

# Modern Methods Development for Children Additional Education



Anna Ter-Grigor'yants, Anna Babich, Elena Mezentseva

**Abstract:** *The article presents the development of additional education systems for children in the Russian Federation. In this paper presented selected and systematized modern methods and tools to ensure its accessibility for children of various categories, including children with disabilities, children living in rural areas, children from families in difficult situations, children from poor families. Current trends in the development of the pedagogical process in terms of implementing programs of additional education for children are identified, and methods for assessing the risks and consequences of upcoming transformations are developed. In the framework of the scientific work, it was established that at present, the domestic system of supplementary education for children is undergoing significant structural transformational shifts while improving the external conditions for the functioning of organizations for supplementary education of children, which is ensured by the introduction of a target model for the development of modern supplementary education systems at the level of territorial entities. The development of a methodology for the accessibility of additional education for children of various categories is largely determined by the use of modern methods, tools, and means of implementing the pedagogical process, taking into account the needs and characteristics of children of various categories. The scientific novelty of this work lies in the development of theoretical and methodological provisions for improving the pedagogical process of implementing educational programs to increase the level of accessibility of additional education for children of various categories.*

**Keywords:** *Additional education, children, modern methods, children of various categories*

## I. INTRODUCTION

The modern system of additional education of children (hereinafter - AEC), in contrast to the standardized system of general education, is focused on the implementation of the individual choice of each child in accordance with his natural inclinations, abilities and interests, as well as regardless of his place of residence and socio-economic status of the family.

The social-educational institute of AEC is less regulated, more flexible and capable of implementing the ideas of

varied education, creating a developing environment, modeling dialogic, subject-subject relations between teachers and children, creating a situation of choice and success for each child. The search development mode can be fully realized precisely in the additional education of the child, designed to ensure his personal growth, self-determination in life, the disclosure of creative potential, as well as the improvement of specific learning outcomes [1]. At the same time, the existing social environment and market conditions do not allow to fully provide alternative opportunities to all categories of children, including children with disabilities (hereinafter CWD), children living in rural areas, children from families in difficult life situation, children from low-income families equally. The issues of accessibility of supplementary education programs for children have been repeatedly raised in the works of such researchers as Anufrieva OI, Evladova EB, Zolotova AV, Lebedeva O.I., et al. [2,3,4,5,6,7,8,9], however, the issues of improving the components of the pedagogical process in order to increase the availability of additional education for children of various categories remain poorly understood. Particularly important is the task of improving the methods, tools, and means used by teachers of continuing education to ensure the accessibility of further education for children of various categories.

## II. MATERIALS AND METHODS

In the research process, the works of domestic scientists and practitioners in the field of AEC were used, in particular, such authors as Sokolova N.A. Anufrieva, O. I. Buylova L.N., as well as the work of foreign researchers, including., Ulyanova, I.V., Francisco, S., Langelotz, L. Erofeeva M.A. And other. The empirical information base of the study was the official data of the Federal State Statistics Service of the Russian Federation The study is based on the use of a systematic approach to the studied object. In the process of considering and studying the system of additional education of children, general scientific methods of theoretical knowledge were used: methods of statistical and logical analysis and synthesis, comparison, deduction and generalization, the technology of structural and graphical modeling.

## III. RESULTS AND DISCUSSION

According to the results of the analysis of the statistical summary reporting annually generated and published by the Ministry of Education of the Russian Federation, it was revealed that in 2018 about 10.3 million children were enrolled in additional educational programs in the following areas: artistic, environmental,

Revised Manuscript Received on October 30, 2019.

\* Correspondence Author

**Anna Ter-Grigor'yants\***, Department of Economic Security, Accounting and Audit of the North Caucasus Federal University, Stavropol, Russia. Email: ann\_ter ann\_ter@mail.ru

**Anna Babich**, Department of Economic Security, Accounting and Audit of the North Caucasus Federal University, Stavropol, Russia. Email: Babich@mail.ru

**Elena Mezentseva**, Department of Economic Security, Accounting and Audit of the North Caucasus Federal University, Stavropol, Russia. Email: Mezentseva@mail.ru

© The Authors. Published by Blue Eyes Intelligence Engineering and Sciences Publication (BEIESP). This is an [open access](https://creativecommons.org/licenses/by-nc-nd/4.0/) article under the CC BY-NC-ND license (<http://creativecommons.org/licenses/by-nc-nd/4.0/>)

biological, technical, sports, tourism and regional studies, military-patriotic, sports-technical, etc. At the beginning of 2019, 12,285 state and 450 non-state organizations were functioning in the domestic AEC system, 266.3 thousand teachers were involved, Hologic workers. The share of children aged 5 to 18 years enrolled in additional education in 2018 was 71% [10].

