ВОЗРАСТНЫЕ ИЗМЕНЕНИЯ СВОЙСТВ ТЕМПЕРАМЕНТА

AGE CHANGES OF PROPERTIES OF TEMPERAMENT

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Аннотация:

В настоящей статье авторы акцентировали внимание на изучение такого психологического феномена, как темперамент. Анализируя различные векторы исследования указанной проблематики необходимо заметить, что на сегодняшний день данная тема, бесспорно, является всесторонне изученной, однако некоторые моменты до сих пор остаются на периферии науки и практики. Вследствие этого возникает необходимость уточнения ряда вопросов, связанных с проявляющимися изменениями различных свойств темперамента личности. Интерес к обсуждению данной проблемы возник после рассмотрения научно-исследовательских работ современных отечественных ученых, в которых были представлены основные выводы проведенных экспериментальных исследований в данной области, а также в результате целенаправленных наблюдений за особенностями поведения детей в школьном возрасте. Учитывая анатомические, физиологические, психические особенности развития детского организма, зависящие напрямую от функционирования сложноорганизованной и высокоспециализированной нервной системы, нами была предпринята попытка изучения возрастных изменений свойств темперамента в

Abstract:

In this article, the authors focused on the study of such a psychological phenomenon as temperament. Analyzing various vectors of research of the specified problems it is necessary to notice that today this subject, undoubtedly, is comprehensively studied, however some moments still remain on the periphery of science and practice. As a result, there is a need to clarify a number of issues related to the manifested changes in various properties of personality temperament. Interest in the discussion of this problem arose after consideration of research works of modern domestic scientists, which presented the main findings of experimental studies in this area, as well as a result of targeted observations of the behavior of children in school age.

Taking into account the anatomical, physiological, mental features of the development of the child's body, which depend directly on the functioning of the complex and highly specialized nervous system, we attempted to study the age-related changes in the properties of temperament in municipal educational institutions of Ryazan. The authors revealed differences in age manifestations of temperament properties by

условиях муниципальных общеобразовательных учреждений г. Рязани. Авторами выявлены различия в возрастных проявлениях свойств темперамента по следующим факторам: нейротизм, эмоциональность. Представлены краткие описания поведения обучающихся младших и старших классов, имеющих склонность к нейротизму, экстраверсии-интроверсии.

Результаты проведенного эмпирического исследования указывают на важность и необходимость целенаправленной и систематической подготовки педагогов общеобразовательных школ к осуществлению процесса обучения и воспитания школьников с учетом индивидуально-типологических особенностей личности. Приведенные в статье рекомендации окажут помощь в первую очередь начинающим педагогам в выборе приоритетных методов, форм, средств и путей всесторонней гармоничной личности.

Ключевые слова:

свойства темперамента, нейротизм, возрастные особенности, экстраверсия, интроверсия.

the following factors: neuroticism, emotionality. Brief descriptions of the behavior of students of Junior and senior classes with a tendency to neuroticism, extroversion-introversion are presented.

The results of the empirical study indicate the importance and the need for targeted and systematic training of teachers of secondary schools to implement the process of education and upbringing of students, taking into account the individual typological characteristics of the individual. Given the article's recommendations will assist in the first place beginning teachers in the selection of the priority of methods, forms, means and ways comprehensive and harmonious personality.

Keywords:

temperament, age features, diagnostics, students.

Relevance

Plenty of scientific publications is devoted to the problem of temperament, but it does not cease to interest scientists in psychology area which is caused by brightly showing typological distinctions between people. Psychic is enough a difficult integral phenomena, in which specific processes conditioning individually-psychological factors of human behavior take place. Certainly, temperament is one of the most significant human characteristics, it represents psychic congenital property. It defines the presence of mental distinctions between people, including rate and stability of emotions, emotional impressionability, rate and robust action, as well as the diversity of dynamic characteristics [1].

Works' analysis of foreign and domestic scientists allows allocating the main approaches of temperament research: humoral (Hippocrates), natural-science (I.P. Pavlov), constitutional (E. Krechmer and W. Sheldon), in frameworks of which its physiological bases and psychological indications were studied. The physiological substance of temperament is accounted by the individuality of force, mobility and balance of nervous processes. Psychological substance is reduced to description of the

set of properties which characterise dynamic features of batching of mental processes and behaviour of the person.

The problem of temperament studying finds its reflection in works of Y. Streliau, H. Eysenck, V.M. Rusalov, D. Keirsi, R.S. Nemov, B.M. Teplov, V.D. Nebylitsin and other scientists.

