The impact of the covid-19 pandemic on the psychological state and stress resistance of students

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Abstract

The article examines the level of psychological well-being of students during the COVID-19 pandemic. The aim of the empirical psychological study was to conduct a comparative analysis of the psychological state of Kazakh and Bulgarian students during the COVID-19 pandemic, to identify the influence of cultural differences on the results obtained on the negative attitude and fears of students. A survey was conducted on the Google Forms platform, which was attended by 140 students of the L.N.Gumilev Eurasian National University (Nur-Sultan, Kazakhstan) and 92 students of the N.Vaptsarov Naval Academy (Varna, Bulgaria). It was revealed that the mood of respondents directly depends on the level of their optimistic or pessimistic mood. Those who define their mental state as good, stable, have higher values of optimism, as well as lower values of negative expectations. The results of the study indicate a direct relationship between the respondents’ responses and their psychological state, which were directly affected by events related to the COVID-19 pandemic, primarily the period of forced social isolation. In general, both Kazakh and Bulgarian students are optimistic, they are balanced and positive. The conducted research showed that despite a fairly high positive indicator of stress resistance of Kazakhstani students, indicators of negative expectations such as fear, anxiety, fatigue, depression, loneliness, burnout were revealed. These students should not be ignored, they should be provided with psychological support.

Keywords: pandemic; level of stress tolerance isolation; insulation; psychological state; student.

OVERCOMING THE COGNITIVE DIFFICULTIES OF EDUCATIONAL MATERIAL IN TEACHING YOUNGER SCHOOL CHILDREN USING A NEUROPSYCHOLOGICAL APPROACH

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Abstract

This article provides a theoretical analysis of the cognitive difficulties of educational material in teaching younger schoolchildren, as well as various cases of school failure are considered as a solution to these difficulties, the use of a neuropsychological approach is proposed, which allows for a systematic analysis of the state of higher mental functions, as well as to identify strengths and weaknesses, components of the development of higher mental functions, components of the development of higher mental functions, and in particular in the future, to build optimal scientifically – based methods of correctional – training, correctional – developing, or restorative
training. The article contains a description of the conducted research, which was organized with students of the second grades, and assumed an assessment of the existing learning difficulties of younger schoolchildren, using an analysis of the expert assessment of teachers of second grades, as well as an analysis of the products of students’ activities, which included written papers, control to identify test tasks. The study made it possible to identify groups of children with heterogeneous severity of learning difficulties: successful learning in individual academic subjects, and a group of children with complex learning difficulties manifested in systematic errors when performing different types of educational tasks. The article presents conclusions summarizing the most typical learning difficulties of second grades, which form a complex of problems and manifest themselves in various variations.

**Keywords:** cognitive difficulties of educational material; teaching younger schoolchildren; neuropsychological approach.

**Introduction.** Currently, the problem of modern pedagogy is a significant increase in the number of schoolchildren who cannot cope with the primary school program. In this regard, research aimed at finding possible causes of educational difficulties, methods of their diagnosis, prevention and overcoming are becoming relevant. Traditionally, the solution of children’s school problems was in the competence of teachers, speech pathologists, psychologists [1].

**Main body.** Wenger A.L. identifies in his research, such leading causes of school difficulties of primary school students as the lack of formation of learning skills and learning motivation [2].

N.I. Chuprikova, M.A. Kholodnaya as the reasons that significantly affect the success of children’s learning of educational skills, first of all, the individual typological characteristics of the child, his personal qualities, the development of his cognitive structures, the orientation of the teacher’s behavior are singles out. In recent years, neuropsychology has entered the circle of scientific disciplines dealing with school difficulties [3].

A.R. Luria and T.V. Akhutina consider difficulties in teaching schoolchildren as a problem of interaction of the brain, physiological, psychological and social levels. The process of assimilation of new knowledge and mastering the ways of acquiring this knowledge is provided by complex functional systems, the brain basis of which is the joint work of various brain areas [4].