In 2018, compared with 2015, the domestic AEC system shows significant transformational shifts by property sectors (a decrease in the share of state institutions is accompanied by a simultaneous increase in the share of non-governmental organizations), as well as improvements in the environmental conditions of AEC organizations due to the introduction of a target model at the level of the constituent entities of the Russian Federation the development of modern systems of

continuing education (as financial support for its implementation, 36 were allocated from the Federal budget in 2017 - 2018 0.9 million rubles) [10]. Such a reform of the AEC system, on the one hand, allows solving many organizational and managerial issues in terms of improving the institutional environment for the implementation of programs of additional education for children, on the other hand, complicates the process of providing the possibility of providing additional education services for certain groups of students. Thus, the availability of services of organizations of AEC in rural areas does not reach the level of 20% in state and 5% - non-state institutions.

The results of the analysis of the dynamics of children's education in continuing education programs in the Russian Federation are shown in Table I.

**Table- I: Children involved in institutions of additional education in the Russian Federation 2016-2018**

Categories of children	The number of children involved in AEC institutions, thousand people						Growth rate 2018 to 2016, %	
	2016		2017		2018		Total	of which in rural areas
	Total	of which in rural areas	Total	of which in rural areas	Total	of which in rural areas		
TOTAL involved in AEC programs	11003,30	2165,49	10741,65	2145,89	10359,33	2125,24	94,15	98,14
<b>STATE EDUCATIONAL INSTITUTIONS</b>								
Total involved	10916,81	2162,85	10634,25	2144,21	10210,09	2117,85	93,53	97,92
including								
children with disabilities	134,39	18,65	149,30	19,42	150,21	20,35	111,77	109,12
orphans and children left without parental care	60,52	18,44	54,14	16,52	48,87	15,14	80,75	82,10
<b>NON-STATE EDUCATIONAL INSTITUTIONS</b>								
Total involved	86,49	2,64	107,40	1,68	149,24	7,39	172,55	279,92
including								
children with disabilities	0,29	0,04	0,58	0,03	1,12	0,04	386,21	100,00
orphans and children left without parental care	0,14	0,00	0,14	0,00	0,90	0,12	642,86	-

Comparing the data with the materials of the general population of subjects of analysis provided by the Federal State Statistics Service, the following conclusions can be drawn: the level of accessibility of AEC services for children with disabilities and children with disabilities in 2018 amounted to 3.12% of the total population of children of this category in the country; the level of accessibility of AEC services for orphans and children left without parental care in 2018 amounted to 3.36% of the total population of orphans; In 2017, more than 5 million children aged 5 to 18 years of various social categories living in rural areas in the Russian Federation are not involved in the AEC system.

For the successful implementation of the strategic goals of the state in the studied area, it is advisable to determine the main tasks of the activities of microenvironment entities, namely, AEC organizations:

- 1) at the level of the teacher - the creation of new practices of additional education (programs, projects, technologies, etc.), ensuring an increase in its accessibility and quality;
- 2) at the management level - the creation of a set of measures (conditions) aimed at increasing the coverage of children with additional education programs and ensuring their accessibility and quality [11].

Having studied the theoretical and practical characteristics of the organizational and managerial conditions for the functioning of AEC organizations, as well as having modeled the systemic relationships between the components of the pedagogical activity of their employees, in the framework of this study we consider it necessary to single out the following

components of the pedagogical process in the AEC system:

- organizational (substantive) component: development of a value-targeted model for the integration of the components of the pedagogical process in accordance with the main functions and tasks of the AEC system; creation of a target “map” of child development within the educational organization;
- the providing component: psychological, educational, technical, didactic, health-saving support for the educational (educational) process in the team. Organization of a continuous process of teacher training;
- constructive and variable components: designing by the teacher of their own activities and student activity, taking into account the psychophysical and social factors of the audience: the development of a high level of pedagogical skill. Selection and application of innovative variable methods, tools and means of ensuring the availability of AEC of various categories;
- correctional component: psychological, medical and pedagogical support of children with disabilities, children with disabilities, orphans, aimed at correcting and compensating for deviations in physical and (or) mental development. Application of technology of differentiation and individualization of education;



- activity component: the implementation of the mechanism for teaching children of various categories through direct and indirect interaction of the teacher and students using the previously indicated methods and forms of teaching, implemented within the framework of the selected value-target model;

- effective and diagnostic components: evaluation of the effectiveness of the implementation of the AEC program. Identification and classification of typical difficulties encountered by the child of each social category in the development of the AEC program;

- information component: providing information received as a result of the teacher's practical activities to the head of the AEC organization and parents through internal and external interaction networks in order to stimulate the involvement of children of various categories in the AEC system.