In domestic psychology, on the present stage it is possible to allocate a few directions of studying of temperament of students of different ages, at the same time researchers' specific attention is attracted by younger students, as individually-typological features are particularly brightly displayed exactly in this age.

Those are studies about temperament and mental cognitive processes. The influence of younger students temperament to the development of their memory is considered in research of A.N. Abramova and others (2015). Interesting conclusions are made about the students of different temperament in a given age different leading type of the memory are characteristic. For example: at sanguine person prevails acoustical type of the memory, as well advanced visual memory; at choleric person – both visual, and on acoustical; melancholic store are more akin to retain visual material [2].

The research of the relation between communication and its properties with attitude to computer games in younger students (O.A. Zherebnenko, L.B. Kuznetsova, 2015) with use of graphic dough temperament definitions [3]. It was established that according to the criteria of extraversion-introversion there were no significant differences in the answer to the question: "Do you like computer games?". A significantly larger number of computer gamers were found among emotionally stable children.

The research of the relation between temperament and its influence on efficiency and effectiveness of training of students. M.N. Yelizarova (2018) specifies in this regard that "If the teacher put before himself a target orientation – to optimize training process, then it is the mistake not to take into account children's temperament capable all process of optimization to nullify" [4, p.66]. She offers recommendations for increase in learning efficiency of younger students at the piano lessons taking into account their temperament in the research.

The research of the relation between temperament and mental conditions of the school student, for example, with uneasiness. It is established the influence of type of temperament on the level of uneasiness of the younger students. The results of the examination conducted by E.A. Varennikova (2015) show that at school students with sanguine type of temperament low and average levels of uneasiness; with choleric type temperament the high level of uneasiness; phlegmatic persons and melancholiacs have mainly high level of uneasiness [5]. It is concluded that some levels of uneasiness form a physiological basis of temperament.

The research of the relation between temperament and properties of the

identity of the senior students – organization (N.P. Kirina, 2009) [6], sociability (N.A. Zhemchugova, 2014), with features of intentionally experience (A.A. Vikhman, 2018).

The results of the analysis of scientific research demonstrates that the temperament, as well as any property of an organism, is subject to age changes which, first of all, are connected with the process of maturing of an organism or change of behavior following mainly from anatomic and physiological development of a nervous system and other systems of an organism [7].

Younger students are characterized by the lowered endurance, but the high impressionability, impulsiveness, emotionality therefore the teacher should be especially attentive and at the organization of educational process effectively using these properties of temperament. The valuable and semantic sphere influences on development of properties of temperament senior students (A.A. Vikhman, 2018) [8]. A comparative psychological study of the relationship between the properties of temperament and sociability of older schoolchildren and students (N.A. Zhemchugova, 2014) showed the specific influence of the properties of temperament on regulatory-dynamic and productive-semantic variables: in older schoolchildren, the properties of temperament are correlated with regulatory-dynamic variables, determining the spontaneity, emotionality of sociability; students – with semantic variables [9].

Studying the properties of temperament, and revealing the psychological characteristics of their age-related manifestations, it seems possible to find an individual approach to each person, which contributes to the further formation of him as a comprehensively developed harmonious personality.

The purpose of the research is to study empirically the age-related manifestations of the properties of younger students and senior students temperament in Ryazan municipal educational institutions, as well as to develop recommendations for teachers, including a set of psychological, pedagogical and educational measures.

Materials and methods

The age peculiarities of temperament are manifested in the severity of its properties in different age groups, therefore, in order to study the theoretical and practical aspects of temperament age-related manifestations, we conducted an empirical study. As examinees there were mixed collectives (boys and girls) of elementary and high school (80 people) of Ryazan municipal comprehensive schools. We used methods of poll, testing and mathematical methods of processing of empirical data for diagnostics of temperament age manifestations at students of the different age period. The reliability of results was established by means of nonparametric criteria of Spearman Rank Order Correlations, Mann-Whitney U-Test,

Wilcoxon Matched Pairs Test. The significance level of $p < 0.05$ was taken as the minimum confidence threshold. As the methods, there were used the "Personality Questionnaire of H. Eysenck EPI" (primary empirical data), "The questionnaire of the structure of temperament of V.M. Rusalov".

Results and Discussion

The results of the diagnostics and statistical processing of the data on studying the schoolchildren's temperament of different age groups according to the method of H. Eysenck, they indicate that in the group of younger students the average indicators on the scale of introversion-extraversion are (12.100 ± 8.238) , and in the group of senior students, this indicator is slightly higher: (14.200 ± 5.181) , which indicates a greater extroversion of senior students (Table 1).

