

Development and Validation of the School Adjustment Scale

Margarita N. Gavrilova

Federal State Budgetary Educational Institution of Higher Education

“M.V. Lomonosov Moscow State University”, Moscow, Russia

ORCID: <https://orcid.org/0000-0002-8458-5266>, e-mail: gavrilovamrg@gmail.com

Olga A. Dmitrieva

“Shuvalovskaya School No. 1448”, Moscow, Russia

ORCID: <https://orcid.org/0000-0002-1872-1258>, e-mail: dmitrievaoa1@edu.mos.ru

Margarita S. Aslanova

Federal State Budgetary Educational Institution of Higher Education

“M.V. Lomonosov Moscow State University”, Moscow, Russia

ORCID: <https://orcid.org/0000-0002-3150-221X>, e-mail: simomargarita@ya.ru

Natalia A. Rudnova

Federal State Budgetary Educational Institution of Higher Education

“M.V. Lomonosov Moscow State University”, Moscow, Russia

ORCID: <https://orcid.org/0000-0003-2063-2892>, e-mail: rudnova.na@yandex.ru

The results of earlier studies indicate that school maladaptation is associated with a number of negative consequences, including poor academic performance, increased anxiety and unpopularity of the child among peers. However, reliable instruments for timely identification of school adaptation difficulties are not yet available in the Russian-speaking space; the use of foreign instruments is not possible due to cultural differences and peculiarities of the organisation of the educational process in different countries. This study highlights the development of a school adjustment questionnaire, including determining its optimal structure and assessing the feasibility of relying on self-reported information about school adjustment. Two identical versions of the questionnaire were developed, one for children and one for teachers. Sixteen teachers and 232 first-grade pupils participated in the study. Through a combination of exploratory and confirmatory factor analysis, a four-factor model of the teacher questionnaire was found to have the highest goodness of fit, including scales assessing cognitive activity, behaviour regulation, social inclusion and psycho-emotional stress. Data from children themselves did not prove to be reliable enough for differentiated assessment of aspects of school adaptation. The study has drawn the necessary conclusions for the further development of an instrument to assess school adaptation of children in Russia.

Keywords: school adaptation; adaptive stress; tool development; psychometric assessment.

Funding. The research was supported by the Russian Science Foundation (number 23-78-30005).

For citation: Gavrilova M.N., Dmitrieva O.A., Aslanova M.S., Rudnova N.A. Development and Validation of the School Adjustment Scale. *Psikhologicheskaya nauka i obrazovanie = Psychological Science and Education*, 2024. Vol. 29, no. 6, pp. 114—128. DOI: <https://doi.org/10.17759/pse.2024290608> (In Russ.).

Разработка инструмента оценки школьной адаптации: оптимальная структура и возможность опоры на субъективные переживания детей

Гаврилова М.Н.

ФГБОУ ВО «Московский государственный университет имени М.В. Ломоносова» (ФГБОУ ВО «МГУ имени М.В. Ломоносова»), г. Москва, Российская Федерация
ORCID: <https://orcid.org/0000-0002-8458-5266>, e-mail: gavrilovamrg@gmail.com

Дмитриева О.А.

ГБОУ Шуваловская школа № 1448, г. Москва, Российская Федерация
ORCID: <https://orcid.org/0000-0002-1872-1258>, e-mail: dmitrievaoa1@edu.mos.ru

Асланова М.С.

ФГБОУ ВО «Московский государственный университет имени М.В. Ломоносова» (ФГБОУ ВО «МГУ имени М.В. Ломоносова»), г. Москва, Российская Федерация
ORCID: <https://orcid.org/0000-0002-3150-221X>, e-mail: simomargarita@ya.ru

Руднова Н.А.

ФГБОУ ВО «Московский государственный университет имени М.В. Ломоносова» (ФГБОУ ВО «МГУ имени М.В. Ломоносова»), г. Москва, Российская Федерация
ORCID: <https://orcid.org/0000-0003-2063-2892>, e-mail: rudnova.na@yandex.ru

Авторы статьи отмечают, что в русскоязычном пространстве еще не представлено надежных инструментов для своевременного выявления трудностей школьной адаптации, в то время как применение зарубежных не представляется возможным ввиду культурных различий и особенностей организации учебного процесса в разных странах. В статье освещаются основные этапы разработки русскоязычного инструмента для оценки школьной адаптации, включая определение его оптимальной структуры и оценку возможности опоры на информацию о школьной адаптации, предоставленную самими детьми. Описываются результаты психометрического тестирования версий предлагаемого инструмента (для детей и учителей). Участниками исследования были 16 учителей и 232 ученика первых классов. Показано, что результаты проведенного исследования с сочетанием эксплораторного и конфирматорного факторного анализа дают возможность говорить о наиболее высокой пригодности четырехфакторной модели опросника для учителей. В нее вошли шкалы, оценивающие познавательную активность, регуляцию поведения, социальную включенность и психозональное напряжение учеников. Отмечается, что данные, полученные от первоклассников, следует признать недостаточно надежными для дифференцированной оценки аспектов школьной адаптации. Делается вывод о необходимости дальнейшей доработки версии инструмента для учителей в соответствии с выявленной оптимальной четырехфакторной моделью.

Ключевые слова: школьная адаптация; адаптационный стресс; разработка инструмента; психометрическая оценка.

Финансирование. Исследование выполнено при финансовой поддержке Президентской программы исследовательских проектов РНФ (номер 23-78-30005).

Для цитаты: Гаврилова М.Н., Дмитриева О.А., Асланова М.С., Руднова Н.А. Разработка инструмента оценки школьной адаптации: оптимальная структура и возможность опоры на субъективные переживания детей // Психологическая наука и образование. 2024. Том 29. № 6. С. 114—128. DOI: <https://doi.org/10.17759/pse.2024290608>

Introduction

The transition from kindergarten to school is carried out by children at different ages, depending on the specifics of the country's education system [7; 18]. The importance of this period in a child's life is emphasised by researchers all over the world [15; 28; 30]. The beginning of school education is associated with a significant restructuring of activities and daily routines [31], the adaptive response to these changes is experienced over a long period of time and is associated with psychological and physiological stress [17; 33]. Despite the significance of the problem, instruments for early identification of school adaptation problems that would successfully pass the assessment of psychometric properties are currently lacking in the Russian-language literature.

