

## Optimization of Russian primary school graduates' self-esteem in the personality-developing learning environment

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### ABSTRACT

The article reveals the capacity of the designed personality-developing learning environment for optimizing the establishment of self-esteem among the fourth-grade pupils of Russian primary school graduates. Negative manifestations in the development of self-esteem of children in the fourth year of schooling along with insufficient knowledge of the environmental approach to the formation of self-esteem of fourth-grade pupils, make the material of the work relevant. The theoretical basis of the article is psychological and pedagogical research of Russian scientists in the field of the educational environment and self-esteem of schoolchildren. The author provides the content of an empirical research study. There were 213 fourth-grade schoolchildren took part. It reveals the embodied conditions and opportunities aimed at improvement of fourth-grade pupils' self-esteem in each of the components of the experimental educational environment. The study proven that the personality-developing educational environment had a positive and statistically reliable effect on the level of self-esteem of the fourth-grade schoolchildren, as well as on the level of their aspirations. Research materials are useful for educational practice to optimize the personal growth of students aged 10-11 years.

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## 1. INTRODUCTION

The keynote vector and the purpose of renovation of modern Russian education is the transition from a cognitively oriented paradigm to an orientation towards the human personality. The priority of learner's personality growth is fixed in the latest state educational standards of Russia and makes the matter of scientific search for ways to ensure this requirement topical. This issue is great importance for the primary level of school education. It lays the foundation for further learning and personal growth especially for fourth-grade student's primary school. According to psychological studies, Russian fourth-grade schoolchildren show a certain number of negative manifestations in personal growth, which include: i) A decrease of learning and cognitive motivation [1]; ii) An increase in anxiety associated with the transition to primary school [2]; iii) A decrease in the role of positive emotions in interactions schoolchildren and learning environment [3]; iv) As well as an increase in the number of rigid stereotypical and inadequate self-assessments [4]; v) A slight decrease in self-esteem against the background of an increase in reflexivity and

self-criticism [5]. The reasons for these facts are the age-related psychological changes of fourth-grade pupils associated with the gradual transition to adolescence, as well as imperfections in the learning process [5]–[8].

Notoriously, self-esteem is one of the central pivotal formations of the personality, influencing the formation of other component parts of it, so as the pupils' high achievements at school. Therefore, the issue of optimizing the growth of self-esteem in fourth-grade school students is of a particular relevance and importance. The analysis of the literature written in Russian allows to assert it. To date, significant experience has been accumulated in the formation of self-esteem of primary school students. It is including students of the fourth grade, by means of specific techniques, exercises, technologies, mainly in learning activities that is with the aid of the didactic approach. The environmental approach, which has proven its effectiveness for solving a whole range of problems of personality development of primary school students. Motivation of self-knowledge, subjectivity, self-actualization, tolerance and orientation [9]–[13] have not been studied as a mean of optimization of fourth-grade students' self-esteem. In the meantime, it is the environmental approach that allows using not just the didactic resources but also the abilities of the spatial-subject and social components of the learning environment. At the same time, this approach allows working with all the subjects of the learning environment (schoolchildren, teachers, parents). The mentioned information makes it relevant to study the possibilities of the environmental approach for the formation of a positive self-esteem of Russian pupils of the fourth grades.

In Russian psychological and pedagogical science, self-esteem is considered as one of the most important, pivotal constructs (components) of the personality. Analysis of the literature allows to state a high variability in defining the concept of "self-esteem" in Russian theoretical psychological and pedagogical publications. Molchanova systematized different points of view on the essence of the phenomenon of "self-esteem" and identified three main approaches to its study [4].

Within the framework of the first approach, self-esteem is considered as an affective part of the "one's self-concept" and is interpreted as an "emotional-value" attitude towards oneself. This approach is the most widespread among Russian authors. In the context of the second approach, self-esteem is defined as the consistency between the real and ideal "self" and as a regulatory aspect of the "one's self-system". Representatives of the third approach regard self-esteem as a type or a level of the development and establishment of self-attitude and self-knowledge, emphasizing its evaluative aspect of oneself. Note that the approaches highlighted by Molchanova do not exclude, but complement each other, especially because of the reason that most of the scientists point out the complexity and integrative role of the phenomenon of self-esteem, so as its multifunctionality [4].

The modernization of Russian education, the introduction of new Federal State Standards, including the ones for primary stage of school education, emphasizing the priority of personal development. They have significantly increased the interest of scientists in the issue of younger students' self-esteem. Over the last 10 years, a substantial body of dissertation psychological and pedagogical research in this scientific field has appeared [14]–[17].