The indicator of neuroticism reflects the emotional stability or instability of the individual. Characterizing the indicators of students of different age groups on this scale, it can be noted that in both groups they are at an average level. For younger students, it is 17.700 ± 3.267 , the average indicators in the group of senior students are 12.500 ± 4.222 .

Table 1.

The results of statistical data processing according to the method of H. Eysenck

Group Statistics						
	Группы	Min	Max	Mean	Std. Deviation	Std. Error Mean
The scale of introversion-extraversion	younger students	0	22	12.100	8.238	2.605
	senior students	6	20	14.200	5.181	1.638
The scale of neuroticism	younger students	6	20	17.700	3.267	1.033
	senior students	4	18	12.500	4.222	1.335

As a result of the statistical processing of data by the Mann-Whitney U-Test criterion, we obtained significant differences in the age-related manifestations of temperament by the factor of neuroticism in representatives of groups of students ($p < 0.05$). The statistics of the Mann-Whitney test indicate that younger students have higher rates of neuroticism. So, the average rank in the group of younger students is 13.9, in the group of senior students – 7.1. Significant differences in the "neuroticism" factor indicate that younger students have lower emotional stability compared to senior students. The neurotism of younger students is expressed in increased excitability, it happens higher than instability in senior students, they have worse

adaptation, a tendency to quickly change moods, their lability, guilt and anxiety, anxiety, depressive reactions, distracted attention, instability in stressful situations.

The increased value of the indicator on the neurotism scale of younger students confirms the evidence that they are more emotional, impulsive, sensitive, characterized by variability of interests, self-doubt. This fact can be associated with the characteristics of the maturation of the child's body, as well as the development of the psyche and nervous system of younger students.

The results of a survey of students of different age groups on the scales of extraversion-introversion and neuroticism confirm the point of view about age-related changes in the properties of temperament.

Further we carried out diagnostics of students of different age category by a technique "The questionnaire of the structure of temperament of V. M. Rusalov".

In the group of younger students, the highest scores were obtained on the scales: subject ergicity (9.900 ± 0.994), social ergicity (9.400 ± 2.716) – high level, emotionality (8.200 ± 1.932) – higher average level (Table 2).

Table 2.

The results of statistical data processing by the method of V.M. Rusalov

Group Statistics				
Criterion	Groups	Mean	Std. Deviation	Std. Error Mean
Subject ergism	younger students	9.900	0.994	0.314
	senior students	9.500	1.433	0.453
Social ergism	younger students	9.400	2.716	0.858
	senior students	9.500	0.849	0.268
Subject ergism	younger students	6.200	3.011	0.952
	senior students	6.400	2.590	0.819
Social ergism	younger students	6.500	3.240	1.024
	senior students	7.500	2.415	0.763
Pace	younger students	7.700	3.267	1.033
	senior students	8.200	1.873	0.592
Social pace	younger students	7.200	2.201	0.696
	senior students	6.600	2.458	0.777
Emotionality	younger students	8.200	1.932	0.611
	senior students	5.600	1.577	0.498
Social emotionality	younger students	6.600	1.577	0.498
	senior students	5.900	1.911	0.604

It should be noted that high rates of subject ergism indicate a high level needs for younger students in the development of the objective world, their desire for mental and physical work. Indicators of social ergism indicate needs for younger students in social contacts, the thirst for the development of social forms of activity, sociability.

Emotional indicators indicate the sensitivity of younger students to failures in various fields of activity. Children of this age are characterized by a feeling of certain insecurity, anxiety, inferiority, high anxiety about learning outcomes, and the presence of sensitivity to failure.

In the group of senior schoolchildren, a high level of development was identified on the following scales: subject ergicity (9.500 ± 1.433), social ergicity (9.600 ± 2.458), pace (8.200 ± 1.873). The remaining criteria are developed at an average level. Thus, by high rates of objective and social ergism, one can judge the aspirations of older students to mental and physical labor, leadership, sociability, and occupation of a higher rank in society. High rates of pace indicate the speed of motor-motor acts of senior schoolchildren when performing substantive activities, as well as their significant ability of the speech-motor apparatus and the high speed of performing specific tasks.

