

**SCTMG 2020****International Scientific Conference «Social and Cultural Transformations in the  
Context of Modern Globalism»****FINAL TESTS IN PRIMARY SCHOOL: THROUGH TESTS TO  
STRESS**

Cherdyntseva Evgeniia Valerievna (a)\*, Ozhogova Elena Gennadevna (b), Murzina Natalia  
Pavlovna (c), Luchina Tatiana Ivanovna (d), Zhestkova Elena Aleksandrovna (e)

\*Corresponding author

(a) Omsk State Pedagogical University, 14, Tukhachevsky Embankment st., Omsk, Russia,  
CherdyncevaEV@rambler.ru

(b) Omsk State Pedagogical University, 14, Tukhachevsky Embankment st., Omsk, Russia,  
oeg80@yandex.ru

(c) Omsk State Pedagogical University, 14, Tukhachevsky Embankment st., Omsk, Russia,  
npmurzina@mail.ru

(d) Omsk State Pedagogical University, 14, Tukhachevsky Embankment st., Omsk, Russia

(e) Nizhny Novgorod State University named after N.I. Lobachevsky (Arzamas branch), 36, st. K. Marx, Russia  
Arzamass, ezhestkova@mail.ru,

***Abstract***

The article reveals the scientific approaches to the organization of testing of primary schoolchildren, the attitude of teachers, the public and officials to the final tests in elementary schools abroad and in Russia. The connection between the testing procedure in order to final assess the results of primary school graduates and their school anxiety during the tests is shown. The theoretical and methodological basis of the study was the conceptual ideas and views on the problem of school anxiety A. Miklyaeva and others. The description of the results of the examination of the students' psychological state at the end of 4th grade before the All-Russian Test on the methodology for determining school anxiety by B. Phillips, a survey of teachers and children's parents is presented. The results showed that before performing the All-Russian test work, most subjects had a fear of testing, a fear of discrepancy with the expectations of others, problems and fears connected with teachers. The relationship between general school anxiety and its determining factors is proved, their ranking is conducted. The negative impact of school anxiety on the psychological well-being of primary schoolchildren in the educational process and the achievement of optimal educational results are substantiated. Based on the results of the study, recommendations on correcting the content and procedures for the final testing of students in primary school, as well as on developing measures to prevent the stress state of primary schoolchildren in the process of preparing and performing All-Russian verification work are offered.

2357-1330 © 2020 Published by European Publisher.

**Keywords:** Testing, school anxiety, school anxiety, psychological well-being, final certification.



This is an Open Access article distributed under the terms of the Creative Commons Attribution-NonCommercial 4.0 Unported License, permitting all non-commercial use, distribution, and reproduction in any medium, provided the original work is properly cited.

## 1. Introduction

Primary school is an important stage in the process of socialization and personality development: children actively join and master learning activities, they form a certain system of scientific knowledge, value relationships, develop socially significant personal qualities. At the state level, the problem of how to evaluate the educational results (subject and meta-subject) of elementary school students is being solved.

Over the past three years, at the state level, an intermediate final certification in grade 4 has been carried out – an All-Russian Verification Work (RVW) in order to motivate children to learn and remove psychological barriers before final certification in grades 9 and 11.

Foreign studies in the field of assessing educational outcomes have shown “the relationship between the main assessment activities, teacher assessment skills and theories of learning and motivation” (Veldhuis & Heuvel-Panhuizen, 2014, para. 7). It was proved that “a learning-oriented assessment should not look like a test and does not require standardization” (Shepard, 2019, para. 3). It is clear that researchers from the Netherlands and America are united by the idea of a formative evaluation function.

Researchers concluded that it is necessary “to help politicians avoid mistakes to understand that tests designed primarily for monitoring, accountability or selection can also be useful for teachers and for the learning process” (Shepard, 2019, para. 8).

To ensure continuity in the final certification, the all-Russian verification work procedure includes elements that cause stress in the condition of children, parents and teachers of elementary school graduates: training using demo versions and printed materials, filling out printed forms, checking the results by teachers of other schools etc. All-Russian verification work is based on a testing method: test tasks facilitate the process of measuring learning outcomes.

## 2. Problem Statement

The achievement of optimal educational results by students in primary school, in many respects, depends on the psychological state of children. The leading factor in the school well-being of students in primary school is the child’s positive attitude towards schooling, and the lack of fear of “failure” in educational activities. Organization of feedback in the process of teaching younger students is an integral element of assessment activities.

The situation of children passing various types of control tests and waiting for results is always stressful, because it causes high psychological stress, fear of not completing individual tasks, getting an unsatisfactory mark, negative reaction of teachers and parents.

Teachers, the public and parents note that before the introduction of the final certification of primary schoolchildren, it was necessary to study, together with psychologists, the effect of such a load on the mental state of children.