To date, Russian psychological and pedagogical research has collected a wealth of empirical material that reveals various aspects of the development of self-esteem in primary school students. The following information was studied in the number of works: i) The dynamics of the development of self-esteem in primary school age from year one to year four [5], [14], [18]; ii) Psychological characteristics of younger schoolchildren with different levels of self-esteem [19]–[22]; iii) Specific nature of self-esteem of junior schoolchildren with mental retardation [23]; iv) Features of self-esteem of exceptionally gifted primary schoolchildren and the ones with a high level of intellectual development [24]; v) The distinctiveness of self-esteem and the conditions of its formation among junior schoolchildren deprived of parental care and brought up in orphanages [25]; vi) Ethno-psychological specificity of the self-esteem of Russian primary schoolchildren [26].

A vast majority of authors referred to assessment activity of a teacher and academic achievements of a child in the learning activity as to the main factors influencing the formation of self-esteem of primary schoolchildren. In doing so, it has been proven that by the fourth year of primary school the orientation of schoolchildren towards the assessments of the significant peer increases. Meanwhile, influence of teachers and peers' grades and assessments on pupils' self-esteem becomes almost the same [5], [14], [27]. The growing importance of peers is a distinctive feature of adolescence. Larina determined that by the fourth grade a certain number of rigid, stereotypical inadequate cognitive self-assessments which are not mediated either by the complexity of the task, or by the real results of its implementation increases [17]. This fact underlines the relevance of the specific work to optimize the self-esteem of fourth-grade pupils.

Special attention should be paid to publications that reveal the influence of parental communication, family education and emotional closeness with the mother on the self-esteem of a younger pupil [28]–[30]. It is proven that the optimal level and adequacy of self-esteem of an elementary school student are related to such characteristics of parental interaction as cooperation, acceptance, contentment with the relationship with

a child and emotional closeness. Excessive number of restrictions and penalties in relation to a child, educational confrontation in the family, low culture of self-expression among parents so as emotional coldness negatively affect the self-esteem of younger schoolchildren. The results of these studies emphasize the importance of work that should be conducted with parents in the context of increasing their educational competence as one of the directions for optimizing the self-esteem of elementary school students.

Publications that reveal the relationship between self-esteem of a primary school student and other components, such as characteristics of the personality, and in particular the relationship between self-esteem and anxiety are of significant interest of our work [7], [21], [26]. It has been ascertained that primary school students are characterized by a correlation between high levels of anxiety and low self-esteem. Consequently, in order to optimize the level of self-esteem of primary schoolchildren and in particular fourth-grade students special work is needed in order to reduce child anxiety and increase self-confidence.

Likewise, within the context of the research by Prikhozhan [7] is a significant interest. By the end of primary school (fourth grade), the number of connections between the characteristics of the level of aspirations and self-esteem increases significantly. Therefore, in the process of diagnosing fourth-grade students, attention should be paid to both the level of self-esteem and the level of aspirations.

The analysis of the psycho-didactic publications made it possible to highlight and summarize successfully tested in practice means, methods, techniques, exercises, and technologies. It is facilitating the formation of the positive characteristics of a primary school student's self-esteem, most particularly the normalization of the level of its adequacy and differentiation. In a number of studies has been proven the efficiency of influence of involving the children in learning and creative collaborative activity, causing positive emotions, on the self-esteem of primary schoolchildren [14], [31], [32], ensuring the situations of success in the activity [33]–[35].

The ones that optimize the primary student's self-esteem are the situations of making a choice in learning activity, differentiated according to the levels of task complexity [14], [36], exercises for determining the criteria of self-esteem, conducting and applying the algorithms of self-esteem [15], [16], [33]. Previous work also studied the application of a multi criterial system of assessment in the teacher's work [37]. Material and moral pedagogical incentives, such as encouraging signs, awards, letters of appreciation addressed to children and their parents, the board of accomplishments, praise, gratitude, and public opinion [14], [15], [33], [37] mitigate the low self-esteem of a primary schoolchild. The use of personal-oriented pedagogical technologies, such as project and portfolio technologies have a positive effect on the adequacy of primary schoolchildren's self-esteem [31], [35], [38]. The effectiveness of indirect influence on the primary schoolchildren's self-esteem through interaction between the school and parents (training, education) with the aim of reaching (creating) the unity of requirements to the formation of learners' self-esteem, has been proven [14], [19], [30].

The variety of means, techniques, technologies that have a positive effect on the self-esteem of primary school students. The influence of most of them has been mainly studied separately from each other, fragmentarily, that from our perspective does not allow achieving more significant results. Moreover, all the analyzed studies use only the didactic components of the learning environment (exercises, techniques, and technologies in learning activity). At the same time, the abilities of spatial-subject and social components of the learning environment, able to develop students' self-esteem, remain without due attention.