School adaptation is defined as the process of adjustment of a child to the role of a student and to various aspects of the school environment [9; 28; 31]. Its opposite is school maladaptation, which is associated with disruption of the educational process and social integration of the child [1; 19; 25; 26]. Difficulties in school adaptation can lead to a decrease in independence and learning motivation [10; 23]. The complexity of the school programme with unformed basic subject ideas may leave no opportunity to 'catch up' with peers without the intervention of specialists [3; 14; 29]. It is important to note that the formed components of psychological school readiness are not a guarantee of successful school adaptation [7; 8]. In fact, the transition from kindergarten to school is ambiguously related to school readiness: in a new social situation, children may experience difficulties in applying previously acquired skills. For this reason, it is not possible to fully rely on the

results of diagnostics of children's psychological readiness for school education in predicting the success of school adaptation [11].

The existing methods are mainly of the questionnaire type and involve obtaining data on school adjustment from parents, teachers, and, less frequently, children themselves. The most commonly used English-language instruments with relatively high validation and reliability are the School Liking and Avoidance Questionnaire (SLAQ) [24], the Teacher Rating Scale of School Adjustment (TRSSA) [13], and the Teacher Rating Scale of School Adjustment Short Form (TRSSA-SF) [12]. They assess emotional and social indicators through the child's visible behavioural displays in the classroom. In the first of them (SLAQ), the developers focused only on the child's emotional acceptance of school. Over time, the focus shifted to the child's behaviour in the classroom (TRSS). In the most recent instruments, developers have all but given up the attempts to assess the child's emotional attitude towards school and focus on the child's inclusion in the educational process (TRSSA-SF).

In the period of transition to schooling, psychological support is required to improve children's adaptive abilities and provide the necessary support [8; 20; 32]. However, the use of foreign methods is impossible due to cultural differences and peculiarities of the organisation of the educational process in different countries. The authors set the goal of the study to search for the optimal structure and development of an instrument for assessing school adaptation of primary school students.

Validation for the development of a school adjustment tool

The questionnaire developed to assess school adaptation was tested in our study. It

included items describing children's behavioural and emotional displays during lessons and breaks, related to cognitive activity, submission of behaviour to existing rules, and interaction with teachers and other children. The items were formulated based on the theoretical principles of understanding school adaptation and its components from the perspective of cultural-historical and activity-based approaches, taking into account the specifics of school education in our country [7; 10].

From the point of view of the cultural-historical approach, the transition from kindergarten to school falls during the period of differentiation of the inner and outer sides of the child's personality [4]. By the age of 7, a stable self-esteem begins to form, and at the same time there is a loss of children's spontaneity. Entering the school environment, the child faces not only new obligations and responsibilities in relation to learning activities but also new norms and values. Therefore, successful adaptation requires, on the one hand, understanding the structure of school life, rules, and requirements and, on the other hand, mastering the cultural means that will allow one to function successfully in the new environment and cope with the tasks [5]. Social interaction acquires a certain specificity. Communication becomes meaningful, and cooperation with classmates and teachers is now necessary to cope with learning tasks and feel more comfortable in the new social environment. The activity theory views school adaptation from a slightly different perspective. School learning in the framework of this theory is considered not only as the acquisition of knowledge or skills but as a complex process built on a close interweaving of motivation, goals, and learning tools available to the child [6]. The key point is the transition from play activity, which dominates in preschool age, to learning activity, which will become the leading one in this period of

development. During this period, the ability to concentrate, logical thinking, independent learning, and teamwork skills are developed. As the child matures, he or she also begins to recognise how his or her activities fit into a broader social and cultural context [6].

Like many other aspects of child development, adaptation to schooling is culturally specific [27]. When developing the instrument in this study, the frontal learning format [16] and big class sizes associated with the peak birth rate between 2014 and 2016 [21] were taken into account. During this period, the birth rate in Russia approached the 2 million per year mark, which has not happened since 1989. Therefore, up to 2024 there is a systematic exceeding of the recommended number of students in primary school classes. In the described context, a first-grader is expected to follow the rules perfectly (e.g., no noise, no talking in class, no distractions, raising the hand, sitting up straight, not bending low when writing) and to control emotions. From a psychological point of view, this should also include aspects related to children's emotional comfort. And not only during lessons, but also during breaks, when children are relaxing and socialising with each other. After all, relations with peers are important for emotional comfort and children's adjustment to school [22].

Present study

The study conducted by the authors tested several models of the School Adjustment Questionnaire and analysed the psychometric characteristics of the data collected from students and teachers. The empirical data were expected to have a three-factor (Cognitive Activity, Behaviour Regulation, Social Interaction) or four-factor structure (Cognitive Activity, Behaviour Regulation, Social Inclusion, Psycho-emotional Stress) rather than a one-factor structure.

The main research question was whether it made sense to assess psycho-emotional strain characteristics separately in addition to cognitive activity, behaviour regulation, and social interaction (which together correspond to the three-factor model) when studying school adjustment. An additional research question concerned the feasibility of relying on self-reported information about school adjustment. An additional research question concerned the possibility of relying on data presented by students themselves. Can the data obtained from first-graders using the verbal diagnostic method be considered reliable? Or the level of development of self-knowledge, reflection, and speech cannot yet ensure their reliability.

Programme and methods of the study

Participants

The study participants were 232 first-grade students from 5 public schools in Moscow and their teachers ($n=16$). The children's age at the time of the study averaged 7 years 3 months ($M=88.7$ months, $SD=6.75$ months). The ratio of children by gender was close to equal (53% girls).

Methods of the study

School adjustment

The study described tested a questionnaire developed by the authors to assess the school adjustment of primary school students. For exploratory research purposes, it was administered in two versions (for teachers and children). Both versions include 16 statements, each relating to the child's behavioural and emotional displays at school. The items of both versions were administered in the same sequence with minimal differences in wording.

Teachers were asked to complete protocols for each child. The instruction was formu-

lated as follows: 'This questionnaire is aimed at assessing the peculiarities of first-graders' adaptation to school learning. Before answering the questions, please remember how your child behaves during lessons and breaks. It is important that your assessment should be based on a general picture formed on the basis of many situations rather than on a single case of observation. The assessment is made on a 4-point scale. For each statement, choose one of the numbers depending on how well the statement corresponds to the child's behaviour at school: 0 = absolutely not typical behaviour; 1 = rather not typical behaviour, but sometimes occurs; 2 = rather typical behaviour, quite often occurs; 3 = typical behaviour, always or almost always occurs' (see Appendix).

Children were invited to a separate, quiet, bright room in the school, where they were asked to answer questions using visual stimulus material (a schematic picture of a staircase with several steps and an attractive figure) in a one-to-one conversation format. The instructions to the children were as follows: 'Think back to your typical day at school. I'm going to read you different statements, and for each one, put the figure on the step that best describes you at school. These are the steps: 0 = you never do this; 1 = you sometimes do this; 2 = you often do this; 3 = you always or almost always do this'.