L.S. Tsvetkova cites that neuropsychology allows you to find out which areas of the brain and which functional systems were disrupted or uniformed at the time, and thus identify stage of his development or a student that can help in overcoming these difficulties. Neuropsychology of childhood helps to find and give the right qualifications to difficulties that arise in children in mastering academic subjects, and thereby contributes to the full mastery of knowledge, the development of students’ abilities, the formation of such personality qualities as confidence, self-esteem, etc., which are directly related to the breadth of knowledge and skills, as well as the ease of mastering school knowledge [5].

E.D. Chomskaya, T.V. Akhutina in their works determine that one of the most common causes of difficulties in the assimilation of educational material by children is a partial lag in the development of higher mental functions (HMF) in a child. The uneven development of HMF is determined by the individual genetic program and environmental factors. As modern research on neuropsychology of the norm shows, the presence of relatively strong and relatively weak mental functions or their components, i.e. the unevenness of their development is a pattern, not a deviation in development. In children of the norm group, their relatively weak mental functions or their components, i.e. the unevenness of their development is a pattern, not a deviation in development. In children of the norm group, their relatively weak processes clearly male themselves felt when tired, in children with learning difficulties, the unevenness of functions is more pronounced, and the child cannot compensate for his weaknesses at the expense of strengths and begins not to conform to the social norm [6].
A.V. Semenovich argues that the modernized curricula are being implemented without taking into account the changing specifics of the brain organization in the modern children’s population. The increasing demands on the educational activities of students and of children lead to the fact that a significant number of first – graders are not ready for successful training in general education programs. Younger schoolchildren have serious difficulties in mastering specific school skills – writing, reading, many children have difficulty understanding the order of numbers and the ability to perform counting operations, the understanding of written and oral messages is impaired. The student’s subjective experience of the discrepancy between his knowledge (skills, abilities) and the child to adapt to school, which can affect the further unfavorable intellectual and emotional development of the younger student, and, ultimately, harm his psychological and somatic health [7].

According to T.V. Akhutina, neuropsychological methods are one of the most modern effective means of diagnosing and correcting learning difficulties. Neuropsychological analysis of school learning difficulties and the resulting wishes, recommendations for the process of correctional and developmental activities contributes to the effective construction of health – saving technologies [8].

A.V. Semenovich focuses on the fact that neuropsychological correction of HMF most effective up to 9-10 years; therefore, it is necessary to overcome the existing problems of underdevelopment of mental functional activities in a timely manner. This situation dictates of educational activities in a timely manner. This situation dictates the need for early neuropsychological diagnosis and the creation of a set of timely and adequate measures to minimize school learning difficulties and, in general, to optimize the educational process at school [9].

Due to the exiting problems in education, the priority tasks for neuropsychology of childhood are timely diagnosis of the level of development of mental functions of a child with learning difficulties, which allows establishing the causes of the violation, and timely measures to eliminate these causes [10].

Currently, in order to overcome and prevent learning problems that arise in younger schoolchildren, programs have been developed aimed at correcting unformed HMF, however, there is no system of neuropsychological influence aimed at correcting complex difficulties in teaching younger schoolchildren, which, in our opinion, are widespread among primary school students [11].

To identify the most typical difficulties in teaching first graders, we conducted a study of this problem. In our work, we integrated pedagogical and neuropsychological approaches to assessing the formation of educational activity by the end of the first year of study on the basis of methodological recommendations on assessment standards for primary school teachers and the classification of learning problems, considering the presence of specific school errors in educational activities as a consequence of the lack of formation of the HMF (difficulties in maintaining the optimal level of activity, lagging programming functions and activity control, lag in the development of the information processing function: auditory, kinesthetic, visual, visual - spatial) [12].

Methodology. In our study of the problem of typical learning difficulties of younger schoolchildren, the following methods were used: expect assessment of first grade teachers, analysis of student activity products (written works, control test tasks). The study involved 81 students of second grade. The age of the subject is 7-8 years.