The researchers believe that in order to optimize the development of self-esteem among fourth-grade schoolchildren, it is necessary to consider that we refer to fourth-grade students as to a mixed psychological age group. It includes younger students and younger adolescents, which can be noticed in the specifics of the self-assessment of fourth-graders. While implementing developmental work, it is advisable to rely on a systematic environmental approach allowing the use of the recourses of all the components of the learning environment, such as didactic, spatial-subject, and social.

The essence of the environmental approach is interpreted by us. It is following the previous works as organizing the educational environment and optimizing its influence on the personality of schoolchildren [39]–[41]. Our research studied the possibilities of an experimental personality-developing educational environment (environmental approach) for optimizing the self-esteem of fourth-grade students.

## 2. RESEARCH METHOD

### 2.1. Organization and content of diagnostics

The experimental study involved 213 fourth-grade students, with an average age of 10-11.5 years. The control group consisted of 105 pupils of four classes in the fourth year of school. Also, the experimental group included 108 fourth-grade pupils from the classes that took part in the formative experiment. The research was based on the Municipal Autonomous Educational Institution No. 186 "Author's Academic School" in Nizhny Novgorod.

The study lasted for two years (from September, 2018 to May, 2020). In the first year, the characteristics of the personal development of fourth grade pupils, including their self-appraisal outside the experimental educational environment, were studied. In the second year, the development of self-esteem and other components of the personality of fourth grade pupils was studied in the context of the implementation of an experimental local personality-developing educational environment. The diagnostics of self-assessment of fourth grade students was carried out twice a year: in September (data from the ascertaining experiment) and in the last week of April (data from the control experiment).

To diagnose the self-esteem of the fourth-grade students, the technique of Dembo, Rubinstein modified by Prikhozhan option for children 10-11 years old was used [7]. The choice of this technique is due to the following reasons: i) The methodology of Dembo, Rubinstein is based on the method of the direct assessment (direct scaling) that proved its sufficient reliability in adolescence and is widely tested in the diagnostics of primary schoolchildren; ii) Modification of Dembo, Rubinstein, performed by Prikhozhan for 10-11 years old children (option for adolescents), corresponds to the physical age of modern Russian fourth-grade students as far as it possible; iii) The methodology is rated for the corresponding age sample of Russian schoolchildren; iv) It allows to assess not only the level of self-esteem, but also the level of ambition; v) The diagnostics can be carried out frontally (that is important for large samples).

Modification of Dembo, Rubinstein, performed by Prikhozhan [7] for children 10-11 years old, contains seven scales. The first scale is training one (assessment of one's health), and the other six scales are control ones: character, intelligence, abilities, authority among peers, beauty, self-confidence. According to the instructions, schoolchildren are offered to assess themselves for each of the qualities, aspects of the personality, marking their self-esteem with a line on the scale. The children's answers on each of the scales are converted into points by measuring the length of the segment from the beginning (zero quality level) to the line marked by the test subject (the total length of the diagnostic scales is 100 mm).

Aside from self-assessment, the technique allows to assess the level of children's aspirations. Schoolchildren are asked to imagine what qualities and aspects of personality should be written on the scales, so that the tested subjects were satisfied with and proud of themselves and mark them on each line with a "cross". The answers of children, characterizing their claims, are converted into points in the same way as the answers about self-esteem.

Processing the results, the individual scores for each scale are summed up and compared with the standard values for a given age. The general level of self-esteem and aspirations of the subject is determined as low, normal (the average and high levels are referred to the norm) and very high. In addition, a comparison of the levels of self-esteem and aspirations is made. In case if the level of the respondent's aspirations is lower than the level of self-esteem, this fact indicates a conflicted attitude towards oneself or certain aspects of one's personality and requires the professional attention of psychologists and teachers [7]. In order to determine the statistical reliability of differences in the indicators of self-esteem and aspirations levels at the stages of the ascertaining and control experiment, the Pearson's Chi-squared test ( $\chi^2$ ) was used.

## 2.2. Organization and content of the formative experiment

At the stage of formative experiment during the academic year, the author's model of a personality-developing educational environment was implemented in experimental classes [11]. In our study, the personality-based developing educational environment at the final stage of primary education is a locally organized multicomponent psychological and pedagogical system integrated into the educational environment of the school. It is a multi-subject community of fourth-grade students, specialists (teachers, psychologists), and parents [13]. The target and functional purpose of this educational environment is to create conditions and opportunities for the most effective personal development of all its subjects, one of the tasks is to optimize the self-esteem of fourth-grade students. Each of the structural components of the experimental educational environment includes conditions and opportunities aimed at improving the self-esteem of fourth-grade pupils.