As a result of the statistical processing of data by the Mann-Whitney U-Test criterion, we obtained significant differences in the age-related manifestations of temperament on a scale of emotionality. So, the average rank in the group of younger students is 14.2, in the group of senior students – 6.8. The significant differences in the factor of “emotionality” indicate that younger students have lower emotional stability than senior students. They have increased anxiety, experience a feeling of uncertainty and fear. At the same time, the results obtained indicate greater calm and self-confidence of senior students than younger students.

Conclusions

In conclusion of an empirical study we revealed a clear dependence of the temperament properties manifestations on the age of students, the knowledge of that will allow us to understand some of the behavioral characteristics of younger and senior students better, and will make it possible to vary the methods of educational influences in the right way [10].

The facts obtained confirm that the characteristics of temperament are characterized by age-related manifestations that determine the uniqueness and specificity of the person. Given them in their professional activities, the teacher will be able to provide a targeted psychological and pedagogical impact on the development of not only an individual person, but also the classroom as a whole. It must be remembered that responsibility for the results of pedagogical activity is a normative requirement for a modern general and professional culture [11].

As recommendations to teachers of primary school age, we can offer a range of psychological, pedagogical and educational measures that have been tested in practice.

In relation to children with the prevailing properties of temperament, such as activity, energy, temper, irritability, emotional instability, it is recommended to

conduct training work aimed at developing the ability to stop yourself, your sharp and undesirable reactions; to develop restraint in relation to classmates, adults, not to allow elevated tones in conversations; from them it is important to systematically, persistently without manifesting rigidity in communication, demand calm, balanced, thoughtful answers, restraint in behavior, accuracy and order in work. In behavior with these students it is necessary to control the reactions: to try not to be irritated if they distract, and in every possible way to encourage any manifestation of diligence, different initiative and patience. At emergence of conflict situations the teacher should discuss possible options of the correct behavior and leaving from the conflict. Moreover the teacher shows individually personal approach to each pupil, to indicate persistently the need of the quiet and considered acts and answers; in educational and daily activity to cultivate at them the sequence, accuracy.

For younger students, whose are characterized by such properties of temperament as anxiety, suspiciousness, vulnerability, sensitivity, speed of fatigue, low activity, the main emphasis in the training the work should be aimed at developing sociability, sociability, self-confidence. In behavior with them, it is necessary to show gentleness, tact, sensitivity and goodwill, during their answers in class, to praise, encourage, switch attention not to assessment, but to the result of activities. During training sessions, the teacher needs to remember that such children manifest themselves in a quiet, calm environment, subject to the approval of their answers, praise, and a positive attitude towards the outcome of events.

As recommendations to teachers of senior students with such temperament properties as sociability, mobility, absent-mindedness, we can offer training work aimed at developing perseverance, developing sustainable interests, and a serious attitude to the performance of any business. In behavior with them, it is important to encourage their perseverance, perseverance, diligence, determination. It is necessary to gradually raise the bar of requirements, achieving sustainability and effectiveness, to learn to be responsible for their promises, to cultivate a serious attitude to educational activities, work, classmates, teachers, parents and others.

There is no conflict of interests.

СПИСОК ЛИТЕРАТУРЫ:

1. Маклаков А.Г. Общая психология. СПб.: Питер; 2018.
2. Абрамова А.Н., Урутина Т.М., Митичева Т.И. Изучение взаимосвязи особенностей темперамента и типа памяти младших школьников. В сб.: Молодой ученый; 2015. Доступно по ссылке: <https://moluch.ru/archive/102/22727/>. Ссылка активна на 21 июня 2019.
3. Жеребненко О.А., Кузнецова Л.Б.

REFERENCES:

1. Maklakov A.G. *General psychology*. Saint Petersburg: Piter; 2018. (In Russ.).
2. Abramov AN, Orotina TM, Dmitricheva TI. To study the relationship of characteristics of temperament and the type of memory of younger students. *Young scientist*. Available at: <https://moluch.ru/archive/102/22727/>. Accessed: 21 June 2019. (In Russ.).
3. Zhrebnenko OA, Kuznetsova LB. Features of the attitude of modern younger students to

Особенности отношения современных младших школьников к компьютерным играм. В сб.: Казанский педагогический журнал; 2015. Доступно по ссылке: <https://cyberleninka.ru>. Ссылка активна на 19 июня 2019.

4. Елизарова М.Н. Оптимизация процесса обучения младших школьников на уроках фортепиано с учётом темперамента учащихся. В сб.: Молодой ученый; 2018. №43. С. 66-68. Доступно по ссылке:

<https://moluch.ru/archive/229/53375/>. Ссылка активна 19 июня 2019.