Data processing

Statistical analyses were conducted using the jamovi project 2.2 computer software in several stages. First, descriptive statistics were prepared and reviewed to examine the structure of the data. Then the consistency scores of teacher and child data were calculated. The internal consistency of the scales (Cronbach's alpha) in the two versions of the methodology was assessed. Validation of the questionnaire structure was fulfilled by a combination of confirmatory and exploratory factor analysis.

Results

Descriptive statistics and consistency of data

Descriptive statistics and the results of analysing the consistency across the items and scales of the questionnaire using Cohen's kappa coefficient are presented in Table 1. This coefficient reflects a measure of the consistency of responses within each teacher-child pair, ranging from 0 to 1.

The most consistent are the data related to the learning process: the child can easily cope with tasks at the lessons; the child copes well with independent tasks; the child keeps up with the teacher's explanations and instructions; the child actively participates at the lessons, raises his/her hand, and responds; the child has a good understand-

ing of what the teacher is explaining. The statements are listed in descending order of Cohen's kappa coefficient of consistency (0.343 to 0.231). The lowest consistency was found for items related to emotional experiences and the child's demand in the children's group. Children were more likely to report experiencing joy from success in their studies, desire to learn something new, and being alone during school breaks than their teachers. Conversely, children were less likely to report feeling embarrassed when approaching the teacher or speaking in front of the class, as well as their own ability to hold back negative emotions, compared to teacher ratings.

The most expressed positive characteristics of school adjustment based on

Table 1

Descriptive statistics and measures of consistency between teacher and child responses across all questionnaire items

	Teachers		Students		Cohen's kappa (%)
	M	SD	M	SD	
The child is interested in learning new things	2.49	0.623	2.49	0.797	0.124 (50.3)
The child actively participates at the lessons, raises his/her hand, responds	2.08	0.950	1.98	0.954	0.242 (40.1)
The child can easily cope with tasks at the lessons	2.12	0.779	2.04	0.843	0.343 (44.0)
The child is happy when he/she does well in his/her studies	2.58	0.639	2.87	0.393	0.023 (61.2)
The child has a good understanding of what the teacher is explaining	2.29	0.796	2.34	0.757	0.231 (45.9)
The child breaks the rules of behaviour at school*	0.71	0.930	0.45	0.695	0.164 (54.1)
The child calls other children names or may push, hit*	0.49	0.822	0.29	0.590	0.225 (61.9)
The child handles school supplies responsibly	2.23	0.839	2.59	0.756	0.168 (44.9)
The child is able to contain negative emotions (e.g. resentment, anger)	2.30	0.849	1.69	1.099	0.026 (28.8)
The child keeps up with the teacher's explanations and instructions	2.19	0.825	1.94	0.956	0.253 (37.4)
The child copes well with independent tasks at the lessons	2.15	0.828	2.25	0.818	0.282 (36.1)
Other children want to socialise with the child	2.42	0.712	1.93	0.854	0.147 (34.0)
The child is left all alone during the school break*	0.43	0.804	0.55	0.805	0.029 (44.1)
The child is shy or anxious when answering in front of the class *	1.24	0.987	1.08	1.082	0.067 (21.1)
The child is embarrassed to approach the teacher if he/she does not understand something *	0.97	1.017	0.78	1.089	0.049 (35.4)
The child is eager to socialise with classmates	2.60	0.628	2.63	0.703	0.152 (50.3)

Note: M — mean; SD — standard deviation; Cohen's kappa (%) — Cohen's kappa coefficient with percentage agreement (in parentheses); responses to items marked with "*" were assessed on an inverse scale.

teachers' observations are the desire to communicate with classmates and the joy of success in learning. Fear to showing activity and initiative at the lessons, difficulties in performing independent tasks, and shyness when answering in front of the class are the most frequent difficulties. Children's answers point to such positive aspects of school adjustment as the joy of learning success and good behaviour. Among difficulties, unpopularity among peers, shyness when answering in front of the class and inability to restrain emotions were most frequently mentioned in children's answers.

Testing the structure of the teachers' version of the questionnaire

Factor structure

Exploratory factor analysis (maximum likelihood factorisation method in combination with Oblimin rotation) was applied to examine the actual structure of the data.

The suitability of the data for this analysis was tested using the Kaiser-Meyer-Olkin (KMO) test. The overall KMO was 0.880, which is higher than the recommended value (0.6) and indicates that the variables are not multicollinear. Bartlett's test of sphericity was significant ($\chi^2(120)=2299, p<0.001$). The number of factors was determined using parallel analysis. The minimum factor loading was established with a value of 0.4. As a result, four factors were identified (see Table 2). They correspond almost completely to the assumed four-factor structure, except for a few discrepancies. Namely, the items 'The child is happy when he/she does well in his/her studies' and 'The child handles school supplies responsibly' were not included in any of the factors. The item 'Child actively participates at the lessons' loaded two factors: 'Cognitive activity' with a loading factor of 0.416 and 'Social inclusion' with a slightly lower loading factor of 0.406.

Table 2

Factor structure of data obtained using the teacher version of the questionnaire

	1	2	3	4	Uniqueness
The child copes well with independent tasks at the lessons	0.947				0.113
The child has a good understanding of what the teacher is explaining	0.945				0.126
The child keeps up with the teacher's explanations and instructions	0.910				0.179
The child can easily cope with tasks at the lessons	0.887				0.211
The child is interested in learning new things	0.466				0.434
The child actively participates at the lessons, raises his/her hand, responds	0.416		0.406		0.331
The child calls other children names or may push, hit		0.871			0.310
The child breaks the rules of behaviour at school		0.793			0.333
The child is able to contain negative emotions (e.g. resentment, anger)		-0.560			0.573
The child handles school supplies responsibly					0.606
The child is eager to socialise with classmates			0.867		0.303
Other children want to socialise with the child			0.663		0.423
The child is left all alone during the school break			-0.440		0.771
The child is happy when he/she does well in his/her studies					0.669

	1	2	3	4	Uniqueness
The child is embarrassed to approach the teacher if he/she does not understand something				0.863	0.247
The child is shy or anxious when answering in front of the class				0.826	0.320

Internal reliability of scales and correlations between them

The internal consistency of the questionnaire scales was assessed by calculating Cronbach's alpha. The overall internal consistency is characterised by a high value (Cronbach's alpha=0.881). Testing of the three-factor structure of the questionnaire was based on the assumption that the items of the instrument version form three scales capable of providing a differentiated assessment of the following aspects of school adjustment: cognitive activity, behaviour regulation, and social interaction. As a result of testing internal reliability by calculating Cronbach's alpha, it was shown that all three scales in the teacher version of the instrument have high or acceptable internal reliability values: Cognitive activity — Cronbach's alpha=0.869, Behaviour regulation — Cronbach's alpha=0.768, social interaction — Cronbach's alpha=0.738.