Results and Discussion. The study made it possible to identify groups of children with heterogeneous severity of learning difficulties: the first group – 25% of primary school students (20 people) without learning difficulties, the second group – 43% of students (35 people) with partial difficulties in mastering the necessary skills required for successful learning in individual academic subject, the third group – 32% of children (26 people) with complex learning difficulties, manifested in systematic errors when performing different types of education tasks. The most typical learning difficulties of
second graders form a complex of problems and manifest themselves:

1. Difficulties in mastering writing skills characterized by partial distortion of the shape of letters – 54.6% of students, the presence of incorrect connections that distort the shape of letters ø 88.5% of second graders, not writing to the line of the working line – 58.6% of children, non-compliance with the “red line” (66%), non-compliance with the proportions of letters in height and width – 64.4% schoolboy, careless, illegible writing, with blots – 54.6% of students. The combination of such writing features corresponds to a low level of formation of the students' calligraphic skill.

2. In the presence of spelling errors are omissions and distortion of letters (89.9%), word transfer (80%), rearrangement, replacement and insertion of extra letters into words (69.1%), errors are omissions and distortion of letters into words (69.1%), errors in spelling vocabulary words – 70.9% of school students, non-application of the passed spelling rules when writing – 51.4% of people. Low level of development of spelling skills is typical for 60.1% of these children.

3. In making mistakes when reading: incorrect answers to questions on the content of the text 49.1% of second graders, shaky knowledge of the prepared text by heart 60.1% of elementary school students, reading the entire text without semantic pauses, violation of the tempo and clarity of pronunciation of words when reading aloud 54/1% of students, monotony of reading, lack of means of expression 57/9% of students, distortion the words being read (replacement, rearrangement, omissions or additions of letters, syllables, words) - 46.9% of children, incorrect accentuation (more then 2) was detected in 48.2% of students. in 65% of these schoolchildren, the level of development of reading skills corresponds to the average levels, which is characterized by a syllabic way of reading rate is 20-30 words. When reading an unfamiliar text, students cannot understand individual words with a general understanding of what they read; they are able to highlight the mail idea, but they cannot find words and expressions in the text confirming this idea.

4. 50.1% of students have an unstable assimilation of the text when reading by heart.

5. 60% of second graders were found to have errors in working with the text, 48.6% of children had 49.3% in inaccuracies in the use of words and the construction of phrases or sentence, 47.3% in difficulty independently confirming the rule with examples, 43.1% in an incoherent presentation of the material, inaccuracies in the speech design of the answer 40%, in the implementation of answers to leading questions 60%. The totality of such errors corresponds to the low level of formation of the oral speech of younger schoolchildren.

6. In the inability to accurately formulate the answer to the solved problem, 61.5%, with the correct answer, first – graders do not know how to independently or fully justify and illustrate it, 53.3%.

7. In the inconsistency of the measurements and geometric constructions with the specifies parameters, measures 79.6%, in the wrong choice of actions, operations 73%, in errors in addition and subtraction within a dozen 71%, as well as in the transition through a dozen 69%, in the absence of an answer to the task or an error in the recording of the answer 43.3%, in the incorrect writing off of data (numbers, signs, symbols, quantities) 43.1%.

8. In the incorrect disclosure (in the story - reasoning) of the course of this or that studied phenomenon 68.1%, which significantly reduces the ability of children to acquire knowledge of the facts of the educational material, and also hinders the development of their ability to draw the simplest conclusions, express generalized judgments, give independent examples.

Conclusion. As we can see, on that students there is a pronounced typical learning difficulties which does not allow them to acquire school curriculumsufficiently. Further, education for these childrencreated a risk from escalatingtemporary setbacks into a chronic school failure in the conditions for not providing to them timely support to eliminate the causes that compel to educational problems.

Qualitative nature of the learningmistakes of the youngerschool child drenfullyflecls the problems inthe unformed mental functions of
such students. In terms of neuropsychological analysis, the spoken language and the processes of understanding the speech, reading, writing, the resolution of a mathematical challenge are complex functional systems, which brought its own specific contributions to the operation of the whole system and providing the child’s full development, including his education achievement. Accordingly, we believe that the reasons for typical learning difficulties of first graders is underdevelopment of higher mental functions on that students [13].