5. Варенникова Е.А. Влияние темперамента на ситуативную тревожность детей младшего школьного возраста. В сб.: Научно-методический электронный журнал «Концепт»; 2015. Т.18. С. 21-25. Доступно по ссылке: <http://e-koncept.ru/2015/95156.htm>. Ссылка активна 21 июня 2019.

6. Кирина Н.П. Психологические особенности организованности личности у старших школьников и студентов. Автореф. дисс. ... канд. психол. наук. Москва; 2009. Доступно по ссылке: <https://www.dissercat.com/content>. Ссылка активна 18 июня 2019.

7. Пак Т.С. Психология развития и возрастная психология. М.: Человек; 2010.

8. Вихман А.А. Взаимосвязи психодинамических и личностных свойств старших школьников с разным уровнем интенционального опыта и ценностей. В сб.: Пензенский психологический вестник; 2018. Доступно по ссылке: <https://cyberleninka.ru>. Ссылка активна 20 июня 2019.

9. Жемчугова Н.А. Сравнительные особенности структуры общительности и свойств темперамента на разных этапах юности. В сб.: Педагогическое образование в России; 2014. Доступно по: <https://cyberleninka.ru>. Ссылка активна 18 мая 2019.

10. Червинская В.В. Влияние типа темперамента познавательную активность школьников с особенностями психофизического развития // Личность, интеллект, метакогниции: исследовательские подходы и образовательные практики. 2017. С. 737-744.

11. Шатохина Л.В. Педагогическая культура преподавателя в тезауросе общей и профессиональной культуры // Глобальный

computer games. *Kazan pedagogical journal*. Available at:

<https://cyberleninka.ru/article/v/osobennosti-otnosheniya-sovremennyh-mladshih-shkolnikov-k-kompyuternym-igram>. Accessed: 19 June 2019. (In Russ.).

4. Elizarova MN. Optimization of the process of teaching younger students in piano lessons, taking into account the temperament of students. *Young scientist*. Available at:

<https://moluch.ru/archive/229/53375/>. Accessed: 19 June 2019. (In Russ.).

5. Varennikova EA. The Influence of temperament on the situational anxiety of children of primary school age. *Scientific and methodical electronic journal "Concept"*. 2015; 18: 21-25. Available at: <http://e-koncept.ru/2015/95156.htm>. Accessed: 21 June 2019. (In Russ.).

6. Kirina NP. *Psychological features of the organization of personality in senior pupils and students* [dissertation]. Moscow; 2009. Available at: <https://www.dissercat.com/content>. Accessed: 18 June 2019. (In Russ.).

7. Пак Т.С. *Developmental psychology and age psychology*. Moscow: Chelovek; 2010. (In Russ.).

8. Wichmann AA. Relationship of psychodynamic and personality traits of senior pupils with different level of intentional experiences, and values. *Penza psychological bulletin*. Available at:

<https://cyberleninka.ru/article/v/vzaimosvyazi-psihodinamicheskikh-i-lichnostnyh-svoystv-starshih-shkolnikov-s-raznym-urovнем-intentsionalnogo-opyta-i-tsennostey>. Accessed: 20 June 2019. (In Russ.).

9. Zhemchugova NA. Comparative features of structure of sociability and properties of temperament at different stages of youth. *Pedagogical education in Russia*. 2014. Available at: <https://cyberleninka.ru/article/v/sravnitelnye-osobennosti-struktury-obschitelnosti-i-svoystv-temperamenta-na-raznyh-etapah-yunosti>. Accessed: 18 May 2019. (In Russ.).

10. Chervinskaya VV. Influence of temperament type cognitive activity of schoolchildren with peculiarities of psychophysical development. *Personality, intellect, metacognition: research approaches and educational practices*. 2017: 737-744. (In Russ.).

11. Shatokhina LV. Pedagogical culture of the

научный потенциал. 2018. №9(90). С. 25-27.

12. Шишкова И.М. Влияние семейных факторов на формирование внутренней картины здоровья ребенка // Личность в меняющемся мире: здоровье, адаптация, развитие: сетевой журн. 2018. Т.6, №3 (22). Доступно по ссылке:

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teacher in the thesaurus of General and professional culture. *Global scientific potential*. 2018; 9(90):25-27. (In Russ.).

12. Shishkova IM. The family factors influence on the formation of child's subject pattern of health. *Personality in a changing world: health, adaptation, development: a network journ*. 2018; 6 (3). Available at:

<http://humjournal.rzgmu.ru/art&id=340>.

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