The four-factor structure was tested in order to check whether it is likely that the process of school adaptation, in addition to such characteristics as cognitive activity, behaviour regulation, and social interaction (which together correspond to the three-factor model described above), should be described separately by the characteristics of the child's psycho-emotional stress. In this case, the scales 'Cognitive activity' and 'Behaviour regulation' remain unchanged, and their internal reliability indicators are identical to those obtained when testing the three-factor version of the instrument. And the third scale ('Social Interaction') is subdivided into two scales: 'Social Inclusion' and 'Psychoemotional Stress' in order to provide a more differentiated description of the first grader's social and emotional experience.

In the teacher version, the internal reliability of these two scales is characterised as close to acceptable ('Social Inclusion' — Cronbach's alpha=0.669) and high ('Psychoemotional Stress' — Cronbach's alpha=0.809).

The relationship between the scales in all the models considered was assessed using correlation analysis (Pearson's correlation coefficient). In the three-factor model, all scales were statistically significantly related to each other with a strength of association from 0.264 to 0.575 ($p < 0.001$). In the four-factor model, all scales were statistically significantly related to each other with the strength of association from 0.084 to 0.735 ($p < 0.001$), except for the scale 'Social Inclusion', which was not significantly related to the scale 'Behaviour Regulation' ($p > 0.05$).

Consistency with the theoretical model

Confirmatory factor analysis was applied to test the one-, three-, and four-factor structure of the questionnaire. A total of three models were constructed (see Table 3). In accordance with the recommendations of Hu & Bentler (1999), their accuracy was assessed by the following indicators: comparative fit index (CFI) > 0.90, standardised root mean square residual (SRMSR) ≤ 0.08, root mean square error of approximation (RMSEA) < 0.08. The goodness of fit of the four models is summarised in Table 3.

The obtained results indicate that the structure of the data obtained during the teachers' questionnaire has the greatest correspondence with the four-factor model, which includes the following scales: 'Cognitive activity,' 'Behaviour regulation,' 'Social inclusion,' 'Psycho-emotional tension.'

Table 3

Indicators of goodness of fit of estimated questionnaire models for data obtained using the teacher version of the questionnaire

Model	χ^2	df	CFI	SRMR	RMSEA (90% CI)
Four-factor model	529***	98	0.809	0.104	0.140 (0.128 — 0.152)
Three-factor model	543***	87	0.784	0.122	0.150 (0.138 — 0.162)
One-factor model	787***	104	0.699	0.125	0.168 (0.157 — 0.179)

Note: ** — $p < 0,01$, *** — $p < 0,001$.

The last step was to evaluate the suitability of the four-factor model with three changes dictated by the loadings of the exploratorily identified factors (see Table 2). Two statements that were not included in any of the factors were removed from the tested model. The item that loaded two factors was taken into account in the model as an item of the Cognitive Activity scale according to the principle of the highest factor loading. In this case, the model is characterised by high accuracy: CFI=0.923, SRMSR=0.073, RMSEA=0.097 (0.083-0.112).

Thus, the four-factor model of the questionnaire with three edits made on the basis of the actual factor configuration revealed by exploratory analysis should be recognised as the optimal model.

Testing the structure of the children’s version of the questionnaire

Factor structure

Exploratory factor analysis was also conducted following a similar pattern to reveal the actual structure of the data collected from the children. The data successfully passed the test of appropriateness for analysis: KMO=0.694; Bartlett’s Test of Sphericity ($2(120)=426$, $p < 0.001$). However, only two factors were identified that could not be considered close enough to any of the theoretically hypothesised questionnaire scales. The first is loaded only with items with positive connotations; the second is loaded only with negative connotations. The identified factor structure may be the result of the so-called ‘global self-esteem’

peculiar to preschool and primary school-age children. This indicates difficulties in obtaining a differentiated assessment of school adaptation when interviewing children.

Internal reliability of the scales and correlations between them

The data do not have an acceptable level of internal consistency when testing the one-factor model (Cronbach’s $\alpha=0.691$), the three-factor model (‘Cognitive activity’ — Cronbach’s $\alpha=0.538$, ‘Behaviour regulation’ — Cronbach’s $\alpha=0.233$, ‘Social interaction’ — Cronbach’s $\alpha=0.233$), and the three-factor model (‘Social interaction’ — Cronbach’s $\alpha=0.233$), — Cronbach’s $\alpha=0.351$) and four-factor model (‘Cognitive activity’ — Cronbach’s $\alpha=0.538$, ‘Behaviour regulation’ — Cronbach’s $\alpha=0.233$, ‘Social inclusion’ — Cronbach’s $\alpha=0.247$, ‘Psycho-emotional tension’ — Cronbach’s $\alpha=0.382$).

The intercorrelations between the scales of the children’s version of the instrument were not assessed in any of the models due to unacceptably low values of internal consistency of the scales.

Accuracy of the theoretical model of the questionnaire

Confirmatory analyses were implemented to test the potential one-, three-, and four-factor structure of the questionnaire. The results indicate that none of the three hypothesised models of the children’s version of the questionnaire has sufficient accuracy to describe the empirical findings (see Table 4).

Table 4

Indicators of goodness of fit of estimated questionnaire models for data obtained using the child version of the questionnaire

Model	χ^2	df	CFI	SRMR	RMSEA (90% CI)
Four-factor model	202***	98	0.689	0.081	0.084 (0.068 — 0.101)
Three-factor model	219***	101	0.645	0.087	0.089 (0.072 — 0.105)
One-factor model	222***	104	0.647	0.085	0.087 (0.071 — 0.103)

Note: ** — $p < 0,01$, *** — $p < 0,001$.

Discussion

Timely identification of school adaptation difficulties can significantly harmonise the process of children's transition from kindergarten to school. However, Russian-language literature today does not provide reliable tools for diagnosing school adjustment. The use of foreign instruments is not possible due to cultural differences and peculiarities of the organisation of the educational process in different countries. This study presents the results of psychometric evaluation of an instrument being developed to study the school adaptation of primary school students. The main objective of this stage was to clarify the optimal factor structure of the proposed questionnaire, as well as to assess the prospects for its use when relying on the observations of not only adults but also children themselves.