In the spatial-subject component of the educational environment, exhibitions of educational and extra-curricular children's achievements, personal exhibitions of works by schoolchildren were organized through the academic year. The design of exhibition areas, themes, presentation of exhibitions were discussed together with children. Tasks to be solved: attracting children's attention to their own achievements and character traits that provide them, increasing low self-esteem, stimulating self-confidence, developing the ability to choose criteria for self-assessment of the products of their work.

The psycho-didactic component of the experimental educational environment (programs, technologies, methods and forms of teaching, upbringing, development) was enriched with a number of copyright educational programs. They have passed the examination in Nizhny Novgorod State Pedagogical University named after K. Minin. It is the program "Know yourself" for fourth-grade students for the

formation of psychological competence of parents of fourth-grade students. It is also a program for the formation of psycho-didactic competence of teachers [11].

Within the program "Know yourself", it is provided for the development of various components of a fourth-grade pupil's personality, including one's self-esteem. The main form of work with children is a combined lesson that contains various psychological and pedagogical techniques and exercises, elements of training and includes different directions (educational, developmental, preventive, diagnostic). In the classroom and at home, participants of the program work with the personality-oriented portfolio (Self-Knowledge Diary). Along with it, in the classroom, other personality-oriented technologies are used. They are included learning in cooperation, technology of project activities, dialogue technologies, elements of technology for the development of critical thinking and "Theory of Inventive Problem Solving". In the framework of the program, during the year, schoolchildren are engaged in permanent basic groups that are formed on basis of sociometric research, which contributes to the comfort of children's interactions.

Tasks to be solved are the following ones: i) Actualization, enrichment and systematization of the fourth-grade students' knowledge about themselves, their inner world (including self-esteem), about age and personal characteristics, about their individuality; ii) Promoting the manifestation of the interest in oneself among the fourth-grade students, in self-knowledge, the formation of motivation for self-evaluation activity; iii) Developing children's self-activities and interpersonal communication, the formation of skills and abilities necessary for confident behavior; iv) Development of adequate, differentiated and grounded self-esteem, personal reflection; v) Stimulating the activity and initiative of fourth-grade pupils in various activities.

Basic methods and techniques: conversation, message; analytical exercises, communication exercises; observation, self-observation, analysis of specific situations of interactions between students, children and parents; role-playing game; projective drawing; brainstorming, discussion; relaxation techniques, visualization and self-regulation; techniques for increasing confidence, positive self-attitude, self-presentation; oral and written individual and group reflection, feedback; "I know-I want to know-I have found out", "Six thinking hats"; unfinished sentences, self-assessment segments, self-assessment essays, criteria tables.

The program for parents of fourth-grade students is aimed at developing the psychological competence of adults, which is necessary to optimize the personal development of children, including children's self-esteem. The tasks of the program are: i) Enrichment of parents with knowledge about the characteristics of the psychological age and personal development of fourth graders at the turn of primary and secondary school, early school age and adolescence; ii) The formation and improvement of skills and abilities of personality-oriented interaction with a child; iii) The development of parents' confidence in their own effectiveness (self-efficacy) in the process of raising and developing a child.

The main forms of work with parents within the framework of the program are a lecture, a practical seminar, group and individual consultations, remote education, and round table. Particular attention is paid to specific methods and tactics of parents. It is applied for overcoming the high anxiety of children, correcting children's underestimated self-esteem, correcting parental anxiety proper, and inadequate self-esteem.

The program for teachers is focused on the formation of psycho-didactic competence to ensure optimal personal development of fourth-grade students, including children's self-esteem. The main tasks of the program are the actualization, enrichment and systematization of teachers' knowledge about: i) The specifics of the age and personal development of students at the turn of primary and secondary schools, and about the environmental approach to optimization of the personal development of schoolchildren; ii) The formation (or actualization) of the orientation of the teachers towards the development of the child's personality as a priority goal; iii) Improvement of professional actions (analytical, diagnostic, operational, reflexive) necessary to create conditions and opportunities for personal development of fourth-grade pupils. Forms of work with teachers are included a lecture-dialogue, scientific-practical seminar, workshop, round table and individual consultations.

The emphasis in the program is made on several activities: i) The analysis of manifestations of underestimated and overestimated self-esteem of schoolchildren in educational activities and behavior (development of pedagogical observation), in children's drawings (improving diagnostic skills); ii) Analysis, interchange and generalization of modern professional tools for optimizing the self-esteem of fourth-grade students in educational activities (development of operational actions); iii) Reflection of their own competence in the development of children's self-esteem (improvement of reflexive pedagogical actions).

