagogical technologies in order to optimize the educational process and improve its quality. Modern society is interested in professional educators and creative specialists, who are able to adequately assess and choose from pedagogical tools the most effective methods, means, and methods of organizing pedagogical activities. Their efforts are aimed at the harmonious development of the child's personality, meeting the educational needs of children and their parents. In this regard, the problem of managing the implementation of modern pedagogical technologies in the practice of preschool education is becoming relevant.

The problem of the formation and implementation of pedagogical technologies in education has been repeatedly raised by a number of famous scientists, such as D. B. Elkonin, V. V. Davydov, G. K. Selevko, I. S. Yakimanskaya [7; 10], and many other authors.

In educational theory, the concept of “pedagogical technologies” is comprehensively represented (V. P. Bespalko, V. P. Voronin, B. T. Likhachev, V. M. Monakhov, N. A. Moreva, etc.) [2; 5; 6], their key characteristics, distinctive qualities, characteristic features are considered (V. P. Bespalko, N. A. Moreva, T. I. Shamova et al.) [2; 6; 9]. The causes in the pedagogical theory of technologies are analyzed (V. V. Guzeev, I. F. Isaev) [2], their structure, mechanisms of development, performance criteria, the objective logic of introducing pedagogical technologies into educational practice are defined.

At the same time, the study of the problem in the practice of preschool education showed that teachers of preschool institutions experience serious difficulties in the implementation and implementation of modern pedagogical technologies, which is caused by a number of objective reasons. These reasons include the following: the poor adaptability of modern pedagogical technologies to the system of preschool education; the lack of methodological literature that reveals the algorithm for introducing modern pedagogical technologies into the practice of preschool education; the unpreparedness of teaching staff for a large-scale system of introducing modern technologies for teaching, developing and raising children; the lack of proven models for managing the process of introducing modern technologies into the practice of a preschool educational institution.
2. Materials and Methods

Analyzing the problem of introducing the modern pedagogical technologies into the practice of preschool education, we conducted a study aimed at identifying the willingness of preschool teachers to implement modern pedagogical technologies in their professional activities.

The complex of research activities included the questioning of the heads of preschool units in order to identify a circle of problems that impede the process of managing the implementation and implementation of modern pedagogical technologies in an integral pedagogical process. Also, we analyzed pedagogical documents and the pedagogical process in order to study the qualitative aspect of the implementation of modern pedagogical technologies in preschool institutions of the Altai Territory. The questioning of teachers was also conducted in order to determine the level of mastery of the theoretical and didactic foundations of this process, identify the levels and degrees of difficulties in the implementation and implementation of pedagogical technologies.

In total, 50 leaders of preschool educational organizations, 50 senior educators, 150 teachers of preschool educational institutions of the Altai Territory took part in the study.

To evaluate the results of the study, based on the qualitative characteristics proposed by I.K. Shalaev [8], we developed the "Scale of Criteria for the Implementation of Modern Pedagogical Technologies in the Practice of Preschool Educational Institutions." In the scale, four levels and four indicators are highlighted, according to which the activities of preschool educational institutions for the implementation of modern pedagogical technologies were evaluated.

The first criterion is the theoretical level of mastery of the technology implemented in practice by the teacher. The second criterion is the presence and sufficiency of professional competencies that allow the teacher to implement the technology in practice. The third criterion is the availability of the necessary didactic tools for the implementation of the technology. The fourth criterion is the creation of the environment necessary for the implementation of pedagogical technology in a holistic pedagogical process.

Based on the analysis of pedagogical activity according to the above criteria, the levels of readiness of teachers for the implementation and implementation of pedagogical technologies in preschool educational institutions were determined. In total, four levels of teacher professional preparation were identified.

The optimal level of readiness is when the teacher is theoretically, practically, and didactically ready for the process of implementation and implementation of the technology. He/she has detailed ideas about the functions of the technology, its ways, and its means, as well as practical work skills. In addition, the teacher takes the initiative in the process of interacting with parents and children, makes the necessary materials and equipment, develops individual development plans, implements a non-standard approach in interacting with children.