A positive answer was obtained to the main research question of the study, whether psycho-emotional stress of the child should be separately assessed in addition to cognitive activity, behaviour regulation, and social interaction when studying school adaptation. Psychometric indicators of the suitability of the developed questionnaire are improved when indicators of child tension and embarrassment are identified as a separate scale rather than as a component of social interaction. Not only does the reliability of the scales themselves increase, but also the degree of consistency of the empirical data with the described theoretical model. The greatest correspondence of the structure of the data obtained from teachers was recorded when

this model was finalised by making three corrections based on the results of factor analysis. Thus, it is reasonable to consider the following scales: 'Cognitive activity,' 'Behaviour regulation,' 'Social inclusion,' 'Psycho-emotional tension.'

The additional research question of whether it makes sense to rely on self-reported information on school adjustment for research and diagnostic purposes was answered in the negative. Psychometric validation showed that data collected from a sample of first-grade students did not differentiate between different aspects of school adjustment and could not be considered reliable. This result points to the need for cautious use of verbal diagnostic methods in diagnosing primary school-aged children. As discussed in the Introduction of this study, the low quality of the data obtained can be explained by the insufficient development of self-knowledge, reflexion and speech. Although this result is not unexpected, this work was necessary both to assess the reliability of children's observations and to understand the degree of consistency between child and teacher observations [2]. The greatest consistency of children's and teachers' answers was observed for the items that are directly related to the learning process. Responses about children's emotional experiences and their demand among peers are least consistent.

Conclusion

This article presents the results of psychometric testing of an instrument for assessing

the features of school adaptation in primary school students and determining its optimal structure. We hope that in the future this work will provide an opportunity for differentiated assessment of school adaptation processes in primary school students.

The study is limited by a relatively small sample (232 students and 16 teachers). To work on overcoming this limitation, it is possible to conduct a focus group with primary school teachers and parents of first-graders who experience difficulties

with school adaptation. This measure will provide the factual material necessary to verify the adequacy of the scales. In addition, a significant expansion of the sample, including the involvement of teachers from other regions of the Russian Federation, will also make it possible to increase the validity and reliability of the developed instrument. Nevertheless, the results of this work can already contribute to the identification and correction of school adaptation problems in primary school students.

Appendix

School adjustment questionnaire (teacher version)

Instructions

This questionnaire is aimed at assessing the peculiarities of first-graders' adaptation to school learning. Before answering the questions, please remember how your child behaves during lessons and breaks. It is important that your assessment should be based on a general picture formed on the basis of many situations rather than on a single case of observation. The assessment is made on a 4-point scale. For each statement, choose one of the numbers depending on how well the statement corresponds to the child's behaviour at school:

- 0 = absolutely not typical behaviour;
- 1 = rather not typical behaviour, but sometimes occurs;
- 2 = rather typical behaviour, quite often occurs;
- 3 = typical behaviour, always or almost always occurs

It may be difficult to give an accurate assessment for some statements. In such cases, choose what seems right to you at the moment.

№	Statements	Typical behaviour			
		0	1	2	3
1	Other children want to socialise with the child	0	1	2	3
2	The child is interested in learning new things	0	1	2	3
3	The child actively participates at the lessons, raises his/her hand, responds	0	1	2	3
4	The child can easily cope with tasks at the lessons	0	1	2	3
5	The child breaks the rules of behaviour at school	0	1	2	3
6	The child is left all alone during school breaks	0	1	2	3
7	The child calls other children names or may push, hit	0	1	2	3
8	The child is shy or anxious when answering in front of the class	0	1	2	3
9	The child is embarrassed to approach the teacher if he/she does not understand something	0	1	2	3
10	The child is able to contain negative emotions (e.g. resentment, anger)	0	1	2	3
11	The child can keep up with the teacher's explanations and instructions	0	1	2	3
12	The child has a good understanding of what the teacher is explaining	0	1	2	3
13	The child copes well with independent tasks at the lessons	0	1	2	3
14	The child is eager to socialise with classmates	0	1	2	3

Key

The questionnaire provides information on the following aspects of school adaptation: 'Cognitive activity' (items: 2, 3, 4, 11, 12, 13), 'Behaviour regulation' (items: 5*, 7*, 10), 'Social interaction' (items: 1, 6*, 14) and 'Psycho-emotional tension' (items: 8, 9). (items: 1, 6*, 14) and 'Psycho-emotional tension' (items: 8, 9).