The social component of the experimental educational environment (interpersonal relationship, interactions of subjects of the educational environment) as conditions and opportunities for optimizing children's self-esteem includes several trainings. The trainings are for effective personality-oriented communication for fourth-grade students and teachers of the experimental educational environment. It conducted by teachers from Nizhny Novgorod State Pedagogical University named after K. Minin and school psychologists. The objectives of these trainings are: i) The development of interpersonal skills,

communication skills and communicative emotions; ii) Mastering the dialogical style of communication, techniques and practices of communication-dialogue (emphatic listening, the use of “one’s self message”, resolution of conflict situations, intonation techniques, and others); iii) Building confidence in communication with different subjects of the educational environment.

Note that all the forms, directions and methods of work that we have covered, included in different components of the educational environment. They are considered as conditions and opportunities for optimizing a fourth-grade pupil’s self-esteem. They do not contradict, do not duplicate, but complement each other, have both direct and indirect impact on children’s self-esteem.

### 3. RESULTS AND DISCUSSION

The results of studying the self-esteem of fourth-grade students in the control (C) and experimental (E) groups using the method of Dembo, Rubinstein modified by Prikhozhan [7], before and after the formative experiment are presented in Table 1. The results obtained at the stage of ascertaining experiment (at the beginning of the academic year) indicate that only about half of the fourth-grade students from the C and E groups have a normal (medium and high) level of self-esteem (20.95% and 32.38% in the C group and 22.22% and 34.26% accordingly, for the E group). A significant number of students in both groups demonstrate deviation from the norm in the development of self-esteem, namely, low and very high levels.

Table 1. Levels of self-esteem and aspirations of fourth-grade students in ascertaining and control experiments

Diagnosed indicator	Group of children		Levels (%)			
			Low	Norm	High	Very high
Self-esteem	C	Ascrt.*	20	20.95	32.38	26.67
		Contr.**	26.67	22.86	24.76	25.71
	E	Ascrt.	22.22	22.22	34.26	21.3
		Contr.	4.62	50.93	37.04	7.41
Aspirations	C	Ascrt.	11.43	11.43	42.86	34.29
		Contr.	13.33	9.53	43.81	33.33
	E	Ascrt.	10.19	15.74	45.57	28.7
		Contr.	2.78	35.19	50.92	11.11

Ascrt.\*=ascertaining experiment; Contr.\*\*=control experiment

Particularly, in the context of our study, fourth-grade students with a low level of self-esteem (20% from the C group and 22.22% from the E group) deserve special attention, which is due to the following reasons. Firstly, in numerous psychological studies it has been proven that low self-esteem has an adverse effect on the personal development of a younger adolescent and leads the child to a sense of his own inferiority. Secondly, as already noted, fourth-grade students are characterized by a slight decrease in both general self-esteem and self-esteem of certain significant qualities [14], [17], [27]. Finally, the low self-esteem of a fourth-grade student can make one’s adaptation to the middle level of the school increasingly difficult [42].

Schoolchildren with an extremely high level of self-esteem, who are not sensitive to their mistakes and third-party comments, should not be left without professional attention (26.67% from C group and 21.3% from E group). Such self-esteem, being unproductive, hinders not only successful learning, but also constructive personal development in general [4]. The diagnostic results showed that in both groups special work is required to improve the development of children’s self-esteem.

As for the level of aspirations demonstrated by fourth-grade pupils, we note that in both groups a certain number of children showed a low level of aspirations (11.43% and 10.19%). Also, a significant number of schoolchildren (34.29% from the C group and 28.7% from the E group) have a very high level of aspirations, which is more than normal. These facts reflect the unfavorable indicators in the development of the aspirations of schoolchildren and make it necessary to overcome the established problems of personal growth.

Students whose level of aspirations is lower than self-esteem require special attention. It indicates the intrapersonal conflict and determinates increased personal anxiety [7]. According to the results of diagnostics, there were identified five such people in the C group (4.76%) and 8 ones in E group (7.41%).

In order to analyze the statistical significance of differences between the control and experimental groups due to the results of diagnosing the levels of self-esteem and aspirations at the stage of the ascertaining experiment, the Pearson’s Chi-squared test ( $\chi^2$ ) was used. Empirical value of the criterion  $\chi^2$  was 0.886 for self-esteem and 1,534 for aspirations. These values  $\chi^2$  difference between C and E groups by

the levels of self-esteem and aspirations are not statistically significant. Hence, it made possible to conduct further comparisons of the results of these groups according to the revealed indicators for assessing the effectiveness of the forming experiment.