An acceptable level of readiness is characterized by the teacher having the necessary basic knowledge and skills in the field of implemented technology, practical work skills. The teacher takes the initiative in the process of interaction with parents and children, develops individual development plans, is able to cope with various difficulties in the implementation process independently.

A critical level of readiness is characterized by a lack of theoretical knowledge, practical and didactic competencies in the implementation of promotional activities. The teacher knows little about the essence of the technology introduced; however, he/she is aware of his incompetence and is ready to improve his own knowledge, skills, and abilities.

An unacceptable level of readiness is when, at a given level, the teacher does not have a clear idea of the pedagogical technology being introduced by him, is not competent in the selection of the necessary didactic tools, does not create the environment of development required. The teacher is not aware of the problem of his incompetence; the implementation process proceeds spontaneously, episodically, there is no single system of pedagogical activity in this direction.
3. Results

Our analysis of the results of the study revealed differences in the points of view of specialists on the problem under consideration. So, according to the heads and senior educators of preschool educational institutions, the following are the causes of problems on the way of introducing modern educational technologies into the practice of preschool education: (a) a low motivation of teachers (this reason was noted by 100% of respondents); (b) staffing deficiency expressed in a small number of specialists with higher pre-school professional education; (c) a high percentage of specialists without special education (100% of the respondents). In total, 81.8% of managers noted a lack of funding for the necessary equipment. 72.7% of respondents noted the lack of methodological support, including well-developed methodological recommendations on the implementation of implementation processes, implementation activities management. Besides, the lack of facilities for creating a particular subject-development environment was noted (45.4% of the respondents).

An analysis of the results of the survey of teachers showed that the problem of introducing modern technologies is associated with the following indicators: with weak management in this area (72% of respondents); with the lack of methodological literature that reveals a consistent algorithm of pedagogical activity directly in the system of a preschool educational institution (80% of respondents); with the lack of theoretical and technological competence of the teacher himself/herself in this matter (54% of respondents); with the lack of sufficient material and technical means necessary for implementation activities (64% of respondents).

At the same time, the analysis of pedagogical documentation, including the documentation of the heads of preschool educational institutions, educational programs, curricula, showed the following. In modern educational preschool institutions, the problem of implementation and management of promotional activities is not given due attention. So, in particular, there are no programs and plans for implementation activities, methodological support, a unified system of management activity, providing for the sequence, stage-by-stage process. The annual plans provide for a small amount of work to increase the competence of teachers and managers on the introduction of modern pedagogical technologies in the practice of preschool education. Few teachers and leaders choose the problem of introducing and implementing advanced educational technologies in working with children as the topic of self-development. In the exact piggy bank, there are few scientific papers and developments on this issue.

Assessing the quality of using pedagogical technologies in direct educational activities with children, we determined that only 17% of teachers introduce modern pedagogical technologies at the optimal level. 32% of the teachers who participated in the study implement technology at an acceptable level; 44% of educators are at a critical level of readiness. And 7% of teachers showed an unacceptable level, showing complete disinterest in this process, as well as the lack of initiative, desire, understanding of the significance of this process.

4. Discussion

From the results of the study of the problem of introducing modern pedagogical technologies into the practice of preschool education, the causes of the analyzed problem become apparent. These include the following: the poor adaptability of modern pedagogical technologies to the system of preschool education, the lack of methodological literature that reveals the algorithm for introducing modern pedagogical technologies into the practice of preschool education; the unpreparedness of teaching staff for a large-scale system of introducing modern technologies for teaching, developing and raising children; the lack of proven models for managing the process of introducing modern technologies into the practice of a preschool educational institution.

In the process of implementing the managerial model for the introduction of pedagogical technologies, at the initial stage, it is necessary to create the single information and technical space for the preschool organization, which allows mobilizing the work of the whole team. Managers, assistant managers, teachers should be focused on the constant updating of information, be able to analyze quickly, make managerial decisions, mobility in the selection, introduction, and implementation of pedagogical technologies.

In this regard, the leader, first of all, needs to use information technology, which serves as an intermediary between the management link and the team of teachers, which, in turn, will save time, effort, and potential of the team. To solve the problem, the search for interested parties in improving the quality of preschool education
is becoming significant. In our opinion, it is rational to start this search with an education committee. It is this organization that is more interested in the issues of modernization of preschool education.