Each of the components of the pedagogical process is characterized by a combination of methods, tools and means of ensuring the availability of additional education for children of various categories. So, the providing, variational and correctional components in the complex reflect the need to use tools to ensure the availability of AEC, implemented by creating special conditions:

a) for students with visual impairments:

- adaptation of the official websites of organizations engaged in educational activities on the Internet, taking into account the special needs of the visually impaired;

- placement in the accessible for students who are blind or partially sighted places and in an adapted form (taking into account their special needs) reference information on the schedule of lectures and training sessions;

- the presence of an assistant who provides the necessary assistance to the student;

- ensuring the release of alternative formats of printed materials or providing access for a blind student and using a guide dog to the building of an educational organization with space for a guide dog during the student's training hours; [12]

b) for students with hearing disabilities by ear:

- duplication of visual reference information on the training schedule in sound form - installation of monitors with the ability to broadcast subtitles;

- providing appropriate sound means for reproducing information;

c) for students with severe speech impairment:

- training in the educational class for additional programs with the mandatory presence of speech therapy support, carried out in collaboration with a speech therapist teacher with a teacher AEC;

- individual pace of learning and promotion in the educational space for different categories of children with speech impairments;

- the use of specialized computer technologies, didactic manuals, visual means, ensuring the implementation of "workarounds" of the corrective effect on speech processes, increasing the control of oral and written speech;

- training in the ability to choose and apply adequate communication strategies and tactics;

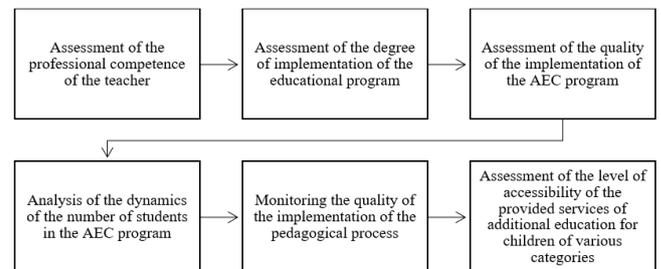
e) for students with mental retardation:

- ensuring the corrective and developing orientation of training within the framework of additional educational

areas;

- providing a special spatial and temporal organization of the environment in additional education classes, taking into account the functional state of the central nervous system and the neurodynamics of mental processes in students with mental retardation (fast exhaustion, low working capacity, reduced general tone, etc.);

- providing continuous assistance in understanding and expanding the context of the knowledge acquired in the process of further education, in consolidating and improving mastered skills [13]. Methods, tools and means to create conditions for the availability of AEC, taking into account the needs and characteristics of children living in rural areas, are aimed at improving the organizational, diagnostic and supporting components of the pedagogical process, including the creation of conditions for basic professional retraining of teachers in rural areas, as well as the use by teachers in their activities of training and modular educational forms. As a result, to evaluate the level of accessibility of additional education for children of various categories, it is recommended to use the following algorithm of actions (Fig. 1).



**Fig. 1. Algorithm for the analysis of the pedagogical process in additional education of children**

In the process of assessing the professional competence of teachers, the proportion of teachers who have undergone advanced training, who participated in conferences and seminars is taken into account; the number of teachers with publications, methodological developments developed over the academic year [14]. The degree of implementation of the educational program refers to the level of implementation of the content of the educational program (the ratio of planned and actually issued topics), as well as the level of completeness of the program (ratio of actually issued hours and planned for the educational program) [15]. The quality of the implementation of the program, the effectiveness of training is determined by the level of assimilation by children of the educational program, determined through monitoring. It is understood as observation of students, oral and written surveys of students, questionnaires, students presenting research projects, portfolios, etc [14]. The monitoring tasks in the system of additional education of children are as follows: to determine the main indicators and technology for tracking processes occurring in the pedagogical and educational environment, and not the results; identify the horizons of the immediate development of the child, the social environment of students and the transformations taking place in it; adjust the actions of the teacher taking into account the processes and phenomena of the pedagogical environment;

implement an individual approach to the formation of content and the pace of development of each child; evaluate the achievements of the teacher and the child not from the point of view of the positive, but the maximum possible developmental effect; identify and record not only expected, predicted results, but also unexpected, random, negative, so that you can see the real processes in their entirety [1].

In general, an assessment of the level of accessibility of the provided DOD services should be carried out taking into account previously obtained indicators in quantitative and qualitative terms. Qualitative assessment is carried out by an expert (in his absence, a methodologist) of the educational organization based on the completion of the pedagogical cycle. Assessment of the quantitative parameters of the impact of tools on goals should be decided by compiling a multifactor model for regulating the pedagogical process and calculating indicators of the multipliers of the methods, tools and means used to ensure the accessibility of additional education for children.