References

1. Bushina E.V., Karimova A.M. Vzaimosvyaz' akkul'turatsii i bullinga v rossiiskikh shkolakh [The relationship between acculturation and bullying in Russian schools]. *Voprosy obrazovaniya = Educational Studies Moscow*, 2022, no. 2, pp. 33—59. DOI:10.17323/1814-9545-2022-2-33-59
2. Veraksa N.E. Detskoe razvitiye: dve paradigmy [Child development: two paradigms]. *Kul'turno-istoricheskaya psikhologiya = Cultural-historical psychology*, 2018. Vol. 14, no. 2, pp. 102—108. DOI:10.17759/chp.2018140211
3. Veraksa N.E., Airapetyan Z.V., Almazova O.V., Tarasova K.S. Longitudynoe issledovanie ponimaniya smeshannykh emocij det'mi 5—6 i 7—8 let: kognitivnyj aspekt [Longitudinal study of mixed emotions in 5—6 and 7—8-year-old children: the cognitive aspect]. *Vestnik Moskovskogo universiteta. Seriya 14. Psikhologiya = Lomonosov Psychology Journal*, 2023. Vol. (46)1, pp. 152—174. DOI:10.11621/vsp.2023.01.7
4. Vygotsky L.S. Krizis semi let [The crisis of seven years]. *Collected Works: In 6 vols. Vol. I. Moscow*, 1984, pp. 376—385.
5. Vygotsky L.S. *Pedagogicheskaya psikhologiya [Pedagogical Psychology]*. Moscow, 1926, p. 346.
6. Leontiev A.N. Stanovlenie psikhologii deyatel'nosti: Rannie raboty [The formation of activity psychology: Early works] / Edited by A.A. Leontiev, D.A. Leontiev, E.E. Sokolova. Moscow: Smysl, 2003.
7. Nisskaya A.K. Problema perekhoda k obucheniyu v shkole. Obzor mezhdunarodnykh praktik podgotovki detej, organizacii preemstvennosti obrazovatel'nogo soderzhaniya, vzaimodejstviya roditelej i obrazovatel'nykh organizacij [The challenge of transition to school. Overview of international practice of children's training, ensuring continuity of educational content, interaction between parents and educational organizations]. *Sovremennoe doshkol'noe obrazovanie = Preschool Education Today*, 2019. Vol. 1(91), pp. 18—33. DOI:10.24411/1997-9657-2018-10037
8. Nisskaya A.K., Ahmedzhanova D.R., Bajramyan R.M., Lizunova E.G. Svyaz' rannego obrazovatel'nogo i semejnogo opyta s akademicheskimi rezul'tatami detej v mladšem shkol'nom vozraste [Relations between early educational and family experiences and academic results of elementary school students]. *Psichologicheskaya nauka i obrazovanie = Psychological Science and Education*, 2023. Vol. 28, no. 5, pp. 70—84. DOI:10.17759/pse.2023280506
9. Rean A.A., Egorova A.V. Proyavlenie podrostkovoï agressii v otnoshenii uchitelya: rasprostranennost', faktory, posledstviya, profilaktika [Manifestation of teenage aggression towards a teacher: prevalence, factors, consequences, prevention]. *Natsional'nyi psikhologicheskii zhurnal = National psychological journal*, 2021. Vol. 2(42). DOI:10.11621/npj.2021.0209
10. Cukerman G.A., Venger A.L. Razvitiye uchebnoj samostoyatel'nosti sredstvami shkol'nogo obrazovaniya [Development of learning autonomy by the means of school education]. *Psichologicheskaya nauka i obrazovanie = Psychological Science and Education*, 2010. Vol. 15, no. 4, pp. 77—90.
11. Ansari A., Pianta R.C., Whittaker J.E., Vitiello V., Ruzek E. Enrollment in public-prekindergarten and school readiness skills at kindergarten entry: Differential associations by home language, income, and program characteristics. *Early Childhood Research Quarterly*, 2021. Vol. 54, pp. 60—71. DOI:10.1016/j.ecresq.2020.07.011
12. Betts L.R., Rotenberg K.J. A short form of the Teacher Rating Scale of School Adjustment. *Journal of Psychoeducational Assessment*, 2007. Vol. 25, no. 2, pp. 150—164. DOI:10.1177/0734282906296406
13. Birch S.H., Ladd G.W. The teacher-child relationship and children's early school adjustment. *Journal of School Psychology*, 1997. Vol. 35, pp. 61—79. DOI:10.1016/S0022-4405(96)00029-5
14. Burmenskaya G.V. Orienting Activity of the Subject as a Mechanism for Instruction, Learning and Development. *Psychology in Russia: State of the Art*, 2022. Vol. 15, no. 4, pp. 36—48. DOI:10.11621/pir.2022.0403
15. Chambers D., Coffey A. Guidelines for designing middle-school transition using universal design for learning principles. *Improving Schools*, 2019. Vol. 22, no. 1, pp. 29—42. DOI:10.1177/1365480218817984
16. Cheie L., Veraksa A., Zinchenko Y., Gorovaya A., Visu-Petra L. A cross-cultural investigation of inhibitory control, generative fluency, and anxiety symptoms in Romanian and Russian preschoolers. *Child Neuropsychology*, 2015. Vol. 21, no. 2, pp. 121—149. DOI:10.1080/09297049.2013.879111
17. Dimolareva M., Gee N.R., Pfeffer K., Maréchal L., Pennington K., Meints K. Measuring cortisol in the classroom with school-aged children—a systematic review and recommendations. *International Journal of Environmental Research and Public Health*, 2018. Vol. 15, no. 5, pp. 1—23. DOI:10.3390/ijerph15051025
18. Engdahl I., Pramling Samuelsson I., Årlémalm-Hagsér E. Swedish Teachers in the Process of

- Implementing Education for Sustainability in Early Childhood Education. *New Ideas in Child and Educational Psychology*, 2021. Vol. 1, no. 1, pp. 3—23. DOI:10.11621/nicep.2021.0101
19. Ermakov P.N., Kryuchkova A.S., Abakumova I.V. Psychological and Psychogenetic Characteristics of Aggressive and Hostile Strategies of Interaction with the External World of Teenagers and Young People. *Russian Psychological Journal*, 2015. Vol. 12, no. 4, pp. 137—147. DOI:10.21702/rpj.2015.4.11
20. Glzman J.M., Plotnikova A. Learning Disabilities in Primary School. How to Diagnose and Remediate with a Team Approach: The First Results. *Psychology in Russia: State of the Art*, 2021. Vol. 14, no. 4, pp. 38—50. DOI:10.11621/pir.2021.0403
21. Gromova C., Khairutdinova R., Birman D., Kalimullin A. Educational practices for immigrant children in elementary schools in Russia. *Education Sciences*, 2021. Vol. 11. Is.7. Art. no. 325. DOI:10.3390/educsci11070325
22. Gunnar M.R., Sebanc A.M., Tout K., Donzella B., van Dulmen M.M.H. Peer Rejection, Temperament, and Cortisol Activity in Preschoolers. *Developmental Psychology*, 2003. Vol. 43, no. 4, pp. 346—368. DOI:10.1002/dev.10144
23. Hanin V., van Nieuwenhoven C. An Exploration of the Cognitive, Motivational, Emotional and Regulatory Behaviours of Elementary-School Novice and Expert Problem Solvers. *Canadian Journal of Science, Mathematics and Technology Education*, 2020. Vol. 20, no. 2, pp. 312—341. DOI:10.1007/s42330-020-00092-9
24. Ladd G.W., Buhs E.S., Seid M. Children's initial sentiments about kindergarten: Is school liking an antecedent of early classroom participation and achievement? *Merrill-Palmer Quarterly*, 2000. Vol. 46, no. 2, pp. 255—279.
25. Ladd G.W., Buhs E.S., Troop W. Children's interpersonal skills and relationships in school settings: Adaptive significance and implications for school-based prevention and programs. In Smith P.K., Hart C. (eds.). *Blackwell handbook of childhood social development*. Oxford, UK: Blackwell, 2002, pp. 394—415. DOI:10.1002/9781444390933.ch10
26. Ladd G.W., Kochenderfer B.J., Coleman C.C. Friendship quality as a predictor of young children's early school adjustment. *Child Development*, 1996. Vol. 67, pp. 1103—1118. DOI:10.2307/1131882
27. Lamm B., Keller H., Teiser J., Gudi H., Yovsi R.D., Freitag C., Poloczek S., Fassbender I., Suhrke J., Teubert M., Vöhringer I., Knopf M., Schwarzer G., Lohaus A. Waiting for the Second Treat: Developing Culture-Specific Modes of Self-Regulation. *Child Development*, 2018. Vol. 89, no. 3, pp. e261—e277. DOI:10.1111/cdev.12847
28. Longobardi C., Settanni M., Prino L.E., Fabris M.A., Marengo D. Students' psychological adjustment in normative school transitions from kindergarten to high school: Investigating the role of teacher-student relationship quality. *Frontiers in Psychology*, 2019. Vol. 10 (May). DOI:10.3389/fpsyg.2019.01238
29. Podolskiy A.I. On Several Problems with the Application of P.Ya. Galperin's Classical Theory. *Psychology in Russia: State of the Art*, 2022. Vol. 15(4), pp. 22—35. DOI:10.11621/pir.2022.0402
30. Puccioni J., Baker E.R., Frolland J.M. Academic socialization and the transition to kindergarten: Parental beliefs about school readiness and involvement. *Infant and Child Development*, 2019. Vol. 28, no. 6, pp. 1—25. DOI:10.1002/icd.2154
31. Turner-Cobb J.M., Rixon L., Jessop D.S. A prospective study of diurnal cortisol responses to the social experience of school transition in four-year-old children: Anticipation, exposure, and adaptation. *Developmental Psychobiology*, 2008. Vol. 50, no. 4, pp. 377—389. DOI:10.1002/dev.20298
32. Veraksa A.N., Sidneva A.N., Aslanova M.S., Plotnikova V.A. Effectiveness of different teaching resources for forming the concept of magnitude in older preschoolers with varied levels of executive functions. *Psychology in Russia: State of the Art*, 2022. Vol. 15(4), pp. 62—82. DOI:10.11621/pir.2022.0405
33. Yang P.J., Lamb M.E., Kappler G., Ahnert L. Children's diurnal cortisol activity during the first year of school. *Applied Developmental Science*, 2017. Vol. 21, no. 1, pp. 30—41. DOI:10.1080/10888691.2016.1140578