Attracting specialists from the Department of Preschool Education of Altai State Pedagogical University will solve the problem of theoretical, didactic, and technological nature. The organization of experimental sites on the basis of preschool educational institutions for the implementation of modern educational technologies will be useful both to specialists of preschool institutions and future teaching staff.

When solving the problem, it is important to pay special attention to the teaching staff having scientific and practical potential in the framework of the problem of introducing and implementing pedagogical technologies in the practice of preschool education. Their interest in positive outcomes and initiative will provide tremendous opportunities for solving a problem. Moreover, they will also allow the formation of valuable pedagogical experience in this area.

Interaction with other preschool educational institutions and development centers at the level of mutual exchange of theoretical and practical information, work experience will create a pedagogical community with shared professional interests.

Attracting narrow specialists from other organizations as consultants on the introduction of modern technologies for the upbringing and education of preschool children will allow us to consider the problem from various positions and points of view. Such involvement of specialists can be organized as part of a management technology called the “Personnel Technology.”

At preschool institutions, it is advisable to create a single advisory center in which innovative teachers, specialized specialists, parents, sponsors can be involved. It is the advisory center that can become the organizing link in a single educational system to solve the problem of introducing modern pedagogical technologies into the practice of preschool education.

The creation of a unified system of control over the process of introducing pedagogical technologies in the practice of a preschool institution is the next mandatory task in solving the indicated problem. At the same time, the main components of the control system should be the following: a timely forecasting of possible risks and ways to overcome them; providing information-analytical and technical maintenance of all obtained results of technology implementation; tracking, regulation, rational distribution of financial resources of an educational institution; quality assessment of the unified process of introducing pedagogical technologies.

5. Conclusion

Our study to identify the reasons that impede the implementation of innovative educational technologies in the practice of preschool education allows us to draw the following conclusion.

Currently, in the practice of preschool education, the problem of introducing and implementing modern pedagogical technologies, as well as managing this process, is traced. The problem can be traced at the theoretical, practical, and organizational levels.

The theoretical level of the problem is associated with the weak adaptability of modern pedagogical technologies to the system of preschool education, the lack of methodological literature that reveals the algorithm for introducing modern pedagogical technologies into the practice of preschool education.

The practical level of the problem is due to the unpreparedness of the teaching staff in preschool education for a large-scale system of introducing modern technologies for teaching, developing, and raising children. Also, we would like to note a low degree of theoretical, didactic, and technological competence of specialists in this direction.

The organizational level of the problem is determined by the lack of tested models for managing the implementation of modern technologies in the practice of a preschool educational institution.

References

[1] Atemskina, Yu. V., & Bogoslavets, L. G. (2012). Modern pedagogical technologies in a preschool educational institution. St. Petersburg, Russia: DETSTVO-PRESS.

[2] Bespalko, V. P. (1989). Components of educational technology. Moscow, USSR: Pedagogika.
[3] Vinogradova, N. A., & Miklyaeva, N. V. (Eds.). (2016). Preschool education management. Moscow, Russia: Yurait.

[4] Guzeev, V. V. (1996). Educational technology: From admission to philosophy. Moscow, Russia: Sentyabr.

[5] Monakhov, V. M. (1995). Technological foundations of the design and construction of the educational process. Volgograd, Russia: Peremena.

[6] Moreva, N. A. (2007). Technology vocational education. Moscow, Russia: Akademiya.

[7] Selevko, G. K. (2006). Encyclopedia of educational technologies (Vols. 1-2). Moscow, Russia: Research Institute of School Technologies.

[8] Shalaev, I. K. (2002). Program-targeted approach to improving the effectiveness of education management: a practice-oriented concept. Barnaul, Russia: BSPU Publishing House.

[9] Shamova, T. I., Davydenko, T. M., & Shibanova, G. N. (2008). Management of educational systems. Moscow, Russia: Akademiya.

[10] Yakimanskaya, I. S. (2000). Technology of student-centered learning in a modern school. Moscow, Russia: Sentyabr.