## 3. Research Questions

Modern studies demonstrate various positions in determining the nature, basic indicators and factors that influence the psychological well-being of younger students.

School prosperity is considered by researchers as a positive perception of a child's learning activities, the educational organization in which they are studying (Gordeeva et al., 2019). The authors found that the psychological well-being of primary schoolchildren is positively influenced by their internal identified educational motivation, and favorable relationships with the teacher.

According to the study on the relationship between anxiety and stress in primary school children (Smirnova, 2012), out of 70 subjects, 16 % of children showed an increased level of anxiety, and 9% of subjects had a high level of anxiety. The author proves the effect of increased and high levels of anxiety on the development of psychosomatic disorders in children.

The most important indicators of the psychological well-being of children include (Andreeva & Moskvitina, 2019): a positive attitude towards oneself, to one's achievements and opportunities, acceptance of oneself and one's place in the system of social relations, and a rating system.

Most researchers consider ensuring the psychological well-being of primary school students as a factor in maintaining their health and the basis for full development during the learning process.

One of the main methods for monitoring and evaluating students' academic achievements is testing. The test, according to the researchers of this method, is: a system of qualimetrically verified tasks, a standardized procedure, and a pre-designed technology for processing and analyzing results in the learning process (Mayorov, 2000); a certain sample of tasks from a specific subject area for assessing the achievements of students in which it is intended (Nejman, 2002); a set of tasks aimed at determining the current and final educational results at various levels of students mastering the content of education (Zvonnikov & Chelyshkova, 2011).

It was established (Emelyanova et al., 2019) that testing as a method of control and evaluation activity is popular among most primary school teachers: 97% of respondents said that they have the highest level of testing organization technology and consider the test a convenient and reliable mean of monitoring students' educational results.

Particular attention is paid (Mali & Sycheva, 2011) to the uniform construction, accessibility and brevity of the wording of test items, their direct appeal to the student, compliance with the goals and content of the educational program.

Final testing is focused on identifying the level of children's mastery of the requirements of the educational standard and the ability to go to the next level of education. At the same time, a survey of students' parents shows that the preparation and implementation of All-Russian Verification Work cause children high emotional stress, contribute to the development of school fears and a negative attitude towards school (Andreeva & Moskvitina, 2019).

Foreign studies (Larson et al., 2010) confirm the influence of test anxiety on the physical and emotional state of students. During the period of final testing, children experience emotional breakdowns, deviations in the functioning of the cardiovascular, endocrine, and digestive systems.

The authors (Eisenberg & Sheffield Morris, 2002) characterize the negative emotional and physical reactions of a child's body to a stress situation, children's behavior strategies depending on the nature of stress-forming factors. Exams in primary school are especially distinguished, indicating their negative impact on the psychological state of students.

The analysis of the data of Simpson's (2016) observations of children and parental surveys shows that students in primary schools in America spend a lot of time and effort preparing and performing state standardized tests. Many children during this period have negative reactions in the form of psychosomatic disorders.

The essence of school anxiety, according to Miklyaeva and Rumyantseva (2004), Prihozhan (2001), characterized as a tendency to expect troubles in various activities. It is directly related to the child's persistent school dysfunction and is manifested in increased anxiety in learning situations, pending a negative assessment from the teacher and peers. Regularly repeated assessment and examination situations are one of the factors in the development of a high level of school anxiety.

These findings were confirmed in the study of Sidorov (2013) causes the manifestation of school anxiety among students. The author proved the relationship between the increased level of children's school anxiety and a decrease in the productivity of their activities.

#### **4. Purpose of the Study**

The study of fourth-grade students was conducted in May 2018 before the start of the All-Russian Verification Work procedure. 137 people took part in it: 52 primary schoolchildren (23 boys and 29 girls), 63 parents and 22 teachers.

The purpose of the study was to elicit factors that influence the development of school anxiety in children during the preparation and implementation of the All-Russian verification work.

#### **5. Research Methods**

The following methods and techniques were used in the study: B. Phillips test method for determining school anxiety; free survey; conversation.

#### **6. Findings**

In order to study various aspects of school anxiety, the B. Phillips technique was used. This technique allows to determine the overall level of school anxiety and its determining factors. Comparing quantitative indicators of general school anxiety, it can be noted that 46.1 % have an increased level, which indicates strong feelings associated with various forms of inclusion in school life (preparation and completion of tasks and tests, social assessment of their educational achievements, relationships with classmates and teacher and more). These students are worried about possible failures in the implementation of educational tasks at school, the readiness of homework, the teacher's attitude to the results of academic work. 34.6 % have an average level of general school anxiety. The subjects of this group have anxious experiences that are selective and moderately expressed, which does not violate the emotional well-being of schoolchildren. Low (5.8 %) and high (13.5 %) levels of anxiety are negligible.