Литература

1. Бушина Е.В., Каримова А.М. Взаимосвязь аккультурации и буллинга в российских школах // Вопросы образования [Educational Studies Moscow]. 2022. № 2. С. 33—59. DOI:10.17323/1814-9545-2022-2-33-59
2. Веракса Н.Е. Детское развитие: две парадигмы // Культурно-историческая психология. 2018. Т. 14. № 2. С. 102—108. DOI:10.17759/chp.2018140211
3. Веракса Н.Е., Айрапетян З.В., Алмазова О.В., Тарасова К.С. Лонгитюдное исследование понимания смешанных эмоций детьми 5—6 и 7—8 лет: когнитивный аспект // Вестник Московского университета. Серия 14. Психология. 2023. Т. 46. № 1. С. 152—174. DOI:10.11621/vsp.2023.01.7
4. Выготский Л.С. Кризис семи лет // Собр. соч.: В 6 т. Т. I. М., 1984. С. 376—385.
5. Выготский Л.С. Педагогическая психология. М., 1926. С. 346.
6. Леонтьев А.Н. Становление психологии деятельности: Ранние работы / Под ред. А.А. Леонтьева, Д.А. Леонтьева, Е.Е. Соколовой. М.: Смысл, 2003.
7. Нисская А.К. Проблема перехода к обучению в школе. Обзор международных практик подготовки детей, организации преемственности

- образовательного содержания, взаимодействия родителей и образовательных организаций // Современное дошкольное образование. 2019. № 1(91). С. 18—33. DOI:10.24411/1997-9657-2018-10037
8. Нисская А.К., Ахмеджанова Д.Р., Байрамян Р.М., Лизунова Е.Г. Связь раннего образовательного и семейного опыта с академическими результатами детей в младшем школьном возрасте // Психологическая наука и образование. 2023. Том 28. № 5. С. 70—84. DOI:10.17759/pse.2023280506
9. Реан А.А., Егорова А.В. Проявление подростковой агрессии в отношении учителя: распространенность, факторы, последствия, профилактика // Национальный психологический журнал. 2021. № 2(42). DOI:10.11621/prj.2021.0209
10. Цукерман Г.А., Венгер А.Л. Развитие учебной самостоятельности средствами школьного образования // Психологическая наука и образование. 2010. Т. 15. № 4. С. 77—90.
11. Ansari A., Pianta R.C., Whittaker J.E., Vitiello V., Ruzek E. Enrollment in public-prekindergarten and school readiness skills at kindergarten entry: Differential associations by home language, income, and program characteristics // Early Childhood Research Quarterly. 2021. Vol. 54. P. 60—71. DOI:10.1016/j.ecresq.2020.07.011
12. Betts L.R., Rotenberg K.J. A short form of the Teacher Rating Scale of School Adjustment // Journal of Psychoeducational Assessment. 2007. Vol. 25. No. 2. P. 150—164. DOI:10.1177/0734282906296406
13. Birch S.H., Ladd G.W. The teacher-child relationship and children's early school adjustment // Journal of School Psychology. 1997. Vol. 35. P. 61—79. DOI:10.1016/S0022-4405(96)00029-5
14. Burmenskaya G.V. Orienting Activity of the Subject as a Mechanism for Instruction, Learning and Development // Psychology in Russia: State of the Art. 2022. Vol. 15. No. 4. P. 36—48. DOI:10.11621/prj.2022.0403
15. Chambers D., Coffey A. Guidelines for designing middle-school transition using universal design for learning principles // Improving Schools. 2019. Vol. 22. No. 1. P. 29—42. DOI:10.1177/1365480218817984
16. Cheie L., Veraksa A., Zinchenko Y., Gorovaya A., Visu-Petra L. A cross-cultural investigation of inhibitory control, generative fluency, and anxiety symptoms in Romanian and Russian preschoolers // Child Neuropsychology. 2015. Vol. 21. No. 2. P. 121—149. DOI:10.1080/09297049.2013.879111
17. Dimolareva M., Gee N.R., Pfeffer K., Maréchal L., Pennington K., Meints K. Measuring cortisol in the classroom with school-aged children—a systematic review and recommendations // International Journal of Environmental Research and Public Health. 2018. Vol. 15. No. 5. P. 1—23. DOI:10.3390/ijerph15051025
18. Engdahl I., Pramling Samuelsson I., Ärelmalm-Hagsér E. Swedish Teachers in the Process of Implementing Education for Sustainability in Early Childhood Education // New Ideas in Child and Educational Psychology. 2021. Vol. 1. No. 1. P. 3—23. DOI:10.11621/nicep.2021.0101
19. Ermakov P.N., Kryuchkova A.S., Abakumova I.V. Psychological and Psychogenetic Characteristics of Aggressive and Hostile Strategies of Interaction with the External World of Teenagers and Young People // Russian Psychological Journal. 2015. Vol. 12. No. 4. P. 137—147. DOI:10.21702/rpj.2015.4.11
20. Glozman J.M., Plotnikova A. Learning Disabilities in Primary School. How to Diagnose and Remediate with a Team Approach: The First Results // Psychology in Russia: State of the Art. 2021. Vol. 14. No. 4. P. 38—50. DOI:10.11621/prj.2021.0403
21. Gromova C., Khairutdinova R., Birman D., Kalimullin A. Educational practices for immigrant children in elementary schools in Russia // Education Sciences. 2021. Vol. 11. Is.7. Art. No. 325. DOI:10.3390/educsci11070325
22. Gunnar M.R., Sebanic A.M., Tout K., Donzella B., van Dulmen M.M.H. Peer Rejection, Temperament, and Cortisol Activity in Preschoolers // Developmental Psychobiology. 2003. Vol. 43. No. 4. P. 346—368. DOI:10.1002/dev.10144
23. Hanin V., van Nieuwenhoven C. An Exploration of the Cognitive, Motivational, Emotional and Regulatory Behaviours of Elementary-School Novice and Expert Problem Solvers // Canadian Journal of Science, Mathematics and Technology Education. 2020. Vol. 20. No. 2. P. 312—341. DOI:10.1007/s42330-020-00092-9
24. Ladd G.W., Buhs E.S., Seid M. Children's initial sentiments about kindergarten: Is school liking an antecedent of early classroom participation and achievement? // Merrill-Palmer Quarterly. 2000. Vol. 46. No. 2. P. 255—279.
25. Ladd G.W., Buhs E.S., Troop W. Children's interpersonal skills and relationships in school settings: Adaptive significance and implications for school-based prevention and programs // Blackwell handbook of childhood social development / P.K. Smith, C. Hart (eds.). Oxford, UK: Blackwell, 2002. P. 394—415. DOI:10.1002/9781444390933.ch10
26. Ladd G.W., Kochenderfer B.J., Coleman C.C. Friendship quality as a predictor of young children's early school adjustment // Child Development. 1996. Vol. 67. P. 1103—1118. DOI:10.2307/1131882
27. Lamm B., Keller H., Teiser J., Gudi H., Yovsi R.D., Freitag C., Poloczek S., Fassbender I., Suhrke J., Teubert M., Vöhringer I., Knopf M., Schwarzer G., Lohaus A. Waiting for the Second Treat: Developing