The results of the final diagnostics carried out at the end of the school year show that in the control group the number of children with a low level of self-esteem unfavorable for personal development increased (from 20% to 26.67%). The number of schoolchildren with a very high level of self-esteem decreased slightly (from 26.67% to 25.71%). Also, it must be noted, that in total, the number of students with an average and high level of self-esteem, which refers to the norm, in the control class decreased (from 53.33% to 47.629%). Overall, these facts do not give grounds to speak of positive dynamics in the development of self-esteem in fourth-grade pupils from the control group.

For experimental group a significant decrease in the number of schoolchildren with low and very high levels of self-esteem that do not belong to the norm (from 22.22% to 4.62% at a low level; from 21.3% to 7.41% at a very high level) must be noted. This fact is undoubtedly positive. Accordingly, the number of children with a medium and high level of self-esteem in the experimental group increased (from 22.22% to 50.93% and from 34.26% to 37.04%).

Changes in indicators expressing aspirations of fourth-grade students in the control group within each level are insignificant. The experimental group revealed a decrease in the number of schoolchildren with low and very high levels of aspirations (from 10.19% to 2.78% and from 28.7% to 11.11%). A corresponding increase in the number of children with an average and high level of aspirations (from 15.74% to 35.19% and from 45.57% to 50.92%) is also revealed in this group.

The formative experiment in the E group revealed that no children were found whose level of aspirations was lower than the level of self-esteem (at the stage of the ascertaining experiment there were eight of them). It has already been emphasized that such an imbalance between self-esteem and aspirations is destructive for personal development. Such children were preserved in the C group (at the beginning of the year there were five of them, at the end of the year there were four of them).

Pearson's Chi-squared test ( $\chi^2$ ) was used to determine the statistical significance of differences in the indicators of levels of self-esteem and aspirations in the C and E groups at the stages of the ascertaining and control experiments. The empirical values of the criterion are presented in Table 2. The table indicates the absence of statistically significant positive changes in the development of self-esteem and aspirations of students in the control group. In the experimental group, a positive statistically significant dynamics was established in the development of self-esteem (at the rate  $p < 0.001$ ) and aspirations (at the rate  $p < 0.001$ ) of fourth-grade schoolchildren. We find it necessary to point out that in the experimental group, unlike the control one, in addition to optimizing schoolchildren's self-esteem, statistically significant positive dynamic in other components of personalities of fourth-graders was acknowledged.

Table 2. Empirical values of the Pearson's Chi-squared test ( $\chi^2$ ) by the levels of self-esteem and aspirations (ascertaining and control experiment)

Diagnosed indicator	Empirical value of the indicator $\chi^2$		
	Comparison of the results of the C group at different stages of the experiment	Comparison of the results of the E group at different stages of the experiment	Comparison of C and E groups at the control stage
Self-esteem	2.201	31.379***	41.821***
Aspirations	0.360	20.763***	36.075***

\*\*\* $p < 0.001$

In particular, the improvement of several components is occurred. They are the emotional component of personality, leveling school anxiety of the four-grade students [11]. Improvement of learning motivation, the subjectivity of the schoolchildren was also noted. Thus, the environmental approach, unlike the unilaterally oriented didactic approach (sets of tasks, practices, technologies used during the lessons), ensures the multidimensional development of the fourth-grade student's personality.

#### 4. CONCLUSION

The research convinced that the self-esteem of fourth-grade students has specific features and a certain number of negative manifestations. It is explained by age-related psychological changes in schoolchildren during the transition to adolescence as well as imperfections in the educational process. Also, the analysis made it possible to state the insufficient knowledge of the possibilities of the systemic environmental approach to optimize the self-esteem of fourth-grade students in Russian primary schools.

During the academic year the author's model of a local personality-developing educational environment was implemented in four experimental classes in the fourth year of schooling. Each of the structural components of the experimental educational environment (spatial-subject, psycho-didactics, social) included conditions and opportunities aimed at direct and indirect improvement of self-esteem of fourth-grade students. In this way, a system approach to optimizing children's self-esteem was implemented. According to the formative experiment in the experimental group, in contrast to the control group, statistically significant positive dynamics in the levels of children's self-esteem was stated. Overall, the results obtained allow us to assert the effectiveness of the environmental approach to solving the problem of optimizing the self-esteem of fourth-grade pupils. The environmental approach employed in this research solved the issue of personal development among fourth-grade student comprehensively. It is not in a unilateral way, and ensures optimizing not just children's self-esteem, but also other components of schoolchild's personality.