The indicator “elasticity of the multiplier for ensuring the accessibility of additional education for children” shows how many percent the goal value will change when the tool changes by 1%. As a result, the multiplier effect allows us to determine the presence of such transmission mechanisms in the pedagogical process, under the influence of which the final result repeatedly overlaps the initial in any component and demonstrates the interconnection and mutual influence of all structural elements of the system for ensuring the accessibility of additional education for children of various categories.

#### IV. CONCLUSION

Ensuring the accessibility of additional education for children of various categories is one of the most important aspects of the socialization of the young generation. The developed methodological provisions for the analysis of the accessibility of additional education for children are based on a step-by-step assessment of the results of using a combination of appropriate methods and tools adapted for children of various categories, which will not only improve the internal pedagogical process of the educational organization, but also build an information base for the implementation of the state policy to increase the availability of additional children's education in general.

#### ACKNOWLEDGMENT

The study was conducted as part of the project “Expert assessment of the accessibility of additional education for children, taking into account the needs and characteristics of children of various categories (including children with disabilities, children living in rural areas, children from families in difficult situations, children from low-income families)” (state contract No. 06.S05.11.0005 dated July 2, 2019).

#### REFERENCES

1. N. A. Sokolova, *Pedagogy of additional education of children: textbook. allowance for students. ped universities*. Chelyabinsk. Publishing house Chelyab. state ped University, 2016.

2. V. P. Musina, Social support for children from dysfunctional families on the example of a teenage center. *Psyjournal*. SPb, 2016. No. 2(22). pp. 89–95.
3. O. I. Anufrieva, Additional education of children and adults. *Secondary vocational education*. 2018. 4. pp. 19–22.
4. E. B. Evladova, L. G. Loginova, N. N. Mikhailova, *Additional education of children*. M. Vados, 2015.
5. Social educator and dysfunctional family. How to help a child?. *Bulletin of psychosocial and correctional rehabilitation work*. 2018. 1. pp. 78.
6. O. E. Lebedev, *Further education of children: textbook. allowance for students*. higher textbook. Institutions. M. Vados, 2015.
7. L. V. Bayborodova, Pedagogical provision of accessibility of additional education for rural schoolchildren. *Educational panorama*. 2018. 1(9). pp. 28–33.
8. N. A. Morozova, *Additional education - a multi-level system in the continuous education of Russia*. M. MGUP, 2017.
9. V. N. Chupanov, Education in the system of extracurricular, additional education of students. *Further education*, 2015. 4. pp. 3–13.
10. The Ministry of Education of the Russian Federation. Available: <https://edu.gov.ru/>
11. M. A. Erofeeva, I. V. Ulyanova, I. V. Plakhotnikova, Y. E. Kurilyuk, V. A. Egorov, I. G. Kochetkov, Reforming and developing socialization of children with limited abilities (mild intellectual disability). *Electronic Journal of General Medicine*, 2019. 16(2).
12. E. Sjølie, S. Francisco, L. Langelotz, Communicative learning spaces and learning to become a teacher. *Pedagogy, Culture and Society*, 2019. 27(3). pp. 365–382.
13. V. L. I. Ushvitskiy, T. A. Kulagovskaya, A. A. Ter-Grigor'yants, I. V. Solov'yeva, A. A. Babich, The use of multivariate statistical analysis methods in the process of tangible assets assortment optimization. *Indian Journal of Science and Technology*, 2016. 9(14). pp. 935-943.
14. L. N. Buylova, The technology for developing and assessing the quality of additional general educational general development programs: a new time - new approaches. *Toolkit*. M, 2015.
15. A. V. Zolotareva, Management of an educational organization. *The development of institutions of additional education for children: a textbook*. M, 2018.

#### AUTHORS PROFILE



**Anna Ter-Grigor'yants**, Professor, Department of Economic Security, Accounting and Auditing, North Caucasus Federal University; Doctor of Economic Sciences. Research interests: Problems of innovative development of socio-economic systems.



education management.

**Anna Babich**, Associate Professor, Department of Economic Security, Accounting and Auditing, North Caucasus Federal University, Ph.D. in Economics, Associate Professor. Research interests: Sustainable functioning of the economy: concepts, principles, mechanisms. Theoretical and practical aspects of



**Elena Mezentseva**, Associate Professor, Department of Economic Security, Accounting and Auditing, North Caucasus Federal University, Ph.D. Research interests: Formation and development of a modern educational information environment.