- Culture-Specific Modes of Self-Regulation // Child Development. 2018. Vol. 89. No. 3. P. e261—e277. DOI:10.1111/cdev.12847
28. Longobardi C., Settanni M., Prino L.E., Fabris M.A., Marengo D. Students' psychological adjustment in normative school transitions from kindergarten to high school: Investigating the role of teacher-student relationship quality // Frontiers in Psychology. 2019. Vol. 10 (May). DOI:10.3389/fpsyg.2019.01238
29. Podolskiy A.I. On Several Problems with the Application of P.Ya. Galperin's Classical Theory // Psychology in Russia: State of the Art. 2022. Vol. 15(4). P. 22—35. DOI:10.11621/pir.2022.0402
30. Puccioni J., Baker E.R., Froiland J.M. Academic socialization and the transition to kindergarten: Parental beliefs about school readiness and involvement // Infant and Child Development. 2019. Vol. 28. No. 6. P. 1—25. DOI:10.1002/icd.2154
31. Turner-Cobb J.M., Rixon L., Jessop D.S. A prospective study of diurnal cortisol responses to the social experience of school transition in four-year-old children: Anticipation, exposure, and adaptation // Developmental Psychobiology. 2008. Vol. 50. No. 4. P. 377—389. DOI:10.1002/dev.20298
32. Veraksa A.N., Sidneva A.N., Aslanova M.S., Plotnikova V.A. Effectiveness of Different Teaching Resources for Forming the Concept of Magnitude in Older Preschoolers with Varied Levels of Executive Functions // Psychology in Russia: State of the Art. 2022. Vol. 15(4). P. 62—82. DOI:10.11621/pir.2022.0405
33. Yang P.J., Lamb M.E., Kappler G., Ahnert L. Children's diurnal cortisol activity during the first year of school // Applied Developmental Science. 2017. Vol. 21. No. 1. P. 30—41. DOI:10.1080/10888691.2016.1140578

Information about the authors

Margarita N. Gavrilova, PhD in Psychology, Research Associate, Department of Educational Psychology and Pedagogy, Faculty of Psychology, Lomonosov Moscow State University, Moscow, Russia, ORCID: <https://orcid.org/0000-0002-8458-5266>, e-mail: gavrilovamrg@gmail.com

Olga A. Dmitrieva, Director, State Budgetary Educational Institution Shuvalovskaya School № 1448, Moscow, Russia, ORCID: <https://orcid.org/0000-0002-1872-1258>, e-mail: dmitrievaoa1@edu.mos.ru

Margarita S. Aslanova, PhD in Psychology, Research Associate, Department of Educational Psychology and Pedagogy, Faculty of Psychology, Lomonosov Moscow State University, Moscow, Russia, ORCID: <https://orcid.org/0000-0002-3150-221X>, e-mail: simomargarita@ya.ru

Natalia A. Rudnova, PhD (Psychology), Research Associate, Faculty of Psychology, Department of Psychology of Education and Pedagogy, Lomonosov Moscow State University, Moscow, Russia, ORCID: <https://orcid.org/0000-0003-2063-2892>, e-mail: rudnova.na@yandex.ru

Информация об авторах

Гаврилова Маргарита Николаевна, кандидат психологических наук, научный сотрудник кафедры психологии образования и педагогики факультета психологии, ФГБОУ ВО «Московский государственный университет имени М.В. Ломоносова» (ФГБОУ ВО «МГУ имени М.В. Ломоносова»), г. Москва, Российская Федерация, ORCID: <https://orcid.org/0000-0002-8458-5266>, e-mail: gavrilovamrg@gmail.com

Дмитриева Ольга Александровна, директор, ГБОУ Шуваловская школа № 1448, г. Москва, Российская Федерация, ORCID: <https://orcid.org/0000-0002-1872-1258>, e-mail: dmitrievaoa1@edu.mos.ru

Асланова Маргарита Сергеевна, кандидат психологических наук, научный сотрудник кафедры психологии образования и педагогики факультета психологии, ФГБОУ ВО «Московский государственный университет имени М.В. Ломоносова» (ФГБОУ ВО «МГУ имени М.В. Ломоносова»), г. Москва, Российская Федерация, ORCID: <https://orcid.org/0000-0002-3150-221X>, e-mail: simomargarita@ya.ru

Руднова Наталья Александровна, кандидат психологических наук, научный сотрудник кафедры психологии образования и педагогики факультета психологии, ФГБОУ ВО «Московский государственный университет имени М.В. Ломоносова» (ФГБОУ ВО «МГУ имени М.В. Ломоносова»), г. Москва, Российская Федерация, ORCID: <https://orcid.org/0000-0003-2063-2892>, e-mail: rudnova.na@yandex.ru

Получена 15.02.2024

Принята в печать 30.12.2024

Received 15.02.2024

Accepted 30.12.2024