Further deepening our understanding of the nature complex learning difficulties, with the use of neuropsychological diagnosis of higher mental functions of the younger schoolchildren, expan dourre cognition of the neuropsychological mechanisms, which leads to unsucessful school performance. An analysis of those reasons will enable us to put in place inappropriate ways of habilitative assistance to children in order to overcome the problems they experience in the development of mental functions that have an impact on the difficulty of learning [14].

In general, by summarizing, it can be concluded about the fact among the most important tasks of educational practice overcoming the difficulties of teaching children from an early school age one of the most relevant at the present stage. Wide possibilities of neuropsychological diagnostics in revealing the mechanisms of non-formed HMF, preventing full-fledged mastery of the school general education program, allow to find the most appropriate adequate mechanisms for these problems. The difficulty of teaching many children has typical drawings and carries a complex character, expressed in the unformedness of the essentials for school success of school knowledge, skills, abilities, and in turn the formation of the course of the teacher. The need to apply neuropsychological analysis to the solution of these problems in education is obvious, which makes neuropsychology a priority in solving problems on the way to overcoming and preventing typical difficulties of learning difficulties [15].

References:


### Нейропсихологія тәсілді қолдана отырып, бастауыш сынып оқушыларының оқытуының оқу материалынан танымдық қиындықтарының әсері

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**Аннотация**

Бұл макалада бастауыш сынып оқушыларының оқытуының оқу материалынан танымдық қиындықтарын теориялық талдау жасалды, сонымен қатар оқушылардың үлгірмейінің ер тұрлы сәбеттері қарастырылды, осы қиындықтардың ерекшелігін шешу үшін қатынастық және тұстарын белгілейді. Қиындықтар өзін-өзінен қамтамасыз етіледі, олардың әр түрлі қиындықтарына қатысты өзгертіледі. Жоғары қызмет сатып алға беретін қызметін қамтамасыз етеді. Бұл макалада зерттеу нәтижесінен зерттеу үшін құпір адамдарға жоғары қызметін қамтамасыз етеді. Бұл макалада бастауыш сынып оқушыларының оқу материалынан танымдық қиындықтарын теориялық талдау жасалды.

**Ключевые слова:** оқу материалынан танымдық қиындықтары; бастауыш сынып оқушылары; нейропсихологиялық тәсіл.
Преодоление познавательных трудностей учебного материала в обучении младших школьников с использованием нейропсихологического подхода

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Аннотация

В данной статье приводится теоретический анализ познавательных трудностей учебного материала в обучении младших школьников, а также рассмотрены различные причины неуспеваемости школьников, в качестве решения данных затруднений, предлагается использование нейропсихологического подхода, который позволяет осуществить системный анализ состояния высших психических функций, а также выделить сильные и слабые стороны, компоненты развития высших психических функций, и в дальнейшей перспективе строить оптимальные научно-обоснованные методы коррекционно-обучающего, коррекционно-развивающего, или восстановительного обучения. Статья содержит описание проведенного исследования, которое было организовано с обучающимися вторых классов, и предполагало оценку имеющихся трудностей обучения у младших школьников, с помощью анализа экспертной оценки учителей второклассников, а также анализа продуктов деятельности учащихся, которые включали в себя письменные работы, контрольные тестовые задания. Проведенное исследование позволило выявить группы детей, имеющих неоднородную выраженность учебных трудностей: успешных в обучении, вторая группа учеников с парциальными трудностями в усвоении необходимых навыков, требующих для успешного обучения по отдельным учебным предметам, и группа детей с комплексными трудностями обучения, проявляющимися в систематических ошибках при выполнении разной направленности учебных заданий. В статье приведены выводы, обобщающие наиболее типичные трудности обучения у второклассников, которые образуют комплекс проблем и проявляются в различных вариациях.

Ключевые слова: познавательные трудности учебного материала; обучение младших школьников; нейропсихологический подход.