Using the same technique, anxiety factors were studied. According to the factor of experiencing social stress, the data were distributed as follows: a low level of 38.5 %, an average level of 23.1 %, an increased level of 26.9 % and a high level of 11.5 %. This factor reflects the emotional state of the child in the process of social interaction, primarily with peers. The percentage of data indicates that signs of

social stress are most pronounced in schoolchildren with an increased and high level of severity. These students experience feelings: in conflict situations with classmates, lack of recognition among peers and interest in themselves as individuals, fear seems ridiculous and more. Low and medium level indicators indicate that ½ of the tested students have no emotional experiences associated with social contacts. According to the frustration factor of the need for success, the following results were obtained: a low level of 30.8 %, an average level of 36.5 %, an increased level of 23.1 % and a high level of 9.6 %. Quantitative data indicate that most of the subjects are dominated by a favorable psychological background, which allows children to satisfy the need for success and feel confident. Pupils with an increased and high-level experience experiences associated with the need to meet general school requirements, parents' expectations, fear of making mistakes in assignments and condemnation by classmates, lack of rights that are more successful in school activities of students, anxiety for their future.

Quantitative processing of the results of the fear factor of self-expression showed that 13.5 % showed a low and medium level, an increased level was found in 48.0 % of the subjects, and a high level of severity of manifestations of this factor was recorded in 25 %. Comparing the obtained indicators, we can conclude that 2/3 of schoolchildren (increased and high levels of severity of fear of self-expression) experience negative emotional experiences associated with a situation of self-disclosure, the need to demonstrate their abilities, defend their rights, and prove their point of view. They also worry about their appearance and how they look in the eyes of peers and teachers. The following data were obtained on the fear factor of the knowledge verification situation: low level – 0 %, average level – 5.8 %, increased level – 28.8 % and high level – 65.4 %. The results obtained demonstrate that almost all fourth graders are very excited in a situation of public knowledge assessment. Fear of the situation of knowledge testing is accompanied by anxiety to stay in the second year due to a possible decrease in academic performance, a social assessment of their failure in learning by classmates and parents. Perhaps this ratio of quantitative data is indirect evidence of incorrect pedagogical assessment, abuse of negative methods of stimulation, based on the experience of fear and anxiety. According to the fear factor, the correlation of results does not meet the expectations of others: the low level is 15.4 %, the average level is 21.2 %, the increased level is 28.8 % and the high level is 34.6 %. Subjects with increased and high severity are of concern. So, in the zone of psychological risk are more than 50 % of the subjects. These students, evaluating themselves and the results of their academic work, are guided by the opinion of their immediate environment (classmates, teacher, parents), which causes excessive anxiety and anxiety. According to the physiological resistance to stress factor, the data were distributed as follows: a low level of 51.9 %, an average level of 32.7 %, an increased level of 9.6 %, and a high level was found in 5.8 % of the tested students. The dominance of low-level indicators in the sample indicates that in half of the subjects, the characteristics of the psychophysiological organization predispose to a decrease in adaptability and adaptability to situations of a stressful nature. This group of students recorded a predominance of maladaptive strategies to overcome stress and inadequate response to various environmental factors. Low physiological resistance in situations of stress in these children is manifested in various autonomic reactions: heart rate and respiratory rate, tremor of the extremities. As a result, the subjects are dominated by a negative emotional and cognitive assessment of their possible learning failures, constant expectation and prediction of failure, which cannot but cause disturbing experiences. The results obtained by studying

the factor of problems and fears in relations with teachers indicate that an increased level dominates (34.6 %). An average level was found in 32.7 % of the subjects, a low level in 15.4 % and a high level of severity was detected in 17.3 %. In general, about half of the tested students experience negative experiences in the situation of educational cooperation and communication with teachers. They show increased anxiety in the situation of knowledge testing, fear will not cope with the task and lose the teacher's disposition, to remain alone with the teacher for a conversation.

As a result of the Pearson correlation coefficient, a high positive relationship was established between general school anxiety and the fear of knowledge testing  $r = 0.7$  (at  $p = 0.001$ ,  $r_{lowest} = 0.451$ ). A significant correlation was found between the factor – low physiological resistance to stress and general school anxiety  $r = 0.61$  (at  $p = 0.001$ ). A moderate positive relationship is defined between fear of not meeting the expectations of others and general school anxiety  $r = 0.43$  (at  $p = 0.001$ ). And finally, a moderate positive relationship was recorded between the fear of self-expression and general school anxiety  $r = 0.37$  (at  $p = 0.001$ ).