## REFERENCES




- [1] L. G. Dmitrieva, A. A. Nasyrova, N. A. Kolesnikova, and M. S. Bunakova, "Psycho-Pedagogical Conditions To Increase Cognitive Activity of Junior Schoolchildren," *Bulletin of Kemerovo State University*, vol. 2, pp. 129–134, 2017, doi: 10.21603/2078-8975-2017-2-129-134.
- [2] E. S. Ibragimova, "Pedagogical conditions for regulating the alarming behavior of younger school students," Dagestanskiy Gosudarstvennyy Pedagogicheskiy Universitet, 2012.
- [3] M. V. Grigorieva, "Psychological aspects of succession of stages of general education in development adaptation abilities of pupils," *Psikhologiya obucheniya*, vol. 9, pp. 31–37, 2013.
- [4] O. N. Molchanova, *The psychology of self-esteem*. Yurayt, 2020.
- [5] A. Andreeva and O. Moskvitina, "Psychological well-being in first to fifth-graders in the context of contemporary social situation of development," *Voprosy Obrazovaniya/Educational Studies Moscow*, vol. 2019, no. 3, pp. 203–223, 2019, doi: 10.17323/1814-9545-2019-3-203-223.
- [6] T. N. Knyazeva, "Pre-adolescence as a problem of modern childhood," *Questions of psychology*, no. 6, pp. 130–140, 2011.
- [7] A. M. Prikhodko, "Diagnosis of the personal development of children of adolescence," *ANO "PEB"*, 2007.
- [8] D. I. Feldshtein, "Problems of the Growing Personality Formation in the New Historical Stage of Society Development," *The Education and science journal*, vol. 9, pp. 3–23, 2015, doi: 10.17853/1994-5639-2013-9-3-23.
- [9] Y. V. Vezetiu, "Modeling the developing educational environment in primary education system," *The Humanities*, vol. 3, no. 39, pp. 95–99, 2017.
- [10] O. V. Koma, "Formation of social skills of junior school students in the educational environment of the school," Krasnoyarskiy Gosudarstvennyy Pedagogicheskiy Universitet, 2011.
- [11] N. V. Ivanova, "Model of a personality-developing educational environment at the final stage of primary general education: theoretical and conceptual aspects," Mininsky University, 2018.
- [12] N. M. Skripnik, "The development of the subjectivity of younger adolescents in the conditions of a supportive educational environment at the stage of transition to high school," *Federal State Budgetary Educational Institution of Higher Education*, 2014.
- [13] N. Ivanova and T. Sorokina, "Educational environment approach to preventing the growth of school students anxiety in the transition from primary to secondary school," *Elementary Education Online*, vol. 21, no. 1, pp. 333–342, 2020, doi: 10.17051/ilkonline.2020.661841.
- [14] E. V. Vitushkina, "Formation of self-esteem of junior school students as a factor in achieving personal educational results," Novosibirsk State Technical University, 2015.
- [15] L. V. Izhoikina, "Formation of educational actions of self-control and self-esteem in teaching natural science in younger schoolchildren," Astafyev, V. P., 2016.
- [16] V. A. Krivova, "Subjective assessment of one's own successes and failures as a factor in the cognitive development of primary schoolchildren," Moscow City University, 2013.
- [17] A. B. Larina, "Psychological and pedagogical conditions for the formation of cognitive self-esteem of primary schoolchildren," *Immanuel Kant Baltic Federal University*, vol. 0, no. 3, 2011, doi: 10.20998/2078-7782.2018.3.09.
- [18] M. V. S. and K. Y. P. G. R. Chernova, "Dynamics of self-esteem, educational motivation and academic performance of junior schoolchildren," *Tsarskoye Selo Readings*, vol. 2, pp. 369–373, 2017.
- [19] E. O. B. and M. S. Nevzorova, "Psychological and pedagogical correction of the self-esteem of junior schoolchildren," *Science and Education*, vol. 3, no. 2, 2020, [Online]. Available: <http://opusmgau.ru/index.php/see/article/view/1957>.
- [20] E. A. B. and E. E. Marchenko, "Indicators of qualitative analysis of students' self-esteem at the border of primary school and adolescence," *Psychology of Education*, vol. 4, pp. 49–65, 2012.
- [21] E. N. Kuznetsova, "The impact of school anxiety on the development of self-esteem of fourth grade students in the context of the implementation of federal state educational standards," *Symbol of Science*, vol. 1–3, pp. 193–196, 2016.
- [22] N. N. Nikulina, "Features of the development of self-esteem in students of primary school age," in *Modern education: current issues, achievements and innovations*, pp. 181–184, 2020.
- [23] Z. N. P. and I. P. Borisova, "Features of self-esteem of children of primary school age with a delay in mental development," *M.K. Ammosov*, vol. 4, no. 12, pp. 84–90, 2018.
- [24] V. V. B. and T. I. Dobrokhodova, "Features of the personality of students with a high level of intelligence," *Problems of Modern Pedagogical Education*, vol. 59, no. 4, pp. 405–409, 2018.
- [25] M. A. Manoilova, "Psychological features of self-rating of orphans and children left without parental care," *Krasnoyarsk Science*, vol. 6, no. 11, pp. 143–152, 2013.
- [26] E. L. C. and D. V. Ivanov, "Features of personal self-esteem and anxiety of junior school students of gypsy and Russian ethnic groups," *Azimut of Scientific Research: Pedagogy and Psychology*, vol. 4, no. 17, pp. 346–349, 2016.
- [27] S. S. P. and E. N. Y. I. A. Kunitsyna, "Psychological characteristics of junior school students with different levels of self-esteem," *A.S. Pushkin*, vol. 4, pp. 75–88, 2018.