Thus, among all the factors influencing the development of school anxiety, the following factors have the closest relationship: fear of a knowledge testing situation and low physiological resistance to stress, fear of not meeting the expectations of others and fear of self-expression.

According to a survey of parents of primary schoolchildren, a high level of anxiety experiences was found in 73.1 % of parents. 90.4 % of parents showed a negative attitude towards the final certification in the form of All-Russian verification work in the fourth grade. The reasons for the negative attitude are associated mainly with a high level of neuroticization of children, the complexity of tasks. Logic tasks in mathematics turned out to be especially difficult, and tasks in the world around them were significant in volume. When working with training tests, problems were found that are not in the curriculum. 80.8 % of parents lack a holistic view of the upcoming final certification, 53.8 % need additional counseling and psychological support.

The conversation with teachers revealed the teachers' anxiety, their psychological attitude according to the mechanism of the circular reaction, which negatively affects the emotional state of parents and children. Preparation for the All-Russian test work begins in March, which turns the educational process of the last quarter into "coaching" and "training". Some educators tend to be overly dramatic. Thus, they form false fears and attitudes in children and parents.

## 7. Conclusion

Empirical research allows to draw the following conclusions:

1. Most of the tested students are dominated by elevated and high levels of general school anxiety. Among all the factors influencing the development of general school anxiety, the first place is occupied by the fear of knowledge testing, the second by low physiological resistance to stress and the third by fear of self-expression and fear of not meeting the expectations of others. An additional provocative factor in maintaining a high level of anxiety in primary school students is the state of parents and teachers.

2. The content of the test items offered in the All-Russian test papers does not fully correspond to the content of all educational programs implemented in elementary school.

3. The time limit is insufficient for the high-quality completion of all test tasks by students with various levels of training capabilities.

4. The criteria for evaluating the test tasks of the All-Russian verification work do not always allow an objective assessment of the final level of educational results in mastering the educational program of primary schools.

These findings show that it is necessary to: study the school anxiety and the impact of the final testing on the psychological well-being of primary school children at the level of a large-scale experiment; consider the possibility of improving the content and procedures of the final test of primary schoolchildren; implement a system of measures to prevent the stress state of children before the All-Russian verification work.

## References

- Andreeva, A. D., & Moskvitina, O.A. (2019). The psychological well-being of students in grades 1–5 in the context of the current social development situation. *Ed. Issues*, 3, 203–223.
- Eisenberg, N., & Sheffield Morris, A. (2002). *Children's emotional regulation*. Elsevier Science.
- Emelyanova, I. N., Teplyakova, O. A., & Efimova, G. Z. (2019). The practice of using modern assessment methods at different levels of education. *Ed. and Sci.*, 6, 9–28.
- Gordeeva, T. O., Sychev, O. A., & Lunkina, M.V. (2019). School well-being of younger schoolchildren: motivational and educational predictors. *Psychol. Sci. and Ed.*, 3, 32–42.
- Larson, H.A., El Ramahi, M.K., Conn, S.R., Estes, L.A., & Ghibellini, A.B. (2010). *Reducing test anxiety among third grade students through the implementation of relaxation techniques*. <https://files.eric.ed.gov>
- Mali, L. D., & Sycheva, M. V. (2011). Pedagogical conditions for the effective use of tests as a means of diagnosing the achievement of planned results in elementary school. *News of PSPU im. Belinsky*, 24, 717–723.
- Mayorov, A. N. (2000). *Theory and practice of creating tests for the education system*. Intellect – center.
- Miklyayeva, A. V., & Rumyantseva, P. V. (2004). *School anxiety: diagnosis, prevention, correction*. Speech.
- Nejman, Yu. M. (2002). *Pedagogical testing as a measurement*. Testing Center of the Ministry of Defense of the Russian Federation.
- Prihozhan, A. M. (2001). *Forms and masks of anxiety. The effect of anxiety on the activity and development of personality*. St. Petersburg.
- Shepard, L. (2019). *Classroom Assessment to Support Teaching and Learning* Lorrie. <https://journals.sagepub.com>
- Sidorov, K. R. (2013). Anxiety as a psychological phenomenon. *Bull. of Udmurt Univer.*, 2, 42–52.
- Simpson, C. (2016). *Effects of Standardized Testing on Students' Well-Being*. <https://projects.iq.harvard.edu>
- Smirnova, M. V. (2012). The level of apparent anxiety in children of primary school age. *Psychol. Sci. and Ed.*, 3, 32–42.
- Veldhuis, M., & Heuvel-Panhuizen, M. (2014). *Primary School Teachers' Assessment Profiles in Mathematics Education*. <https://journals.plos.org>
- Zvonnikov, V. I., & Chelyshkova, M. B. (2011). *Modern means of assessing learning outcomes*. Academy.