- [28] P. S. Baryaksheva, "Studying the influence of the style of family education on the self-esteem of a young student," *Ethos: natural and artificial improvement of a person*, pp. 77–81, 2019.
- [29] A. M. K. and L. Okhotnikova, "Study of the features of the influence of parenting style on the self-esteem of a young school student," *Akademická Psychologie*, vol. 1, pp. 34–39, 2019.
- [30] S. N. S. and I. V. I. O. V. Suvorova, "The influence of parental communication and family structure on the self-esteem of a young student," *Pedagogy and Psychology of Education*, vol. 3, pp. 179–188, 2017.
- [31] M. A. Bortnikova, "Formation of adequate self-assessment in junior school students by means of project activities," *Topical Issues of Psychological Practice*, pp. 62–70, 2020.
- [32] D. V. T. and O. V. Bochkareva, "Formation of adequate self-esteem of the personality of a junior school student in the process of musical and creative activity," *Musical and Artistic Culture in Education: Innovative Ways of Development*, pp. 193–196, 2019.
- [33] O. Kolesova, S. Zaitseva, and N. Zakharychev, "Modern Approaches To the Formation of Self-Esteem in Primary School Children," *Karelian Scientific Journal*, vol. 1, no. 34, pp. 24–28, 2021, doi: 10.26140/knz4-2021-1001-0006.
- [34] P. S. P. and A. V. Nevzorova, "The relationship of paired and group forms of schoolchildren's education with their self-esteem," *Current problems of psychology and pedagogy in modern education*, pp. 238–239, 2019.
- [35] S. A. R. and G. F. Shabaeva, "Portfolio as a means of forming the self-esteem of a preschool and a young student," *Pedagogical traditions and innovations in education, culture and art*, pp. 183–185, 2019.
- [36] S. V. Zaitsev, "Student choice in the educational process," *Theoretical and Experimental Psychology*, vol. 1, pp. 44–55, 2012.
- [37] A. G. P. and T. K. B. A. S. Kurbatova, "Self-esteem study as a topical direction of psychological and pedagogical research," *Perspectives of Science and Education*, vol. 1, no. 37, pp. 251–261, 2019.
- [38] A. R. Stepanova, "Project work as a means of forming the self-esteem of junior schoolchildren," *Innovative development of science and education*, pp. 160–162, 2019.
- [39] E. B. Laktionova, I. A. Baeva, A. V. Orlova, I. V. Kondakova, and A. S. Tuzova, "The role of educational environment in psychological well-being of students in specialized and general education schools," *Izvestia: Herzen University Journal of Humanities & Sciences*, vol. 197, pp. 31–41, 2020, doi: 10.33910/1992-6464-2020-197-31-41.
- [40] Y. S. Manuilov, "Environmental approach in the context of lev vygotsky's pedagogic ideas," *Vestnik of Kostroma State University. Series: Pedagogy. Psychology. Sociokinetics*, vol. 4, pp. 315–319, 2016.
- [41] W. A. Yasvin, "Formation of the theory of environment of personal development in the Russian pedagogical psychology," *Psychology, Journal of the Higher School of Economics*, vol. 17, no. 2, pp. 295–314, 2020, doi: 10.17323/1813-8918-2020-2-295-314.
- [42] O. A. Voskreskasenko, "Adaptation of Fifth Graders: Features, Factors, Pedagogical Attention to Success," *Общество: Социология, Психология, Педагогика*, vol. 10, pp. 80–83, 2020, doi: 10.24158/spp.2020.10.14.

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